FCC 312
Main Form

Approved by OMB 3060-0678

Est. Avg.Burden Hours Per Response: 11 Hrs.

FEDERAL COMMUNICATIONS COMMISSION

APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS

FCC Use Only
File Number:
Call Sign:
Fee Number:

APPLICANT INFORMATION

1. Legal Name of Applicant HISPAMAR SATÉLITES, S.A.	2. Voice Telephone Number +55 21 98 58 22 55
3. Other Name Used for Doing Business (if any)	4. Fax Telephone Number

5. Mailing Street Address or P.O. Box Praia do Flamengo 200 - 17 andar Flamengo ATTENTION: Mr. Vicente Rubio Carretón	6. City Rio de Janeiro - RJ	
	7. State / Country (if not U.S.A.) Brazil	8. Zip Code 22210-030

9. Name of Contact Representative (If other than applicant) Mr. Donald Jansky	10. Voice Telephone Number 202 467 64 00
11. Firm or Company Name Jansky/Barmat Telecommunications, Inc.	12. Fax Telephone Number 202 296 68 92

13. Mailing Street Address or P.O. Box 1120, 19th Street NW- Suite 333 ATTENTION:	14. City WASHINGTON DC	
	15. State / Country (if not U.S.A)	16. Zip Code 20036

CLASSIFICATION OF FILING

17. Place an "X" in the box next to the classification that applies to this filing for both questions a. and b. Mark only one box for 17a and only one box for 17b.

- [ ] a1. Earth Station
- [x] a2. Space Station

- [ ] b1. Application for License of New Station
- [ ] b2. Application for Registration of New Domestic Receive-Only Station
- [ ] b3. Amendment to a Pending Application
- [ ] b4. Modification of License or Registration
- [ ] b5. Assignment of License or Registration
- [ ] b6. Transfer of Control of License or Registration
- [ ] b7. Notification of Minor Modification
- [ ] b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- [ ] b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- [x] b10. Other (Please Specify): Petition for Declaratory Ruling pursuant to Section 47 CFR 25.137

18. If this filing is in reference to an existing station, enter: Call sign of station: Not applicable	19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: Not applicable (b) File number of pending application: See Exhibit 1

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TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Place an "X" in the box(es) next to all that apply.

[X] a. Fixed Satellite [ ] c. Radiodetermination Satellite [ ] e. Direct to Home Fixed Satellite
[ ] b. Mobile Satellite [ ] d. Earth Exploration Satellite [ ] f. Digital Audio Radio Service [ ] g. Other (please specify) _____

21. STATUS: Place an "X" in the box next to the applicable status. Mark only one box.

[ ] a. Common Carrier [X] b. Non-Common Carrier

22. If earth station applicant, place an "X" in the box(es) next to all that apply.

[ ] a. Using U.S. licensed satellites [ ] b. Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Mark only one box. Are these facilities:

[ ] a. Connected to the Public Switched Network [ ] b. Not connected to the Public Switched Network

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).

[X] a. C-Band (4/6 GHz)
[X] b. Ku-Band (12/14 GHz) [ ] c. Other (Please specify) _____

TYPE OF STATION

25. CLASS OF STATION: Place an "X" in the box next to the class of station that applies. Mark only one box.

[ ] a. Fixed Earth Station [ ] b. Temporary-Fixed Earth Station [ ] c. 12/14 GHz VSAT Network [ ] d. Mobile Earth Station [X] e. Space Station [ ] f. Other (Specify) _____

If space station applicant, go to Question 27.

26. TYPE OF EARTH STATION FACILITY Mark only one box.

[ ] a. Transmit/Receive [ ] b. Transmit-Only [ ] c. Receive-Only

PURPOSE OF MODIFICATION OR AMENDMENT

27. The purpose of this proposed modification or amendment is to: Place an "X" in the box(es) next to all that apply.

[ ] a -- authorization to add new emission designator and related service
[ ] b -- authorization to change emission designator and related service
[ ] c -- authorization to increase EIRP and EIRP density
[ ] d -- authorization to replace antenna
[ ] e -- authorization to add antenna
[ ] f -- authorization to relocate fixed station
[ ] g -- authorization to change assigned frequency(ies)
[X] h -- authorization to add Points of Communication (satellites & countries)
[ ] i -- authorization to change Points of Communication (satellites & countries)
[ ] j -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
[ ] k -- Other (Please Specify)

_____

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? [ ] **YES** [X] **NO**
If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application.

A Radiation Hazard Study must accompany all applications as an exhibit for new transmitting facilities, major modifications, or major amendments. Refer to OET Bulletin 65.

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ALIEN OWNERSHIP

29. Is the applicant a foreign government or the representative of any foreign government?	☐ YES	☒ NO
30. Is the applicant an alien or the representative of an alien?	☒ YES	☐ NO
31. Is the applicant a corporation organized under the laws of any foreign government?	☒ YES	☐ NO
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	☒ YES	☐ NO
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	☒ YES	☐ NO
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit, the identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	See Exhibit 1	

BASIC QUALIFICATIONS

35. Does the applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	☐ YES	☒ NO
36. Has the applicant or any party to this application had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
37. Has the applicant, or any party to this application, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceeding two items? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, addresses, and citizenship of those stockholders owning of record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.	See Exhibit 2	
41. By checking Yes, the undersigned certifies, that neither the applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	☒ YES	☐ NO
42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. § 25.137, as appropriate. If no, proceed to question 43.	☒ YES	☐ NO
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?	BRAZIL	

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43. Description. (Summarize the nature of the application and the services to be provided).

The purpose of the application is to request addition of the AMAZONAS-1 at 61ºW.L. to the Permitted Space Station List to allow all U.S. Ku-band and C- band earth stations to uplink to the satellite in the conventional Ku-band and C-band frequencies. Services to be provided are domestic and international services operating in FSS frequency bands.

Exhibit No.	Identify all exhibits that are attached to this application.
Attachment A	Technnical Information
Atachment B	Financial Information
Exhibit 1	Shareholders
Exhibit 2	Board Directors

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Place an "X" in the box next to applicable response.)

☐ a. Individual ☐ b. Unincorporated Association ☐ c. Partnership ☒ d. Corporation ☐ e. Governmental Entity ☐ f. Other (Please specify) _____

45. Typed Name of Person Signing	46. Title of Person Signing
Vicente Rubio Carretón	Director, Regulatory Affairs

47. Signature	48. Date
Original signed by Vicente Rubio Carretón	November 21, 2003

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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ATTACHMENT A

SECTION 25.114 (c) TECHNICAL INFORMATION

SECTION 25.114 (c) INFORMATION FOR AMAZONAS-1 SPACE STATION

(1) Name, address, and telephone number of the applicant;

HISPAMAR SATÉLITES
Praia do Flamengo, 200
17º andar
Distrito Centro – Rio de Janeiro Cep 2204
TEL: + 55 21 2555 4800

(2) Name, address, and telephone number of the person(s), to whom inquiries or correspondence should be directed;

Donald Jansky
JANSKY/BARMAT TELECOM INC.
1120 19th Street, N.W. SUITE 333
WASHINGTON, D.C. 20036
Tel: 202 467 46 00
Fax: 202 296 68 92

(3) Type of authorization requested (e.g., launch authority, station license, modification of authorization);

HISPAMAR SATÉLITES, S.A. (hereinafter HISPAMAR SATÉLITES) requests the Commission to add the AMAZONAS-1 satellite on the "Permitted Space Station List" created by the Commission in *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States, Order, IB Docket No. 96-111, 15 FCC Rcd 7207 (1999) (DISCO II First Consideration Order).*

The AMAZONAS-1 satellite will be launched on 2nd Q. 2004 [June 2004] and be operated at the 61 W.L. orbital location.

(4) General description of overall system facilities, operations and services;

AMAZONAS-1 is a multi-mission system with payloads such as in C-Band as in Ku-Band. This system will be used to satisfy the needs of communications by satellite in the Americas with transatlantic connectivity with Europe and the North of the Africa.
HISPAMAR SATÉLITES will operate a satellite system at 61º W.L. to provide a wide range of telecommunications services, including routing and DTH delivery of video and audio programs, satellite news gathering, VSAT applications, Internet backbone services, broadband links, Multimedia and interactive services, capacity for both public and private networks, etc.

(5) a) Radio frequencies and polarization plan (including beacon, telemetry and telecommand functions);

The frequency and polarization plan of the AMAZONAS-1 satellite is shown in Figure 1 and recapped in Table 1.

Polarization V and H are orthogonal linear polarizations and are defined as follows:

- Horizontal polarization (H) is defined as being parallel to the equatorial plane.
- Vertical polarization (V) is orthogonal to that of polarization H

The total number of operating Ku-band transponders in the AMAZONAS-1 satellite is 32, which can be selected by ground command. Moreover, the AMAZONAS-1 satellite also presents a C-payload with 19 transponders. Therefore, the total number of AMAZONAS-1's 36MHZ equivalent transponders is 63.

The following frequencies and polarizations will be used for the telecommand and telemetry and beacon functions:

- Ku band:

TC-Brazil frequency: 14498 MHz, horizontal polarization;
TC- Europe frequency: 13999.5 MHz, horizontal polarization;
TM/Ranging frequency (BRAZIL/NORTH-AMERICA/SOUTH-AMERICA): 11701.25 MHz, vertical polarization.
TM/Ranging frequency (EUROPE): 12746.75 MHz, vertical polarization.

- C band:

Beacon frequency: 4199 MHz, horizontal polarization.

b) Center frequency and polarization of transponders (both receiving and transmitting frequencies); transponder bandwidth;

The receive and transmit center frequencies and polarizations of the AMAZONAS-1's transponders are shown in Figure 1&Table 1 and Figure 2&Table 2, for both Ku and C-Band payloads respectively.

The bandwidth of each transponder is given in Table 1 and Table 2 for Ku and C-Bands respectively.

c) Emission designators and allocated bandwidth of emission;

Emission designators: 60K0G7W-- to 36M0G7X--
Allocated bandwidth: 60.0 KHz to 36 MHz

d) Identification of which antenna beams are connected or switchable to each transponder and TT&C function,

The AMAZONAS-1 satellite uses for the Ku-Band payload, fixed receive and transmit beams over Europe (EUROPE beam), Brazil (BRAZIL Beam) and over the Americas (NORTH AMERICA and SOUTH AMERICA beams) for the Fixed Satellite Service.

The C-Band payloads of AMAZONAS-1 satellite uses only one fixed receive and transmit beam over the Americas (PANAMERICAN Beam) for the Fixed Satellite Service.

The Ku-Band coverage zones are:

- EUROPE Coverage, that covers Iberian Peninsula, Balearics, Canaries, Azores/Madeira Islands, as well as the South of UK, great part of France, Morocco and Algeria.
- SOUTH AMERICA Coverage, that covers from Venezuela and Colombia to the South of Argentina and Chile.
- NORTH AMERICA Coverage, that includes from the North of USA to the South of Panama, including Mexico and most o the Caribbean Islands.
- BRAZIL Coverage, that includes the whole Brazilian Territory.

The C-Band Panamerican beam will cover Brazil and from USA to the South of Argentina.

Figure 3 and Figure 4 show the coverage of the NORTH AMERICA transmit beam and the NORTH AMERICA receive beam respectively, as seen from 61º W.L. orbital location.

Figure 7 and Figure 8 show the coverage of the SOUTH AMERICA transmit beam and the SOUTH AMERICA receive beam respectively, as seen from 61º W.L. orbital location.

Figure 11 and Figure 12 show the coverage of the EUROPE transmit beam and the EUROPE receive beam respectively, as seen from 61º W.L. orbital location.

Figure 15 and Figure 16 show the coverage of the BRAZIL transmit beam and the BRAZIL receive beam respectively, as seen from 61º W.L. orbital location.

Figure 19 and Figure 20 show the coverage of the C-BAND PANAMERICAN transmit beam and the C-BAND PANAMERICAN receive beam respectively, as seen from 61º W.L. orbital location.

e) Final amplifier output power (identify any net losses between output of final amplifier and input of antenna and specify the maximum EIRP for each antenna beam),

Final amplifier output power EUROPE beam: 17.7 dBW (net losses between output of final amplifier and input of antenna: 2.3 dB)

Final amplifier output power BRAZIL beam: 18.1 dBW (net losses between output of final amplifier and input of antenna: 1.9 dB)

Final amplifier output power NORTH AMERICA beam: 18.1 dBW (net losses between output of final amplifier and input of antenna: 1.9 dB)

Final amplifier output power SOUTH AMERICA beam: 18.1 dBW (net losses between output of final amplifier and input of antenna: 1.9 dB)

Final amplifier output power C-BAND PANAMERICAN beam: 15.7 dBW (net losses between output of final amplifier and input of antenna: 1.5 dB)

Maximum EIRP at saturation in each transmit beam:

- EUROPE transmit beam: 50 dBW
- BRAZIL transmit beam: 53 dBW
- NORTH AMERICA transmit beam: 48 dBW
- SOUTH AMERICA transmit beam: 48 dBW
- C-BAND PANAMERICAN transmit beam: 41 dBW

Figures 3, 7, 11, 15 and 19 give EIRP contours for NORTH AMERICA, SOUTH AMERICA, EUROPE, BRAZIL and C-BAND PANAMERICAN transmit beams respectively.

f) Receiving system noise temperature,

428K, 478K, 403K, 487K and 446K for NORTH AMERICA, SOUTH AMERICA, EUROPE, BRAZIL and C-BAND PANAMERICAN receive antenna respectively.

g) Relationship between satellite receive antenna gain patter and gain-to-temperature ratio and saturation flux density for each antenna beam (may be indicated on antenna gain plot),

Figures 4, 8, 12, 16 and 20 give G/T contours for the NORTH AMERICA, SOUTH AMERICA, EUROPE, BRAZIL and C-BAND PANAMERICAN receive beams respectively.

Saturation flux density for BRAZIL receive beam is:

-(86.0 - X) dBW/m^2 at minimum gain setting (see 5 h below)
-(104.0 - X) dBW/m^2 at maximum gain setting (see 5 h below)

where X is the G/T value in the direction considered

Saturation flux density for NORTH AMERICA receive beam is:

-(76.0 - X) dBW/m^2 at minimum gain setting (see 5 h below)
-(94.0 - X) dBW/m^2 at maximum gain setting (see 5 h below)

where X is the G/T value in the direction considered

Saturation flux density for SOUTH AMERICA receive beam is:

-(76.0 - X) dBW/m^2 at minimum gain setting (see 5 h below)
-(94.0 - X) dBW/m^2 at maximum gain setting (see 5 h below)

where X is the G/T value in the direction considered

Saturation flux density for EUROPE receive beam is:

-(85.0 - X) dBW/m^2 at minimum gain setting (see 5 h below)
-(103.0 - X) dBW/m^2 at maximum gain setting (see 5 h below)

where X is the G/T value in the direction considered

Saturation flux density for C-BAND PANAMERICAN receive beam is:

-(79.0 - X) dBW/m^2 at minimum gain setting (see 5 h below)
-(97.0 - X) dBW/m^2 at maximum gain setting (see 5 h below)

where X is the G/T value in the direction considered

h) Gain of each transponder channel (between output of receiving antenna and input of transmitting antenna) including any adjustable gain step capabilities,

The gain of each transponder channel, between output of receiving antenna and input of transmitting antenna, will be adjustable by lower than 1 dB between a minimum gain of 109.1 dB and a maximum gain of 127.1 dB for BRAZIL-BRAZIL, NORTH AMERICA-SOUTH AMERICA, EUROPE-NORTH AMERICA and EUROPE-SOUTH AMERICA receive-transmit connectivity. For SOUTH AMERICA-NORTH AMERICA and SOUTH AMERICA-SOUTH AMERICA receive-transmit connectivity between a minimum gain of 109.1 dB and a maximum gain of 128.1 dB. For the case of NORTH AMERICA-EUROPE connectivity between a minimum gain 108.7 dB and a maximum gain of 126.7 dB or between a minimum gain of 108.7 dB and a maximum gain of 127.7 dB for SOUTH AMERICA-EUROPE receive transmit connectivity.

i) Predicted receiver and transmitted channel filter response characteristics;

Channel filter response characteristics are described in tables 3, 4, 5 and 6.

(6) For satellites in geostationary-satellite orbit, orbital location or locations,

The AMAZONAS-1satellite will be operated at the 61ºW.L. orbital location. Operation of the AMAZONAS-1 satellite has been coordinated with United States.

(7) Predicted space station antenna gain contours for each transmit and each receive antenna beam, plotted on an area map at 2dB intervals down to 10 dB below the peak value of the parameter and at 5 dB intervals between 10 dB and 20 dB below the peak value, with the peak value and sense of polarization clearly specified on each plotted contour;

Figures 5 and 6 contain the space station antenna gain contours for NORTH AMERICA transmit and receive beams respectively.

Figures 9 and 10 contain the space station antenna gain contours for SOUTH AMERICA transmit and receive beams respectively.

Figures 13 and 14 contain the space station antenna gain contours for EUROPE transmit and receive beams respectively.

Figures 17 and 18 contain the space station antenna gain contours for BRAZIL transmit and receive beams respectively.

Figures 21 and 22 contain the space station antenna gain contours for C-BAND PANAMERICAN transmit and receive beams respectively.

(8) Description of types of services to be provided, and the areas to be served,

The AMAZONAS-1 satellite is used for digital communications services, including video and internet applications, with bit rates ranging from 64 Kbit/s, possibly less, to 45 Mbit/s

The AMAZONAS-1 satellite serves from the North of USA to the South of Argentina, including the most of the Caribbean Islands, as well as covers Iberian Peninsula, Balearics, Canaries, Azores/Madeira Islands and the South of UK, great part of France, Morocco and Algeria.

(9) For satellite in geostationary-satellite orbit, accuracy with which the orbital inclination, the antenna axis attitude, and longitudinal drift will be maintained;

The AMAZONAS-1satellite will be maintained at 61º W.L. with an accuracy of +/-0.05 degree. Its orbital inclination will be maintained within +/- 0.05 degree.

Antenna axis stability: 0.1 degree.

(10) Calculation of power flux density levels within each coverage area and of the energy dispersal, if any, needed for compliance with Sec.25.208;

Power flux density levels will not exceed -152 dBW/m^2 per 4 KHz over the U.S. territory and all the Americas and -148.4 dBW/m^2 per 4 KHz over Europe.

(11) Arrangement for tracking, telemetry and control;

TTC functions are performed at Rio de Janeiro, Brazil (Longitude -43.28ºW, Latitude -22.88ºN)

(12) Physical characteristics of the space station including weight and dimensions of spacecraft, detailed mass (on ground and in-orbit) and power (beginning and end of life) budgets, and estimated operational lifetime and reliability of the space station and the basis for that estimate;

Physical characteristics of the AMAZONAS-1satellite:

Dimensions	stowed:	6.74m x 3.43m x 3.67m
	Deployed:	6.74m x 7.89m x 36.1m
Mass	on ground	2121 Kg

	at launch	4536 Kg
Power	beginning of life end of life	11.4 Kw (Equinox) 9.7 Kw (Equinox)
Estimated operational lifetime		16.8 years
Reliability		0.67 for 15 years

(13) Detailed information demonstrating the financial qualifications of the applicant to construct and launch the proposed satellites. Applications shall provide the financial information required by Sec. 25.140 (b) through (e), Sec. 25.142 (a) (4). Or Sec. 25.143 (b) (3), as appropriate;

See information supplied separately as Attachment B.

(14) Clear and detailed statement of whether the space station is to be operated on a common carrier basis, or whether non-common carrier transactions are proposed. If non-common carrier transactions are proposed, describe the nature of the transactions and specify the number of transponders to be offered on a non-common carrier basis;

The AMAZONAS-1 satellite is operated on a non-common carrier basis and all the transponders will be available for use on a non-common carrier basis. HISPAMAR SATÉLITES leases capacity pursuant to commercial contracts.

It is not HISPAMAR SATÉLITES' customary practice to hold itself out as a common carrier for hire, and HISPAMAR SATÉLITES does not intend to make capacity available on a common carrier basis.

(15) Dates by which construction will be commenced and completed, launch date, and estimated date of placement into service;

The AMAZONAS-1 satellite will be launched on 2nd Quarter 2004 [June 2004].

(16) Public interest considerations in support of grant;

The AMAZONAS-1 satellite will ensure digital transmission services between the United States and Europe at the 61º W.L. orbital location.

The entry of the AMAZONAS-1 satellite into the market to meet US and European customers' demand for such services will enhance competition in that market. Accordingly, the grant of this application is in the public interest.

See also the attached Petition for Declaratory Ruling.

TRANSPONDER	BW(MHZ)	FREQUENCY (MHz)		POLARIZATION		COVERAGE	
		UPLINK	DOWNLINK	UPLINK	DOWNLINK	UPLINK	DOWNLINK
1	36	13772	11972	H	V	NA/SA/EU	NA/SA
2	36	13812	12012	H	V	NA/SA/EU	NA/SA
3	36	13852	12052	H	V	NA/SA/EU	NA/SA
4	36	13892	12092	H	V	NA/SA/EU	NA/SA
5	36	13932	12132	H	V	NA/SA/EU	NA/SA
6	36	13972	12172	H	V	NA/SA/EU	NA/SA
7	36	13772	11972	V	H	NA/SA/EU	NA/SA
8	36	13812	12012	V	H	NA/SA/EU	NA/SA
9	36	13852	12052	V	H	NA/SA/EU	NA/SA
10	36	13892	12092	V	H	NA/SA/EU	NA/SA
11	36	13932	12132	V	H	NA/SA/EU	NA/SA
12	36	13972	12172	V	H	NA/SA/EU	NA/SA
1	36	13772	12522.3	H	V	NA/SA	EU
2	36	13812	12562.3	H	V	NA/SA	EU
3	36	13852	12602.3	H	V	NA/SA	EU
4	36	13892	12642.3	H	V	NA/SA	EU
5	36	13932	12682.3	H	V	NA/SA	EU
6	36	13972	12722.3	H	V	NA/SA	EU
7	36	13772	12522.3	V	H	NA/SA	EU
8	36	13812	12562.3	V	H	NA/SA	EU
9	36	13852	12602.3	V	H	NA/SA	EU
10	36	13892	12642.3	V	H	NA/SA	EU
11	36	13932	12682.3	V	H	NA/SA	EU
12	36	13972	12722.3	V	H	NA/SA	EU
13	54	14034	11738	H	V	NA/SA/B	NA/SA/B
14	54	14095	11799	H	V	NA/SA/B	NA/SA/B
15	54	14034	11738	V	H	NA/SA/B	NA/SA/B
16	54	14095	11799	V	H	NA/SA/B	NA/SA/B
17	54	14156	11860	H	V	NA/SA/B	NA/SA/B
18	54	14217	11921	H	V	NA/SA/B	NA/SA/B
19	54	14156	11860	V	H	NA/SA/B	NA/SA/B
20	54	14217	11921	V	H	NA/SA/B	NA/SA/B
21	36	14271	10975	H	V	B	B
22	36	14311	11015	H	V	B	B
23	36	14351	11055	H	V	B	B
24	36	14391	11095	H	V	B	B
25	36	14431	11135	H	V	B	B
26	36	14471	11175	H	V	B	B
27	36	14271	10975	V	H	B	B
28	36	14311	11015	V	H	B	B
29	36	14351	11055	V	H	B	B
30	36	14391	11095	V	H	B	B
31	36	14431	11135	V	H	B	B
32	36	14471	11175	V	H	B	B

Table 1.- Ku-band Frequency Plan Definition

TRANSPONDER	BW(MHZ)	FREQUENCY (MHz)		POLARIZATION		COVERAGE	
		UPLINK	DOWNLINK	UPLINK	DOWNLINK	UPLINK	DOWNLINK
C1	54	5886	3661	H	V	PANAM.	PANAM.
C2	54	5947	3722	H	V	PANAM.	PANAM.
C3	54	6008	3783	H	V	PANAM.	PANAM.
C4	54	6069	3844	H	V	PANAM.	PANAM.
C5	54	6130	3905	H	V	PANAM.	PANAM.
C6	54	6191	3966	H	V	PANAM.	PANAM.
C7	54	6252	4027	H	V	PANAM.	PANAM.
C8	54	6313	4088	H	V	PANAM.	PANAM.
C9	36	6365	4140	H	V	PANAM.	PANAM.
C10	36	6405	4180	H	V	PANAM.	PANAM.
C11	54	5877	3652	V	H	PANAM.	PANAM.
C12	54	5938	3713	V	H	PANAM.	PANAM.
C13	54	5999	3774	V	H	PANAM.	PANAM.
C14	54	6060	3835	V	H	PANAM.	PANAM.
C15	54	6121	3896	V	H	PANAM.	PANAM.
C16	54	6195	3970	V	H	PANAM.	PANAM.
C17	54	6256	4031	V	H	PANAM.	PANAM.
C18	54	6317	4092	V	H	PANAM.	PANAM.
C19	54	6378	4153	V	H	PANAM.	PANAM.

Table 2.- C-band Frequency Plan Definition

% OF CHANNEL BANDWIDTH		55%	85%	90%	100%
INPUT SECTION GAIN FLATNESS	dBpp	0.65	0.7	1.2	2.3
TOTAL GAIN FLATNESS	dBpp	0.85	1.3	2.4	4.6
INPUT SECTION GAIN SLOPE	dB/MHz	0.15	0.2	0.5	1.3
TOTAL GAIN SLOPE	dB/MHz	0.25	0.4	1.0	2.9

Table 3.- Amplitude in Ku-band response

% OF CHANNEL BANDWIDTH		55%	85%	90%	100%
INPUT SECTION GAIN FLATNESS	dBpp	0.65	1.3	2.0	4.0
TOTAL GAIN FLATNESS	dBpp	0.85	1.9	3.2	6.3
INPUT SECTION GAIN SLOPE	dB/MHz	0.15	0.51	0.92	2.6
TOTAL GAIN SLOPE	dB/MHz	0.25	0.71	1.42	4.2

Table 4.- Amplitude in Ku-band response in Europe Downlink Channels

% OF CHANNEL BANDWIDTH		55%	85%	90%	100%
INPUT SECTION GAIN FLATNESS	dBpp	0.65	0.7	1.2	2.3
TOTAL GAIN FLATNESS	dBpp	0.85	1.3	2.4	4.6
INPUT SECTION GAIN SLOPE	dB/MHz	0.15	0.2	0.5	1.3
TOTAL GAIN SLOPE	dB/MHz	0.25	0.4	1.0	2.9

Table 5.- Amplitude in C-band response

Frequency Spacing from Fc (± MHz)	BW·0.6	BW·0.83	BW·1.25
Input Demultiplexer (dB)	18	35	40
Output Multiplexer (dB) (contiguous channels)	11	25	30
Output Multiplexer (dB) (non contiguous channels)	5	20	27

NOTES: BW means transponder bandwidth

Table 6.- Minimum out of band rejection (dB) for Ku and C-bands

AMAZONAS-1 KU-BAND FREQUENCY PLAN

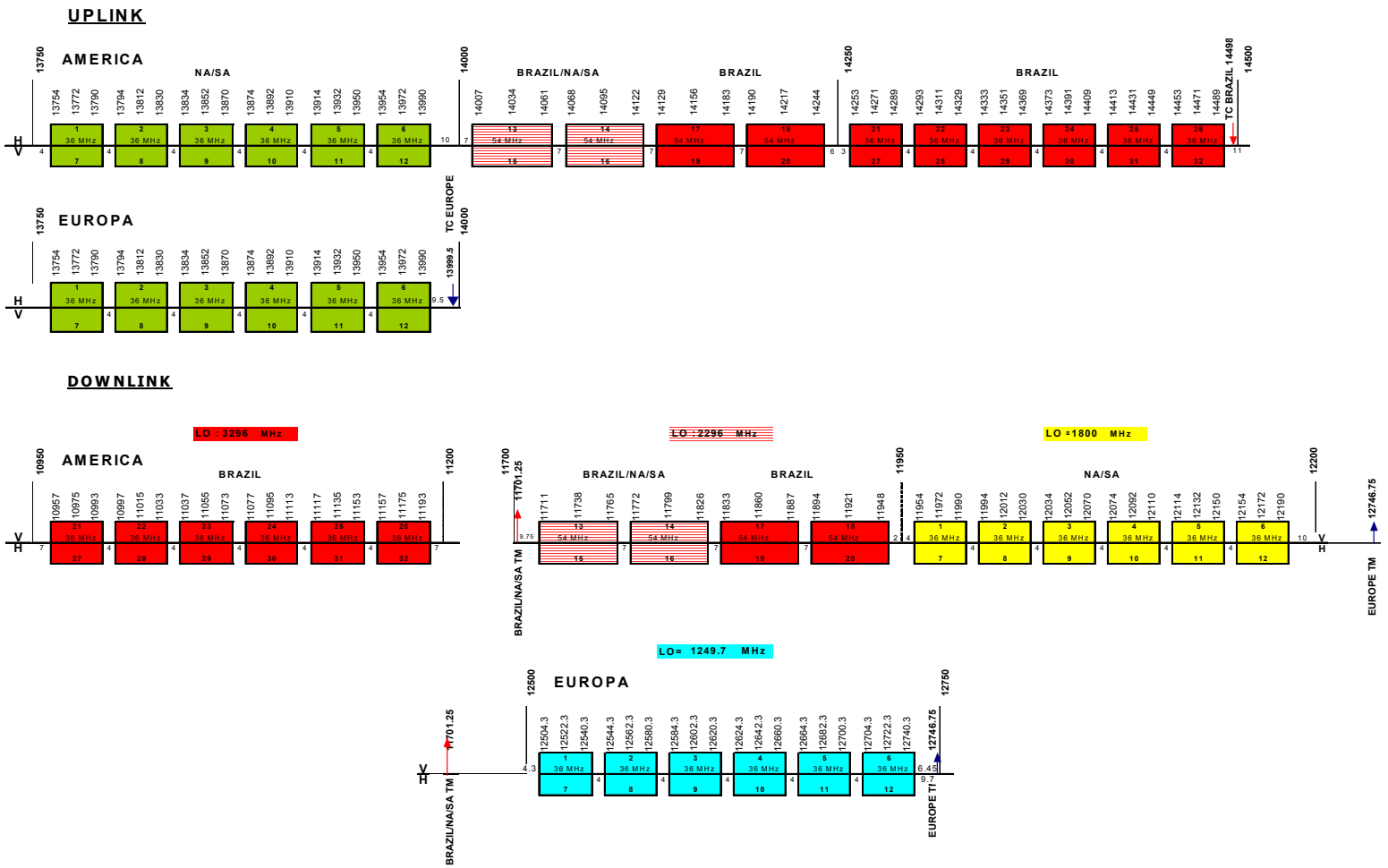


Figure 1.- AMAZONAS-1 Ku-Band Frequency Plan

AMAZONAS-1 C-BAND FREQUENCY PLAN

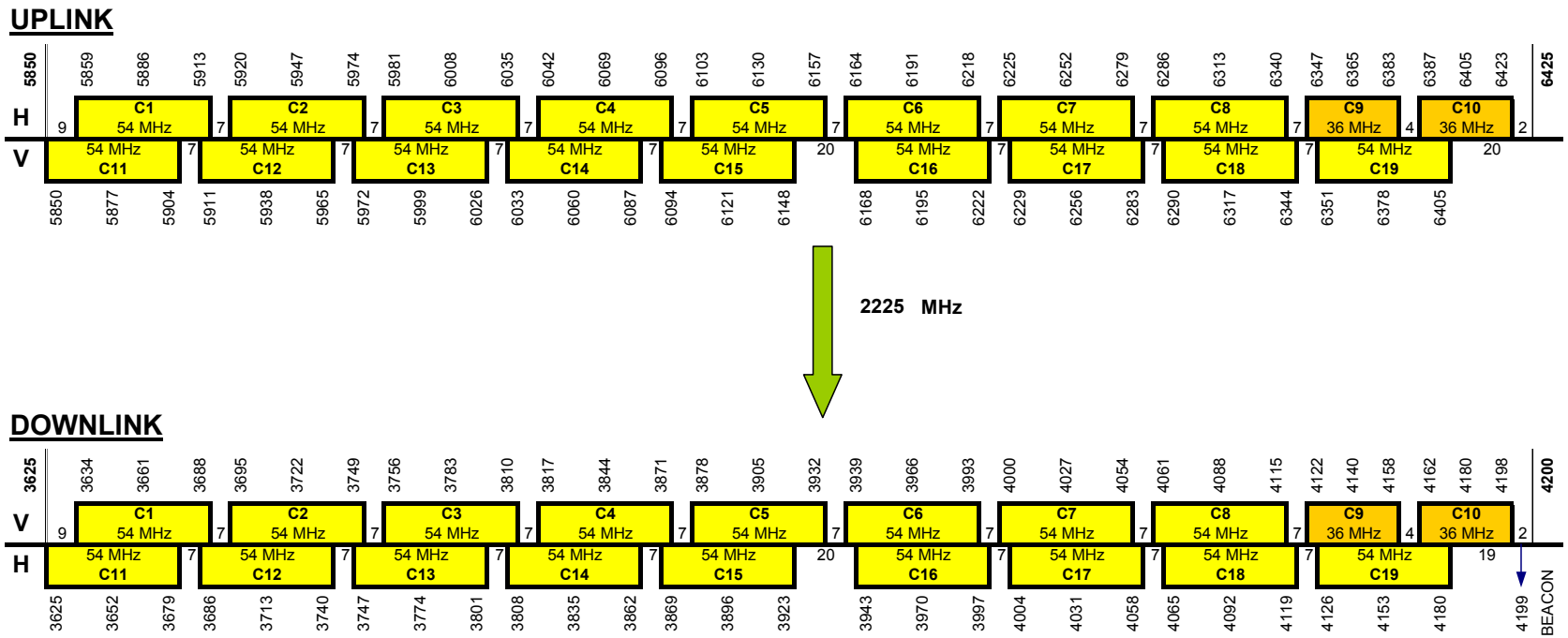


Figure 2.- AMAZONAS-1 C-Band Frequency Plan

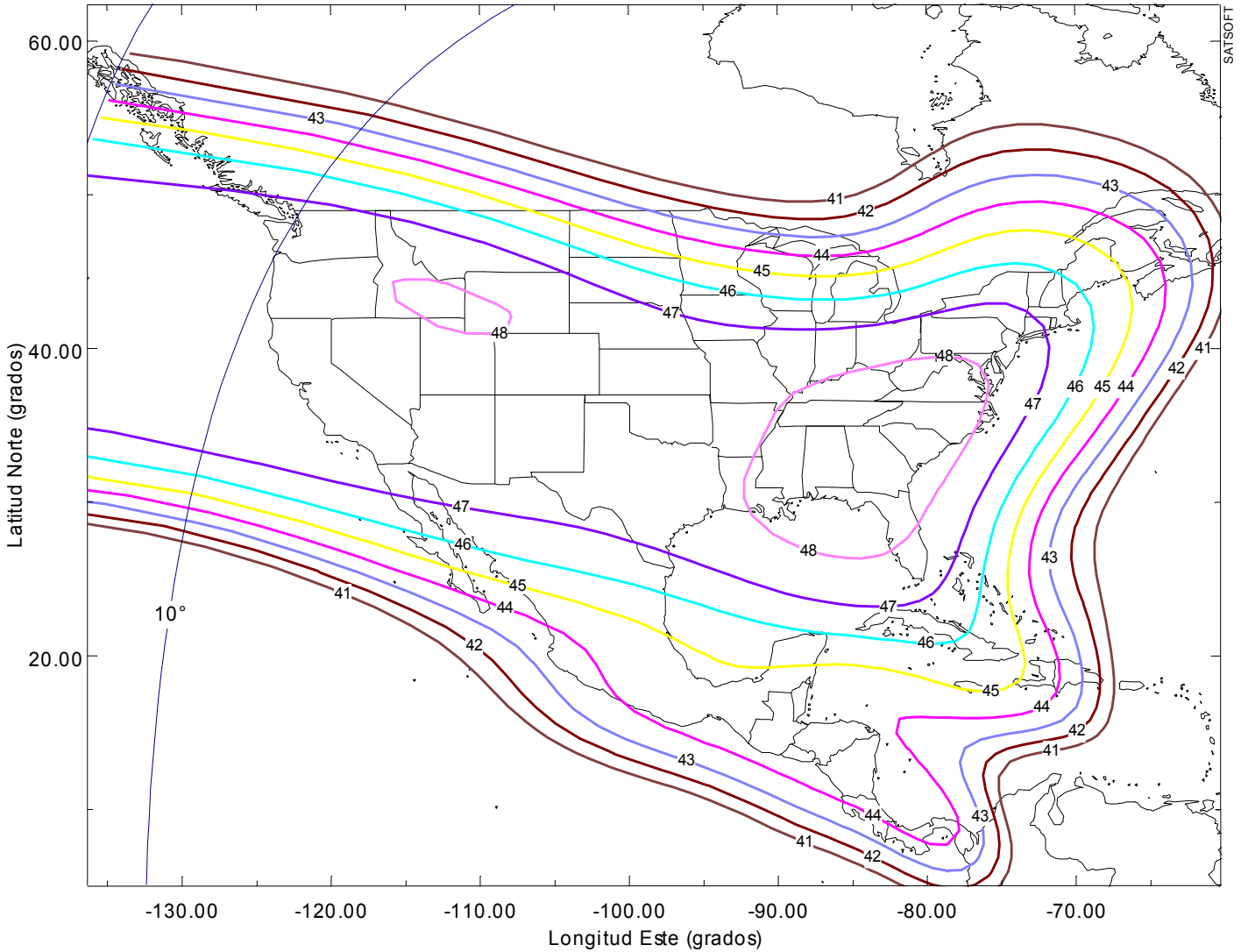


Figure 3.- Illustration of the AMAZONAS-1 North America transmit coverage (61ºW). EIRP characteristics (dBW)

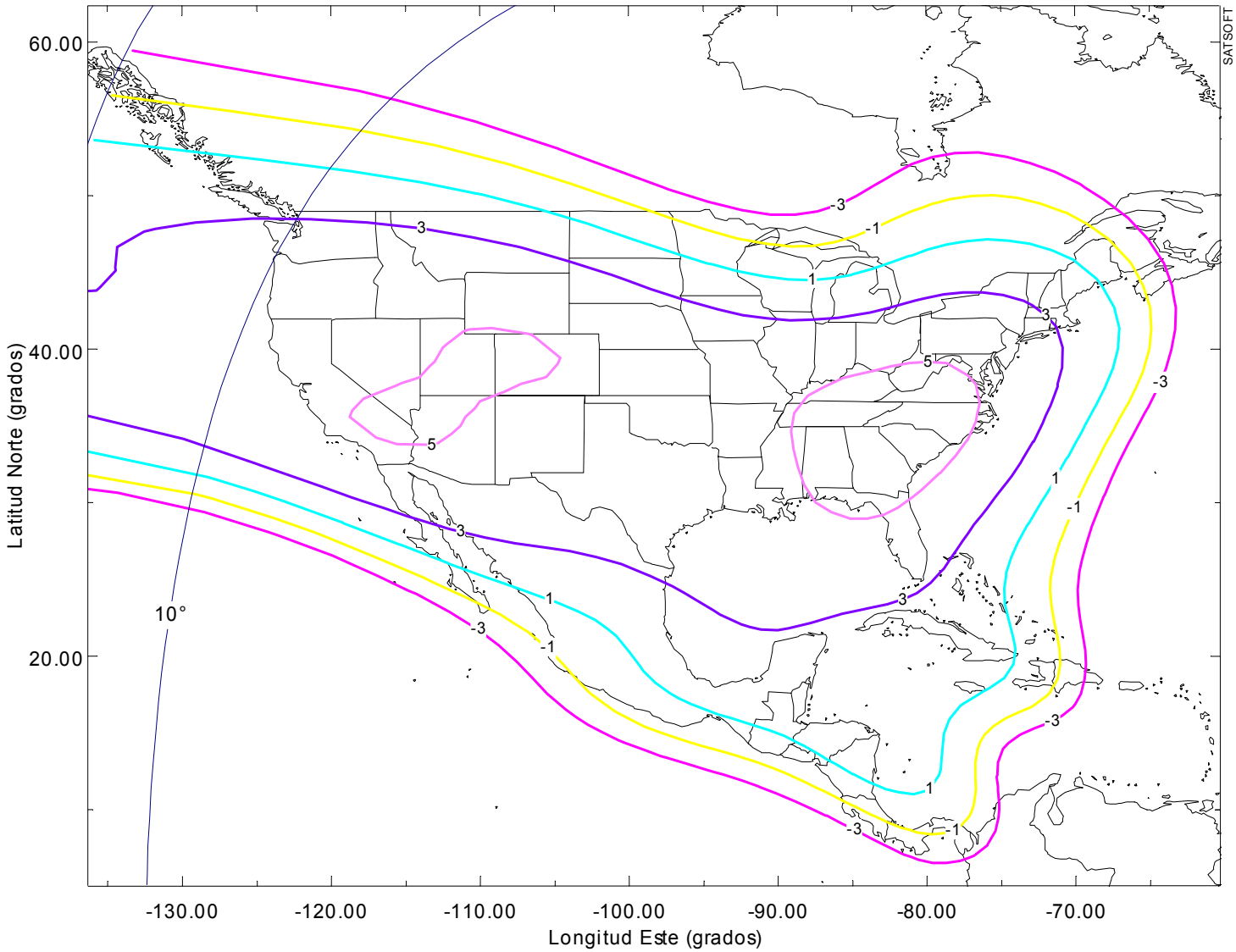


Figure 4.- Illustration of the AMAZONAS-1 North America receive coverage (61°W). G/T characteristics (dB/K)

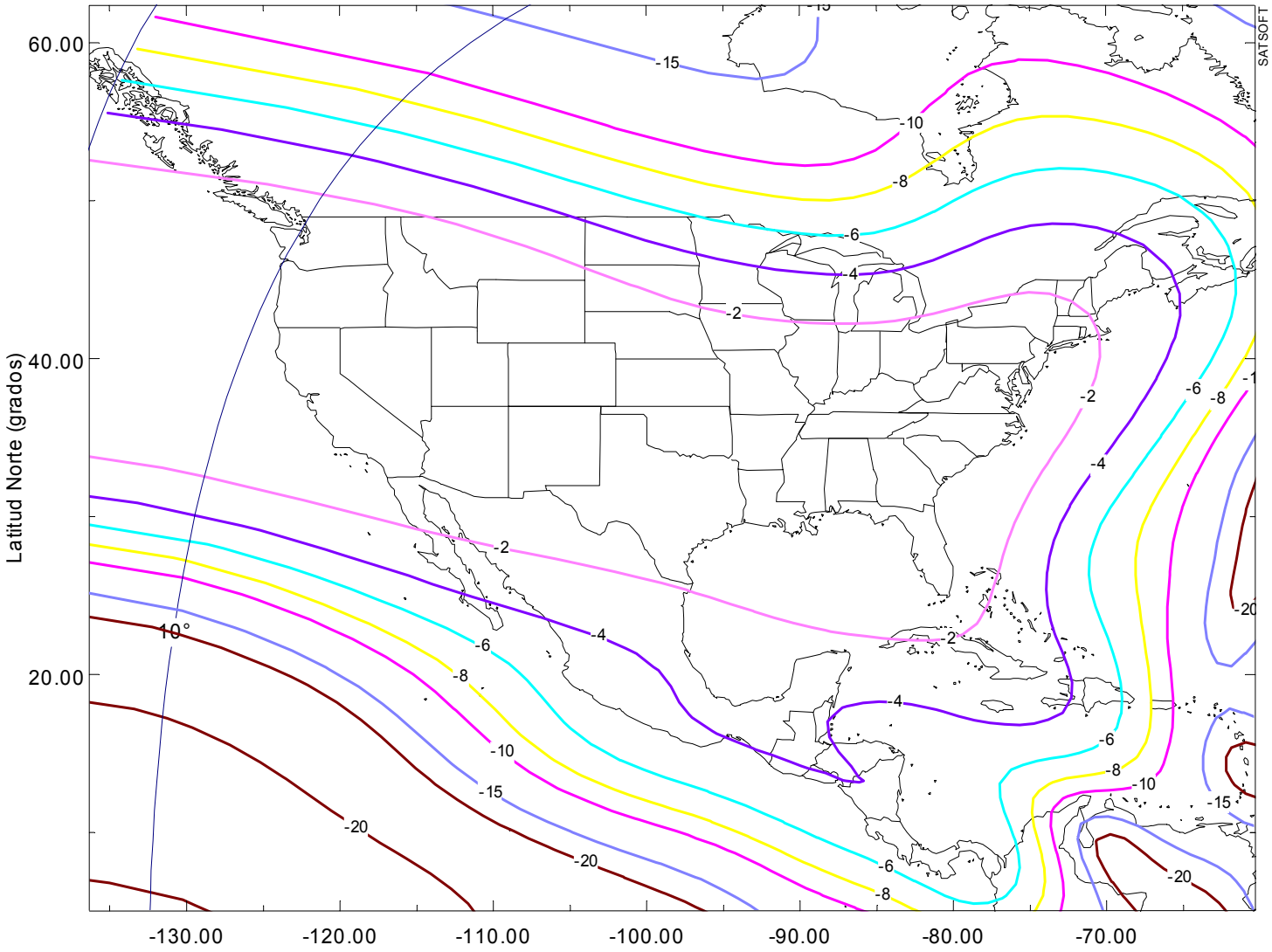


Figure 5.- Illustration of the AMAZONAS-1 transmit beam. Gain peak 29.9 dBi

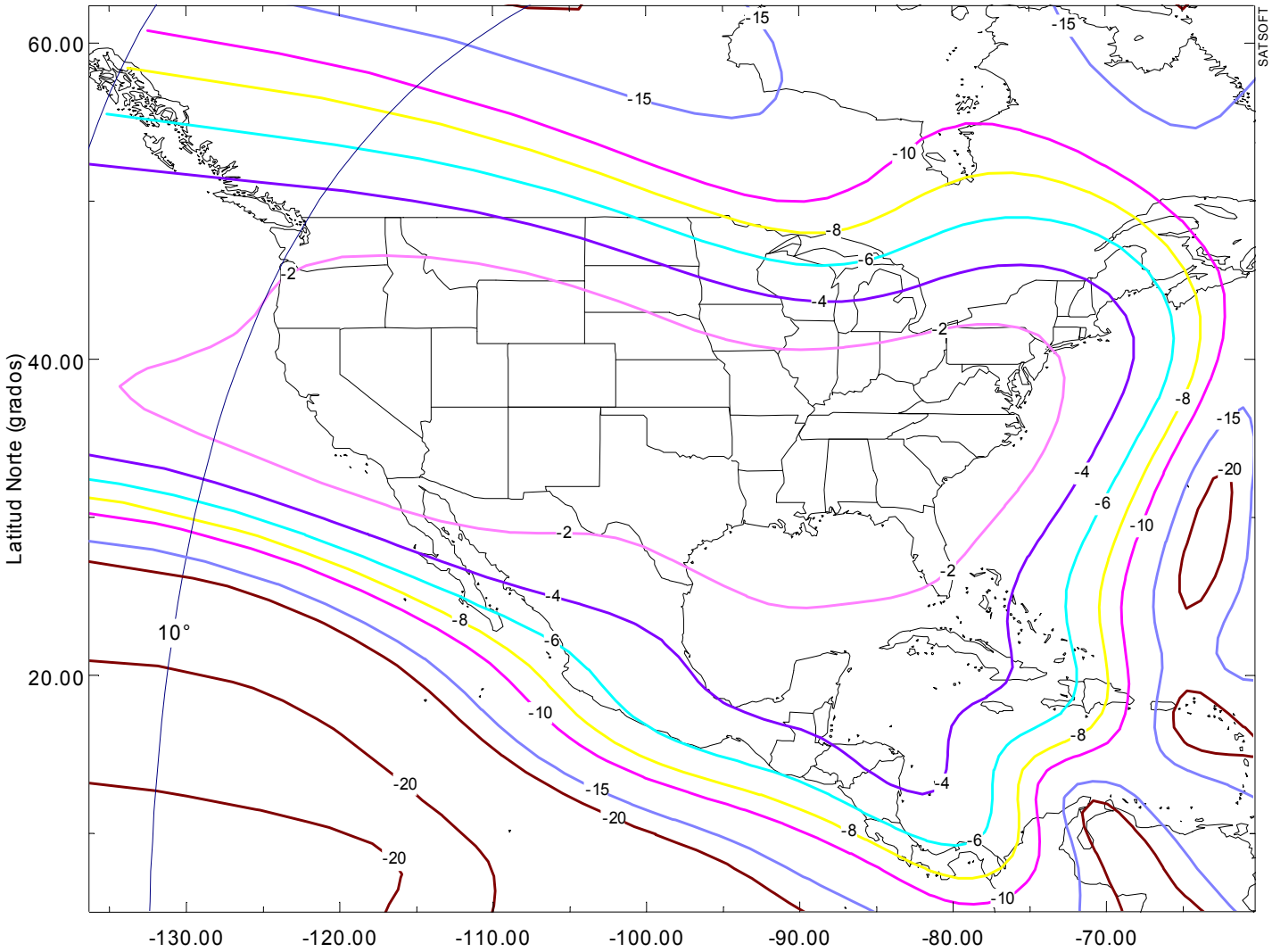


Figure 6.- Illustration of the AMAZONAS-1 receive beam. Gain Peak 31.0 dBi

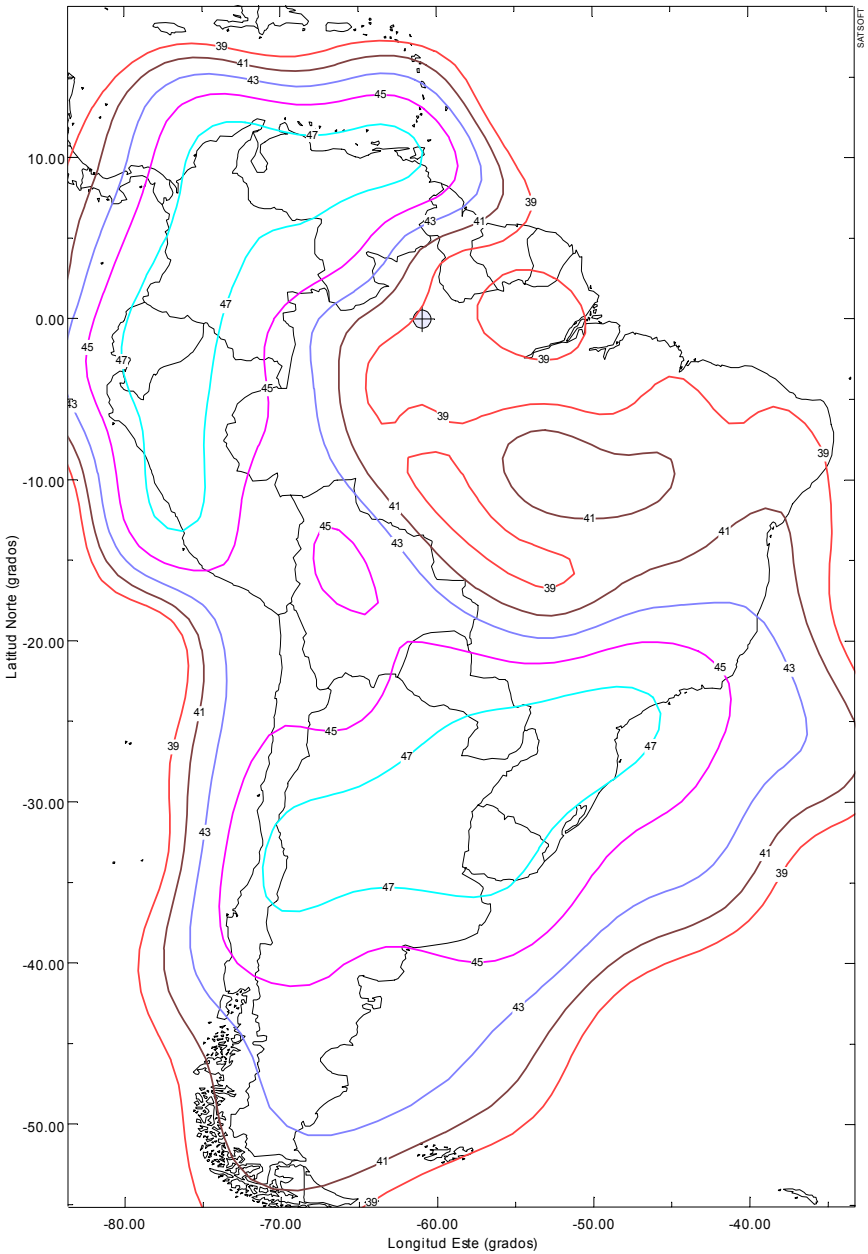


Figure 7.- Illustration of the AMAZONAS-1 South America transmit coverage (61ºW). EIRP characteristics (dBW)

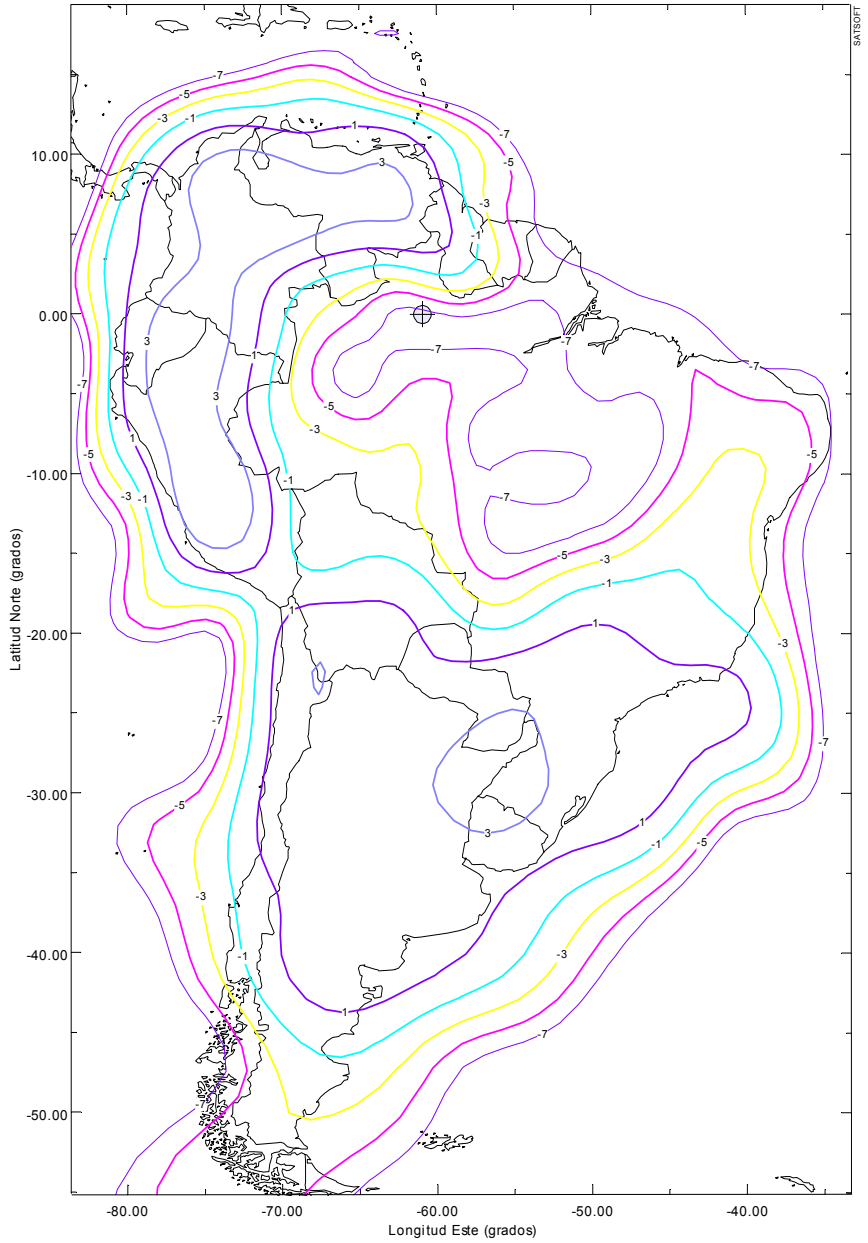


Figure 8.- Illustration of the AMAZONAS-1 South America receive coverage (61ºW). G/T characteristics (dB/K)

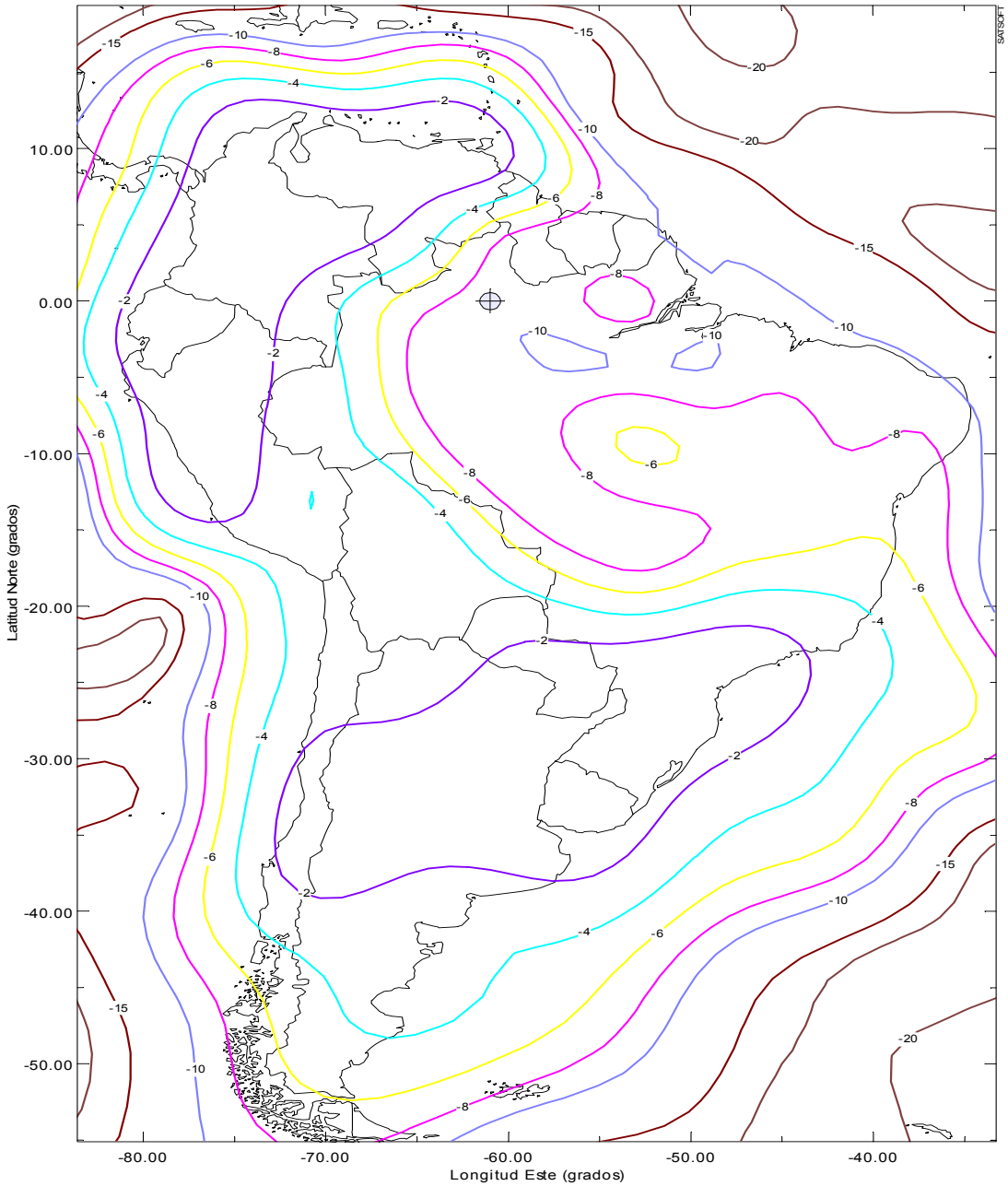
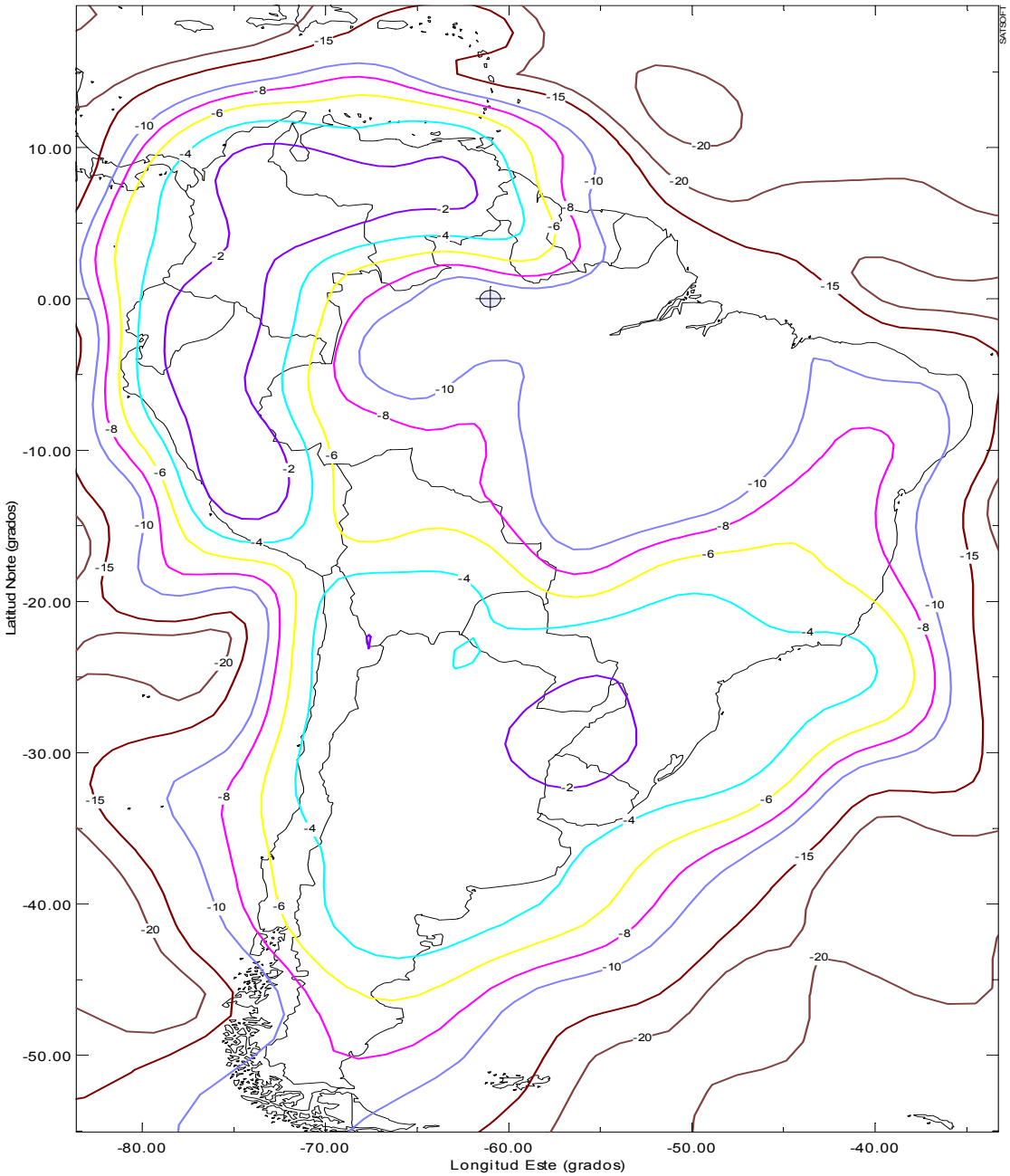


Figure 9.- Illustration of the AMAZONAS-1 transmit beam. Gain Peak 29.9 dBi


SATSOFT
10.00
0.00
-10.00
-20.00
-30.00
-40.00
-50.00
-80.00
-70.00
-60.00
-50.00
-40.00
Latitud Norte (grados)
Longitud Este (grados)

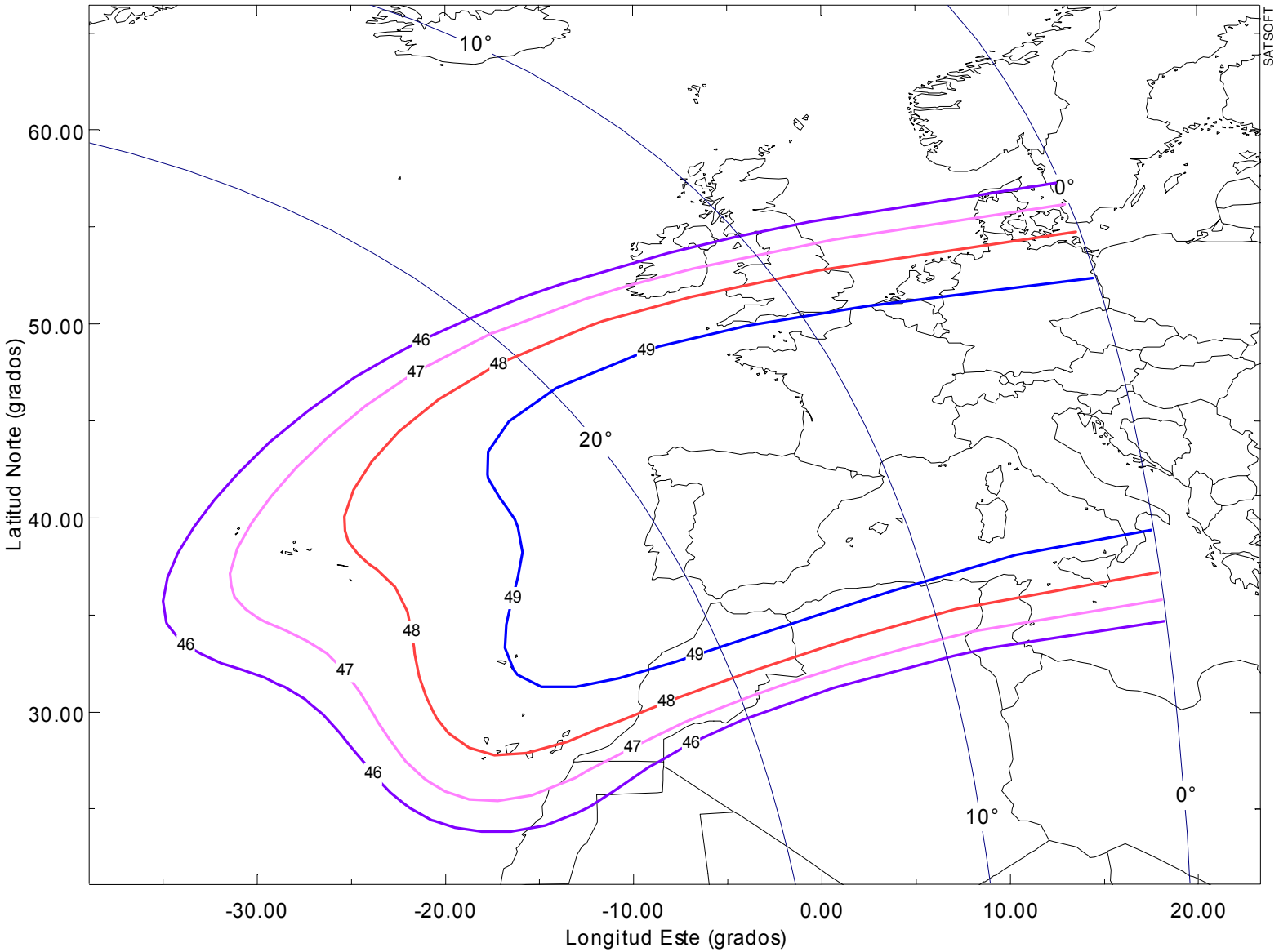


Figure 11.- Illustration of the AMAZONAS-1 Europe transmit coverage (61ºW). EIRP characteristics (dBW)

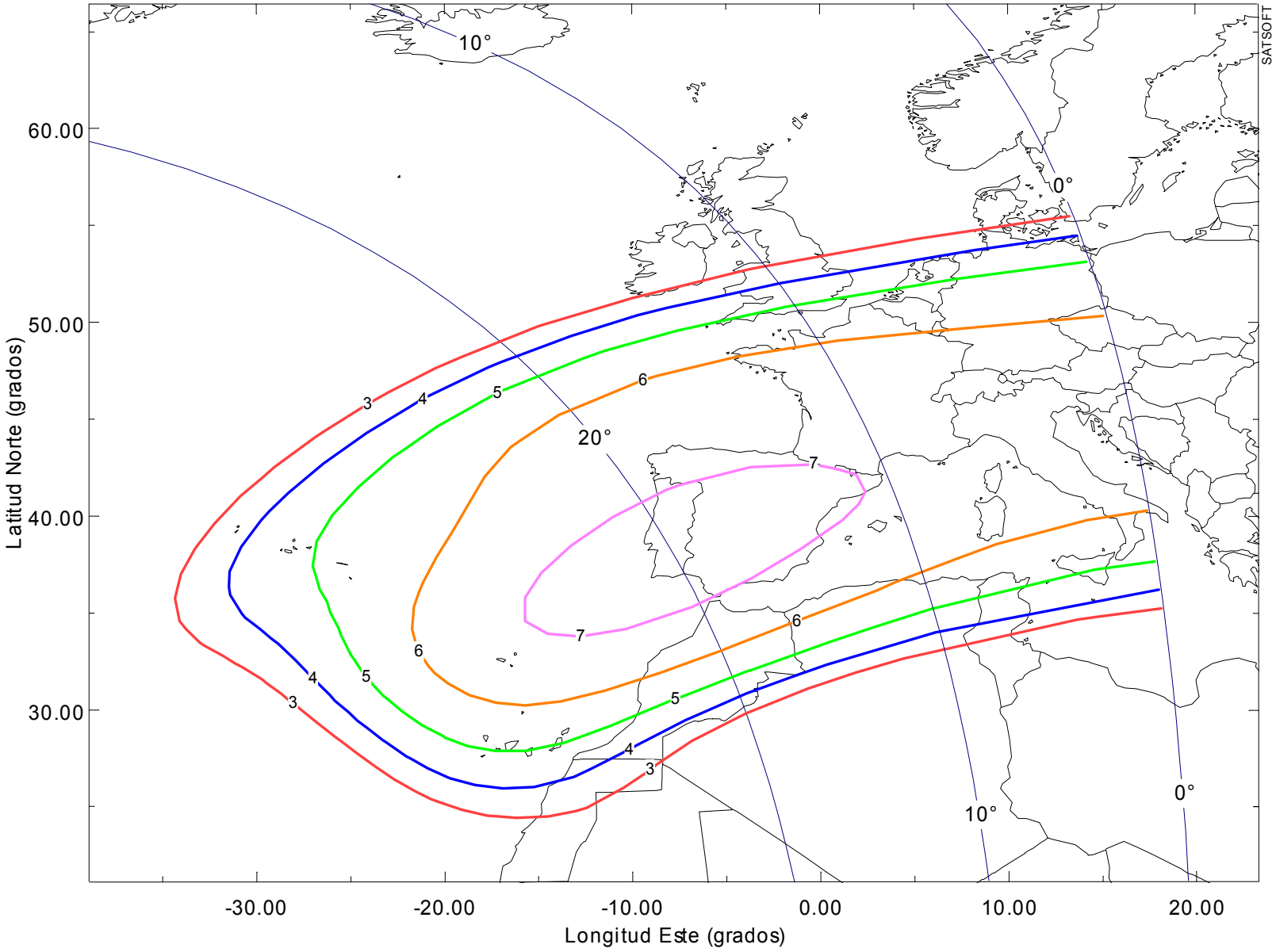


Figure 12.- Illustration of the AMAZONAS-1 Europe receive coverage (61ºW). G/T characteristics (dB/K)

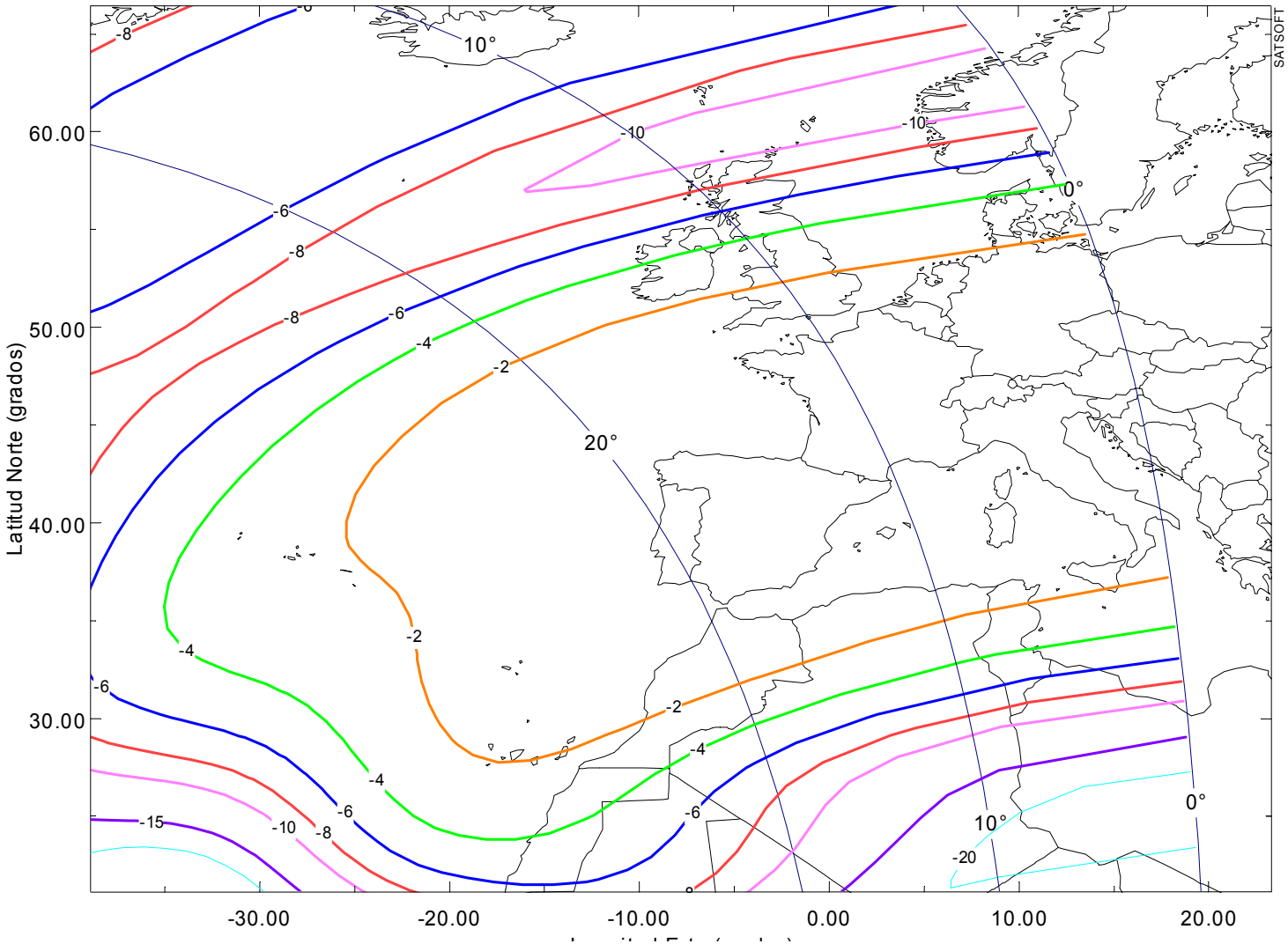


Figure 13.- Illustration of the AMAZONAS-1 Europe transmit beam. Gain peak 32.3 dBi

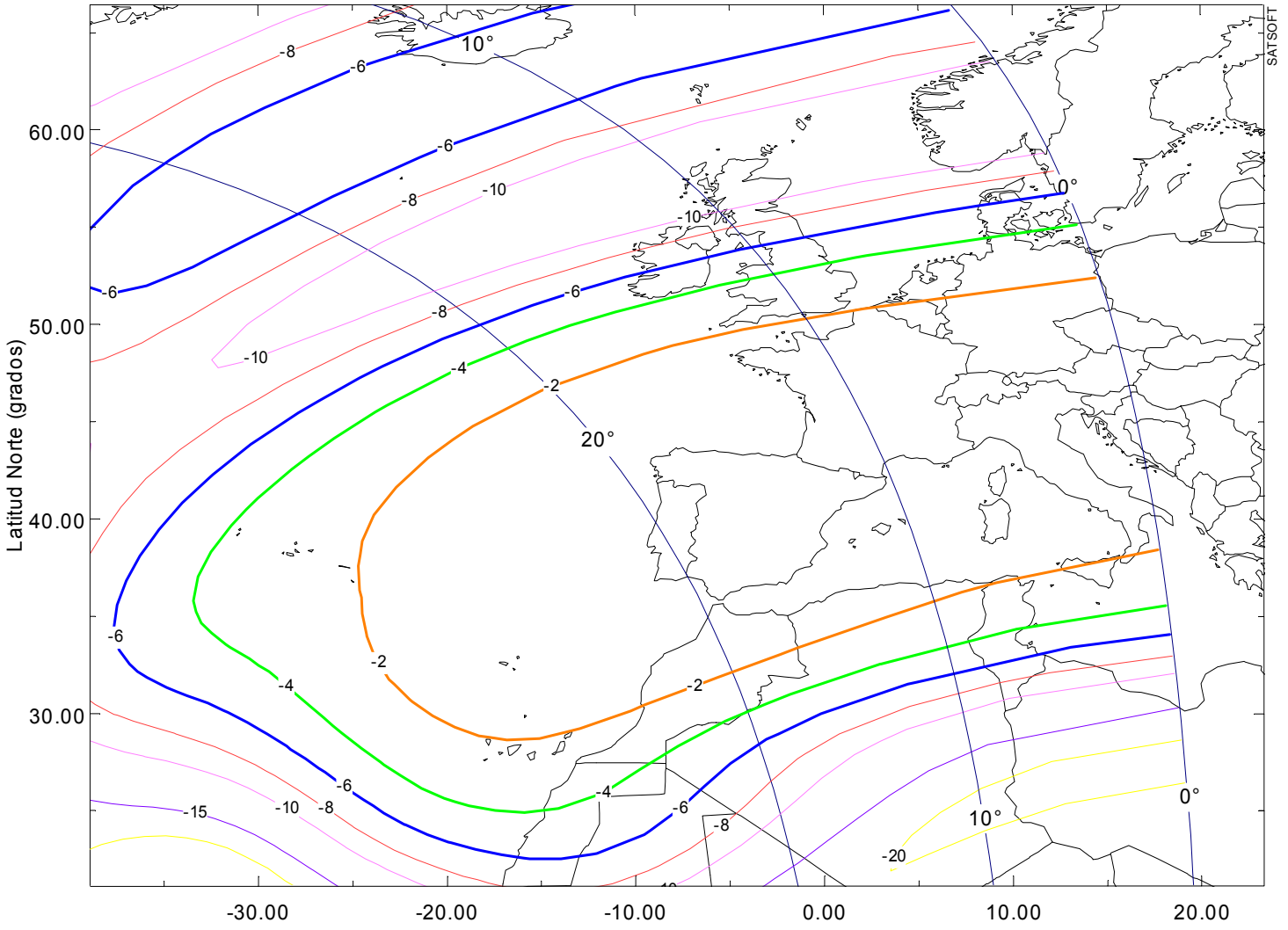


Figure 14.- Illustration of the AMAZONAS-1 Europe receive beam. Gain Peak 32.5 dBi

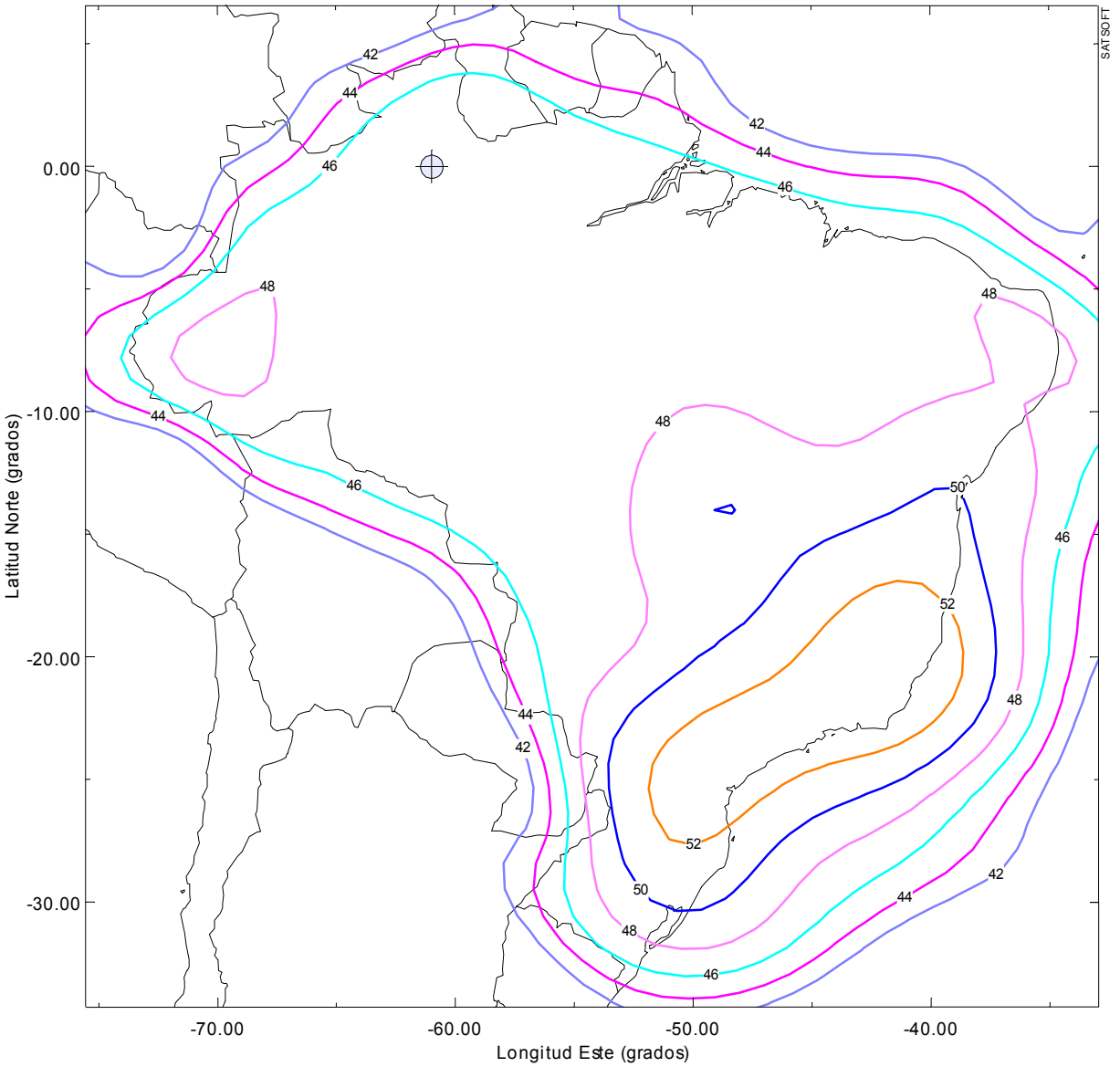


Figure 15.- Illustration of the AMAZONAS-1 Brazil transmit coverage (61ºW). EIRP characteristics (dBW)

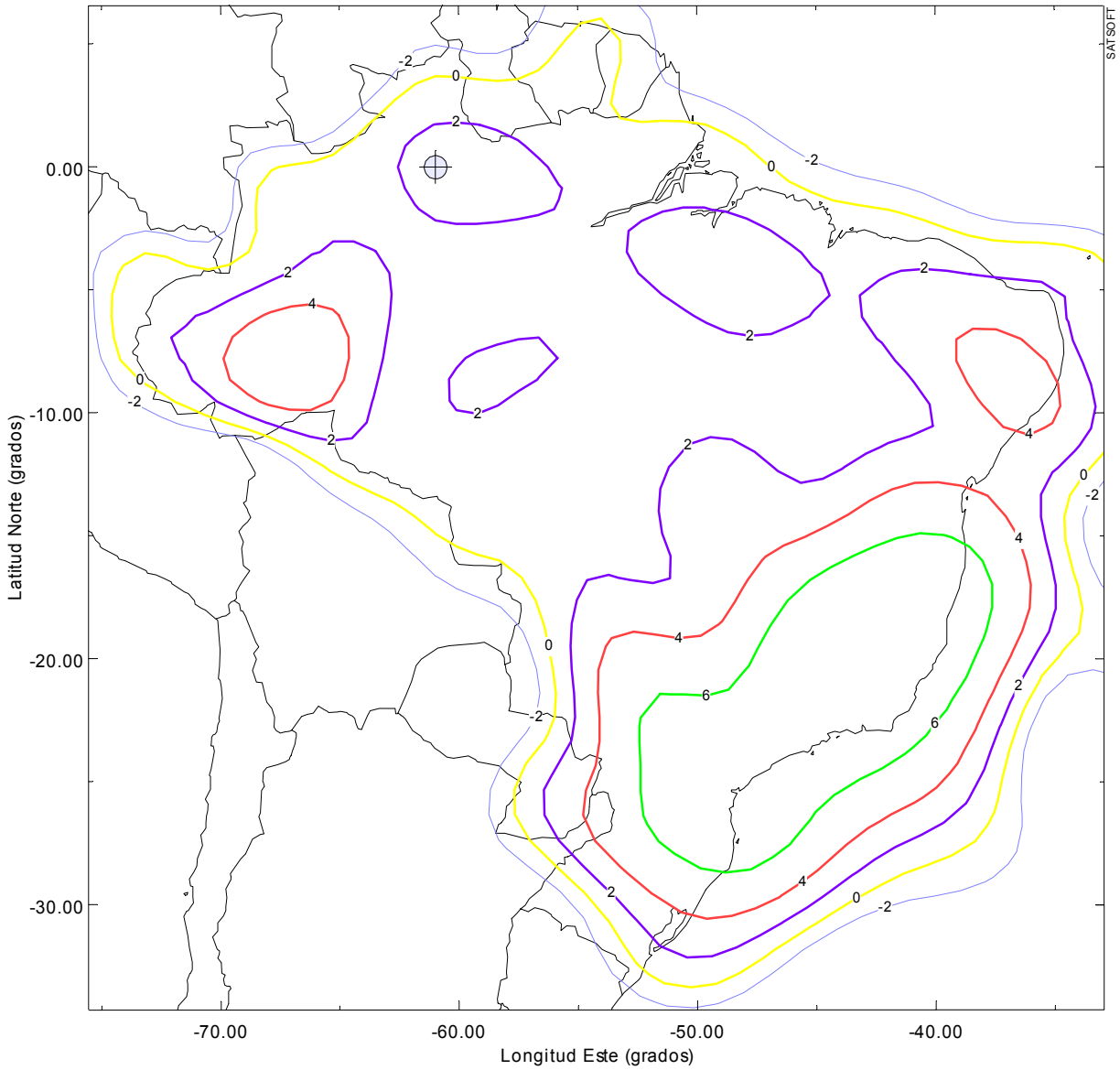


Figure 16.- Illustration of the AMAZONAS-1 Brazil receive coverage (61°W). G/T characteristics (dB/K)

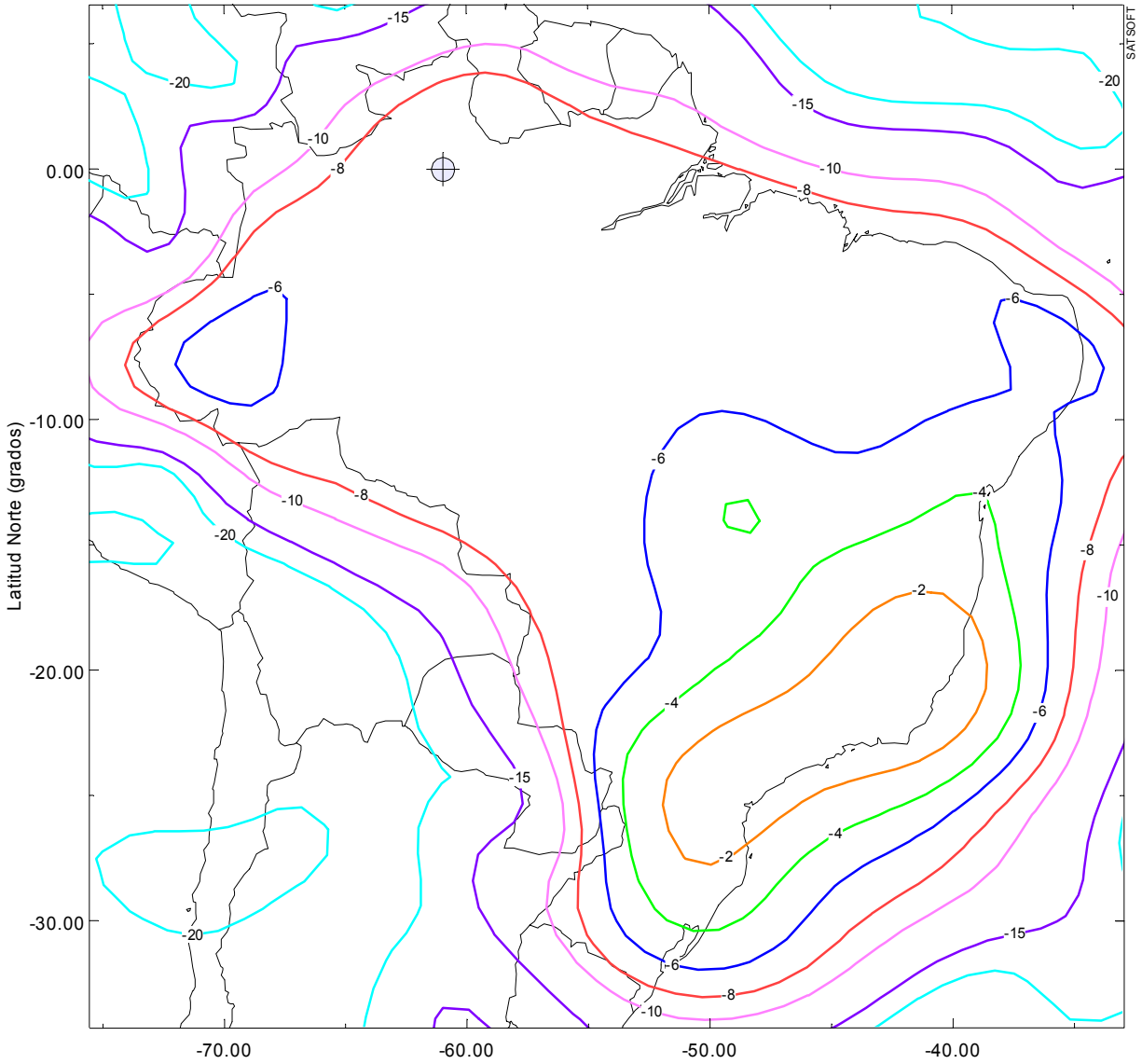


Figure 17.- Illustration of the AMAZONAS-1 Brazil transmit beam. Gain Peak 34.9 dBi

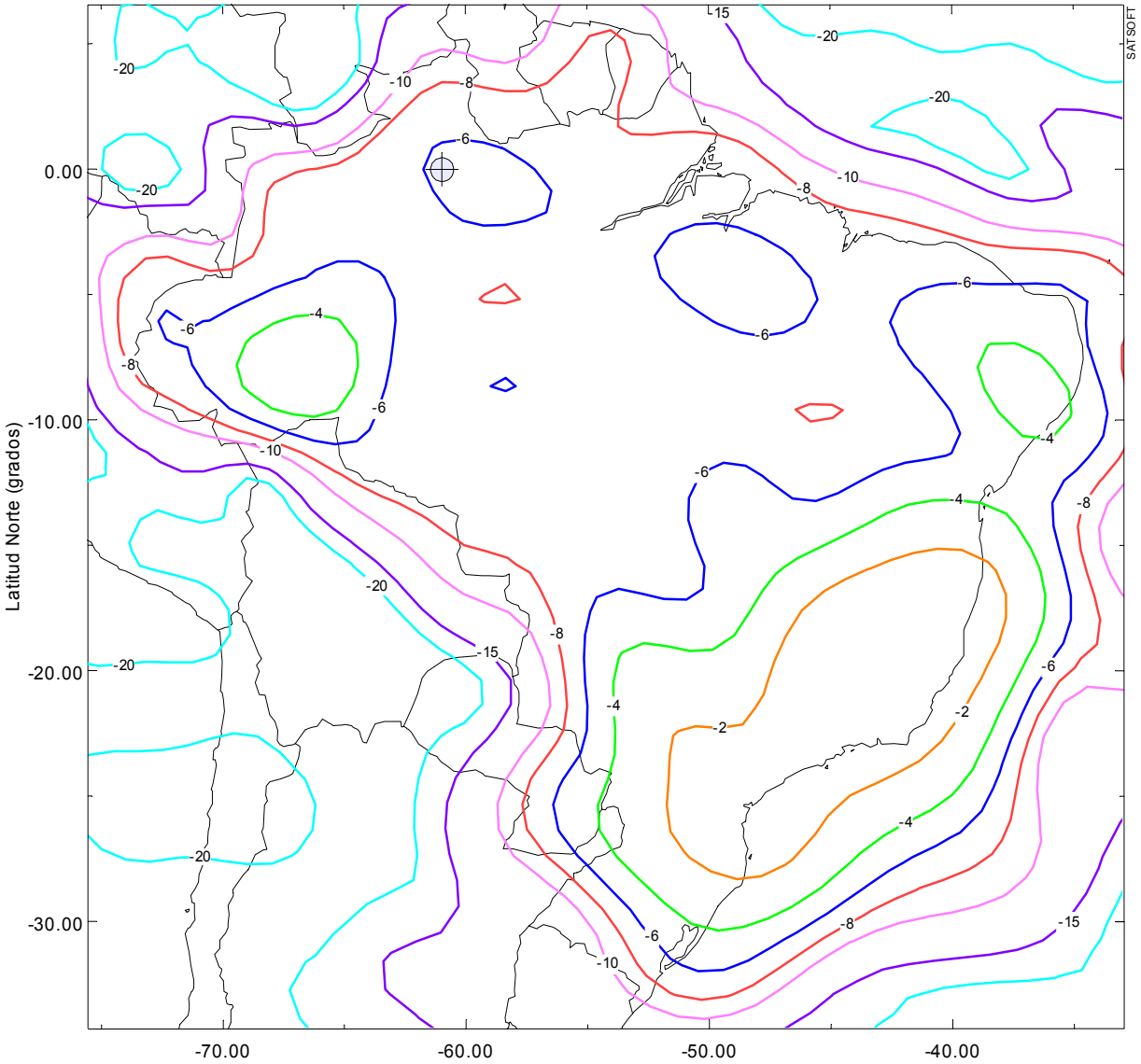


Figure 18.- Illustration of the AMAZONAS-1 Brazil receive beam. Gain peak 35.2 dBi

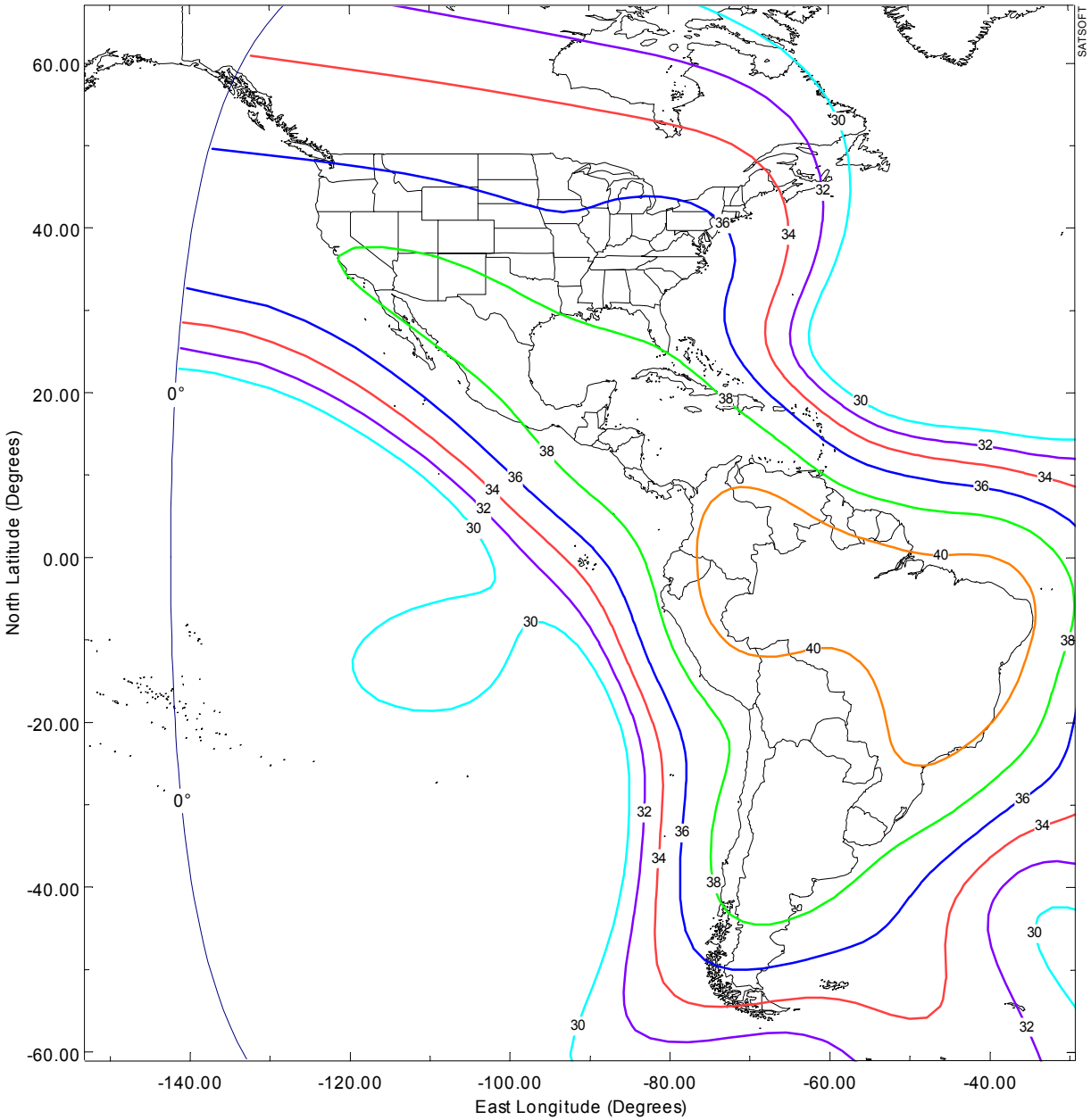


Figure 19.- Illustration of the AMAZONAS-1 C-Band Panamerican transmit coverage (61ºW). EIRP characteristics (dBW)

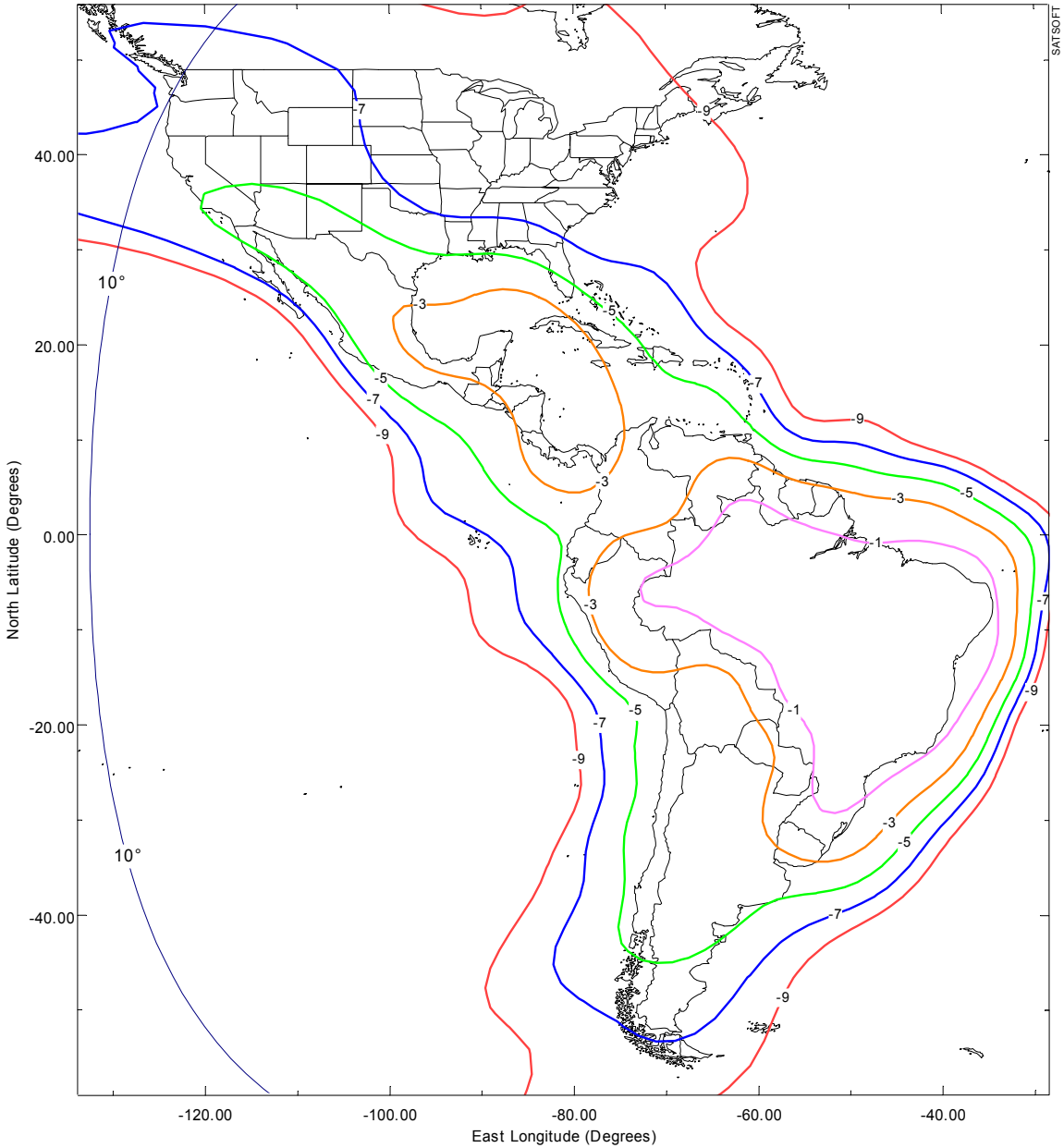


Figure 20.- Illustration of the AMAZONAS-1 C-Band Panamerican transmit coverage (61ºW). G/T characteristics (dB/K)

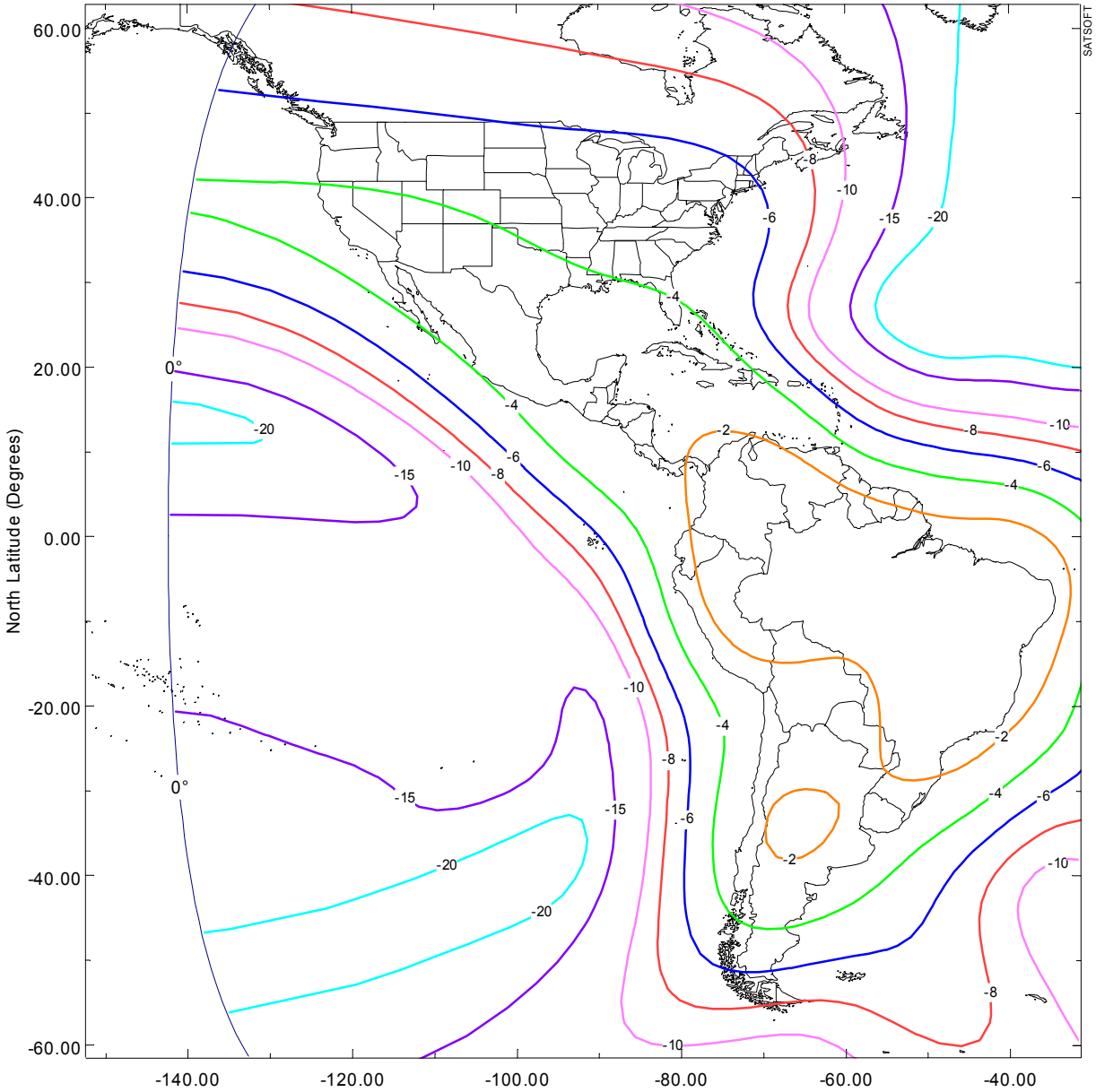


Figure 21.- Illustration of the AMAZONAS-1 C-Band Panamerican transmit beam. Gain Peak 25.3 dBi

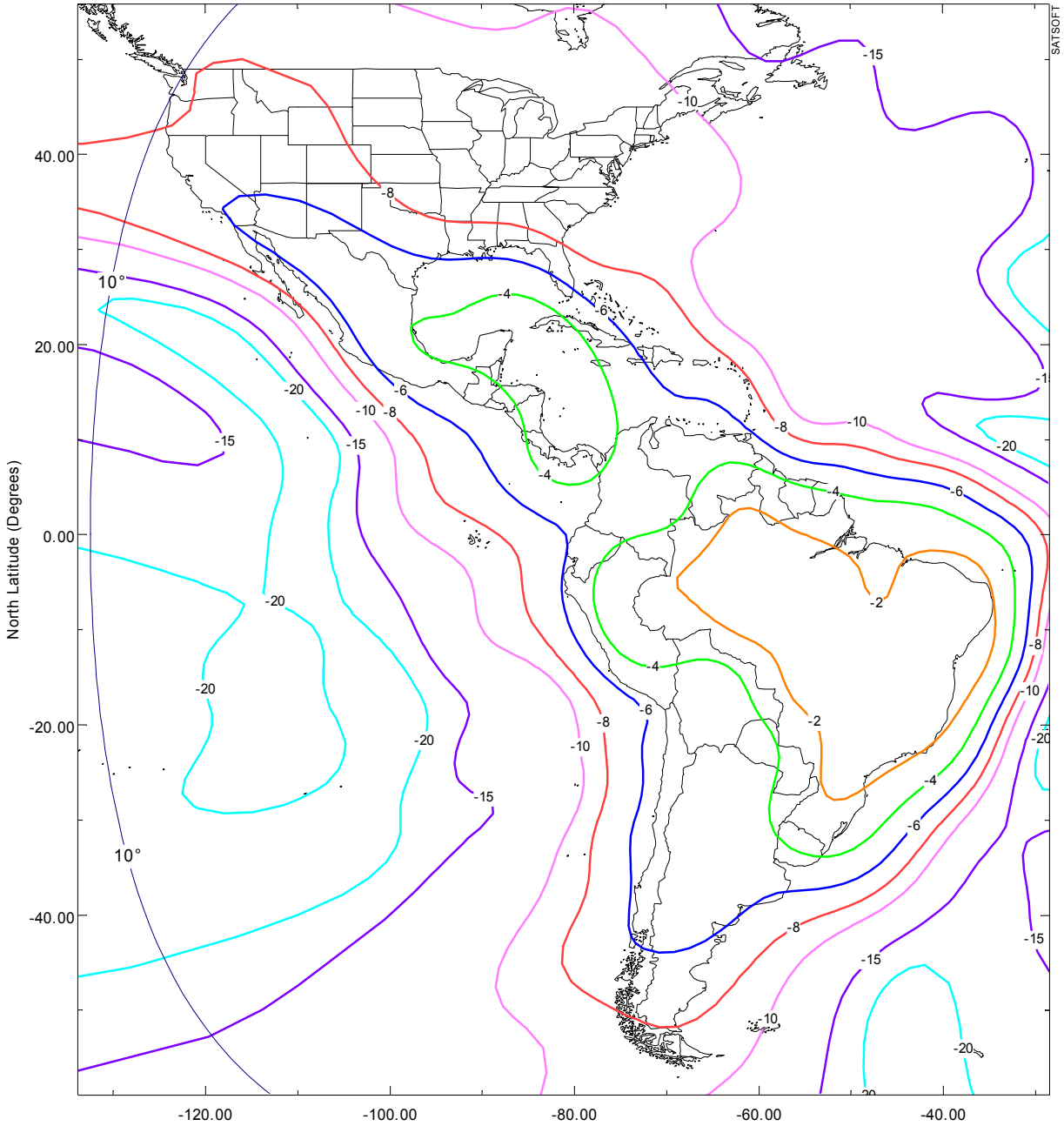


Figure 22.- Illustration of the AMAZONAS-1 C-Band Panamerican receive beam. Gain peak 25.5 dBi

ATTACHMENT B
SECTION 25.140 FINANCIAL INFORMATION

CERTIFICATION OF FINANCIAL INFORMATION

I hereby declare under penalty of perjury under the laws of the United States of America that the attached information is true and correct.

Executed in Rio de Janeiro (Brazil) on 10 November 2003.

Vicente Rubio Carretón

ORIGINAL SIGNED BY VICENTE RUBIO CARRETÓN

Director, Regulatory Affairs

SECTION 25.140 (b) & (c) INFORMATION
FOR THE AMAZONAS-1 SPACE STATION

Section 25.140 paragraphs (b)(3) and (b)(4)

- Costs of construction of the space station: 149 millions USD.
- Costs of launch of the space station: 48 millions USD.
- Operating expenses for one year after launch: 10 millions USD

Section 25.140 paragrah (c) (1)

Balance sheet current for the latest fiscal year (2002).

Considering that Hispamar Satélites will not be operative until the launch of the Satellite, the costs specified in paragraphs (b)(3) and (b)(4) will be supported by its partners until 2004, particularly by its main shareholder Hispasat, S.A. (Attachment: Annual Report 2002, Hispasat, S.A.)

As Hispamar Satélites was founded to develop the Amazonas Project, it will not be operative until the launch of the Amazonas-1 Satellite. Therefore, the Company will not have any turnover until 2004.

As Hispamar Satélites was created specifically for the Amazonas Project, it will not be operative until the launch of the Amazonas-1 Satellite. Therefore, the Company will not have results until 2004.

PRICEWATERHOUSECOOPERS

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Fax + 34 913 083 566

A free translation of the report on the consolidated annual accounts originally issued in Spanish and prepared in accordance with generally accepted accounting principles in Spain. In the event of a discrepancy, the Spanish language version prevails

AUDIT REPORT ON THE CONSOLIDATED ANNUAL ACCOUNTS

To the shareholders of Hispasat, S.A.

We have audited the consolidated annual accounts of Hispasat, S.A. and its subsidiaries (Hispasat, S.A. Group) consisting of the consolidated balance sheet as at December 31, 2002, the consolidated profit and loss account and the related notes to the annual accounts for the year then ended, the preparation of which is the responsibility of the Directors of the parent Company. Our responsibility is to express an opinion on the consolidated annual accounts taken as a whole, based on the work carried out in accordance with auditing standards generally accepted in Spain which require the examination, on a test basis, of evidence supporting the consolidated annual accounts and an evaluation of their overall presentation, the accounting principles applied and the estimates made.

In accordance with Spanish Corporate Law, the parent Company's Directors has presented, for comparative purposes only, for each item of the consolidated balance sheet, the consolidated profit and loss account and the consolidated statement of source and application of funds, the corresponding amounts for the previous year as well as the amounts for 2002. Our opinion refers exclusively to the consolidated annual accounts for 2002. On April 2, 2002, we issued our audit report on the 2001 consolidated annual accounts, in which we expressed an unqualified opinion.

In our opinion, the accompanying consolidated annual accounts for the year 2002 present fairly, in all material respects, the consolidated financial position of Hispasat, S.A. and its subsidiaries at December 31, 2002 and the consolidated results of its operations for the year then ended, and contain all the information necessary for their interpretation and comprehension in accordance with generally accepted accounting principles in Spain, applied on a basis consistent with that of the preceding year.

The accompanying consolidated Directors' Report for 2002 contains the information that the parent company's Directors consider relevant to the consolidated companies' position, the evolution of its business and of other matters and does not form an integral part of the consolidated annual accounts. We have verified that the accounting information contained in the aforementioned Directors' Report coincides with that of the consolidated annual accounts for 2002. Our work as auditors is limited to checking the Director's Report within the scope already mentioned in this paragraph and it does not include a review of information other than that obtained from the group companies' accounting records.

PricewaterhouseCoopers Auditores, S.L.

Original in Spanish signed by Alan D'Silva
March 24, 2003.

PricewaterhouseCoopers Auditores, S.L. - R. M. Madrid, hoja 87.250-1, folio 75, tomo 9.267, libro 8.054, sección 3ª
Inscrita en el R.O.A.C. con el número S0242 - CIF: B-79 031290

HISPASAT, S.A.

NOTES TO THE ANNUAL ACCOUNTS FOR 2002
(Expressed in Euros)

1. Activities

Hispasat, S.A. hereinafter ("the Company") was incorporated on 30 June 1989 for an indefinite period.

It mainly engages in the operation of the satellite communications system Hispasat 1 and any other systems which the company may develop in the future. Its also provides the service relating to the space segment of the orbital geostationary position assigned to Spain in accordance with the administrative concession granted to Hispasat, S.A. under the Agreement adopted by the Cabinet on 11 July 1997 and the concession contract concluded with the Spanish government dated 9 December 1997.

As at 31 December 2002 the Company renders satellite capacity services through flight units 1A ,1B ,1C and 1D .

Through its Brazilian subsidiary Hispamar Ltd., the Company is licensed to offer satellite capacity services through the Ku band on its 61º West orbital position, which is owned by Brazil. The relevant concession contract with the National Telecommunications Agency of Brazil – ANATEL - was concluded on 27 September 2000.

In addition, the Brazilian company Hispamar Satélites, in which Hispasat, S.A. holds an indirect interest, signed an agreement on 11 December 2002 under which Telemar Norte Leste, S.A. transferred to Hispamar Satélites S.A. the ownership of the licence for operating the C band on orbital position 61º West. This agreement was expressly authorised by ANATEL on 18 December 2002.

2. Basis of presentation

a) *True and fair view*

The annual accounts have been prepared on the basis of the Company's accounting records and are presented in compliance with current Spanish Company Law and the Spanish General Accounting Plan so as to provide a true and fair view of the Company's net worth, its financial situation and the results of its operations.

b) *Comparability*

Certain figures for 2001 have been reclassified in these annual accounts to conform with current year presentation and aid comprehension. The most significant reclassifications are set out below:

	Dr	**Cr**
Advance payments from customers	10 861 659,73	
Accruals, prepayments and deferred income		10 861 659,73
Other creditors falling due after more than one year	16 057 201,10	
Other creditors		16 057 201,10

c) *Groupings of items*

For clarity, the accounts are presented in a summarised form. When appropriate, an analysis is provided in the relevant note to the accounts.

d) Consolidated annual accounts

The Company is the parent company of a corporate group in accordance with the terms of Royal Decree 1815/1991 of 20 December 1991, and therefore is required to file consolidated annual accounts. For reasons of clarity, the Directors have chosen to present the consolidated annual accounts separately.

e) Working capital

At 31 December 2002, the Company's working capital stands at € (20,495,987.50). However, these annual accounts have been prepared on a going concern basis on the Directors' understanding that, bearing in mind the business' costs structure, with significant depreciation and the generation of considerable cash flow due to the high operating margin, sufficient financial resources will available to enable the Company to carry on its normal business activity. In addition, this situation has already arisen in successive prior years.

3. Accounting policies

a) *Formation expenses*

Share capital increase expenses are capitalised at acquisition cost and are amortised on a straight-line basis over five years. If the circumstances which permitted the capitalisation of the expenditure change, the unamortised portion is expensed in the year in which the change occurred.

b) *Intangible fixed assets*

Intangible fixed assets are recorded at their purchase or production cost. They are amortised using the straight-line method.

Expenses relating to successful research and development projects are capitalised and written off over a period of five years. If the circumstances which permitted the capitalisation of the expenditure change, the unamortised portion is expensed in the year of change.

Computer applications are stated at cost and amortised over its estimated useful life.

c) *Tangible fixed assets*

Tangible fixed assets are stated at acquisition or production cost. These assets are depreciated on a straight line basis over their estimated useful lives using the following rates:

Buildings	3%
Plant	As per depreciation plan
Machinery	10%
Other installations	10%
Vehicles	15%
Furniture and fittings	10%
Data-processing equipment	25%
Other tangible fixed assets	10%

Improvements which extend the useful lives of existing assets are capitalised. Interest and differences on exchange directly related to tangible fixed assets accruing before such assets are brought into use are also capitalised. Maintenance and repair expenses are charged to profit and loss when incurred. Disposals and sales are recorded by eliminating the relevant cost and accumulated depreciation from the accounts.

The heading Other tangible fixed assets records various items such as shelving, stands and models for fairs, audio-visual equipment, etc. These assets are depreciated individually at the rates assigned to each item on the basis of its estimated useful life.

The assets which make up satellites 1A and 1B are depreciated in accordance with a special depreciation plan approved by the Ministry of Finance on 7 October 1993. The depreciation rate is calculated on the basis of the expected useful life of each asset, determined according to the relevant fuel resources. provided that the operation of the equipment and subsystems which make up the satellites is correct. The estimates for 2002 reflect expected useful lives which agree with the initially planned duration as from the launch date.

On 23 February 2001 the Spanish Tax Agency approved an application submitted by the Company to implement a special depreciation plan for assets involved in the Hispasat 1C

programme. The proposed depreciation rate for the satellite parts and engineering and programming costs of the ground control system is based on the straight-line method taking into account an estimated useful life of thirteen years. The tangible fixed assets of the ground control system are depreciated on a straight-line basis over the expected useful life of each specific asset. Such depreciation agrees to all intents and purposes with that which would result from the application of the rates laid down in the official depreciation tables.

On 18 September 2002 the Company launched and situated in orbit its fourth satellite in the fleet, HISPASAT 1D, which after successfully completing the orbit trial period was accepted by the Company on 1 December 2002. The business operation of the satellite commenced as from that date and is expected to continue for 15 years, coinciding with the satellite's estimated useful life. An application has been filed with the Spanish tax authorities to utilise a special depreciation plan for the assets involved in the 1D programme. At the time of writing this plan had yet to be approved by the tax authorities.

d) *Investments*

Investments are stated at the lower of acquisition cost and market value. Market price is determined for each investment category as follows:

- Shareholdings in Group or associated companies

  At their proportional book value as adjusted for any latent capital gains existing at the time of acquisition and which continue to exist at the balance sheet date. Provisions are recorded in accordance with the development of the investee companys' equity.

- Other shareholdings:

  Taking the proportional book value figuring in the latest available annual accounts as a basis, when the shareholdings in question are not quoted on a stock exchange.

Long-term guarantees and deposits are stated at face value.

e) *Inventories*

Inventories are stated at the lower of acquisition or production cost and market value. Production cost includes materials, labour and manufacturing expense and is calculated using the FIFO method (first-in, first-out).

f) *Transactions and balances denominated in foreign currency*

Debtors and creditors denominated in foreign currency are stated at year-end exchange rates. Transactions in foreign currency are recorded in the profit and loss account at the

exchange rate in force at the time they take place. Realised gains, together with realised and unrealised losses on exchange, are taken to profit and loss for the year. Unrealised gains are recorded as deferred income and taken to income when they are realised.

As a result of the entry into force of the Order of the Ministry of Finance of 18 March 1994 on the accounting treatment of exchange gains and losses in certain regulated companies (Official State Gazette 75 of 29 March 1994) the accounting treatment afforded to exchange differences existing at said date was changed as from the 1994 accounts.

Net unrealised losses on exchange determined for groups of currencies with similar maturities and market behaviour were recognised as deferred expenses, as were net unrealised gains for 1993 through 1998 determined in the same manner. The balance in Deferred expenses for this item is amortised on a straight-line basis over the duration of the related loans. The application of a strictly financial criterion would not have a significant effect.

g) *Short-term*

Current asset investments are stated at the lower of acquisition cost and market value. Market value of current asset investments is determined in the same manner as for fixed asset investments.

h) *Severance payments*

Severance indemnities which can be reasonably quantified are expensed in the year in which the related decision is taken.

i) *Income and expense*

Income and expense are recorded on an accruals basis, i.e. in the period in which the income or expense deriving from the goods or services in question is earned or incurred rather than the period in which the cash is actually received or disbursed.

j) *Provisions for liabilities and charges*

As a result of their business activities the companies could incur certain risks originating from present or past events and find themselves involved in judicial or administrative proceedings the resolution of which could give rise to liabilities towards third parties.

In accordance with the General Accounting Plan, this provision must be sufficient to cover, among other issues, the emergence of such risks as a result of outstanding third-party claims involving undetermined amounts.

k) Short/long term

Debtors and creditors maturing in one year or less are classified as short term while those falling due in more than one year are classified as long term.

l) *Financial derivatives*

Operations intended to eliminate or significantly reduce exchange, interest-rate or market risks in company transactions are regarded as hedging. Gains and losses arising from operations with financial derivatives are taken to profit and loss using the same timing criterion as that applied to the results of the transactions they are designed to cover.

m) *Corporate income tax*

Corporate income tax expense is recognised based on the reported profit as adjusted for permanent differences between reported and taxable profits, and the effects of any tax

credits and deductions. Deferred tax assets and liabilities arising from timing differences in the recognition of income and expense for accounting and tax purposes are recorded in the balance sheet until the underlying timing differences reverse.

Tax credits and deductions and the tax effect of applying tax-loss carryforwards are treated as a reduction in the corporate income tax expense for the year in which they are applied.

4. Formation expenses

Movements in the accounts included under Formation expenses are as follows:

	Euros			
	Balance at 31.12.01	**Additions**	**Amortisation**	**Balance at 31.12.02**
Capital increase expenses	193 735,89	1 641 625,96	(309 405,84)	1 525 956,01
	193 735,89	1 641 625,96	(309 405,84)	1 525 956,01

Capital increase expenses mainly include legal, notary and registry fees, the printing of reports and memorandum, taxes, advertising, commissions, expenses for securities valuations, etc., arising from the capital increases mentioned in Note 12, Capital and Reserves.

5. Intangible fixed assets

Movements in the accounts included under Intangible fixed assets are as follows:

	Euros				
	Balance at 31.12.01	**Additions**	**Disposals**	**Transfers**	**Balance at 31.12.02**
Cost					
Research and development expenses	581 306,36			(285 690,49)	295 615,87
Licences, trademarks and similar	221 405,25	180 006,75			401 412,00
Computer applications	794 027,85	177 831,74	(2 103,54)	163 526,28	1 133 282,33
	1 596 739,46	357 838,49	(2 103,54)	(122 164,21)	1 830 310,20
Amortisation					
Licences, trademarks and similar	(151 539,82)	(52 283,06)			(203 822,88)
Computer applications	(649 840,63)	(190 656,30)	2 103,54		(838 393,39)
	(801 380,45)	(242 939,36)	2 103,54		(1 042 216,27)
Net book value	795 359,01				788 093,93

R&D expenses include the expenses incurred in relation to the DESAT project for future satellites and those expenses relating to the preliminary feasibility studies of future satellite systems. DESAT project costs are included as an increase in the value of the 1C and 1D satellites at the end of the production period and at the time of acceptance. The costs resulting from the preliminary feasibility studies conducted of new satellites are included in tangible fixed assets as an increase in production costs once the related investment commences.

Licences, trademarks and similar includes the amounts capitalised in relation to expenses for "landing rights" required to be able to render satellite capacity services in other Latin American countries.

The cost of fully-amortised intangible fixed assets at 31 December 2002 was as follows:

Industrial property rights	174 341,55
Computer applications	724 778,32
TOTAL	899 119,87

6. Tangible fixed assets

Movements in the accounts included under Tangible fixed assets during 2002 are as follows:

	Euros				
	Balance at 31.12.01	**Additions**	**Disposals**	**Transfers**	**Balance at 31.12.02**
Cost					
Land and buildings	4 204 011,33			88 697,09	4 292 708,42
Plant and machinery	501 288 957,15	119 038,38	(50 939,38)	193 566 348,09	694 923 404,24
Fixtures, fittings, tooling and equipment	7 520 700,19	262 951,58	(78 854,74)	316 463,99	8 021 261,02
Other fixed assets	1 479 679,23	167 057,34	(42 964,82)	34 673,40	1 638 445,15
Payments on account and assets under construction	115 314 592,70	83 102 362,71	(608,14)	(193 884 018,36)	4 532 328,91
	629 807 940,60	83 651 410,01	(173 367,02)	122 164,21	713 408 147,74
Depreciation					
Buildings	(1 075 327,65)	(122 862,32)			(1 198 189,97)
Plant and machinery	(278 134 598,25)	(45 607 986,49)	45 364,42		(323 697 220,32)
Fixtures, fittings, tooling and equipment	(5 443 382,78)	(760 803,01)	77 627,03		(6 126 558,76)
Other fixed assets	(1 022 470,59)	(226 813,61)	22 066,58		(1 227 217,62)
	(285 675 779,27)	(46 718 465,43)	145 058,03		(332 249 186,67)
Net book value	344 132 161,33				381 158 961,07

Fixed assets under construction at 31 December 2002 mainly relate to the expenses incurred to bring the operation of the 1B Satellite into line with the specifications necessary to supply the inclined-orbit services required by the Spanish Defence Ministry, with which the Company has concluded a services contract.

a) *Fully-depreciated assets*

As at 31 December 2002 fully depreciated tangible fixed assets with an original cost of €7,324,117.09 were still being used in operations. These assets are as follows:

Plant and machinery	1 397 590,06
Fixtures, fittings, tooling and equipment	5 165 113,47
Other fixed assets	761 413,56
TOTAL	7 324 117,09

b) *Insurance*

The Company has arranged various insurance policies to cover the risks pertaining to its tangible fixed assets. The coverage provided by these policies is considered to be sufficient.

7. Investments

Movements in the accounts included under Investments are as follows:

	Euros			
	Balance at 31.12.01	**Additions**	**Disposals**	**Balance at 31.12.02**
Group companies - Shareholdings	17 060 209,53	67 229 316,18		84 289 525,71
Associated companies - Shareholdings	18 844 000,00	27 806 000,00		46 650 000,00
Deposits and guarantees	63 811,12	3 956,29	(4 008,83)	63 758,58
	35 968 020,65	95 039 272,47	(4 008,83)	131 003 284,29
Less provisions	(3 785 212,22)	(8 136 469,55)		(11 921 681,77)
	32 182 808,43	86 902 802,92	(4 008,83)	119 081 602,52

a) Shareholdings in Group and associated companies

		% interest held	
Name and address	**Activity**	**% Direct**	**% Indirect**
Group companies			
Hispasat Brasil Ltda. Praia do Flamengo, 200 – 17º andar Rio de Janeiro- Brazil	Marketing satellite capacity	100,00%	
Hispamar Ltda. (*) Praia do Flamengo, 200 – 17º andar Rio de Janeiro- Brazil	Operating Brazilian satellite systems	45,31%	54,69%
Hispamar Satélites, S.A. (**) and (***) Praia do Flamengo, 200 – 17º andar Rio de Janeiro- Brazil	Marketing satellite capacity	3,08%	70,38%
Hispasat Canarias, S. L. C/ Obispo Encinas, 11 Las Palmas de Gran Canaria-Spain	Sale and lease of satellites and related spatial capacity	100,00%	
Associated companies			
Hisdesat Servicios Estratégicos, S.A Paseo de la Castellana, 143 Madrid Spain	Marketing spatial systems for government application	43,00 %	
Galileo Sistemas y Servicios, S.L. C/ Isaac Newton, 1 Madrid Spain	Operating satellite systems	14,29%	

Capital, reserves, profit/(loss) for the year and other information of interest figuring in the above companies' annual accounts are as follows:

Company	Euros					
	Capital	Reserves	Results 2002	Extraordinary profit/(loss)	Net book value for parent company	Dividends received 2002
Group companies						
Hispamar Ltda. (*)	9 273 543,27	-	-	-	4 201 961,92	-
Hispasat Brasil Ltda.	5 127 941,98	-	-	-	5 127 944,30	-
Hispamar Satélites, S.A. (**) and (***)	29 087 969,03	-	-	-	894 731,29	-
Hispasat Canarias, S. L.	63 649 134,18	-	-	-	63 649 134,18	-
Associated companies						
Hisdesat Servicios Estratégicos, S.A	108 174 000,00	(331 780,35)	(3 159 508,74)	(4 548 203,00)	45 010 746,14	-
Galileo Sistemas y Servicios, S.L.	966 000,00	(35 563,75)	2 178,82	-	133 326,11	-
	216 278 588,46	(367 344,10)	(3 157 329,92)	(4 548 203,00)	119 017 843,94	-

No Group or associated company is listed on a stock exchange. Holdings in the Brazilian companies are arranged in Brazilian reals.

* Hispamar Ltda. is 54.69 % owned by Hispasat Brazil Ltda. and 45.31 % by Hispasat, S.A.

** Hispamar Satélites, S.A. is 70.38% owned by Hispamar Ltda., 3.08 % owned by Hispasat, S.A. and 26.54 % owned by Telemar Norte Leste, S.A.

*** On 20 December 2002, Hispamar Satélites, S.A. increased capital by 101,195,200 Brazilian reals (BR). The increase was fully subscribed by Hispamar Ltda. and Telemar Norte Leste, S.A., in the amount, respectively, or BR72,535,200 and BR28,660,000. At the year end the entire capital increase had yet to be paid up.

8. Deferred expenses

Movements in the accounts included under Deferred expenses during 2002 are as follows:

	Euros			
	Balance at 31.12.01	Additions	Taken to profit & loss	Balance at 31.12.02
Deferred expenses	2 952 713,90	600 000,00	(630 751,70)	2 921 962,20

Deferred expenses include both exchange losses deferred on the basis of the application of the accounting criterion set out in the Ministerial Order of 18 March 1994, which were fully amortised in 2002, and advance payments on account of the operational orbital support services for the 1C and 1D satellites, in addition to loan arrangement expenses.

9. Debtors

	Euros
Trade debtors for sales and services rendered	20 671 721,94
Group and associated companies	2 455 911,91
Sundry debtors	245 234,77
Loans to employees	110 746,80
Taxes refundable	4 753,54
	23 488 368,96
Less provisions	(1 124 236,43)
	22 364 132,53

10. Current-asset investments

The short-term securities portfolio mainly consists of Euro deposits and Treasury Bills. As at 31 December 2002, accrued interest pending collection amounted to €4,232.88.

11. Prepayments and accrued income

Movements under this heading are set out below:

	Euros			
	Balance at 31.12.01	**Additions**	**Taken to profit & loss**	**Balance at 31.12.02**
Prepaid expenses	3 953 237,75	7 507 030,63	4 966 434,99	6 493 833,39

Prepaid expenses mainly relate to insurance premiums for the satellite system, including multi-year cover.

12. Shareholders` Equity

Movements in the accounts included under Capital and reserves are as follows:

	Share capital	Share premium	Reserves	Profit/loss for the year
Balance at 31.12.01	110 056 637,18	-	36 174 227,19	18 996 001,19
Capital increases	11 889 742,76	76 265 353,78		
Distribution 2001 profit			18 996 001,19	(18 996 001,19)
Profit/(loss) for year	-	-		17 703 415,79
Balance at 31.12.02	121 946 379,94	76 265 353,78	55 170 228,38	17 703 415,79

a) *Share capital*

Share capital consists of 322,729 registered shares with a par value of €377.86 each, fully paid up. All shares carry the same rights and obligations. The disposal of shares is subject to Cabinet authorisation, in accordance with the terms of the Concession Contract signed with the Spanish government on 9 December 1997.

In January 2002 the capital increase carried out by the Company on 20 December 2001 was entered in the Mercantile Registry. The capital increase was paid on 28 December 2001 and at the 2001 year end was recorded under Creditors for advances received.

As agreed by the shareholders at the Extraordinary General Meetings held on 28 February 2002 and 22 March 2002, the Company has increased capital by €1,757,426.86 and €4,339,722.10, respectively. The first increase was fully subscribed by EADS CASA, which thereby became a shareholder, and the second was fully subscribed by Eutelsat. In both cases, payment was made in cash.

In addition, the new shares, together with the increase in December 2001, were issued at a premium of €76,265,353. 78. This share premium is freely available.

The Company's shareholders at 31 December 2002 are set out below:

Company	Number of shares	Percentage holding
EUTELSAT	89 371	27,69%
AUNA	56 937	17,64%
INTA	52 991	16,42%
ADMIRA MEDIA	42 702	13,23%
BBVA	34 693	10,75%
SEPI	23 918	7,41%
EADS-CASA	16 137	5,00%
CDTI	5 980	1,85%
Total	322 729	100,00%

b) *Reserves*

Movements in Reserves are set out below:

	Euros		
	Balance at 31.12.01	**Distribution of profits**	**Balance at 31.12.02**
Legal reserve	5 528 776,96	1 899 600,12	7 428 377,08
Differences from capital restatement in euros	675,79		675,79
Other reserves	30 644 774,44	17 096 401,07	47 741 175,51
	36 174 227,19	18 996 001,19	55 170 228,38

Legal reserve

Appropriations to the legal reserve are made in compliance with Article 214 of the Spanish Companies Act, which stipulates that 10% of the profits must be transferred to this reserve until it represents at least 20% of share capital. The legal reserve is not available for distribution.

Should it be used to offset losses in the event of no other reserves being available, it must be replenished out of future profits.

Differences from capital restatement in euros

This reserve is not freely available.

c) *Profit/(loss) for year*

The distribution of 2002 profits and reserves that will be proposed to the Annual General Meeting is set out below:

	Euros
Available for distribution	
Profit/loss for the year	17 703 415,79
	17 703 415,79
Distribution	
Legal reserve	1 770 341,58
Other reserves	15 933 074,21
	17 703 415,79

13. Provisions for liabilities and charges

The provision for liabilities and charges is recorded for the purpose of covering expenses, losses or debts which are clearly close specified as concerns their nature but which cannot be determined at the balance-sheet date with respect to their amount or the date on which they will arise.

It is recorded by charge to results for the year in which the liability arises and is applied when the relevant payment is made or the liability disappears.

Movements in Provisions for liabilities and charges are as follows:

	Euros			
	Balance at 31.12.01	**Appropriations**	**Applications**	**Balance at 31.12.02**
Other provisions	2 550 000,00	2 300 000,00	-	4 850 000,00
	2 550 000,00	2 300 000,00	-	4 850 000,00

14. Bank loans

a) Long-term bank loans

Long-term bank loans at 31 December 2002 amount to €167,606,001.78.

Annualised maturities of loans in force are as follows:

	Euros
2003	38 434 702,64
2004	40 325 919,44
2005	40 325 919,44
2006	34 140 062,92
Subsequent years	52 814 099,98
	206 040 704,42
Less short-term portion	(38 434 702,64)
Total long-term	167 606 001,78

During 2001 the Company arranged various long-term loan operations to finance its projects.

During 2002 two draw-downs were made on the loan granted by the European Investment Bank on 15 October 2001, in the following amounts:

- On 18 January 2002 the second draw-down on the loan was made in the amount of €20,000,000.

- On 26 July 2002, the third draw-down was made in the amount of €15,000,000.

The loan and credit accounts only reflect the amount drawn down in respect of the credit facilities obtained. Available cash assets under long-term loan agreements at the 2002 year end amounted to €125 million.

The Company has arranged interest rate hedges at the 2002 year end totalling €153.4 million for the variable interest debt.

The average annual interest rate for non-trade creditors is approximately 3.45%.

b) *Guarantees and other contingencies*

The Company has granted guarantees for an amount equivalent to €127.8 million in order to secure the principal of the loans received. These guarantees extend to the relevant interest.

Additionally, the company has arranged guarantees with various financial institutions to secure obligations undertaken with both national and international official bodies totalling approximately €4.2 million.

c) *Short term bank loans*

	Euros
Loans and other amounts due	38 434 702,64
Interest due	1 375 057,78
	39 809 760,42

At 31 December 2002, interest due relates to accrued unpaid interest on outstanding loans.

Amounts available under unutilised short-term credit lines at 31 December 2002 total €21,931,881.29.

15. Other creditors

This heading breaks down as follows:

	Euros
Taxes payable	3 162 741,55
Accrued wages and salaries	513 637,68
Guarantees and deposits	272,66
Other debts	34 265 551,44
	37 942 203,33

16. Taxes payable

Taxes and Social Security contributions payable are set out below:

	Euros
VAT payable	1 065 475,97
Personal income tax payable	402 402,75
Social Security contributions	147 669,34
Corporate income tax payable	1 533 820,00
Other taxes	13 373,49
	3 162 741,55

17. Corporate income tax and tax situation

The Company is required to file a corporate income tax return on an annual basis. The applicable corporate income tax rate is 35%. Certain deductions are allowed from the resulting tax payable.

Owing to the difference treatment of certain operations for tax and reporting purposes, the book results differ from taxable income. A reconciliation between book profits and taxable income is set out below:

ITEM	Euros
Profits before taxes	24 883 116,07
Adjustments to book profits:	
Permanent differences	59 367,62
Timing differences:	
*arising in current year	2 300 000,00
* arising in prior years	
Taxable income	27 242 483,69

The corporate income tax charge for the year is analysed below:

	Euros
Corporate income tax payable for the year	7 109 780,33
Differences per 2001 tax expense	69 919,95
	7 179 700,28

In accordance with the prudence principle, the Company has not recognised the tax effect of prepaid taxes.

Corporate income tax expense for the year is the result of applying the 35% rate to the tax base and has been reduced by €2,425,088.96 due to the application of tax credits available to the Company. The Company has tax credits for investments in new fixed assets pending application in 2003 totalling €5,863,664.60.

Under current legislation, tax declarations cannot be considered final until the returns filed have been inspected by the tax authorities or the four-year lapsing period has expired. At 31 December 2002 the Company's returns for all the principal taxes to which it is subject are open to inspection by the tax authorities.

18. Income and expense

a) *Transactions with Group and associated companies*

	Euros	
	Group companies	**Associated companies**
Services		
- Provided	2 572 021,57	1 135 351,2
Interest		
- Charged	1 884 494,88	

b) *Personnel expenses*

	Euros
Wages and salaries	6 978 033,90
Severance payments	519 089,63
Social security	1 283 712,91
Other staff welfare expenses	391 470,53
	9 172 306,97

c) *Change in provisions and write-offs of bad debts*

	Euros
Bad debts	84 782,38
Change in provision for bad debts	1 124 236,43
	1 209 018,81

19. Financial income/(expense)

Financial results are as follows:

	Euros
Extraordinary profit:	
Group company interest	1 884 494,88
Yield from investments	1 349 150,36
Exchange gains	344 928,16
	3 578 573,40
Less expense:	
Financial expense	9 875 671,27
Exchange losses	518 054,04
	10 393 725,31
Net financial income /(expense)	(6 815 151,91)

20. Extraordinary profit/(loss)

Extraordinary profit/loss breaks down as follows:

	Euros
Extraordinary profit:	
Extraordinary income	2 063,65
Income arising in prior years	459 169,40
	461 533,05
Less expense:	
Changes in fixed-asset provisions	8 136 469,55
Losses on fixed asset disposals	7 845,91
Extraordinary expenses	2 226 892,24
Prior-year expenses and losses	1 246 930,77
	11 618 138,47
Net extraordinary profit /(loss)	(11 156 905,42)

21. Other information

a) *Average number of employees by category*

Category	**Number**
University graduates (5 year degrees)	65
University graduates (3 year degree)	18
Clerical/technical personnel	52
Auxiliary personnel	4
	139

b) *Directors' remuneration*

In 2002 the Company paid €400,526.08 to the members of the Board of Directors in respect of remuneration plus expenses incurred in the performance of all their duties.

The members of the Board of Directors received no loans or advances from the Company during the year.

c) *Fees of the auditors and any other company related to the auditors*

Fees invoiced by the auditors for all services rendered total €57,040.

22. Environment

In its global operations the Company takes environmental legislation into account. The Group considers that it meets environmental regulations and has procedures in place designed to encourage and assure compliance.

The Company has taken all necessary measures in relation to environmental protection and improvement and to minimising any environmental impact, in accordance with applicable legislation. During the year the Company has not made any environment-related investments, nor has it incurred expenses relating to environmental protection and improvement. It has not been considered necessary to record any provision for liabilities and charges in relation to environmental issues, since there are no contingencies or liability in this area.

23. Post-balance sheet events

On 10 January 2003 the last tranche of the loan granted by the European Investment Bank (EIB) was utilised, amounting to €20 million.

On 23 January 2003, Telemar Norte Leste, S.A. paid in BR1,000.00 in relation to the last capital increase carried out by Hispamar Satélites (Note 7).

On 1 February 2003 the Brazilian company Hispamar Satélites S.A., in which Hispasat, S.A. holds an indirect interest, signed an agreement with Hispamar Ltda., in which Hispasat holds both a direct and an indirect interest, whereby Hispamar Ltda will transfer to Hispamar Satélites S.A. the ownership of the licence for operating the Ku band on the 61º West orbit position.

On 6 February 2003 the Company arranged a short-term credit facility with a financial institution with a ceiling of €1,800,000.00.

24. Statement of source and application of funds

Set out below is the Statement of Source and Application of Funds for 2002 and 2001:

APPLICATIONS OF FUNDS	2002	2001	SOURCES OF FUNDS	2002	2001
Funds absorbed by operations			**Funds generated from operations**	76 049 293,58	73 275 237,49
Formation expenses and loan-arrangement expenses	1 641 625,96	75 126, 51	**Shareholders' contributions**		
			Capital increases	11 889 742,76	
Purchases of fixed assets			Share premium account	76 265 353, 78	
Intangible fixed assets	357 838,49	339 327,65	**Capital grants**		
Tangible fixed assets	83 651 410,01	65 108 426,09			
Investments	95 039 272,47	18 933 518,08	**Long-term debt**	35 000 000,00	83 000 000,00
Acquisition of own shares			**Proceeds from disposal of fixed assets**		
Capital reductions			Intangible fixed assets	0,00	0,00
			Tangible fixed assets	20 463,08	7 467,37
Dividends			Investments	4 008,83	0,00
Deferred expenses	600 000,00	1 876 078,59	**Early redemption or reclassification to current assets of fixed asset investments**		
Repayment or transfer to short-term of long-term debt	38 434 702,60	26 893 926,63			
			Group companies		
			Associated companies		
Provisions for liabilities and charges			Other investments		
Total applications of funds	219 724 849,53	113 226 403,55	**Total sources of funds**	199 228 862,03	156 282 704,86
Surplus of sources over application of funds (Increase in working capital)		43 056 301,31	**Surplus of applications over sources of funds (Decrease in working capital)**	20 495 987,50	

a) *Changes in working capital*

	Euros			
	2002		2001	
	Increases	**Decreases**	**Increases**	**Decreases**
Inventories	152 364,90		1 952,30	
Debtors		6 983 816,53	8 038 637,77	
Creditors	17 915 413,14			17 034 366,24
Current-asset investments		31 198 700,78	49 802 93,66	
Cash at bank and in hand		2 921 843,87	3 507 086,47	
Prepayments and accrued income	2 540 595,64			1 259 942,65
Total	20 608 373,68	41 104 361,18	61 350 610,20	18 294 308,89
Change in working capital		20 495 987,50	43 056 301,31	

b) *Calculation of funds generated from/(absorbed by) operations*

	Euros	
	2002	**2001**
Profit/(loss) for year	17 703 415,79	18 996 001,19
Increases:		
Depreciation and amortisation	47 270 810,63	46 722 475,49
Appropriation to provisions for liabilities and charges	2 300 000,00	2 550 000,00
Appropriation to provisions for decline in value of securities held	8 136 469,55	2 733 441,04
Deferred expenses	630 751,70	2 262 291,14
Losses on disposal of fixed assets	7 845,91	11 028,63
Total increases	58 345 877,79	54 279 236,30
Total funds generated from/(applied to) operations	76 049 293,58	73 275 237,49

TABLE OF CONTENTS

1.- INTRODUCTION.

In fiscal year 2002, HISPASAT continued to consolidate its position in the satellite operator market, achieving the milestone of ensuring the commercial continuity of orbital position 30º West by launching and placing into orbit the HISPASAT 1D satellite to replace the 1A and 1B which are nearing the end of their operational lives.

Also in fiscal year 2002, HISPASAT fulfilled another of its objectives with the culmination of the strengthening of its stockholding and financial structure needed for the development of its international projects. Hence, in the month of April the company EADS-CASA, a Spanish aerospace company, became a shareholder in HISPASAT, S.A. and EUTELSAT increased its shareholdings, reinforcing the strategic alliance reached in the year 2001 with of the world's three largest satellite communication operations.

This operation has consolidated and reinforced the company's resources, which have doubled in the two-year period from December 2000. This in turn has brought them in line with the level of resources needed to garner the support of banking entities to financing the HISPASAT group's expansion plans.

However, it should be noted that the crisis, particularly in the telecommunications sector, which has become even more pronounced throughout fiscal year 2002, has made it necessary to implement new commercial strategies for commercializing space capacity, for embarking upon new geographic markets targeted for commercial actions and for initiating new lines of business, trying to minimize the short term impact of the crisis and ensure the execution of the growth project undertaken by HISPASAT.

In this regard, since the second half of the fiscal year, HISPASAT has taken the initiative to reinforce its commercial relations with its traditional customers, closing agreements that will ensure its presence over the coming years, consolidating the services currently offered and extending their contractual commitments in time. This will, in turn, make it possible to build business volume based on current market circumstances, with the clear priority of building customer loyalty.

2.- STRATEGIC CONSIDERATIONS

In 2002, HISPASAT has maintained its development following the strategic guidelines proposed by its Executive Committee and approved by its Board of Directors, reacting to the serious crisis affecting the markets in general and telecommunication services in particular.

The following events are noteworthy in this regard:

- The fourth satellite in the HISPASAT series, the 1D, was successfully launched in September of 2002 with a threefold objective:

a) to replace the 1A and 1B satellites whose useful lives come to an end in 2002 and 2003, respectively.

b) to provide additional capacity to the HISPASAT system in the Spanish orbital position 30º West with American connectivity and

c) to provide connectivity with the Near East, to establish communication with that region from the US in a single jump.

Once in operation, the services of the 1A satellite and most of the 1B's were transferred, although the services on the X band frequency for the Ministry of Defence will be maintained until the end of its useful life.

- As part of the policy of reinforcing the company's shareholder structure, EADS–CASA has become one of the shareholders in HISPASAT, with 5% of the share capital, and EUTELSAT has increased it interest to 27.6%, consolidating its position as the Company's leading shareholder.

- As a European company, HISPASAT participated, at the beginning of the year, in the creation of the European Association of Satellite Operators, EASO, acting as the Vice-President of the Association and organizing a meeting of its Council in Madrid in the month of June during Spain's Presidency of the European Union.

- Within the scope of new growth projects and in keeping with the strategic decision to participate in other segments of the value chain of satellite telecommunication services closer to end users, HISPASAT started making preparations in 2002 to provide satellite-based IP transport services to multimedia service operators and INTERNET access via satellite.

- Finally, to maintain its presence at forums related to the Galileo Project to detect new business opportunities, in March HISPASAT signed a Memorandum of Understanding in Brussels, along with other European countries, to create Galileo Services, an entity devoted to the development of Galileo-based services and applications.

2.1 ORBITAL-SPECTRUM RESOURCE/FREQUENCY COORDINATION

Throughout 2002, HISPASAT has participated actively in European and world forums created to analyze operational restrictions on the 13.75 – 14.00 GHz band corresponding to the Fixed Satellite Service, promoting and conducting studies designed to reduce such limitations, which must be confirmed by the upcoming World Radiocommunication Conference (Geneva, June 2003).

Also this year, work continued on the coordination of the Ka band on 30ºW, establishing contacts with the Italian and Japanese governments and other satellite operators. The coordination process with the previously-mentioned government authorities and some of the operators involved has concluded.

On another front, while the Radiocommunications Office has not yet published the filing on the new frequencies used by the HISPASAT-1D satellite in America, conversations have continued throughout the year with American operators for the use of the 14 – 14.25 / 11.7 – 11.95 GHz band over America. With the satisfactory conclusion of the coordination

process, the coordination of this network with the United States government is also considered concluded.

Coordination efforts also continued on the Ku and Ka bands at orbital positions 36ºW, 39ºW, 38.5ºW, 51.5ºW and 54.5ºW. Coordination agreements were reached for the Ka band and contacts have been established with another satellite operator with a view toward concluding the coordination agreements for both bands in 2003.

Also noteworthy are the cooperative efforts with the rest of the members of ESOA for the definition of common positions of the Association of European Satellite Operators in view of the upcoming World Radiocommunication Conference (WRC 2003).

2.2 PARTICIPATION IN INTERNATIONAL FORUMS

International Telecommunications Union (ITU)

In order to monitor the evolution of the recommendations, of the possible modifications of the Radiocommunications Regulation at the upcoming World Conference (WRC-03) and the Procedural Guidelines of the ITU, HISPASAT has participated actively in different ITU groups:

- Plenipotentiary Conference
- ITU Council. HISPASAT, as a member of the Radiocommunication Sector and the only Spanish satellite operator, participates on the ITU Council, the highest governing body of this organization between conferences, at the invitation of the Spanish administration.
- Radiocummunication Advisory Group.
- Ad-hoc group on cost recovery in satellite networks.
- Advisory Group for studying the delay in setting up satellite networks.
- 6S (Satellite radio broadcasting service)
- WP 4A (Efficient use of the orbit-spectrum resource for the Fixed Satellite Service).
- JTG 4-7-8 (Sharing of the 13.75 – 14.0 GHz band)
- Conference Preparation Meeting (CPM-2002). Drafting of the final report following the meeting held in November 2002 on the WRC-03 Agenda items.

European Mail and Telecommunication Conference (EMTC)

- Electronic Communication Committee. The company continues to participate in this new Committee which arose out of the merger of the former Regulatory Committee (ECTRA) and the Radiocommunication Committee (ERO) because of the implications for satellite communications.

- HISPASAT has participated actively in the EMTC work groups that establish the common European positions to be defended at WRC-03. Among them, the following are some of the most noteworthy: CPG, SE 16, PT-1, PT-2 and PT-3. HISPASAT is also the European coordinator of two of the items on the agenda of the upcoming WRC-03, which will serve to ensure more effective sharing between Fixed Services and Satellite Broadcasting Services.

Spanish-American Association of Telecommunications Research and Study Centres (AHCIET)

As a member of this association, HISPASAT participates primarily on its Regulatory Committee and operator meetings, as well as the General Assembly.

- European Commission (EC)
- HISPASAT participates on the "Satellite Action Plan" (SAP) and Regulatory Group (REG).

Spanish-Andean Forum

- Organized by the Spanish Ministry of Science and Technology, the company participated in the II Spanish-Andean Forum held in Quito (Ecuador). HISPASAT participated as a co-sponsor and presenter.

2.3 PARTICIPATION IN NATIONAL FORUMS

- The company has participated in the activities of the National Association of Electronics Industries (ANIEL) through the V Group of Telecommunication Service Operators. This participation has included the drafting and discussion of the regulatory standards affecting our sector by the Administration and other activities related to Spanish industry.

- Participation as an associate in the activities of AUTEL, the Association of Telecommunication Users.

2.4 SATELLITE LANDING RIGHTS

In 2002, landing rights were obtained for the HISPASAT-1C satellite in the following countries: Ecuador, Honduras, Nicaragua, Paraguay, Uruguay (definitive license) and Surinam.

Negotiations continued to obtain them in Mexico and Venezuela. Negotiations are likewise ongoing in other countries of less commercial interest such as Jamaica and Trinidad-Tobago.

The process of submitting applications for the HISPASAT-1D satellite has also commenced.

2.5 LICENSES AND CONCESSIONS

- A "C" type general authorization was obtained from the Telecommunications Market Commission (TMC) which will enable HISPASAT to render the following services:

    - Network interconnection.
    - Internet access provider.
      Content distribution

- An application has been filed with the TMC for a C2 type license which would enable HISPASAT to render broadband services via satellite using its own network.

2.6 GALILEO PROJECT

From the point of view of the Galileo Project, the most remarkable event of 2002 was the approval of the program and mandate for the implementation of the project's management structure through a "joint undertaking". It will be composed of members of the European Commission, the European Space Agency and member state representatives. The selection process to appoint its top executive commenced at the end of the year.

The presence of the dominant company, HISPASAT is seen primarily on two forums related to the Galileo Project: The Spanish company Galileo Servicios y Sistemas (GSS), which in turn holds a stake in the European enterprise Galileo Industries (GaIn) and the Galileo Services (GS) European Association.

With regard to GSS, negotiations are ongoing to finalize the shareholders' agreement to enable it to enter the GaIn European Consortium with a stake of 12% of its capital. The agreement is expected to be formalized in the first quarter of 2003.

In the industrial area, the European Space Agency has put the supply of the first GALILEO satellite, named GSTB V2 (Galileo System Test Bed V2), out to tender. The purpose of this satellite is to demonstrate certain system technologies, such as the high stability atomic clocks, and to assist with the process of international frequency coordination following the last World Radiofrequency Conference held in Istanbul. The GaIn consortium has presented an offer and, given progress of the shareholding talks mentioned above, GSS participated in the presentation of the offer. The proposals are now being analyzed and evaluated and some progress is expected to occur in the second quarter of 2003.

Economic and market studies are being conducted within the GSS framework geared toward the rendering of value added services based on navigation systems such as fleet management, land vehicle positioning, precision maritime navigation in port areas, etc. The goal here is to make headway on the early introduction of this type of services in order to capture market share before the new GALILEO system becomes operational in 2008.

GS has presented several projects related to the Galileo system applications to the VI Framework Program of the EU. The drafting of the articles of association is complete which means that the GS Association, headquartered in Paris, will be set up in the early months of 2003.

3.- SATELLITE SYSTEM

3.1 SATELLITES IN ORBIT

The fleet of satellites making up the HISPASAT system, to which a fourth flying unit was added in the month of September, has functioned satisfactorily throughout the fiscal year, performing to its fullest capabilities.

The expected useful life of each one of the satellites is in keeping with the initial forecast made at the time of launch.

Following the satisfactory launch of the HISPASAT 1D satellite, it was positioned in the orbital window and in-orbit testing of the satellite was conducted. Following its acceptance in orbit, the commercial operation of the satellite commenced according to plan.

3.2 GROUND CONTROL SEGMENT

Throughout 2002, work was completed on the implementation of the new TTC location at INTA's Maspalomas Space Complex in Gran Canaria, according to the specific collaboration agreement signed in 2001. This facility is also related to the operation of the new 1D satellite. One of the advantages of this new venue is the increased location precision which makes it possible to include a greater number of satellites in the 30º West orbital window.

The Arganda Control Centre is fully operational in as much as the new 1D satellite is concerned, which was launched in September 2002, with the 1A, 1B and 1C satellites continuing to operate as usual.

4.- OPERATION

4.1. COMMERCIAL ACTIVITY

Throughout fiscal year 2002, there was intensive commercial activity in relation to the sale of the available capacity of the HISPASAT 1C satellite and the introduction of the HISPASAT 1D satellite launched in September of that year. The main commercial objectives in 2002 included the consolidation of existing customers and services and market diversification.

Throughout 2002, despite the crisis in the telecommunications sector which has clearly had an impact on lower contracting rates, the occupancy rate of the HISPASAT system on was around 85%.

Notable among the commercial activities were the agreements reached with the current customers of the system who used the HISPASAT 1A satellite for their migration to the recently launched HISPASAT 1D. This event guarantees a high occupancy rate for our system and the continuation of the services rendered thus far.

Also in 2002, new customers began operating with the system, thereby expanding and diversifying our portfolio of customers. Some of them provide transatlantic services, where the HISPASAT system is clearly competitive in the data communications market.

Throughout 2002 the coverage of our services has extended to new territorial markets including Cuba, the Caribbean and Morocco.

In 2002, commercial activities have clearly demonstrated the market trend toward lower capacity contracts with shorter terms of 3-5 years. On the other hand, there was an increase in the demand for IP telecommunications services, broadband and multimedia services as opposed to traditional radio broadcasting services. This, however, has in no way detracted from the importance to HISPASAT of the agreement concerning the development of a European-American Digital Platform which, in addition to those signed previously, will enable the Company to position itself as a point of reference in the audio-visual content transport market to America.

Agreements were also reached for occasional and planned uses of capacity. In this regard, HISPASAT has achieved international renown thanks to the events distributed by its fleet, with the transmission of diverse sporting events (Formula 1, Tour de Francia, Vuelta a España, ,…) and news programs.

Also in 2002, the new corporate VSAT network became operational. This network makes its possible for customers to interconnect hundreds of locations in Europe and America. The new satellite telecommunications network is geared, in principle, to data transmission, with the possibility of expanding into voice communications in the future.

Thanks to the success in migrating from the audio-visual sector to satellite-based broadband services and in penetrating new markets (America, Europe and the Mediterranean basin), it is safe to predict sustainable growth for HISPASAT.

Finally, it should be noted that during the fiscal year to which this Directors' Report refers, the services contracted with the Ministry of Defence have continued to be rendered satisfactorily using X bank capacity and the backup Ku band network which constitute the governmental mission of the system.

4.2 ACCESS TO BROADBAND, MULTIMEDIA SERVICES AND INTERNET

HISPASAT is conscious of the growing need for broadband communications brought about by the convergence of information and entertainment which demands ever more rapid connections to global information infrastructures. The target markets of broadband services vary from one system to another, although in most cases Internet access is the star service on the market. Once a multimedia service platform is established, there is an interminable list of final services that can be offered by HISPASAT: file transfer, www, e-commerce, telework, VPN, LAN interconnection, etc.

HISPASAT considers, without a doubt, that the future lies in broadband and new technologies. Proof of this is that it was a pioneer in the development of the DVB-S standard which not only involves the emission of TV signals in MPEG-2 format but also constitutes the transportation support for most digital communications, whether video, audio or data. On the basis of this, HISPASAT continues working on numerous technological projects focusing on interactivity, the satellite return channel, the design of IP networks, voice over IP and TCP-SAT tunnels.

Moreover, the different multimedia services (associated with INTERNET technology) which HISPASAT can offer on its satellite system are likewise potentially interminable. Many are already being offered by our satellites, the most significant of which include:

- Backbone services, these being considered the links between two points of an INTERNET data throughput with capacities ranging between 8 Mbps and 52 Mbps;
- Internet services to end users
- VPN services with Internet access using VSATs or DVB-RCS.

As a result of this work, during fiscal year 2002 HISPASAT implemented the pilot phase of a satellite-based network of bidirectional services which makes it possible to provide IP connectivity and Internet access services. The network is based on the DVB-S and DVB-RCS international standards. With this network, HISPASAT offers its customers access to the telecommunications infrastructures that enable a rapid and widespread broadband deployment. HISPASAT will commercialize this network in 2003, targeting the operators who can configure their services on it. HISPASAT is thus preparing itself for a foreseeable demand for this type of services in the years to come, offering capacity to companies as part of the global coverage of a satellite system and covering areas that are unlikely to have terrestrial infrastructures with communication capacity, regardless of their location.

4.3 CONSULTING SERVICES

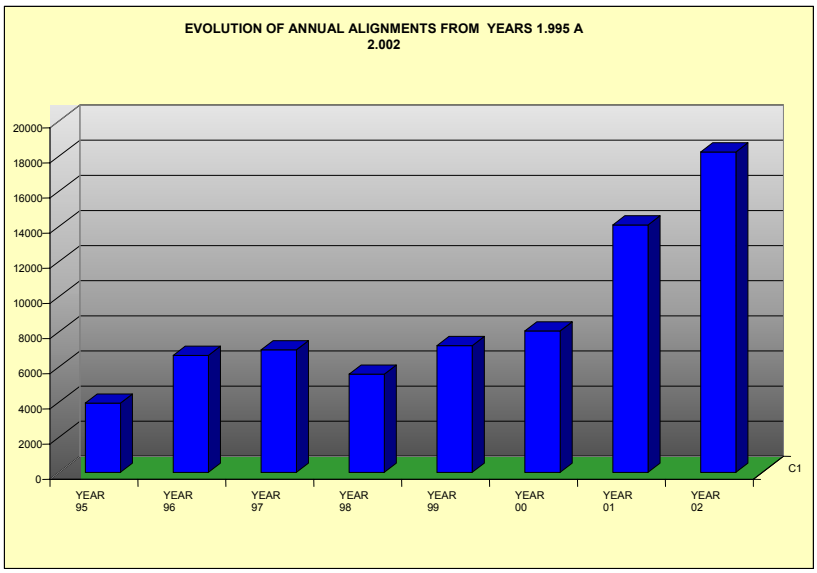
HISPASAT has continued to offer consulting services to potential customers and to develop technological project to facilitate the development and use of satellite applications. The main aspects related to this activity are as follows:

- Technical analysis and design of new service networks.
- International coordination of frequencies of different networks and orbital positions.
- Participation on broadband and mobile services communications technology projects.

4.4 NETWORK DESIGN. NETWORK MANAGEMENT AND CONTROL

During fiscal year 2002, the transmission trend continued to grow due fundamentally to the increase in the digital TV transmission equipment installed by system users and consequently the increased number of TV carriers by transponder.

The total number of alignments in 2002 was eighteen thousand two hundred and thirty-three, a historical record in the number of alignments in one year and a 29% increase over the year before.



Regarding the start-up of new earth stations, in 2001 more than 600 new stations were put into service, 52 of which are earth stations with diameters in excess of 1.5 m. It should also be noted that 42 new transportable stations have been added to the HISPASAT system this year, which has contributed to the consolidation of the occasional services offered.

4.5 SERVICES AND APPLICATIONS

It is important to note the influence which increased Internet usage is having on the satellite market and business. In fact, in the last two years the occupancy of the HISPASAT system in this segment has grown exponentially, positioning the occupancy of these applications at 21%, a figure which could continue to rise gradually over the years to come.

5.- MARKETING AND CORPORATE IMAGE

The main objective of the institutional and commercial communication activities during 2002 was to promote the commercial presence of Hispasat in both domestic and international markets and to reinforce the company's institutional image at the same time. Hispasat was present at the most relevant domestic and international telecommunications trade shows and events, actively participating in a large number of international meetings and seminars.

5.1 TRADE SHOWS AND EVENTS

The Company attended the most relevant trade shows and events in the telecommunications sector:

- ***NAB***: Sponsored each year in the month of April in Las Vegas (USA) by the National Association of Broadcasters, HISPASAT had its own stand to support the activities of its Commercial Department.

- *IBC*: In September 2002, HISPASAT attended the Amsterdam Fair where it shared a stand with Eutelsat. This international trade show on radio broadcasting is the main European event in terms of sector technology. The new addition to our fleet, the Hispasat 1D, was presented to European market at this event.

The institutional presence of Hispasat extended to other forums such as the XI Spanish-American AHCIET Meeting of International Traffic Operations held in the Dominican Republic from 3-5 April. HISPASAT participated along with 30 other international traffic operators. First ISCE Congress (International Satellite and Communication Exchange), Long Beach (California 27-29 August).

HISPASAT also participated actively throughout the year in the development of relevant national events in the sector.

- ***Matelec***: October 2002 in Madrid. At this show, HISPASAT and Vía Digital presented to installers the agreement signed by both companies whereunder they will offer all newly built homes the opportunity to install the technology needed for direct reception of the HISPASAT satellite system signals, including the channels and interactive services offered by Vía Digital.

- ***TECNIMAC*** *Fair*, with satellite Internet demonstrations.

- ***SIMO 2002***, where the Group participated with a presentation on Digital Infrastructures.

- ***XII TELECOM R+D*** *Symposium*, November 2002, at the Communications Palace of the Ministry of Science and Technology. The Company presented its projects related to signal reception on ships and on-board processing in HISPASAT satellites.

- ***Broadband Symposium***, sponsored by *Recoletos Conferencias,* 23 and 24 May in Madrid.

- ***"I Latin American Business and Economic Exchange"***, *Grupo Recoletos,* 25 June, Hotel Ritz, Madrid.

- ***Conecta Public Sector Congress, 2002 - IIR*** (24 - 26 June 2002).

- ***VIII IESE Telecommunications Sector Meeting***, Madrid, 28 and 29 May.

5.2 LAUNCH OF HISPASAT 1D

Some of the most notable activities in this regard, however, referred to the planning and execution of a communication plan for the launch and placing into orbit of the 1D satellite, which occupied a large portion of the Group's communication activities in 2002 and which achieved widespread media coverage of the event. HISPASAT, along with numerous guests including high-ranking government officials, some of our board members, shareholders and customers and executives from the telecommunications and audio-visual sectors, chartered a flight to witness the event live from Cape Cañaveral. A cocktail party and dinner was held simultaneously at the "*Palacio de Congresos y Exposiciones"* in Madrid, where guests could watch the launch live on closed circuit television. The launch drew broad media coverage, with more than three hours of televised information, almost six hours of radio broadcasting and full coverage in the press.

5.3 ESPACIO HISPASAT

Broad media coverage was also given to the "Espacio Hispasat" exhibit held at the *Palacio de Congresos y Exposiciones* in Madrid on 16, 17 and 18 September, to show the public all that is involving in the launch of a communications satellite and the companies that collaborate on building it, financing it and placing it in orbit. As many as 15 companies related to HISPASAT and the construction of the 1D satellite collaborated on the exhibit.

5.4 INSTITUTIONAL ACTIVITY

There was also intense activity on the part of HISPASAT in the area of institutional relations, where the most significant event was undoubtedly the visits of H.R.H. the Prince of Asturias on 20 March 2002 to the Satellite Control Centre in Arganda del Rey, where he was able to see how the fleet of satellites is supervised and controlled and the highly advanced technical equipment that is used.

The Satellite Control Centre in Arganda del Rey also opened its doors to the public during the II Science Week organized by the Community of Madrid, the goal of which is to create a closer and more harmonious relationship between science and society. Because of the resounding success of and interest in this event, the number of visits had to be increased, with visits scheduled through March 2003.

One of the areas where much of the Company's institutional activities were focused in 2002 was education. HISPASAT sponsored the Summer Course offered in El Escorial by the Complutense University of Madrid entitled "Communication Satellites in Today's

World" offered from 22 to 26 July. The course gave students an overview of the world of satellite communications and its use in everyday life. The presentations and round tables addressed issues such as expansion and business possibilities related to communications satellites; their contribution to media expansion and the development of digital television platforms and theme channels. In December, the *Universidad Francisco de Vitoria* in Madrid sponsored the HISPASAT WEEK to introduce students to the operation of the Spanish satellite communication system.

Within the framework of its international activities, HISPASAT also participated in the XII Latin American Summit held on 15 and 16 November in Bávaro, Dominican Republic. The presence of HISPASAT at this event, thanks to its close collaboration with the Secretariat of Latin American Cooperation (SECIB), reinforces the strategic vocation of the Spanish satellite company as a link between the countries of the Latin American community and continental Europe.

6.- TECHNOLOGICAL DEVELOPMENT PROJECTS

Throughout 2002, HISPASAT maintained its serious commitment to R+D. A detailed description of its participation in different research projects focused on advanced telecommunication services is given below.

ACCESS-maints

As part of the EU's V Framework Programme, the ACCESS-maints programme came to a successful close. The goal of this programme was to develop a knowledge management platform for the sharing of knowledge and experience in the space industry. The project was carried out in collaboration with EADS-CASA, the Polytechnic University of Turín and other European partners. A demonstration was offered to the European Commission.

HPOD (High Precision Orbit Determination)

The purpose of the HPOD project (High Precision Orbit Determination), carried out jointly with CRISA for the European Space Agency, was to develop a high-precision, low-cost satellite location system based on interferometry. The programme concluded successfully following an extensive battery of tests which confirmed the services offered by the system.

OBP PROJECT/NATIONAL SPACE PLAN - PROFIT

The OBP Project (On-board Processing) is aimed at the development of a regenerative payload that makes it possible to process the signals generated by earth stations on board the satellite, unlike current payloads which behave transparently. This type of payload makes it possible to undertake advanced multimedia services, develop new digital televisions platforms and provided high quality Internet services. With the appearance of the AMERHIS initiative for a regenerative payload for the AMAZONAS project, the activities of the National Plan have focused on this objective as a complement to the activities carried out within the framework of the European Space Agency.

THE IBIS PROJECT

HISPASAT, through the IBIS Project, part of the IST Programme of the V Framework Program of the European Commission in relation to the previous project, played an essential role in the commitment to this new concept and its development: the change from a transparent system to an on-board processing system.

FLEXIMATV or the Flexible Solution to Collective Installations

In 2002, the Group continued to work on the European FLEXIMATV (Flexible and Intelligent (S)MATV Systems) project, which develops flexible and innovative solutions for digital television distribution on community antenna systems (SMATV) using head-ends controlled by the user. The project is part of the V Framework Program sponsored by the European Commission (IST: Information Society Technologies) and is scheduled to last 18 months. Along with HISPASAT, which acts as the coordinator of the project, there is a consortium of nine European companies.

HISPASAT believes it is strategically important to continue developing flexible and adequate solutions linked to the digital television market via satellite which offer better and better solutions to end customers and facilitate present and future deployment. In Europe, the potential target sector for these solutions is enormous, with dozens of millions of users connected to community SMATV installations.

MOBILITY: MOBILITY: the first step toward mobile services using HISPASAT satellite systems

HISPASAT acts as the coordinator of the Mobility project which is sponsored and partially financed by the European Commission. The goal of this project is to make it possible to receive the DVB-S signals in which innumerable programs on satellite-based digital television platforms are currently transmitted, from ships, airplanes and terrestrial vehicles within the coverage area of HISPASAT satellites.

In 2002, the project developed the array antenna for TV reception on ships which is scheduled for on-ship testing during the first quarter of 2003.

7.- ECONOMIC ASPECTS

7.1 INCOME STATEMENT

What follows is a summary of the performance of the principal budget items that explains the evolution of results during the fiscal year in question:

Income

Operating income for fiscal year 2002 was 113.22 million euros, which represents an increase of 5.7% over the year before. The operating income is composed of income from the leasing of space capacity, other operating income and work performed by the company on its own fixed assets.

The income from the leasing of space capacity was 102.49 million euros, an increase of 3.6% over the year before, in a year marked by a weakening of demand as a consequence of a worldwide crisis in the telecommunication sector.

The item entitled "Ancillary income and other management income", which represents slightly more than 4% of the operating income, was 4.7 million euros at the end of 2002, compared to 3,8 million in 2001.

Finally, work performed by the company for its own fixed assets amounted to 6 million euros, an increase of 36% over the figure for 2001 as a consequence of the continuation and completion of the Hispasat 1D programme, successfully placed in orbit at the end of fiscal year 2002.

Operating Expenses

Operating expenses, which include provisions, external services, personnel expenses, taxes and other management expenses, totalled 21.8 million euros in 2002 compared to 17.8 million incurred in 2001.

The bulk of the increase in this item compared to the year is found under the heading of "Other operating expenses" with an increase of 1.8 million euros. The expenses incurred in connection with the launch of the Hispasat 1D satellite have had an impact on the volume of expenses for the fiscal year, particularly the expenses associated with travel, advertising, marketing and institutional relations.

Personnel costs also increased, primarily due to the additional staff needed in the commercial area to deal with the commercial challenges faced by the Company.

With regard to depreciation, the most relevant item on the Company's income statement, there was an increase of 1% to 47.27 million euros due to the fact that the 1D satellite began to depreciate in December 2002.

There was a variation of 1.2 million euros in the trade provisions item.

EBITDA for fiscal year 2002 rose by 2.3% to 91.3 million euros, compared to 89.2 million in 2001. This growth is motivated by the improved performance of income compared to the increase in operating expenses. The EBITDA margin is 80%, one of the highest in the sector.

Financial Result

The net loss for fiscal year 2002 was 6.8 million euros, a decrease of 3.97 million compared to the year before. This reduction is due primarily to the combined effect of lower costs and higher financial revenues. The capital increases ore. This reduction is due primarily to the combined effect of lower costs and higher financial revenues. The capital increases have reduced the level of indebtedness, as a consequence of which financial costs are lower. Financial income was also generated as a consequence of cash investments during the fiscal year, along with the financing income earned on inter-group loans made by the parent company.

Profit/Loss from Ordinary Activities

With regard to the evolution of operating income, expenses and financial results mentioned above, the profit from ordinary activities in 2002 was 36 million euros, up 13.5% over 2001.

Profit/Loss before Taxes

Extraordinary net losses were 11.1 million euros as opposed to 5.3 million in 2001. This increase is basically due to the negative evolution of exchange rates affecting the Brazilian real, which caused a variation of 8 million euros in management portfolio provisions.

Net Profit

The corporate tax expense was 7.2 million euros, similar to the figure of 7.4 million euros for fiscal year 2001.

Finally, the net profit for the fiscal year was 17.7 million euros.

7.2 INVESTMENT ACTIVITY AND FINANCING

Investment Activity

Hispasat invested 84.6 million euros in tangible and intangible fixed assets in fiscal year 2002, most of which went to the placing in orbit of its fourth flying unit, the 1D satellite.

The company invested an additional 95.039 million euros in Group companies, basically Hispasat Canarias and Hisdesat. These funds were allocated to the previously devised investment plan, in particular to the Amazonas and Spainsat projects.

Financing

On 8 April 2002, the two capital increases approved by the Extraordinary General Meetings of Shareholders held on 28 February 2002 and 22 March 2002, respectively, were executed. The share capital was increased by 6,097,148.96 euros. The new shares were issued with an issue premium, bringing the actual subscription price to 45,206,565.96 euros.

The net indebtedness of Hispasat increased in fiscal year 2002 by 29.5% to 188.2 million euros. The funds were allocated to the financing of the current investment plan.

The main financing operations carried out during the fiscal year were as follows:

- On 18 January 2002, the Company took the second instalment of a loan granted by the European Investment Bank on 15 October 2001 in the amount of 20,000,000 euros.

- On 26 July 2002, a third instalment of the same loan in the amount of 15,000,000 euros was taken.

ACKNOWLEDGEMENT: I, Pedro Ramón y Cajal, Secretary of the Board of Directors, in compliance with article 171 of the Corporations Act, do hereby certify that these consolidated Annual Accounts composed of the Balance Sheet, the Profit and Loss Account and the Annual Report, as well as the Directors' Report for fiscal year 2002 are hereby formulated and signed by the Directors along with the Secretary of the Board, who also signs on the back of the pages on which these documents are contained, typed on one side only. In Madrid on 21 March 2003.

HISPASAT, S.A.

Audit Report,
Consolidated annual accounts at 31 December 2002
and Directors' Report for 2002

HISPASAT, S.A. Y Sociedades que componen el Grupo HISPASAT

PROFIT AND LOSS ACCOUNTS FOR THE YEARS ENDED DECEMBER 31, 2002 AND 2001
(Expred in euros)

ASSETS	2002	2001	LIABILITIES	2002	2001
Called up share capital not paid	7 721 004,00	0,00	**Capital and reserves**	269 785 370,47	163 767 790,29
Fixed assets	507 588 667,34	377 123 582,09	Share capital	121 946 379,94	110 056 637,18
			Share premium account	76 265 353,78	-
Formation expenses	2 033 751,33	1 340 167,17	Other reserves of the parent company	57 639 137,81	37 225 998,36
Intangible fixed assets	15 804 773,14	12 890 825,75	Reserves in companies consolidated by equity method	(138 033,26)	(1,50)
Tangible fixed assets	444 542 316,86	344 132 161,33	Differences on currency translation	(10 415 756,62)	(3 789 951,44)
Investments	45 207 826,01	18 760 427,84	Profit/(loss) for the year	24 488 288,82	20 275 107,69
Deferred expenses	2 921 962,20	2 952 713,90	**Minority shareholders**	7 721 004,00	-
			Provisions for liabilities and charges	4 850 000,00	2 550 000
			Creditors falling due after more than one year	167 606 001,78	171 040 704,44
			Bank loans	167 606 001,78	171 040 704,44
Current assets	50 185 378,69	85 503 368,57	**Creditors falling due within one year**	118 454 635,98	128 221 169,83
Inventories	236 884,62	84 519,72	Bank loans	39 809 760,42	27 628 862,71
Debtors	21 108 834,28	28 045 409,86	Amounts owed to associated companies	7 720 734,60	44 737 998,90
Current-asset investments	20 921 365,31	49 802 933,66	Trade creditors	20 230 886,32	21 241 751,47
Cash at bank and in hand	1 420 745,37	3 617 267,58	Other creditors	38 038 151,27	23 750 897,02
Prepayments and accrued expenses	6 497 549,11	3 953 237,75	Accruals and deferred income	12 655 103,37	10 861 659,73
	568 417 012,23	465 579 664,56		568 417 012,23	465 579 664,56

HISPASAT, S.A. Y Sociedades que componen el Grupo HISPASAT

BALANCES DE SITUACIÓN CONSOLIDADOS AL 31 DE DICIEMBRE DE 2002 Y 2001
(Expresados en euros)

EXPENSES	2002	2001
Raw materials and consumables	138 023,37	78 229,14
Personnel expenses	9 172 306,97	7 067 152,97
Fixed asset depreciation	47 270 810,63	46 722 475,49
Change in trade provisions	1 209 018,81	2 782,78
Other operating charges	12 573 487,62	10 714 335,71
External services	8 746 488,62	7 925 661,15
Taxes	20 133,19	1 795,56
Other administrative expenses	3 806 865,81	2 786 879,00
Operating profit	44 739 668,28	40 537 692,96
Share in losses of companies consolidated by equity method	1 223 583,22	147 381,78
Profit from ordinary activities	34 816 438,27	29 590 159,22
Profit before taxes	31 667 989,10	26 990 907,52
Corporate income tax	7 179 700,28	6 715 799,83
Profit for the year	24 488 288,82	20 275 107,69

INCOME	2002	2001
Net turnover	102 494 004,01	98 921 237,45
Own work capitalised	10 456 489,11	4 405 455,49
Other operating income	2 152 822,56	1 796 975,11
Net financial expense	8 699 646, 79	10 800 151,96
Net extraordinary losses	3 148 449,17	2 599 251,70

HISPASAT, S.A. and companies making up the HISPASAT Group

Consolidated Director's Report

1. Introduction

In fiscal year 2002, the HISPASAT group continued to make progress on the construction of its growth project, executing the investments previously planned and initiated in prior fiscal years, which can be grouped into three basic projects:

- Guaranteeing the commercial continuity of the 30º West orbital position by the launching and placing in orbit of the HISPASAT 1D satellite.

- Developing the governmental line of business of the company HISDESAT.

- Broadening the target market through the Amazonas Project, part of the international expansion process.

The most relevant actions in 2002 in relation to these three basic projects were as follows:

► With regard to the first, the most noteworthy milestone was the placing into orbit of the 1D satellite in September to replace the 1A and 1B satellites which are nearing the end of their operational life.

► Secondly, the remainder of the share capital investment in the company HISDESAT was paid during the fiscal year. The share capital is now paid in full. The share capital of HISDESAT is 108 million euros, 43% of which is held by HISPASAT. At the operational level, the most notable event was the on-time execution of the SPAINSAT and XTAR-EUR satellites and the successful completion of the Critical Design Review (CDR) process.

► Finally, work on the AMAZONAS project continued, with the implementation of a management structure in Brazil in September staffed by personnel from the parent company. From a financial perspective, the investment company HISPASAT CANARIAS was provided with the funding necessary to fulfil its investment commitments. Also noteworthy was an agreement signed with the European Space Agency and with the industrial consortium in charge of manufacturing a regenerative payload to fly on the AMAZONAS satellite, at no cost to HISPASAT, with an on-board processor called AMERHIS that will be used to develop new services and applications designed for a more efficient use of space capability.

From a commercial point of view, following the association agreement signed with TELEMAR for the joint development of the Amazonas Project at the end of 2001, in June of this year a satellite capacity lease agreement was signed for the C band transponders of the AMAZONAS.

Also in fiscal year 2002, the dominant company fulfilled another of its objectives with the culmination of a process to strengthen its stockholding and financial structure for the development of its international projects. Hence, in the month of April the company EADS-CASA, a Spanish aerospace company, became a shareholder in HISPASAT, S.A. and EUTELSAT increased its shareholdings, reinforcing the strategic alliance reached in the year 2001 with one of the world's three largest satellite communication operations.

This operation has consolidated and reinforced the company's resources, which have doubled in the two-year period from December 2000. This in turn has brought them in line with the level of resources needed to garner the support of banking entities needed to finance the HISPASAT group's expansion plans.

However, it should be noted that the crisis, particularly in the telecommunications sector, which was exacerbated throughout fiscal year 2002, has made it necessary to implement new commercial strategies in order to develop new formulae for commercializing space capacity, embark upon new geographic markets targeted for commercial actions and initiate new lines of business, while trying to minimize the short term impact of the crisis and ensure the execution of the growth project undertaken by the HISPASAT group.

In this regard, since the second half of the fiscal year, HISPASAT, S.A. has taken the initiative to reinforce

its commercial relations with its traditional customers, closing agreements that will ensure its presence over the coming years, consolidating the services currently offered and extending their contractual commitments in time. This will, in turn, make it possible to build the group's business volume based on current market circumstances, with the clear priority of building customer loyalty.

In short, HISPASAT maintains its commitment to its strategic objectives of expansion and internationalization which will result in the generation of value for its shareholders in the medium term.

2. Strategic considerations

In 2002, the HISPASAT group has maintained its development following the strategic guidelines proposed by its Executive Committee and approved by its Board of Directors, reacting to the serious crisis affecting the markets in general and telecommunication services in particular.

The following events are noteworthy in this regard:

- The fourth satellite in the HISPASAT series, the 1D, was successfully launched in September of 2002 with a threefold objective:

  a) to replace the 1A and 1B satellites whose useful lives come to an end in 2002 and 2003, respectively,

  b) to provide additional capacity to the HISPASAT system in the Spanish orbital position 30º West with American connectivity and

  c) to provide connectivity with the Near East, to establish communication with that region from the US in a single jump.

  Once in operation, the services of the 1A satellite and most of the 1B's were transferred, although the services on the X band frequency for the Ministry of Defence will be maintained until the end of its useful life.

- As part of the policy of reinforcing the company's shareholder structure, EADS–CASA has become one of the shareholders in the dominant company with 5% of the share capital and EUTELSAT has increased it interest to 27.6%, consolidating its position as the Company's majority shareholder.

- As a European company, HISPASAT, S.A. participated, at the beginning of the year, in the creation of the European Association of Satellite Operators, EASO, acting as the Vice-President of the Association and organizing a meeting of its Council in Madrid in the month of June during Spain's Presidency of the European Union.

- With regard to its international expansion, focused on the development of HISPASAT as a leading operator in Latin America, definitive agreements were signed in 2002 with the Brazilian partner in the Amazonas project, Telemar. This permits the use of its license on the satellite's C band and its contractual commitment as the user of a large part of the satellite capacity. In this regard, HISPASAT, HISPAMAR SATÉLITES and Telemar have jointly prepared a Service Transfer Plan to be executed in the year 2004 when the Amazonas satellite becomes operational.

- Several meetings were held with ANDESAT, the satellite operator of the Andean Accord, to coordinate frequencies on 61º West and to establish a framework of collaboration between both companies for the Andean Region and the rest of the American continent.

- Within the scope of new growth projects and in keeping with the strategic decision to participate in other segments of the value chain of satellite telecommunication services closer to end users, HISPASAT started making preparations in 2002 to provide satellite-based IP transport services to multimedia service operators and INTERNET access via satellite.

- Finally, to maintain its presence at forums related to the Galileo Project to detect new business opportunities, in March HISPASAT signed a Memorandum of Understanding in Brussels, along with other European countries, to create Galileo Services, an entity devoted to the development of Galileo-based services and applications.

2.1 ORBITAL-SPECTRUM RESOURCE/FREQUENCY COORDINATION

Throughout 2002, the HISPASAT group has participated actively in European and world forums created to analyze operational restrictions on the 13.75 – 14.00 GHz band corresponding to the Fixed Satellite Service, promoting and conducting studies designed to reduce such limitations, which must be confirmed by the upcoming World Radiocommunication Conference (Geneva, June 2003).

Also this year, work continued on the coordination of the Ka band on 30ºW, establishing contacts with the Italian and Japanese governments and other satellite operators. The coordination process with the previously-mentioned government authorities and some of the operators involved has concluded.

On another front, while the Radiocommunications Office has not yet published the filing on the new frequencies used by the HISPASAT-1D satellite in America, conversations have continued throughout the year with American operators for the use of the 14 – 14.25 / 11.7 – 11.95 GHz band over America. With the satisfactory conclusion of the coordination process, the coordination of this network with the United States government is also considered concluded.

In addition, the coordination process of the Ku (B-SAT-Q) band of the AMAZONAS satellite involving the governments of France, the United States, Cuba, Holland, Germany and Malaysia was also successfully concluded.

Based on the agreements signed with TELEMAR, HISPASAT/HISPAMAR has taken over the coordination of the C band (SBTS-B3) of the Amazonas satellite. The procedures to conclude this coordination process also commenced in 2002.

Coordination efforts also continued on the Ku and Ka bands at orbital positions 36ºW, 39ºW, 38.5ºW, 51.5ºW and 54.5ºW. Coordination agreements were reached for the Ka band and contacts have been established with another satellite operator with a view toward concluding the coordination agreements for both bands in 2003.

Also noteworthy is the collaboration and support offered by the dominant company to its subsidiary, HISDESAT, and the Ministry of Defence, and the holding of coordination meetings with key administration officials for the coordination of the SPAINSAT satellite (on the X and Ka military band on 30ºW) and XTAR-EUR (on the X band with dual-polarization, in one of the orbital positions 47ºW, 15ºW, 29ºE – preferred - and 41ºE): United States, United Kingdom, Germany, NATO (Belgium) and France and officially with the governments of Saudi Arabia and the United Arab Emirates. In this regard, the coordination on 30ºW of the X band has concluded with the governments of the United States, France and NATO and on 29ºE with the United States and NATO. Negotiations are set to begin with Russia in 2003, another key government, in order to conclude the coordination agreement with this government's authorities and those of the United Kingdom and France.

Also noteworthy are the cooperative efforts with the rest of the members of ESOA for the definition of common positions of the Association of European Satellite Operators in view of the upcoming World Radiocommunication Conference (WRC 2003).

2.2 PARTICIPATION IN INTERNATIONAL FORUMS

International Telecommunications Union (ITU)

In order to monitor the evolution of the recommendations, of the possible modifications of the Radiocommunications Regulation at the upcoming World Conference (WRC-03) and the Procedural Guidelines of the ITU, HISPASAT has participated actively in different ITU groups:

- Plenipotentiary Conference.
- ITU Council. HISPASAT, as a member of the Radiocommunication Sector and the only Spanish satellite operator, participates on the ITU Council, the highest governing body of this organization between conferences, at the invitation of the Spanish administration.
- Radiocummunication Advisory Group.
- Ad-hoc group on cost recovery in satellite networks.
- Advisory Group for studying the delay in setting up satellite networks.
- 6S (Satellite radio broadcasting service).
- WP 4A (Efficient use of the orbit-spectrum resource for the Fixed Satellite Service).
- JTG 4-7-8 (Sharing of the 13.75 – 14.0 GHz band).
- Conference Preparation Meeting (CPM-2002). Drafting of the final report following the meeting held in November 2002 on the WRC-03 Agenda items.

European Mail and Telecommunication Conference (EMTC)

- Electronic Communication Committee. The Group continues to participate in this new Committee which arose out of the merger of the former Regulatory Committee (ECTRA) and the Radiocommunication Committee (ERO) because of the implications for satellite communications.
- HISPASAT has participated actively in the EMTC work groups that establish the common European positions to be defended at WRC-03. Among them, the following are some of the most noteworthy: CPG, SE 16, PT-1, PT-2 and PT-3. HISPASAT is also the European coordinator of two of the items on the agenda of the upcoming WRC-03, which will serve to ensure more effective sharing between Fixed Services and Satellite Broadcasting Services.

Inter-American Telecommunications Commission (CITEL)

- Regulatory – CCP-I- and Radiocommunications - CCP-III - Committees
- Permanent Executive Committee.
- HISPASAT, on behalf of HISPAMAR, has collaborated as a Brazilian operator at both Brazilian national meetings and international forums (CITEL, ITU) as part of the Brazil Delegation at meetings focalized primarily on regulatory issues and preparations for the upcoming WRC-03.

Spanish-American Association of Telecommunications Research and Study Centres (AHCIET)

As a member of this association, HISPASAT participates primarily on its Regulatory Committee and operator meetings, as well as the General Assembly.

- European Commission (EC).
- HISPASAT participates on the "Satellite Action Plan" (SAP) and Regulatory Group (REG).

Spanish-Andean Forum

- Organized by the Spanish Ministry of Science and Technology, the company participated in the II Spanish-Andean Forum held in Quito (Ecuador). HISPASAT participated as a co-sponsor and presenter.

2.3. PARTICIPATION IN NATIONAL FORUMS

- The company has participated in the activities of the National Association of Electronics Industries (ANIEL) through the V Group of Telecommunication Service Operators. This participation has included the drafting and discussion of the regulatory standards affecting our sector by the Administration and other activities related to Spanish industry.
- Participation as an associate in the activities of AUTEL, the Association of Telecommunication Users.

2.4 SATELLITE LANDING RIGHTS

In 2002, landing rights were obtained for the HISPASAT-1C satellite in the following countries: Ecuador, Honduras, Nicaragua, Paraguay, Uruguay (definitive license) and Surinam.

Negotiations continued to obtain them in Mexico and Venezuela. Negotiations are likewise ongoing in other countries of less commercial interest such as Jamaica and Trinidad-Tobago.

The process of submitting applications for the HISPASAT-1D satellite has also commenced.

2.5 LICENSES AND CONCESSIONS

- A "C" type general authorization was obtained from the Telecommunications Market Commission (TMC) which will enable HISPASAT, S.A. to render the following services:
  - Network interconnection.
  - Internet access provider.
  - Content distribution.
- An application has been filed with the TMC for a C2 type license which would enable HISPASAT to render broadband services via satellite using its own network.

2.6 GALILEO PROJECT

From the point of view of the Galileo Project, the most remarkable event of 2002 was the approval of the program and mandate for the implementation of the project's management structure through a "joint undertaking". It will be composed of members of the European Commission, the European Space Agency and member state representatives. The selection process to appoint its top executive commenced at the end of the year.

The presence of the dominant company, HISPASAT, S.A., is seen primarily on two forums related to the Galileo Project: The Spanish company Galileo Servicios y Sistemas (GSS), which in turn holds a stake in the European enterprise Galileo Industries (Galn) and the Galileo Services (GS) European Association.

With regard to GSS, negotiations are ongoing to finalize the shareholders' agreement to enable it to enter the Galn European Consortium with a stake of 12% of its capital. The agreement is expected to be formalized in the first quarter of 2003.

In the industrial area, the European Space Agency has put the supply of the first GALILEO satellite, named GSTB V2 (Galileo System Test Bed V2), out to tender. The purpose of this satellite is to demonstrate certain system technologies, such as the high stability atomic clocks, and to assist with the process of international frequency coordination following the last World Radiofrequency Conference held in Istanbul. The Galn consortium has presented an offer and, given progress of the shareholding talks mentioned above, GSS participated in the presentation of the offer. The proposals are now being analyzed and evaluated and some progress is expected to occur in the second quarter of 2003.

Economic and market studies are being conducted within the GSS framework geared toward the rendering of value added services based on navigation systems such as fleet management, land vehicle positioning, precision maritime navigation in port areas, etc. The goal here is to make headway on the early introduction of this type of services in order to capture market share before the new GALILEO system becomes operational in 2008.

GS has presented several projects related to the Galileo system applications to the VI Framework Program of the EU. The drafting of the articles of association is complete which means that the GS Association, headquartered in Paris, will be set up in the early months of 2003.

3. Satellite system

3.1 SATELLITES IN ORBIT

The fleet of satellites making up the HISPASAT system on 30º W, to which a fourth flying unit was added in the month of September, has functioned satisfactorily throughout the fiscal year, performing to its fullest capabilities.

The expected useful life of each one of the satellites is in keeping with the initial forecast made at the time of launch.

Following the satisfactory launch of the HISPASAT 1D satellite, it was positioned in the orbital window and in-orbit testing of the satellite was conducted. Following its acceptance in orbit, the commercial operation of the satellite commenced according to plan.

3.2 SATELLITES UNDER CONSTRUCTION

Amazonas

Following an intense proposal evaluation phase, on 1 February 2002 an agreement was signed for the construction of the AMAZONAS satellite to be assigned to orbital position 61º West.

The selected configuration is that of a satellite with 32 active transponders on the Ku band and 19 active transponders on the C band and a 15-year useful life.

This satellite, which will provide coverage with transatlantic and Pan-American capacity to Brazil, all of Europe and northern Africa, will also supplement the coverage of the current HISPASAT system in the western part of the United States, including California.

Throughout the fiscal year, important project development milestones were achieved. The first critical design review of the satellite was conducted in the month of April, along with critical design reviews of important subsystems such as antennas and the repeater.

The HISPASAT Group, the European Space Agency (ESA) and CDTI are working jointly on the development of AMERHIS (Advanced Multimedia Enhanced Regenerative Hispasat System), which will be loaded onto the Amazonas satellite, thus incorporating an on-board signal processing system. This collaboration agreement was signed on 8 October.

The AMERHIS system will provide interactive multimedia applications for professional and corporate users and the consumer market through four transponders. It will provide variable bandwidth services between users via satellite based on DVB standards (DVB-RCST for ascendant links and DVB-S for descendant links).

The entire system will comprise not only the on-board signal-processing equipment (OBP) but also the earth segment needed for the validation and start-up of the system and its applications.

Spainsat and XTAR-EUR

During fiscal year 2002, HISPASAT participated in preliminary critical design reviews of the Spainset satellite and also monitored the process of manufacturing, erecting and testing the different pieces of satellite equipment. Work will commence in 2003 on the erection and testing of the different subsystems which will be followed by the integration of services modules and payload. This will precede the commencement of the system-wide test phase.

Also in 2002, HISPASAT participated in payload design reviews and critical design reviews of the XTAR-EUR satellite. The integration of service modules and payload into the satellite also commenced this year. The erection and testing of the different subsystems will also be completed in 2003 and, as in the case of Spainsat, system-wide testing will begin.

Spanish industry has participated actively in both the flying equipment for both satellites and the development of terrestrial tracking and control resources.

3.3 GROUND CONTROL SEGMENT

HISPASAT System

Throughout 2002, work was completed on the implementation of the new TTC location at INTA's Maspalomas Space Complex in Gran Canaria, according to the specific collaboration agreement signed in 2001. This facility is also related to the operation of the new 1D satellite. One of the advantages of this new venue is the increased location precision which makes it possible to include a greater number of satellites in the 30º West orbital window. Furthermore, given its geographic characteristics, the Maspalomas location will also support TTC services for the AMAZONAS satellite when the time comes.

The Arganda Control Centre is fully operational inasmuch as the new 1D satellite is concerned, which was launched in September 2002, with the 1A, 1B and 1C satellites continuing to operate as usual.

Amazonas

With regard to the AMAZONAS project, work was underway in 2002 on the detail design of the Ground Control Segment. The manufacture of control antennas and other elements is progressing as planned and is scheduled for installation and start-up by the end of 2003. The components of the Ground Control Segment are expected to be set up in Río de Janeiro, Maspalomas and Arganda, obtaining synergies from the activities carried out at these centres.

SPAINSAT and XTAR-EUR

Within the framework of collaboration with HISDESAT for the SPAINSAT satellite, work commenced in Arganda for the placement of 16m, 6.3 m diameter TTC antennas for satellite control, all in accordance with the agreement signed by the Ministry of Defence, HISPASAT, S.A. and HISDESAT in July 2001. In addition to this work, the existing facilities will be conditioned to house the main Control Centre of the SPAINSAT satellite.

4. Operation

4.1 COMMERCIAL ACTIVITY

Throughout fiscal year 2002, there was intensive commercial activity in relation to the sale of the available capacity of the HISPASAT 1C satellite and the introduction of the HISPASAT 1D satellite launched in September of that year. The main commercial objectives in 2002 included the consolidation of existing customers and services and market diversification.

Throughout 2002, despite the crisis in the telecommunications sector which has clearly had an impact on lower contracting rates, the occupancy rate of the HISPASAT system on 30º W was around 85%.

Notable among the commercial activities were the agreements reached with the current customers of the system who used the HISPASAT 1A satellite for their migration to the recently launched HISPASAT 1D. This event guarantees a high occupancy rate for our system and the continuation of the services rendered thus far.

Also in 2002, new customers began operating with the system, thereby expanding and diversifying our portfolio of customers. Some of them provide transatlantic services, where the HISPASAT system is clearly competitive in the data communications market.

Throughout 2002 the coverage of our services has extended to new territorial markets including Cuba, the Caribbean and Morocco.

In 2002, commercial activities have clearly demonstrated the market trend toward lower capacity contracts with shorter terms of 3-5 years. On the other hand, there was an increase in the demand for IP telecommu-

nications services, broadband and multimedia services as opposed to traditional radio broadcasting services. This, however, has in no way detracted from the importance to the HISPASAT Group of the agreement concerning the development of a European-American Digital Platform which, in addition to those signed previously, will enable the Company to position itself as a point of reference in the audio-visual content transport market to America.

Agreements were also reached for occasional and planned uses of capacity. In this regard, the HISPASAT group has achieved international renown thanks to the events distributed by its fleet, with the transmission of diverse sporting events (Formula 1, Tour de Francia, Vuelta a España, ,…) and news programs.

Also in 2002, the new corporate VSAT network became operational. This network makes its possible for customers to interconnect hundreds of locations in Europe and America. The new satellite telecommunications network is geared, in principle, to data transmission, with the possibility of expanding into voice communications in the future.

Thanks to the success in migrating from the audio-visual sector to satellite-based broadband services and in penetrating new markets (America, Europe and the Mediterranean basin), it is safe to predict sustainable growth for the HISPASAT Group's business.

Finally, it should be noted that during the fiscal year to which this Directors' Report refers, the services contracted with the Ministry of Defence have continued to be rendered satisfactorily using X bank capacity and the backup Ku band network which constitute the governmental mission of the system.

4.2 ACCESS TO BROADBAND, MULTIMEDIA SERVICES AND INTERNET

The HISPASAT Group is conscious of the growing need for broadband communications brought about by the convergence of information and entertainment which demands ever more rapid connections to global information infrastructures. The target markets of broadband services vary from one system to another, although in most cases Internet access is the star service on the market. Once a multimedia service platform is established, there is an interminable list of final services that can be offered by HISPASAT: file transfer, www, e-commerce, telework, VPN, LAN interconnection, etc.

The HISPASAT Group considers, without a doubt, that the future lies in broadband and new technologies. Proof of this is that it was a pioneer in the development of the DVB-S standard which not only involves the emission of TV signals in MPEG-2 format but also constitutes the transportation support for most digital communications, whether video, audio or data. On the basis of this, the HISPASAT group continues working on numerous technological projects focusing on interactivity, the satellite return channel, the design of IP networks, voice over IP and TCP-SAT tunnels.

Moreover, the different multimedia services (associated with INTERNET technology) which the HISPASAT Group can offer on its satellite system are likewise potentially interminable. Many are already being offered by our satellites, the most significant of which include:

- Backbone services, these being considered the links between two points of an INTERNET data throughput with capacities ranging between 8 Mbps and 52 Mbps;
- Internet services to end users
- VPN services with Internet access using VSATs or DVB-RCS.

As a result of this work, throughout 2002 the HISPASAT Group implemented the pilot phase of a satellite-based network of bidirectional services which makes it possible to provide IP connectivity and Internet access services. The network is based on the DVB-S and DVB-RCS international standards. With this network, HISPASAT Group offers its customers access to the telecommunications infrastructures that enable a rapid and widespread broadband deployment. HISPASAT Group will commercialize this network in 2003, targeting the operators who can configure their services on it. The HISPASAT Group is thus preparing itself for a foreseeable demand for this type of services in the years to come, offering capacity to companies as part of the global coverage of a satellite system and covering areas that are unlikely to have terrestrial infrastructures with communication capacity, regardless of their location.

4.3 CONSULTING SERVICES

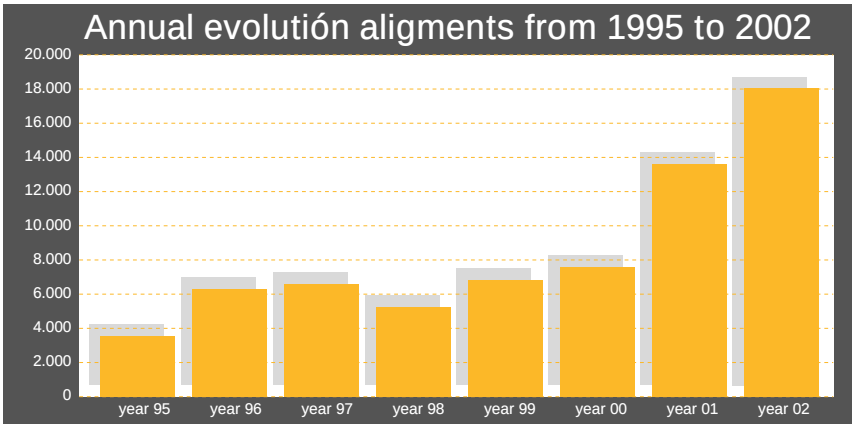
The HISPASAT Group has continued to offer consulting services to potential customers and to develop technological project to facilitate the development and use of satellite applications. The main aspects related to this activity are as follows:

- Technical analysis and design of new service networks.
- International coordination of frequencies of different networks and orbital positions.
- Participation on broadband and mobile services communications technology projects.

4.4 NETWORK DESIGN. NETWORK MANAGEMENT AND CONTROL

During fiscal year 2002, the transmission trend continued to grow due fundamentally to the increase in the digital TV transmission equipment installed by system users and consequently the increased number of TV carriers by transponder.

The total number of alignments in 2002 was eighteen thousand two hundred and thirty-three, a historical record in the number of alignments in one year and a 29% increase over the year before.



Regarding the start-up of new earth stations, in 2001 more than 600 new stations were put into service, 52 of which are earth stations with diameters in excess of 1.5 m. It should also be noted that 42 new transportable stations have been added to the HISPASAT system this year, which has contributed to the consolidation of the occasional services offered.

4.5 SERVICES AND APPLICATIONS

It is important to note the influence which increased Internet usage is having on the satellite market and business. In fact, in the last two years the occupancy of the HISPASAT system in this segment has grown exponentially, positioning the occupancy of these applications at 21%, a figure which could continue to rise gradually over the years to come.

5. Marketing and corporate image

The main objective of the institutional and commercial communication activities during 2002 was to promote the commercial presence of Hispasat in both domestic and international markets and to reinforce the company's institutional image at the same time. Hispasat was present at the most relevant domestic and international telecommunications trade shows and events, actively participating in a large number of international meetings and seminars.

5.1 TRADE SHOWS AND EVENTS

The Company attended the most relevant trade shows and events in the telecommunications sector:

- NAB: Sponsored each year in the month of April in Las Vegas (USA) by the National Association of Broadcasters, HISPASAT had its own stand to support the activities of its Commercial Department.
- IBC: In September 2002, HISPASAT attended the Amsterdam Fair where it shared a stand with Eutelsat. This international trade show on radio broadcasting is the main European event in terms of sector technology. The new addition to our fleet, the Hispasat 1D, was presented to European market at this event.

The institutional presence of Hispasat extended to other forums such as the XI Spanish-American AHCIET Meeting of International Traffic Operations held in the Dominican Republic from 3-5 April. HISPASAT participated along with 30 other international traffic operators. First ISCE Congress (International Satellite and Communication Exchange), Long Beach (California 27-29 August).

HISPASAT also participated actively throughout the year in the development of relevant national events in the sector.

- Matelec: October 2002 in Madrid. At this show, HISPASAT and Vía Digital presented to installers the agreement signed by both companies whereunder they will offer all newly built homes the opportunity to install the technology needed for direct reception of the HISPASAT satellite system signals, including the channels and interactive services offered by Vía Digital.

- TECNIMAP Fair, with satellite Internet demonstrations.

- SIMO 2002, where the Group participated with a presentation on Digital Infrastructures.

- XII TELECOM R+D Symposium, November 2002, at the Communications Palace of the Ministry of Science and Technology. The Company presented its projects related to signal reception on ships and on-board processing in HISPASAT satellites.

- Broadband Symposium, sponsored by Recoletos Conferencias, 23 and 24 May in Madrid.

- "I Latin American Business and Economic Exchange", Grupo Recoletos, 25 June, Hotel Ritz, Madrid.
- Conecta Sector Público Congress, 2002 - IIR (24 - 26 June 2002).

- VIII IESE Telecommunications Sector Meeting, Madrid, 28 and 29 May.

5.2 LAUNCH OF HISPASAT 1D

Some of the most notable activities in this regard, however, referred to the planning and execution of a communication plan for the launch and placing into orbit of the 1D satellite, which occupied a large portion of the Group's communication activities in 2002 and which achieved widespread media coverage of the event. HISPASAT, along with numerous guests including high-ranking government officials, some of our board members, shareholders and customers and executives from the telecommunications and audio-visual sectors, chartered a flight to witness the event live from Cape Cañaveral. A cocktail party and dinner was held simultaneously at the Palacio de Congresos y Exposiciones in Madrid, where guests could watch the launch live on closed circuit television. The launch drew broad media coverage, with more than three hours of televised information, almost six hours of radio broadcasting and full coverage in the press.

5.3 ESPACIO HISPASAT

Broad media coverage was also given to the "Espacio Hispasat" exhibit held at the Palacio de Congresos y Exposiciones in Madrid on 16, 17 and 18 September, to show the public all that is involving in the launch of a communications satellite and the companies that collaborate on building it, financing it and placing it in orbit. As many as 15 companies related to HISPASAT and the construction of the 1D satellite collaborated on the exhibit.

5.4 INSTITUTIONAL ACTIVITY

There was also intense activity on the part of HISPASAT in the area of institutional relations, where the most significant event was undoubtedly the visits of H.R.H. the Prince of Asturias on 20 March 2002 to the Satellite Control Centre in Arganda del Rey, where he was able to see how the fleet of satellites is supervised and controlled and the highly advanced technical equipment that is used.

The Satellite Control Centre in Arganda del Rey also opened its doors to the public during the II Science Week organized by the Community of Madrid, the goal of which is to create a closer and more harmonious relationship between science and society. Because of the resounding success of and interest in this event, the number of visits had to be increased, with visits scheduled through March 2003.

One of the areas where much of the Company's institutional activities were focused in 2002 was education. HISPASAT sponsored the Summer Course offered in El Escorial by the Complutense University of Madrid entitled "Communication Satellites in Today's World" offered from 22 to 26 July. The course gave students

an overview of the world of satellite communications and its use in everyday life. The presentations and round tables addressed issues such as expansion and business possibilities related to communications satellites; their contribution to media expansion and the development of digital television platforms and theme channels. In December, the Universidad Francisco de Vitoria in Madrid sponsored the HISPASAT WEEK to introduce students to the operation of the Spanish satellite communication system.

Within the framework of its international activities, HISPASAT also participated in the XII Latin American Summit held on 15 and 16 November in Bávaro, Dominican Republic. The presence of HISPASAT at this event, thanks to its close collaboration with the Secretariat of Latin American Cooperation (SECIB), reinforces the strategic vocation of the Spanish satellite company as a link between the countries of the Latin American community and continental Europe.

6. Technological development projects

Throughout 2002, HISPASAT maintained its serious commitment to R+D. A detailed description of its participation in different research projects focused on advanced telecommunication services is given below.

ACCESS-maints

As part of the EU's V Framework Programme, the ACCESS-maints programme came to a successful close. The goal of this programme was to develop a knowledge management platform for the sharing of knowledge and experience in the space industry. The project was carried out in collaboration with EADS-CASA, the Polytechnic University of Turín and other European partners. A demonstration was offered to the European Commission.

HPOD (High Precision Orbit Determination)

The purpose of the HPOD project (High Precision Orbit Determination), carried out jointly with CRISA for the European Space Agency, was to develop a high-precision, low-cost satellite location system based on interferometry. The programme concluded successfully following an extensive battery of tests which confirmed the services offered by the system.

OBP PROJECT/NATIONAL SPACE PLAN - PROFIT

The OBP Project (On-board Processing) is aimed at the development of a regenerative payload that makes it possible to process the signals generated by earth stations on board the satellite, unlike current payloads which behave transparently. This type of payload makes it possible to undertake advanced multimedia services, develop new digital televisions platforms and provided high quality Internet services. With the appearance of the AMERHIS initiative for a regenerative payload for the AMAZONAS project, the activities of the National Plan have focused on this objective as a complement to the activities carried out within the framework of the European Space Agency.

THE IBIS PROJECT

HISPASAT, through the IBIS Project, part of the IST Programme of the V Framework Program of the European Commission in relation to the previous project, played an essential role in the commitment to this new concept and its development: the change from a transparent system to an on-board processing system.

FLEXIMATV

In 2002, the Group continued to work on the European FLEXIMATV (Flexible and Intelligent (S)MATV Systems) project, which develops flexible and innovative solutions for digital television distribution on community antenna systems (SMATV) using head-ends controlled by the user. The project is part of the V Framework Program sponsored by the European Commission (IST: Information Society Technologies) and is scheduled to last 18 months. Along with HISPASAT, which acts as the coordinator of the project, there is a consortium of nine European companies.

HISPASAT believes it is strategically important to continue developing flexible and adequate solutions linked to the digital television market via satellite which offer better and better solutions to end customers and facilitate present and future deployment. In Europe, the potential target sector for these solutions is enormous, with dozens of millions of users connected to community SMATV installations.

MOBILITY

HISPASAT acts as the coordinator of the Mobility project which is sponsored and partially financed by the European Commission. The goal of this project is to make it possible to receive the DVB-S signals in which

innumerable programs on satellite-based digital television platforms are currently transmitted, from ships, airplanes and terrestrial vehicles within the coverage area of HISPASAT satellites.

In 2002, the project developed the array antenna for TV reception on ships which is scheduled for on-ship testing during the first quarter of 2003.

7. Economic aspects

7.1 INCOME STATEMENT

What follows is a summary of the performance of the principal budget items that explains the evolution of results during the fiscal year in question:

Income

Operating income for fiscal year 2002 was 115.103 million euros, which represents an increase of 9.5% over the year before. The operating income is composed of income from the leasing of space capacity, other operating income and work performed by the company on its own fixed assets.

The income from the leasing of space capacity was 102.49 million euros, an increase of 3.6% over the year before, in a year marked by a weakening of demand as a consequence of a worldwide crisis in the telecommunication sector.

The item entitled "Ancillary income and other management income", which represents approximately 2% of the operating income, was 2.1 million euros at the end of 2002, compared to 1.8 million in 2001.

Finally, work performed by the company for its own fixed assets amounted to 10.4 million euros, an increase of 37% over the figure for 2001 as a consequence of the continuation and completion of the Hispasat 1D programme, successfully placed in orbit at the end of fiscal year 2002.

Operating Expenses

Operating expenses, which include provisions, external services, personnel expenses, taxes and other management expenses, were 21.9 million euros in 2002.

The bulk of the increase in this item compared to the year is found under the heading of "Other operating expenses" with an increase of 1.8 million euros. The expenses incurred in connection with the launch of the Hispasat 1D satellite have had an impact on the volume of expenses for the fiscal year, particularly the expenses associated with travel, advertising, marketing and institutional relations.

Personnel costs also increased, primarily due to the additional staff needed in the commercial area to deal with the commercial challenges faced by the Company.

With regard to depreciation, the most relevant item on the Company's income statement, there was an increase of 1% to 47.27 million euros due to the fact that the 1D satellite began to depreciate in December 2002.

There was a variation of 1.2 million euros in the trade provisions item.

EBITDA for fiscal year 2002 rose by 5.4% to 92.01 million euros, compared to 87.26 million in 2001. This growth is motivated by the improved performance of income compared to the increase in operating expenses. The EBITDA margin is 80%, one of the highest in the sector.

Financial Result

The net financial loss for fiscal year 2002 was 8.7 million euros, which represents a decrease of 2.1 million. This reduction is due basically to the combined effect of lower expenses and higher financial income. On one hand, the capital increases have reduced the level of indebtedness and, consequently, financial expenses, while on the other hand financial income was generated as a consequence of available cash throughout the fiscal year.

Profit/Loss from Ordinary Activities

With regard to the evolution of operating income, expenses and financial results mentioned above, the profit from ordinary activities in 2002 was 34.8 million euros, up 17.6% over 2001.

Profit/Loss before Taxes

Extraordinary losses were 3.1 million euros, compared to 2.6 million in 2001.

Net Profit

The corporate tax expense was 7.2 million euros which, compared to the figure of 6.7 million euros for fiscal year 2001, represents an increase of 7.5%.

Finally, the consolidated net profit for the fiscal year was 24.48 million euros, an increase of 20.7% over fiscal year 2001.

7.2 INVESTMENT ACTIVITY AND FINANCING

Investment Activity

The Hispasat group invested 155.65 million euros in tangible and intangible fixed assets in fiscal year 2002, most of which went to the placing in orbit of its fourth flying unit, the 1D satellite, and to the AMAZONAS project.

In addition, the Company invested 27.81 million euros in its subsidiaries, particularly Hisdesat Servicios Estratégicos, S.A. These funds are to be used to execute the Company's investment plan and, more specifically, the Spainsat and XTAR-EUR projects.

Financing

On 8 April 2002, the two capital increases approved by the Extraordinary General Meetings of Shareholders held on 28 February 2002 and 22 March 2002, respectively, were executed. The share capital was increased by 6,097,148.96 euros. The new shares were issued with an issue premium, bringing the actual subscription price to 45,206,565.96 euros.

The net indebtedness of the Hispasat group increased in fiscal year 2002 by 29.5% to 188.2 million euros. The funds were allocated to the financing of the current investment plan.

The main financing operations carried out during the fiscal year were as follows:

- On 18 January 2002, the Company took the second instalment of a loan granted by the European Investment Bank on 15 October 2001 in the amount of 20,000,000 euros.
- On 26 July 2002, a third instalment of the same loan in the amount of 15,000,000 euros was taken.

ACKNOWLEDGEMENT: I, Pedro Ramón y Cajal, Secretary of the Board of Directors, in compliance with article 171 of the Corporations Act, do hereby certify that these consolidated Annual Accounts composed of the Balance Sheet, the Profit and Loss Account and the Annual Report, as well as the Directors' Report for fiscal year 2002 are hereby formulated and signed by the Directors along with the Secretary of the Board, who also signs on the back of the pages on which these documents are contained, typed on one side only. In Madrid on 21 March 2003.

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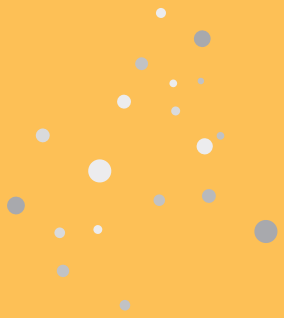

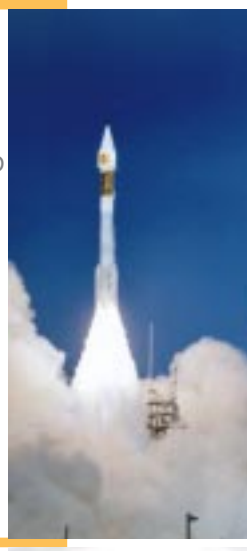

CARTA a los accionistas

PEDRO ANTONIO MARTÍN MARÍN. PRESIDENTE DE HISPASAT

LETTER to Shareholders:

Dear Shareholders:

The huge success of the launching and the subsequent putting into orbit of the Hispasat 1D satellite on September 18th was definitely the high point of 2002. This event has renovated the company's expectations for the future by increasing operating capacity for years to come as well as guaranteeing service continuity.

After having overcome the technological challenge inherent in the design, construction, putting into orbit and operation of the new satellite, with an investment of more than 194 million Euros, we want to begin a new stage: the internationalization of our company through the HISPAMAR SATELITES company. HISPASAT wants to use this company, by means of agreements with our business partner TELEMAR, to obtain new and more ambitious opportunities that make our corporate logo "bringing cultures together" a reality. Our new American dream, the AMAZONAS satellite, whose launching is forecast for 2004, will put us in an enviable strategic position as a technological and cultural bridge between Europe and America.

There is a new challenge that emerges from the need to continue advancing in a complex world and in a complicated moment for all companies in the Telecommunications sector. We are aware of the difficulties but we are sure of our possibilities and at HISPASAT we have taken on the commitment and have assumed our role as global operators with the strong intention to transform new challenges into opportunities to grow.

Likewise, HISPASAT is participating in the development of X-band projects aimed at providing governmental communication services through HISDESAT.

With this philosophy I take great pleasure in highlighting the economic results that the HISPASAT Group obtained in

Estimados accionistas:

El 2002 ha venido marcado, sin duda, por el éxito rotundo en el lanzamiento y puesta en órbita del satélite Hispasat 1D el pasado 18 de septiembre. Con él la compañía ha renovado sus expectativas de futuro, aumentando su capacidad operativa para los próximos años y garantizando así la continuidad de los servicios.

Superado el desafío tecnológico inherente al diseño, construcción, puesta en órbita y operatividad del nuevo satélite, cuya inversión ha ascendido a 194 millones de euros, queremos abrir una nueva etapa: la internacionalización de nuestra compañía a través de la sociedad HISPAMAR SATELITES. Con ella HISPASAT pretende, mediante los acuerdos con nuestro socio TELEMAR, conquistar nuevas oportunidades, más ambiciosas, que hagan realidad nuestro lema corporativo, "acercando culturas", a través de un nuevo sueño americano: el satélite AMAZONAS, cuyo lanzamiento previsto para el 2004, nos colocará en una situación estratégica envidiable como puente tecnológico y cultural entre Europa y América.

Un nuevo reto derivado de la necesidad de seguir avanzando en un mundo complejo y en un momento complicado para todas las compañías del sector de las Telecomunicaciones. Conocedores de las dificultades, pero seguros de nuestras posibilidades, desde HISPASAT asumimos el compromiso y reivindicamos nuestro papel de operadores globales con la intención firme de transformar los nuevos desafíos en oportunidades de crecimiento.

Asimismo HISPASAT participa en el desarrollo de proyectos en banda X destinados a proveer servicios de comunicación gubernamental a través de HISDESAT.

Desde esa filosofía me complace destacar que los resultados económicos alcanzados por el Grupo HISPASAT en el ejercicio 2002, pese a las dificultades por las que atraviesa el sector, han vuelto a arrojar beneficios. Los ingresos de explotación alcanzaron la cifra de 115,10 millones de euros, con un crecimiento de un 9,5% con respecto al ejercicio anterior. De estos, 102,49 millones de euros correspondieron a servicios de comunicaciones por satélite. Todo ello nos ha permitido cerrar el ejercicio 2002 con unos beneficios consolidados de 24,48 millones de euros, que mejoran en un 20,7% los registrados en el 2001.

En paralelo asumimos un proceso de fortalecimiento de la estructura accionarial y financiera de la compañía de cara al desarrollo de sus proyectos internacionales. Así, en el mes de abril se produjo la incorporación de la sociedad EADS-CASA, empresa aeroespacial española, al accionariado de HISPASAT, que junto al aumento de la participación de EUTELSAT, supuso un impulso definitivo para nuestro afianzamiento. Con esta operación junto con los positivos resultados del ejercicio, los recursos propios del Grupo alcanzan los 269,78 millones de euros.

Todo ello ha sido posible gracias a un gran esfuerzo empresarial pero también de un grupo humano, que con dedicación, experiencia y profesionalidad, conforma día a día un activo fundamental de esta empresa.

No quisiera acabar estas breves líneas sin hacer mención especial a la visita institucional que S.A.R. el Príncipe de Asturias, realizó el pasado 20 de marzo de 2002 a nuestro Centro de Control de Satélites en Arganda del Rey, donde nos honró con su presencia y con sus palabras de aliento. Su ejemplo constituye para todos nosotros un acicate de ilusión para una compañía como HISPASAT comprometida con el futuro.

Pedro Antonio Martín Marín,
Presidente de HISPASAT

2002, despite the difficulties in the sector, the company has managed to make a profit. Operating revenues reached 115.10 million Euros, with a growth of 9.5% compared to the previous year. From this figure, 102.49 million Euros come from satellite communication services. All of which has allowed us to close 2002 with a consolidated profit of 24.48 million Euros, a 20.7% improvement compared to 2001.

We have at the same time taken on a strengthening process in the shareholder and financial structure of the company to handle the development of international projects. Therefore, EADS-CASA, a Spanish airspace company, was incorporated to HISPASAT's capital ownership in April, that together with the increase of EUTELSAT's participation, was a definitive impulse for our reinforcement. This operation together with the positive yearly results raised the Group's shareholders' equity to 269.78 million Euros.

All of this has been possible thanks to a strong business effort but also to the human workforce that with dedication, experience and professionalism make up the most important asset of this company day in day out.

I would like to conclude by making special mention to the institutional visit made by his Royal Highness, the Prince of Spain, on March 20th, 2002 at our Satellite Control Center in Arganda del Rey, where he honored us with his presence and his inspiring words. His example is an incentive for all of us at HISPASAT, a company committed to the future.

Pedro Antonio Martín Marín
Chairman of HISPASAT

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El sistema HISPASAT

HISPASAT, el operador español de telecomunicaciones por satélite, gestiona las posiciones orbitales de 30º Oeste y 61º Oeste, desde donde su sistema de satélites se ofrece como el vehículo ideal para comunicarse a ambos lados del Atlántico, atendiendo a las necesidades de comunicación de los operadores de telecomunicaciones y empresas radiodifusoras europeas y americanas.

Con la máxima flexibilidad y potencia radiada, la huella en tierra de los satélites HISPASAT ilumina Europa, el Norte de África y América; coberturas que se han visto ampliadas con el lanzamiento y puesta en órbita, en septiembre del 2002, del cuarto satélite de su flota: el Hispasat 1D. Esta gran capacidad ha permitido a HISPASAT situarse como un operador de referencia en los mercados de lengua española y portuguesa, jugando un papel fundamental en la distribución de señales de televisión y radio y en el desarrollo de la TV Digital.

Así mismo, la alta potencia de sus satélites ofrece multitud de servicios de telecomunicaciones por satélite, permitiendo a grandes corporaciones y empresas -públicas y privadas- el establecimiento de enlaces entre estaciones remotas con antenas de pequeño tamaño. Una solución idónea para la implementación de servicios de telefonía, datos, videoconferencia, redes de comunicaciones empresariales -públicas y privadas- y redes de control medioambiental en óptimas condiciones técnicas y económicas.

HISPASAT comprometida también con el desarrollo de las nuevas tecnologías y la necesidad de acercar la Sociedad de la Información a todos los ciudadanos, ha puesto en marcha una moderna y óptima infraestructura de red sobre su sistema de satélites, con el que dará acceso a Internet por satélite y a todo tipo de servicios avanzados de telecomunicaciones apoyados en redes de banda ancha.

Estructura accionarial

Desde el año 1997, HISPASAT es una empresa de creciente rentabilidad, que aporta un gran valor estratégico para el desarrollo de servicios. La coincidencia de su cobertura con los mercados objetos de la expansión internacional de sus accionistas (Europa, América y Norte de África) aumenta dicho valor al poder adaptarse perfectamente su sistema de satélites a las necesidades de las instituciones, industria y empresas españolas.

En 2002, formando parte de la política de reforzamiento de la estructura accionarial de la compañía, se ha formalizado la entrada de

ABOUT Hispasat

The Hispasat system

HISPASAT, the Spanish satellite telecommunications operator, manages the 30º West and 61º West orbital positions, from where its satellite system operates as an ideal vehicle for communication on both sides of the Atlantic, taking care of the communication needs of European and American telecommunication companies and radio broadcasting firms.

HISPASAT leaves its mark on Europe, Northern Africa and America with broadcasting power and maximum flexibility with coverage that has been increased thanks to the launching and putting into orbit of its fourth satellite: the Hispasat 1D in September 2002. This large capacity has enabled HISPASAT to position itself as an operator of reference in the Spanish and Portuguese speaking markets by playing an important role in television and radio broadcasting as well as in the development of Digital TV.

Likewise, the high power of its satellites offers a multitude of satellite telecommunication services, which allows large corporations and businesses – public or private – to establish links between remote stations with small antennas. This is a perfect solution for implementing public and private telephone, data, video-conferencing, business communication networking and environmental control services in optimal technical and financial conditions.

▼
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▼

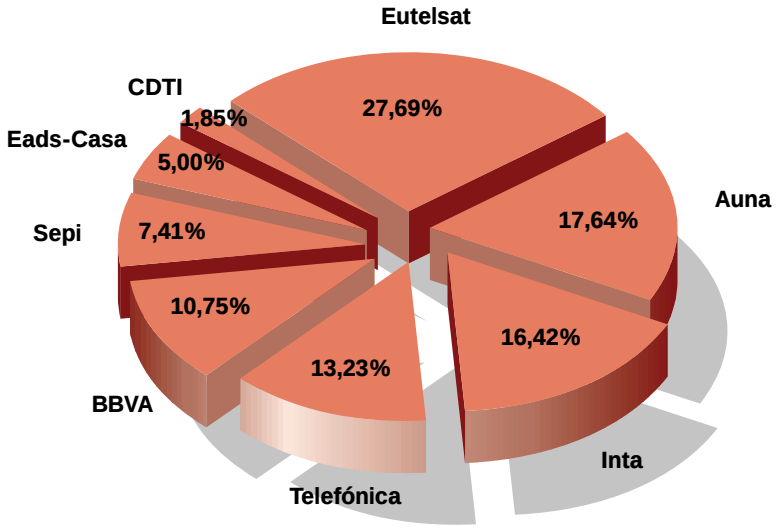
Due to HISPASAT's commitment to developing new technologies and the need to bring the Information Society closer to the people a modern and optimum network infrastructure has been started up for its satellite system which will provide Internet access via satellite and several advanced telecommunication services supported by broad band networks.

Shareholder Structure

Since 1997, HISPASAT's profitability has grown, which is a strategic value for developing services. The fact that its coverage coincides with markets that are objects of its shareholders' international expansion (Europe, America and Northern Africa) increases said value due to its ability to perfectly adapt its satellite system to the needs of institutions, industry and Spanish companies.

In 2002, as part of the reinforcement policy of the company's shareholder structure, the entry of EADS-CASA as a new shareholder of HISPASAT was formalized, with a participation of 5% of its corporate equity while at the same time EUTELSAT increased its participation to 27.6%, thus consolidating its position as the first shareholder of the company.

Therefore, in its capital ownership, as of December 31st, 2002, the largest operators and telecommunication users –AUNA



EADS-CASA como nuevo accionista de HISPASAT, con un 5% de participación en su capital social al tiempo que EUTELSAT ha incrementado su participación en el mismo hasta el 27'6%, consolidando su posición de primer accionista de la empresa.

Por tanto, en su accionariado, a fecha 31 de diciembre de 2002, están presentes los grandes operadores y usuarios de telecomunicaciones –Grupo AUNA, GRUPO TELEFÓNICA (ADMIRA), BBVA– así como destacados representantes de la industria y de la administración española (INTA, SEPI, CDTI), que le han permitido crecer como GRUPO y afianzar su posición en América.

▼ Pantallas de seguimiento del Centro de Control de Arganda del Rey (Madrid).

Consejo de Administración

El Consejo de Administración de HISPASAT está compuesto por quince personas que representan a las empresas, organismos e instituciones presentes en el accionariado. A fecha de enero de 2003, el Consejo de Administración estaba formado por los siguientes consejeros:

Presidente del Consejo
- Pedro Antonio Martín Marín

Consejero Delegado
- Jacinto García Palacios

Vocales
- Julio Linares López,
- Carlos Lavilla Rubira
- Andrea Luminari
- Josep Canós Ciurana
- Francisco Esteve Romero
- Víctor Goyenechea Fuentes
- Bernardo Pérez de León
- Pedro J. Méndez Marco
- Giuliano Berretta
- Jean Paul Brillaud
- Jesús Domingo Laborda
- Fernando José Cascales Moreno
- Miguel Ángel Jusdado Ruiz-Capillas

Secretario no Consejero y Letrado Asesor
- Pedro Ramón y Cajal Agüeras

Vicesecretaria, no Consejera
- Margarita López Quintana (nombramiento aprobado en el Consejo de Administración de fecha 19 de abril de 2002)

- D. Valentín Sanz Caja y D. Vicente Gómez Domínguez renunciaron al cargo el pasado 24 de mayo de 2002.

Objetivos y desarrollo estratégico del Grupo HISPASAT

El Grupo HISPASAT tiene por objetivo consolidarse a medio y largo plazo como un operador de satélites de referencia internacional, principalmente en los mercados de habla hispana y portuguesa. Un objetivo que se articula fundamentalmente a través de su crecimiento y expansión internacional, particularmente en Iberoamérica, del desarrollo de nuevas líneas de negocio como proveedor de servicios de banda ancha y de comunicaciones gubernamentales y de la consolidación comercial de la posición orbital 30º Oeste tras el éxito del lanzamiento y puesta en órbita del satélite 1D. Estos ejes, sobre los que se articulan las líneas de actuación de la compañía, responden a las directrices estratégicas marcadas por el Consejo de Administración.

Expansión a Iberoamérica (Proyecto AMAZONAS) ▶ El fortalecimiento de la compañía en el mercado americano se está acometiendo a través del desarrollo de la posición orbital 61º Oeste, complementada con 30º Oeste. Entre las actuaciones que HISPASAT está desarrollando, en esta dirección, se encuentra: el comienzo de las actividades de HISPAMAR SATÉLITES, preparando la explotación de la posi-

Group, Telefónica Group (ADMIRA), BBVA– are present as well as important representatives of industry and Spanish administration (INTA, SEPI, CDTI), which have allowed the GROUP to grow and to strengthen its position in America.

Board of directors

HISPASAT's Board of Directors is made up of fifteen people who represent businesses and organizations, which are present in the capital ownership. As of January 2003, the Board of Directors was made up by:

The Board Chairman:
- **Pedro Antonio Martín Marín.**

The Managing Director:
- **Jacinto García Palacios.**

Members of the Board:
- **Julio Linares López,**
- **Carlos Lavilla Rubira,**
- **Andrea Luminari,**
- **Josep Canós Ciurana,**
- **Francisco Esteve Romero,**
- **Víctor Goyenechea Fuentes,**
- **Bernardo Pérez de León,**
- **Pedro J. Méndez Marco,**
- **Giuliano Berretta,**
- **Jean Paul Brillaud,**
- **Jesús Domingo Laborda,**
- **Fernando José Cascales Moreno,**
- **Miguel Ángel Jusdado Ruiz-Capillas.**

Non-Board Member Secretary and Legal Advisor:
- **Pedro Ramón y Cajal Agüeras**

Non-Board Member Vice-Secretary:
- **Margarita López Quintana** (appointment approved by the Board of Administration on April 19th, 2002)

- Note: Mr. **Valentín Sanz Caja** and Mr. **Vicente Gómez Domínguez** resigned from their posts on May 24th, 2002.

The HISPASAT Group's Strategic Development and Goals

The HISPASAT Group's goal is to consolidate itself in medium and long term as satellite operator of international reference, mainly in Spanish and Portuguese speaking markets. This goal can be mainly observed through its international expansion and

ción orbital 61º Oeste (satélite Amazonas) y la comercialización de la flota de HISPASAT en 30º Oeste (1B,1C y 1D) en América. Hay que destacar, asimismo, que en el 2002 se han cerrado los acuerdos definitivos con el operador brasileño TELEMAR para el desarrollo del proyecto AMAZONAS.

Desarrollo del negocio gubernamental ▶ La prestación de servicios de comunicaciones por satélite en banda X, destinadas a usos gubernamentales será otra de las áreas sobre las que se asiente el crecimiento de HISPASAT y que se ha concretado con la puesta en marcha, junto al Ministerio de Defensa español, de un nuevo programa de comunicaciones por satélite, en el que participa también la práctica totalidad de la industria espacial española.

El grupo HISPASAT tiene por objetivo consolidarse a medio y largo plazo como un operador de satélites de referencia internacional

A tal fin, en julio de 2001, se constituyó la empresa HISDESAT SERVICIOS ESTRATÉGICOS, S.A., en la que HISPASAT participa, con un 43%, junto a otras empresas de la industria española (INTA, INSA, INDRA ESPACIO, EADS-CASA ESPACIO y SENER). El sistema consta de dos nuevos satélites, SPAINSAT y XTAR-EUR, que serán operados respectivamente por las sociedades HISDESAT y XTAR. El satélite de comunicaciones principal, SPAINSAT, será lanzado a mediados de 2004, mientras que el segundo, XTAR-EUR, asumirá la tarea de proporcionar la redundancia necesaria. Con respecto a estos satélites, HISPASAT ha participado, a lo largo del 2002, en la revisión del diseño de la carga útil de ambos, así como en el seguimiento del proceso de fabricación, montaje y pruebas de sus equipos.

Desarrollo de nuevas líneas de negocio relacionadas con los servicios de banda ancha ▶ En el ámbito de nuevos proyectos de crecimiento y en línea con la decisión estratégica de participar en otros segmentos de la cadena de valor de los servicios de comunicaciones por satélite, más próximos al usuario final, HISPASAT ha iniciado en 2002 los preparativos para prestar servicios de transporte IP por satélite a Operadores de Servicios Multimedia y de acceso a Internet por satélite.

Además se ha solicitado y obtenido de la Comisión del Mercado de las Telecomunicaciones (CMT) una Autorización General tipo "C", que permitirá a HISPASAT prestar los siguientes servicios: Interconexión de redes, proveedor de acceso a Internet y distribución de contenidos. También se ha solicitado de la CMT la obtención de una licencia tipo "C2", que permitirá a HISPASAT prestar servicios de Banda Ancha por satélite con red propia.

Consolidación y comercialización de la posición 30º Oeste ▶ Tras el éxito en el lanzamiento y puesta en órbita del cuarto satélite de su flota, el Hispasat 1D, en septiembre de 2002, HISPASAT ha consolidado la posición 30º Oeste, cumpliendo un triple objetivo: reemplazar a los satélites 1A y 1B, cuya vida útil finaliza a lo largo de 2002 y 2003 respectivamente; proporcionar al Sistema HISPASAT capacidad adicional con conectividad americana, y disponer de conectividad con Oriente Próximo, permitiendo establecer comunicaciones con ese área desde EEUU en un solo salto.

Este incremento de capacidad permite, además, la consolidación de HISPASAT como operador de referencia de DTH en España y Portugal y atender a las necesidades de comunicación de la plataforma española de TV Digital resultante de la fusión de Canal Satélite Digital y Vía Digital.

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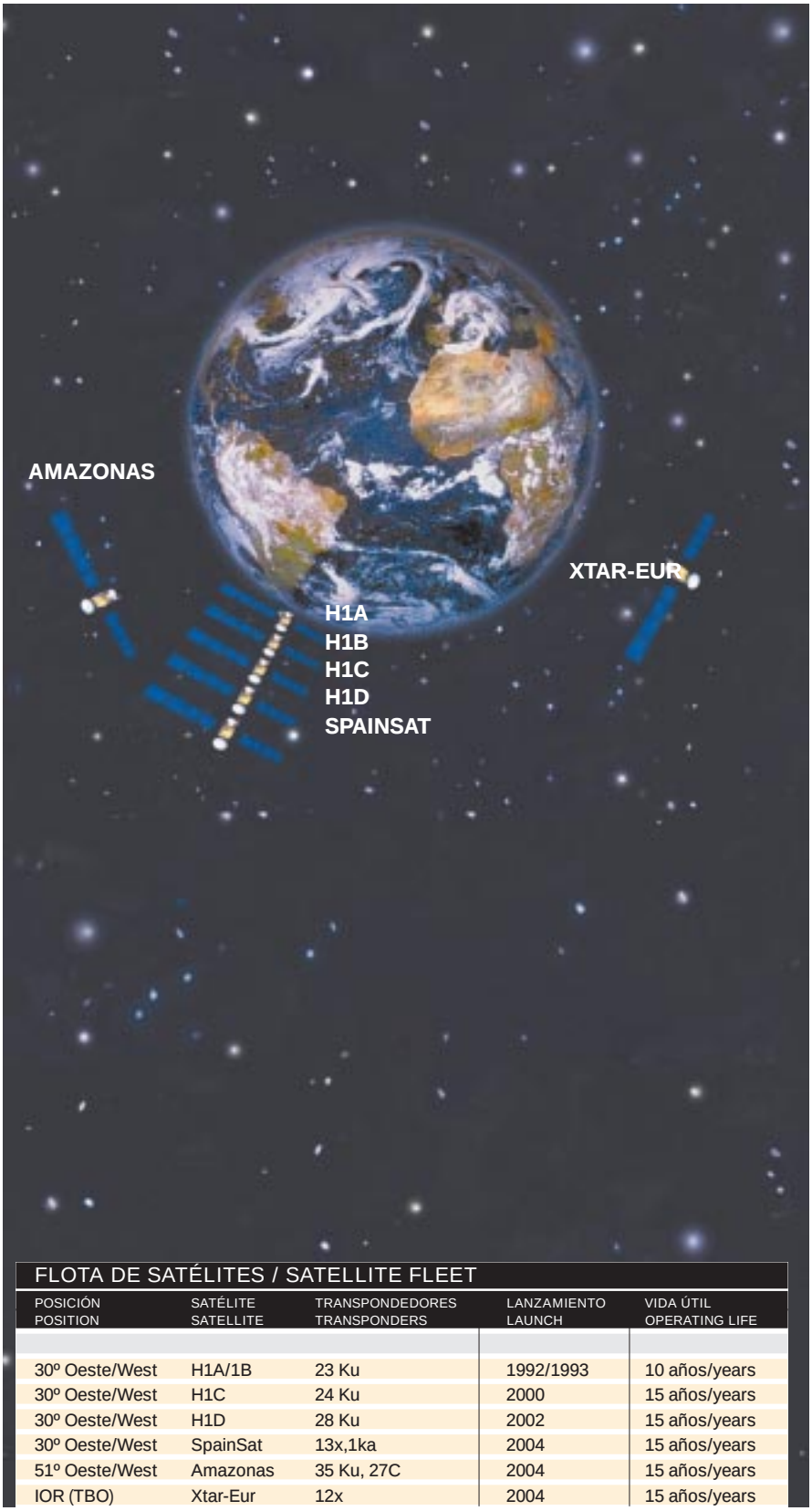
growth, particularly in Latin America as well as through the development of new business areas as a broad band service provider and of governmental communications as well as the business consolidation of its l 30º West orbit position after the success of the launching and putting into orbit of the 1D satellite. These are the bases for the company's business areas and are part of the strategic guidelines provided by the Board of Directors.

LATIN AMERICA (AMAZONAS PROJECT) The 61º West orbit position, together with the 30º West orbit position are being used to strengthen the company in the American market. Amongst the steps HISPASAT is taking in this direction is the beginning of activities of the HISPAMAR SATÉLITES company, the preparation of the 61º West orbit position (Amazonas satellite) and the commercialization of the HISPASAT fleet at 30º West (1B, 1C and 1D) in America. We must also point out that in 2002 definitive agreements have been closed with the Brazilian operator TELEMAR for the development of the AMAZONAS project.

DEVELOPMENT OF GOVERNMENTAL BUSINESS Rendering of X-band satellite communication services for governmental use will be another one of the areas that HISPASAT will use to base its growth. This area has concentrated on the start up, together with the Spanish Defense Department, of a new satellite communications program in which practically all of the Spanish space industry is working on. Therefore the HISDESAT SERVICIOS ESTRATÉGICOS, S.A. company was incorporated in July, 2001, which HISPASAT participates with 43%, together with other companies of the Spanish industry (INTA, INSA, INDRA ESPACIO, EADS-CASA ESPACIO and SENER). The system is made up of two new satellites, SPAINSAT and XTAR-EUR, which will be respectively operated by HISDESAT and XTAR. The main communication satellite, SPAINSAT, will be launched halfway through 2004, while the second, XTAR-EUR, will be responsible for providing necessary redundancy. In regards to these satellites, HISPASAT has participated, during 2002, in revising the design of both payloads as well as the follow-



FLOTA DE SATÉLITES / SATELLITE FLEET

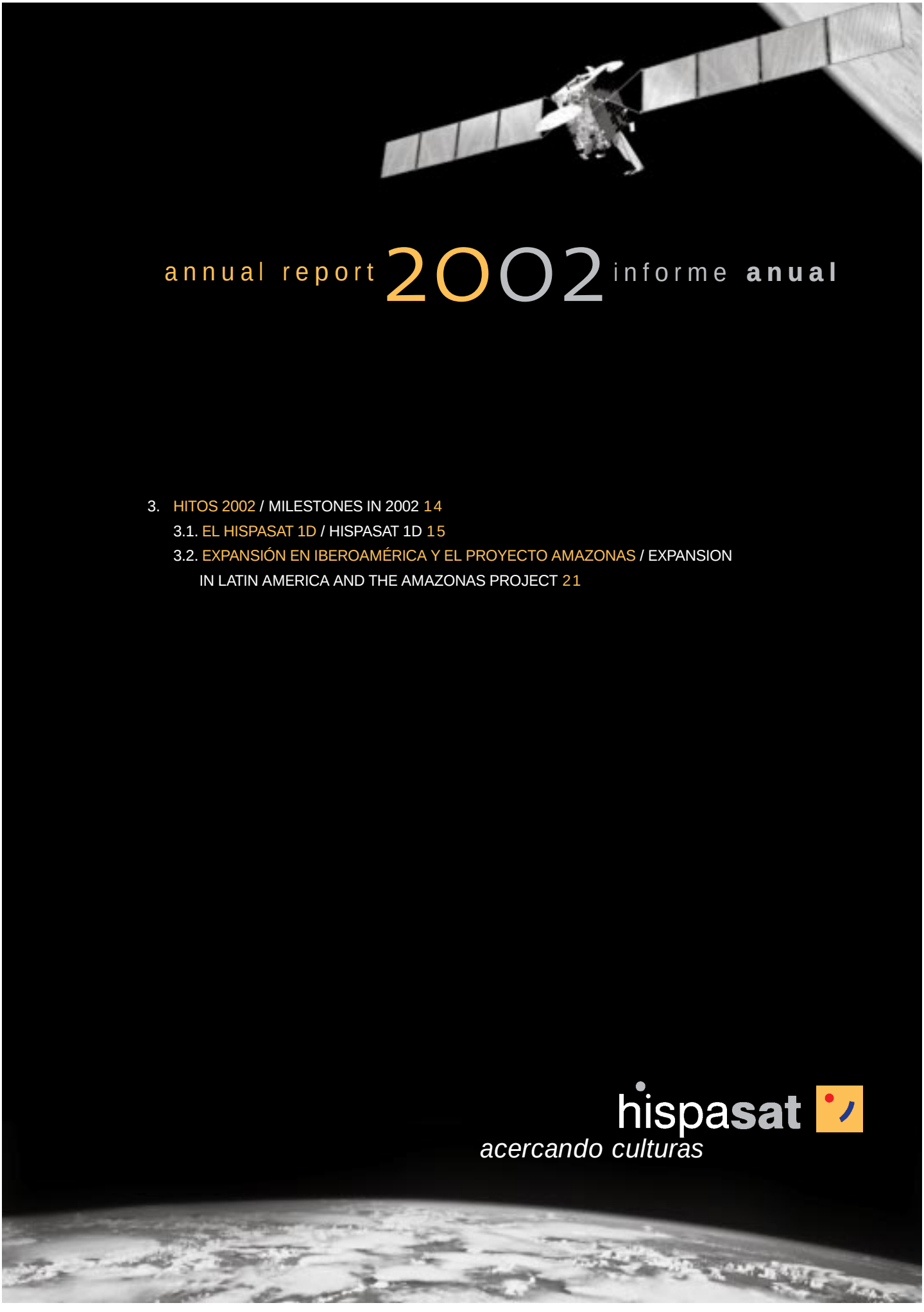
POSICIÓN POSITION	SATÉLITE SATELLITE	TRANSPONDEDORES TRANSPONDERS	LANZAMIENTO LAUNCH	VIDA ÚTIL OPERATING LIFE
30º Oeste/West	H1A/1B	23 Ku	1992/1993	10 años/years
30º Oeste/West	H1C	24 Ku	2000	15 años/years
30º Oeste/West	H1D	28 Ku	2002	15 años/years
30º Oeste/West	SpainSat	13x,1ka	2004	15 años/years
51º Oeste/West	Amazonas	35 Ku, 27C	2004	15 años/years
IOR (TBO)	Xtar-Eur	12x	2004	15 años/years

up of the manufacturing, assembly and testing process of the equipment.

DEVELOPMENT OF NEW BUSINESS AREAS RELATED TO BROAD BAND SERVICES HISPASAT began to prepare to render services in 2002 for IP transport by satellite to Multimedia Service Operators and internet access via satellite in the scope of new growth projects and in the area of strategic decisions to participate in other segments of the value chain of satellite communication services closer to the end user. General Authorization type "C" was obtained after being requested from the Telecommunications Market Commission (CMT), which will allow HISPASAT to render the following services: network interconnection, Internet access provider and content distribution. A license type "C2" has also been requested from the CMT, which will allow HISPASAT to render Broadband services by satellite with its own network.

CONSOLIDATION AND COMMERCIALIZATION OF THE 30º WEST POSITION After the success of the launch and putting into orbit of the fourth satellite of its fleet, Hispasat 1D, in September 2002, HISPASAT has consolidated the 30º West position, and has thus achieved three objectives: replacing the 1A and 1B satellites, whose operating life ends during 2002 and 2003 respectively; provide the HISPASAT System with additional capacity with American connectivity con, and have connectivity with the Mid East, thus allowing for communications to be established with this area from the US in one single leap.

This increase in capacity allows for HISPASAT to consolidate itself as an operator of reference of DTH in Spain and Portugal and to be able to attend the communication needs of the Spanish Digital TV platform resulting from the merger of Canal Satélite Digital and Vía Digital.



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hispasat

acercando culturas

▶LANZAMIENTO DEL 1D
▶EXPANSIÓN EN IBEROAMÉRICA Y EL PROYECTO AMAZONAS

El Hispasat 1D

España es uno de los pocos países europeos que cuenta con una empresa propia operadora de satélites de comunicaciones, fruto del esfuerzo y la inversión de los accionistas de HISPASAT, potenciando la presencia española en el sector aeroespacial y de las telecomunicaciones. Ello le ha permitido ser, desde el inicio de sus actividades, un eslabón esencial en la vías de comunicación entre Europa y América gracias, sobre todo, a las ventajas que ofrece su posición orbital en 30º Oeste. Ventana orbital convertida en uno de sus mayores activos y que le permite cubrir y prestar servicios de comunicaciones, con la mayor flexibilidad, en ambos continentes y en el norte de África.

En este contexto, el éxito del lanzamiento del Hispasat 1D, el 18 de septiembre de 2002, y su entrada en servicio, el pasado diciembre, ha supuesto la consolidación de su desarrollo empresarial sobre dicha posición, convirtiéndose, así, en el hito más destacado de la compañía en el ejercicio 2002.

Con el Hispasat 1D se cumplen varios objetivos. El primero de ellos, reemplazar a los dos primeros satélites lanzados por el operador español, Hispasat 1A y 1B, cuya vida operativa finaliza a lo largo del 2003. El segundo, ampliar la capacidad espacial y las coberturas geográficas del Sistema HISPASAT en sus principales mercados de referencia: España, resto de Europa, América y Norte de África, disponiendo, a su vez, de conectividad con Oriente Próximo, lo que le permitirá establecer comunicaciones con ese área desde EEUU.

De hecho, sus amplias coberturas y la alta potencia radiada lo configuran como la mejor plataforma satelital para la prestación de servicios de comunicaciones (TV multiprograma, Internet en banda ancha y servicios corporativos). Sus 28 transpondedores activos pueden acomodar más de 300 canales típicos de TV digital y han reforzado notablemente los servicios de las plataformas de TV digital por satélite que, a fecha 31 de diciembre de 2002, utilizan el Sistema HISPASAT (VIA DIGITAL, TV CABO en Portugal y RTVE en América), para la difusión de sus contenidos. Con este satélite además HISPASAT pone a disposición de todos los ciudadanos una infraestructura de comunicación capaz de permitir el desarrollo de los nuevos servicios en banda ancha, cada vez más solicitados en la sociedad y el mundo empresarial.

Plataforma SPACEBUS 3000B ▶ El alto nivel tecnológico de la plataforma SPACEBUS 3000B del satélite, construida por Alcatel Space, con una masa en el lanzamiento superior a las tres toneladas, incorpora los últimos avances técnicos desarrollados por la industria española (Alcatel Espacio, CASA Espacio, GMV, Indra Espacio, Rymsa y Sener) en el área de antenas, repetidores y plataforma. Estos avances garantizarán una excelente calidad en la prestación de los servicios de comunicación a lo largo de los 15 años de la vida útil del satélite.

La plataforma está equipada con tres antenas desarrolladas por CASA Espacio, con las que se ofrecen excelentes servicios sobre América y Europa. Por su parte, la compañía española Indra Espacio ha si-

MILESTONES in 2002

▶LAUNCHING OF 1D
▶EXPANSION IN LATIN AMERICA AND THE AMAZONAS PROJECT

Hispasat 1D

Spain is one of the few European countries that has its own satellite communication operator, which is the result of hard work and investments of Hispasats' shareholders who promote the Spanish presence in the airspace and telecommunications sector. This has allowed the company, from the beginning of its activity, to be an essential link in the communication channels between Europe and America, especially due to the advantages its orbit position at 30º West provides. It is an orbital window converted into one of the most important assets, which allows for rendering communication services with greater flexibility on both continents and in Northern Africa.

In this sense, the success of the Hispasat 1D launching on September 18th, 2002, and its coming into service last December has meant the consolidation of the business development at said position, thus becoming the most important milestone of the company in 2002.

Several objectives are reached with Hispasat 1D. The first one is the replacing of the two satellites launched by the Spanish operator, Hispasat 1A and 1B, whose operating life finishes in 2003. The second is the increase in spacial capacity and geographic coverage of the HISPASAT System in the main markets of reference: Spain, the rest of Europe, America and Northern Africa, thus providing connectivity with the Mid East, which will allow communications to be established with this area from the U.S.

In fact, its large coverage and high broadcasting power make it the best satellite platform for rendering communication services (TV multi-program, broadband Internet and corporate services).

do la encargada de suministrar el Segmento Terreno de Control del satélite, que comprende tanto los equipos necesarios para el control del nuevo satélite 1D, como las pruebas de validación y verificación preceptivas previas a su entrada en funcionamiento, que fueron realizadas en el 2002.

Mayor potencia y cobertura geográfica ▶ El diseño y configuración técnica del satélite Hispasat 1D ha permitido ampliar la cobertura geográfica y potencia radiada de los anteriores satélites de HISPASAT. La huella del nuevo satélite cubre Europa, América y norte de África, e incorpora en su diseño, como gran novedad, un haz específico orientado a Oriente Medio. Este haz permitirá, por primera vez, a HISPASAT ofrecer a sus clientes servicios de comunicaciones con conectividad en los mercados asiáticos.

Su cobertura europea abarca desde Islas Canarias hasta Rusia y desde Escandinavia hasta el Norte de África. En esta cobertura, se pueden llegar a asignar hasta 23 transpondedores, consiguiendo optimizar al máximo la capacidad espacial, adaptándola en todo momento a las necesidades operativas de sus clientes.

El mapa de cobertura sobre el continente americano cubre desde Canadá a Tierra del Fuego, mejorando las actuales prestaciones sobre América de los satélites HISPASAT. Para esta cobertura, el satélite Hispasat 1D tiene asignados hasta 12 transpondedores de alta potencia, con conectividad América-América. Además, el nuevo satélite ofrece una mayor capacidad con conectividad entre Europa y América.

Su lanzamiento y puesta en órbita ▶ El satélite 1D fue puesto en órbita desde el Complejo de Lanzamiento Espacial de Cabo Cañaveral en Florida (Estados Unidos), utilizando un lanzador ATLAS IIAS, fabricado por la compañía americana International Launch Services, de Lockheed Martin. A efectos de conseguir la máxima capacidad del lanzador, se seleccionó una estrategia de lanzamiento denominada super-síncrona, consistente en utilizar una órbita de transferencia con el máximo apogeo posible.

Una vez lanzado, y previamente a su entrada en funcionamiento, el satélite fue sometido con éxito, desde el Centro de Control de Satélites de Arganda del Rey, a un amplio programa de pruebas en órbita, tanto de la plataforma satelital SPACEBUS 3000B de Alcatel como de los 28 transpondedores que configuran su carga útil, para comprobar su perfecto funcionamiento.

Estas pruebas, iniciadas catorce días después de su lanzamiento, se hicieron con el satélite en la posición 26º Oeste con el objetivo de evitar interferencias en los satélites 1A y 1B. Se dedicaron un total de seis estaciones terrenas para el conjunto de operaciones (cálculo de órbita, control del satélite y pruebas de transmisión de señales), realizándose las operaciones de control del satélite desde Cannes. Una vez finalizadas las pruebas, el satélite se trasladó a su ventana orbital definitiva en 30º Oeste, iniciándose la transferencia de servicios del 1A y su comercialización.

A partir de su entrada en explotación, se ha completado la transferencia de los servicios del satélite 1A y la mayor parte de los del 1B que, en todo caso, mantendrá los servicios en banda X para el Ministerio de Defensa, hasta la entrada en operación del satélite SPAINSAT. Para ello, el satélite 1B deberá colocarse en órbita inclinada a lo largo del año 2003.

Proyección pública del lanzamiento ▶ El lanzamiento del satélite Hispasat 1D tuvo una amplia repercusión pública e informativa. HISPASAT, acompañado de un amplio número de invitados, entre los que se encontraban el Ministro de Ciencia y Tecnología, Josep Piqué, el Alcalde

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Its 28 active transponders can accommodate more than 300 typical digital TV channels and have notably reinforced the platform services of satellite digital TV that as of December 31st 2002, use the HISPASAT System (VIA DIGITAL, TV CABO in Portugal and RTVE in América), to broadcast their content. With this satellite HISPASAT also makes a communication infrastructure available for the people that is capable of developing new broadband services which are in more and more demand by society and the business world.

SPACEBUS 3000B PLATFORM

The high technological level of the SPACEBUS 3000B platform of the satellite, built by Alcatel Space, with a launching mass greater than three tons, incorporates the newest technological advances developed by the Spanish industry (Alcatel Espacio, CASA Espacio, GMV, Indra Espacio, Rymsa and Sener) in the area of antennas, repeaters and platforms. These advances guarantee excellent quality in the rendering of communication services during the 15 years of the satellite's operating life.

The platform is equipped with three antennas developed by CASA Espacio, which offer excellent service for America and Europe. Meanwhile the Spanish company Indra Espacio has been in charage of supplying the Ground Control Segment of the Satellite which makes up the necessary equipment for the control of the new 1D satellite such as the compulsory validation and verification tests prior to coming into operation, which were conducted in 2002.

GREATER POWER AND GEOGRAPHIC COVERAGE

The technical configuration and design of the Hispasat 1D satellite has provided an increase in geographic coverage and broadcasting power for the previous HISPASAT satellites. The coverage includes Europe, America and North Africa and includes a new feature in its design, a specific beam pointed at the Mid East. This beam will allow HISPASAT to offer its clients for the first time communication services with connectivity to Asian markets.

Its European coverage includes the Canary Islands to

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▼ Momento en que el Hispasat 1D despega a bordo del lanzador Atlas II AS rumbo a su órbita geoestacionaria.

Russia and from Scandanavia to Northern Africa. Up to 23 transponders can be assigned in this coverage thus being able to optimize the spacial capacity to a maximum and adapting it at all times to the operating needs of its clients.

The coverage map on the American continent covers Canada to Tierra del Fuego, thus improving current performance in America of HISPASAT's satellites. For this coverage the Hispasat 1D satellite has up to 12 high-powered transponders with America-America connectivity between Europe and America.

LAUNCHING AND PUTTING INTO ORBIT

The 1D satellite was put into orbit from the Space Launching Compound in Cape Canaveral, Florida (US), using an ATLAS IIAS launcher, made by the American company International Launch

▼ Foto de familia de los invitados de HISPASAT en Cabo Cañaveral donde siguieron en directo el lanzamiento del satélite 1D.

▼ En Madrid, los invitados de HISPASAT siguen el lanzamiento desde la sala Unesco del Palacio de Congresos y Exposiciones.

▼ **Finalizado** con éxito el lanzamiento, HISPASAT e ILS realizaron el tradicional intercambio de banderas de ambas compañías.

▼ **Grupo** de invitados de HISPASAT en Cabo Cañaveral siguiendo el despegue.

Services, of Lockheed Martin. In order to obtain maximum launcher capacity, a launching strategy was chosen called super-synchronous, which consists of the use of a transfer orbit with the maximum possible apogee.

Once it is launched and prior to being put into operation, the satellite was successfully submitted to a wide range of tests in orbit from the Satellite Control Center in Arganda del Rey, encompassing the SPACEBUS 3000B satellite platform of Alcatel and the 28 transponders that make up the payload in order to verify its perfect operation.

These tests were initiated fourteen days after launching and were conducted with the satellite in the 26º West position in order to avoid interference with the 1A and 1B satellites. A total of six ground stations were used for the operations (orbit calculation, satellite control and signal broadcasting tests), with satellite control operations being conducted from Cannes. Once the tests were finished, the satellite moved its orbital window to 30º West, thus beginning the transfer of services from the 1A and its commercialization.

Once put into operation, the transfer of services from the 1A satellite was completed and the most of those from the 1B which,

in any case, will maintain the X-band services for the Defense Department until the SPAINSAT satellite is put in operation. In order to do so, the 1B satellite must be placed in inclined orbit during 2003.

PUBLIC SCOPE OF THE LAUNCH

The launching of the Hispasat 1D satellite had a large public and informative repercussion. HISPASAT, accompanied by a large number of guests, among whom were the Minister of the Science and Technology Department, Josep Piqué, the Mayor of Madrid, José María Álvarez del Manzano and other important members of the Administration, as well as some of our board members, shareholders and clients, plus Directors of telecommunication and audiovisual companies chartered an airplane to follow the event live from the Cape Canaveral facilities.

The Spanish Minister of Science and Technology, Josep Piqué, who witnessed the event live from the US space center, stated that the launching of the Hispasat 1D "is a clear expression of the capacity and competitiveness of Spanish technology", and it will also be "very important for our country to provide content in Spanish to an immense amount of people". Likewise, HISPASAT's Chairman, Pedro Antonio Martín Marín, pointed out that the new satellite is destined to be "a reference point in Spanish communication" and it will provide the company with "additional capacity to improve operations of the HISPASAT System and consolidate it as the main operator in Spanish and Portuguese speaking markets".

At the same time, HISPASAT held a cocktail-dinner in the Palacio de Congresos y Exposiciones of Madrid, where relevant individuals of the Public Administration and companies in the telecommunications sector as well as company employees followed the launching live via closed circuit television produced by HISPASAT in collaboration with Retevisión. We must point out the important repercussion in the news and media: more than three hours of television news, nearly six hours of radio news and a wide coverage in the newspapers.

de Madrid, José María Álvarez del Manzano y otras personalidades de la Administración, algunos de nuestros consejeros, accionistas y clientes, así como directivos de empresas del sector de las telecomunicaciones y del mundo audiovisual, fletó un avión para seguir en directo el acontecimiento desde las instalaciones de Cabo Cañaveral.

El ministro español, Josep Piqué, que presenció en directo desde el centro espacial estadounidense, manifestó que el lanzamiento del Hispasat 1D "es una clara expresión de la capacidad y competitividad de la tecnología española", y que permitirá además algo "muy importante para nuestro país, que es hacer llegar a una inmensa cantidad de personas del mundo contenidos en español". Por su parte, el Presidente de HISPASAT, Pedro Antonio Martín Marín, subrayó que el nuevo satélite está llamado a ser "un referente de la comunicación en español" y dotará a la compañía de "capacidad adicional para mejorar la operatividad del Sistema HISPASAT y consolidarlo como el principal operador en los mercados de habla hispana y portuguesa".

Paralelamente, HISPASAT celebró en el Palacio de Congresos y Exposiciones de Madrid un cóctel-cena, donde relevantes personalidades de la Administración y de las empresas del sector de las telecomunicaciones, acompañados por los empleados de la compañía, pudieron seguir en directo el lanzamiento, a través del programa de televisión en circuito cerrado producido por el propio HISPASAT en colaboración con Retevisión. Hay que destacar la gran repercusión informativa alcanzada por el lanzamiento en los medios de comunicación: Más de tres horas de información de televisión, cerca de seis de radio y una amplia cobertura en la prensa escrita.

'Espacio HISPASAT' ▶ Esta repercusión informativa se proyectó también sobre la exposición "Espacio HISPASAT" realizada en el Palacio de Congresos y Exposiciones Madrid, los días 16, 17 y 18 de septiembre, con el objetivo de mostrar al público todo lo que rodea el lanzamiento de un satélite de comunicaciones y las empresas que

▼ Las cadenas de radio Onda Cero y RNE realizaron, los días 16 y 18 de septiembre, respectivamente, una programación especial dedicada al lanzamiento del Hispasat 1D desde la exposición 'Espacio HISPASAT'.

colaboran en su construcción, financiación y puesta en órbita. La exposición contó con la colaboración de 15 empresas relacionadas con HISPASAT y con la construcción del satélite 1D. Los stands correspondieron a empresas accionistas de HISPASAT como Eutelsat, Retevisión, Grupo Telefónica (Admira), SEPI, EADS-CASA Espacio, INTA, CDTI-ESA; a empresas suministradoras como Indra Espacio, Sener, GMV y a clientes como RTVE, Vía Digital y Antena 3. También hubo un stand de ILS, compañía lanzadora del satélite, y de Allianz, compañía coaseguradora de la póliza del seguro del lanzamiento.

El Hispasat 1D está llamado a ser un referente de la comunicación en español

Expansión en Iberoamérica

HISPAMAR y el proyecto AMAZONAS ► Desde el inicio de su actividad HISPASAT ha contribuido a transformar sus satélites de comunicaciones en una gran plataforma cultural que distribuye la cultura, los negocios, el conocimiento y el entretenimiento en lengua española y portuguesa a ambos lados del Atlántico, confiriéndole un potencial esencial de crecimiento del que carecen otros operadores de satélites en el continente americano. De esta manera, el mercado iberoamericano, los países de habla hispana y Brasil, donde HISPASAT lanzará un nuevo satélite de comunicaciones –el AMAZONAS– en el año 2004, cobran un valor estratégico esencial para el futuro de HISPASAT. No sólo por los lazos de unión, históricos, culturales y lingüísticos, que se mantienen con América, sino por la extraordinaria aportación que los satélites de comunicaciones pueden realizar, máxime siendo una zona con bajo nivel de equipamiento de infraestructuras tradicionales de telecomunicaciones, para su futuro desarrollo económico y social.

Con esta perspectiva, HISPASAT ha dado un paso decisivo en 2002 para afianzar la implantación de la compañía en Iberoamérica, cumpliendo con uno de sus objetivos estratégicos: su internacionalización y

'ESPACIO HISPASAT'

This informative repercussion was also projected at the exhibit "Espacio HISPASAT" held at the Palacio de Congresos y Exposiciones in Madrid, on the 16th, 17th and 18th of September, in order to show the public everything that goes into launching a communication satellite and the companies that collaborate in its construction, financing and placement in orbit. There were 15 companies related to HISPASAT and the construction of the 1D satellite that collaborated in the exhibit. The stands were for shareholder companies of HISPASAT such as Eutelsat, Retevisión, Telefónica Group (Admira), SEPI, EADS-CASA Espacio, INTA, CDTI-ESA; and suppliers like Indra Espacio, Sener, GMV and customers such as RTVE, Vía Digital and Antena 3. There was also a stand for ILS, the satellite launching company, and for Allianz, one of the co-insurer in the launch insurance policy.

Expansion in Latin America: HISPAMAR and the AMAZONAS project

From the beginning of its activity, HISPASAT has contributed to transform its communication satellites into a large cultural platform that distributes culture, business, knowledge and entertainment in Spanish and Portuguese on both sides of the Atlantic, thus conferring essential growth potential that other satellite operators on the American continent lack. Thus, the Latin American market and the Spanish-speaking countries as well as Brazil, where HISPASAT will launch a new communications satellite -the AMAZONAS- in 2004, take on essential strategic value for the future of HISPASAT. And this is not only because of historic, cultural and linguistic ties with America, but also because of the extraordinary contribution that the communication satellites can make, especially since it is an area with a low level of traditional telecommunication equipment for its future economic and social development.

With this perspective, HISPASAT took a decisive step in 2002 to reinforce the implantation of the company in Latin America, thus meeting one of its strategic objectives: its internationalization and expansion to new markets by

▼ **Exposición** Espacio HISPASAT realizada en el Palacio de Congresos y Exposiciones de Madrid con motivo del lanzamiento del Hispasat 1D.

expansión hacia nuevos mercados, a través del proyecto AMAZONAS como clave para su desarrollo. Este proyecto supone la colocación en la posición orbital 61º Oeste de un futuro satélite, el más grande de la flota de HISPASAT que dará cobertura, con capacidad transatlántica y panamericana, a Brasil y el resto de América, a Europa y al Norte de África, permitiendo asimismo complementar la cobertura del actual Sistema HISPASAT en el Oeste de los Estados Unidos.

El Amazonas se convertirá en un puente tecnológico inmejorable para unir aún más ambos continentes. A través de él, HISPASAT tiene previsto ofrecer una completa gama de servicios entre los que se encuentran, además de los tradicionales servicios de telecomunicaciones por satélite, la difusión de contenidos, acceso a Internet y servicios de banda ancha. El AMAZONAS será, por tanto, el primer satélite concebido y diseñado para Iberoamérica, con coberturas y potencias adecuadas a las necesidades específicas de comunicación satelital de la región.

▼ El Hispasat 1D se construyó en la factoría de Alcatel Space en Cannes.

HISPAMAR SATÉLITES ▶ Entre los hitos más destacados hay que señalar la firma, en junio de 2002, de los acuerdos definitivos entre HISPASAT y TELEMAR, operador brasileño de telefonía fija para el Norte y Este de Brasil, para el desarrollo del proyecto AMAZONAS, por el cual el operador brasileño entró a formar parte del capital social de HISPAMAR SATÉLITES, filial brasileña de HISPASAT, encargada de la gestión del proyecto y de la comercialización de su capacidad satelital en América.

Los acuerdos, a su vez, incluyen la formalización por parte de TELEMAR de un contrato de alquiler anticipado de capacidad en Banda C que se inicia a partir de la entrada en explotación del satélite. Este contrato convierte a HISPAMAR SATÉLITES en el proveedor preferente de segmento espacial de TELEMAR. En este sentido, se ha elaborado conjuntamente entre HISPASAT, HISPAMAR SATÉLITES y TELEMAR, el correspondiente Plan de Transferencia de Servicios, que se ejecutará en el año 2004, a partir de la entrada en servicio del satélite AMAZONAS. También se ha iniciado una intensiva búsqueda de un satélite "gap-filler" de AMAZONAS (67º Oeste) para atender, en particular, las necesidades de TELEMAR y que sería parte de un plan de contingencia en caso de fallo del lanzamiento.

Por otra parte, en el ejercicio 2002 se produjeron los nombramientos de Luiz Francisco T. Perrone y Pedro Domínguez, como Presidente y Consejero Delegado, respectivamente, de HISPAMAR SATÉLITES.

También, en diciembre de 2002, se realizó la apertura de la nueva sede administrativa y comercial de la compañía en la zona de Flamingo en Río de Janeiro.

El satélite AMAZONAS ▶ Desde el punto de vista técnico, hay que destacar la selección de la oferta del fabricante europeo Astrium, para la construcción del satélite, cuyo contrato fue suscrito en enero de 2002. La configuración seleccionada es la de un satélite con 32 transpondedores activos en banda Ku y 19 transpondedores activos en banda C. La plataforma de Astrium es la Eurostar 3000 y tendrá, con una vida útil de 15 años, una masa total de lanzamiento de aproximadamente 4.600 Kg, la más grande de la actual flota de HISPASAT.

A lo largo del pasado ejercicio, se alcanzaron otros importantes hitos. Así en el mes de abril se llevó a cabo la primera revisión critica del diseño del satélite (PDR), habiéndose realizado asimismo las revisiones critica de diseño de importantes subsistemas como las antenas y el repetidor. Asimismo, se realizaron gestiones

El Amazonas será el primer satélite concebido y diseñado para Iberoamérica con coberturas y potencias adecuadas a necesidades específicas de comunicación en la región

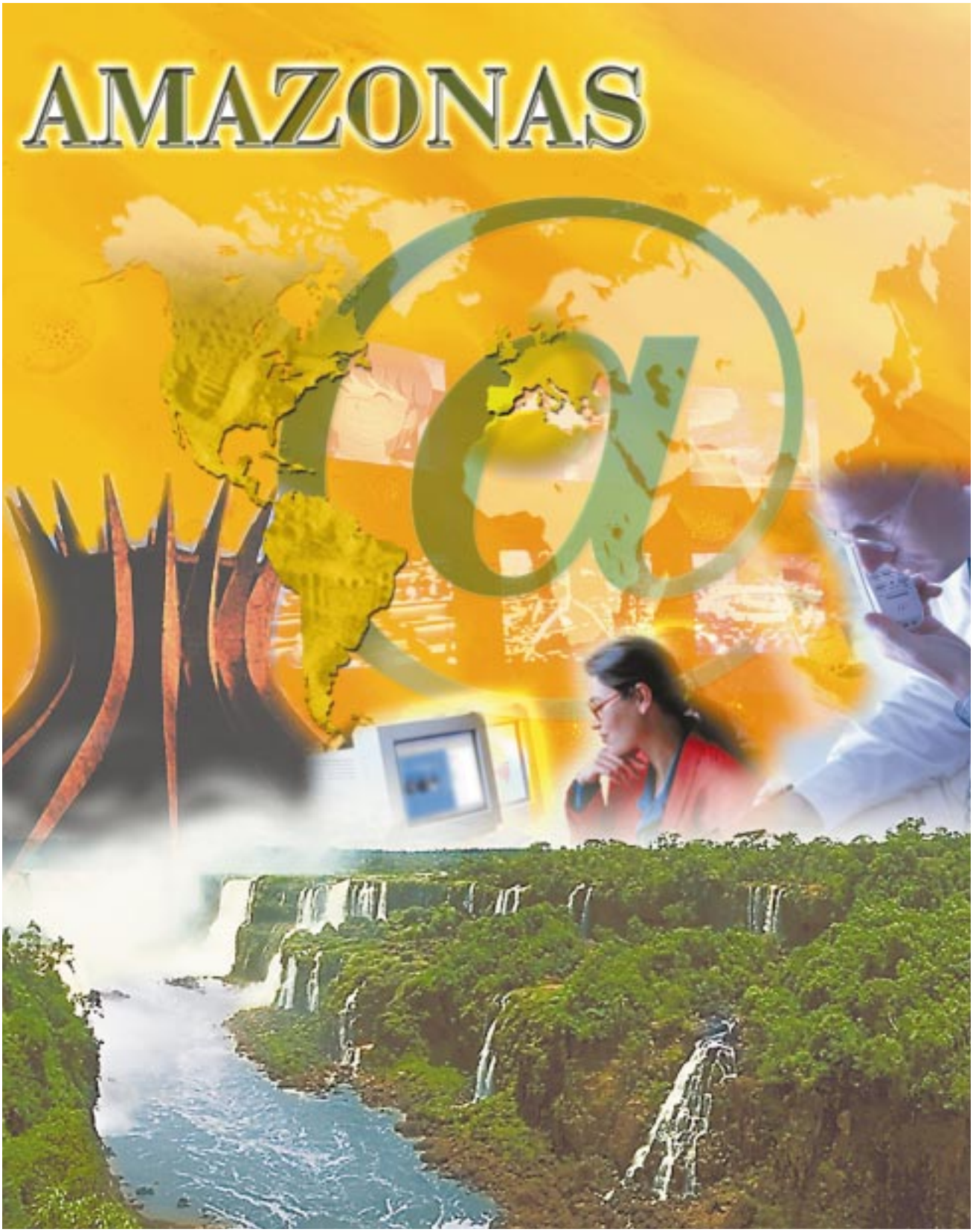
means of the AMAZONAS project as the key for its development. This project means the placement of a future satellite in the 61º West orbital position, the biggest of the HISPASAT fleet that will cover Brazil and the rest of America, Europe and Northern Africa with Transatlantic and Pan-American capacity, likewise allowing for coverage to be completed of the current HISPASAT System in the West of the United Sates and thereby becoming an excellent technical bridge to join the two continents even more.

With this satellite, HISPASAT has plans to offer a wide range of services including the traditional satellite telecommunication services as well as content broadcasting, Internet access and broadband services. AMAZONAS will therefore be the first satellite conceived and designed for Latin America with coverage and power appropriate for the specific needs of satellite communication in the region.

HISPAMAR SATELLITES

Amongst the most important milestones, we must highlight the signing in June 2002 of the definitive agreements between HISPASAT and TELEMAR, the Brazilian standard phone operator for the North and East of Brazil, for the development of the AMAZONAS project, which the Brazilian operator became part of the equity capital of HISPAMAR SATÉLITES, HISPASAT's Brazilian subsidiary company, in charge of managing the project and commercialization of its satellite capacity in America.

The agreements include the formalization by TELEMAR of an anticipated leasing contract in C-band, which begins with the start up, of the satellite. This contract makes HISPAMAR SATÉLITES the preferred supplier of TELEMAR's space segment. In this sense HISPASAT, HISPAMAR SATÉLITES and TELEMAR have jointly prepared the corresponding Service Transfer Plan, which will take place in 2004, after the service start-up of the AMAZONAS satellite. An intensive search has also begun to find a "gap-filler" satellite for AMAZONAS (67º West) to especially take care of TELEMAR's necessities which would be part of a


AMAZONAS

contingence plan in case of a launch failure.

Also in 2002 there were the appointments of Luiz Francisco T. Perrone and Pedro Domínguez, as Chairman and Managing Director, respectively, of HISPAMAR SATÉLITES.

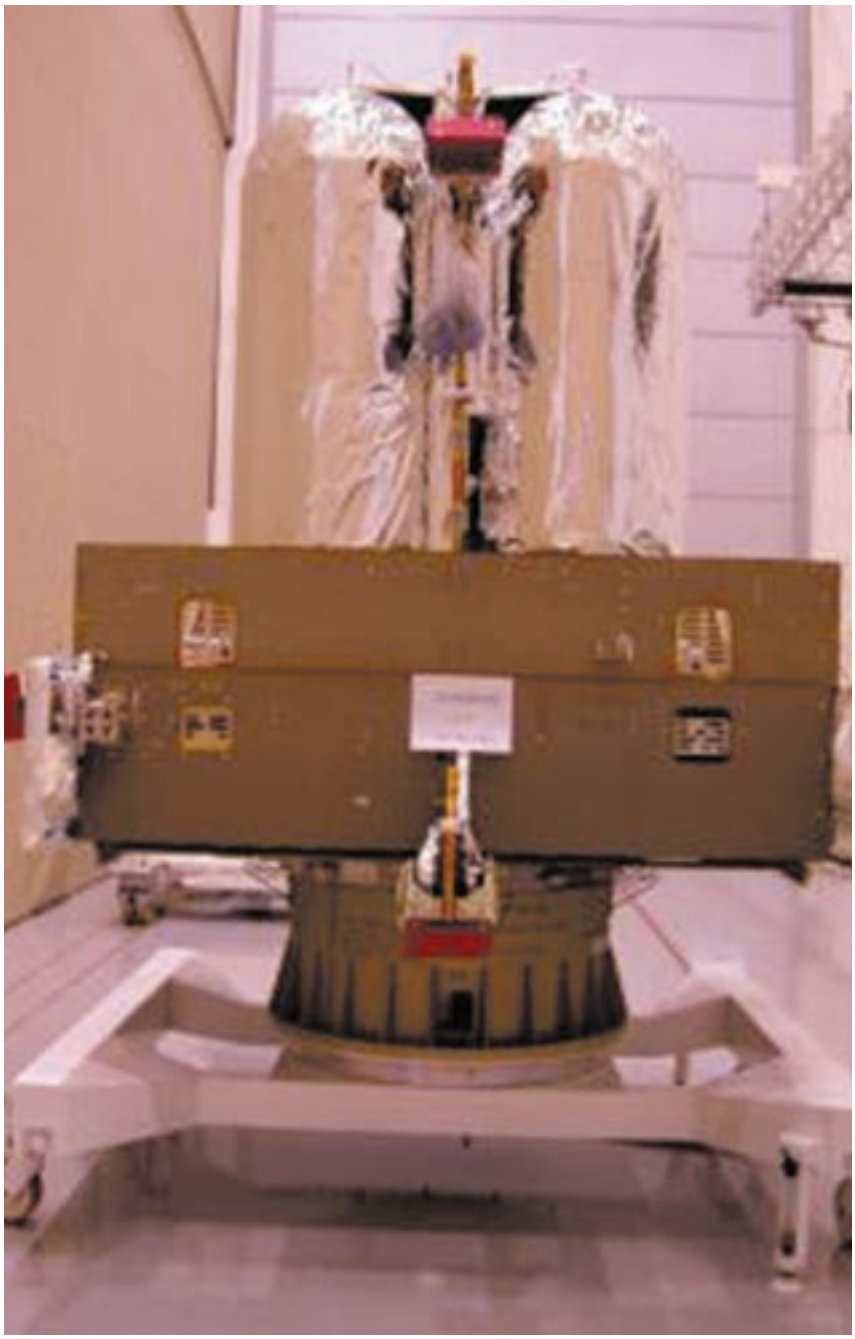
And in December 2002 was the opening of the new administrative and business headquarters of the company in the Flamingo area of Río de Janeiro.

THE AMAZONAS SATELLITE

From a technical point of view, the offer selection of the European manufacturer Astrium must be mentioned for the satellite construction, whose contract was subscribed in January 2002. The chosen configuration is a satellite with 32 active transponders in Ku-band and 19 active transponders in C-band. The Astrium platform is the Eurostar 3000 and it will have an operating life of 15 years, a total launching mass of approximately 4,600 Kg, the biggest of HISPASAT's current fleet.

Several milestones were achieved last year. In April the first critical revision of the (PDR) satellite design was carried out and likewise the critical revisions of the design of the important subsystems like the antennas and the repeater. Several steps were also taken to choose and hire the launching vehicle that will put the satellite in orbit.

As far as ground monitoring is concerned, the company gave the contract to Indra to carry out the construction of the facilities at the Control Center in Brazil. The control stations will be located in facilities the Emergia company has in the town of Recreo dos Bandeirantes, 50 kilometers from Río de Janeiro and the should be finished in July 2003.



▼ **Módulo** de servicio del satélite Amazonas construido por Astrium.

tendentes a la selección y contratación del vehículo lanzador que pondrá en órbita este satélite.

En cuanto al segmento terreno, la compañía ha adjudicado a Indra el contrato para llevar a cabo la construcción de las instalaciones del Centro de Control en Brasil. Las estaciones de control estarán situadas en unas instalaciones que la compañía Emergia tiene en la localidad de Recreo dos Bandeirantes, a 50 kilómetros de Río de Janeiro y deberán estar finalizadas en julio del 2003.

▼ Mapa de coberturas del satélite AMAZONAS.

annual report 2002 informe anual

hispasat

acercando culturas

- ACTIVIDAD COMERCIAL Y OCUPACIÓN DEL SISTEMA
- ACCESO A LA BANDA ANCHA. SERVICIOS MULTIMEDIA EN INTERNET
- OBTENCIÓN DE RECURSOS ORBITALES Y DERECHOS DE ATERRIZAJE
- PARTICIPACIÓN EN FOROS NACIONALES E INTERNACIONALES
- PRESENCIA DE HISPASAT EN FOROS Y EVENTOS
- ACTIVIDAD INSTITUCIONAL
- SEGMENTO TERRENO DE CONTROL

Actividad comercial y ocupación del Sistema

HISPASAT en el ejercicio 2002 incrementó notablemente su actividad comercial con el objetivo de asegurar la ejecución del proyecto de crecimiento en el que la compañía está inmersa. En este sentido, las actuaciones comerciales siguieron tres direcciones:

- Potenciar la comercialización de la capacidad espacial disponible en los satélites Hispasat 1C y 1D.

- Reforzar las relaciones comerciales con sus clientes actuales, cerrando acuerdos que permitan consolidar los servicios actuales y extender en el tiempo los compromisos contractuales.

- Ampliar y diversificar los mercados geográficos objeto de la acción comercial, así como las nuevas líneas de negocio.

Así, a lo largo del año 2002, a pesar de la crisis del sector de las telecomunicaciones, que ha repercutido en un menor índice de contratación, la tasa de ocupación de capacidad del Sistema HISPASAT se ha situado en torno al 85%.

De entre todas las actuaciones comerciales cabe reseñar los acuerdos alcanzados con los clientes actuales del sistema que utilizaban el satélite Hispasat 1A para su migración y renovación de los contratos sobre el recientemente lanzado Hispasat 1D. Este hecho, asegura una alta ocupación del sistema y la continuidad de los servicios que se venían prestando. En concreto, es importante resaltar la renovación realizada por el Grupo Telefónica y Retevisión de la capacidad utilizada en el Sistema HISPASAT.

Asimismo durante el año 2002, han entrado en operación comercial nuevos clientes que nos permite ampliar y diversificar nuestra cartera y realizar servicios transatlánticos donde el Sistema HISPASAT es claramente competitivo en el mercado de las comunicaciones de datos.

Por otra parte, HISPASAT ha visto incrementada la cobertura de sus servicios en nuevos mercados geográficos como Colombia, Cuba, Caribe y Marruecos.

Hay que señalar, no obstante, que las actividades comerciales en el ejercicio 2002 han puesto de manifiesto la clara tendencia del mercado a contratos de menor capacidad y de corta duración (3-5 años).

TOP
performance

- BISINESS ACTIVITY AND SYSTEM OCCUPATION
- BROADBAND ACCESS. MULTIMEDIA SERVICES AND INTERNET
- OBTAINING ORBIT AND LANDING RIGHTS
- PARTICIPATION IN NATIONAL AND INTERNATIONAL SUMMITS
- HISPASAT PRESENCE IN FAIRS AND EVENTS

Business activity and System occupation

HISPASAT notably increased its business activity in 2002 with the objective of assuring the execution of the growth project the company is involved in. Therefore, the business procedures went in three directions:

- Promotion of the commercialization of available space capacity in the Hispasat 1C and 1D satellites.

- Reinforcement of business relations with current clients by closing agreements in order to consolidate current services and to extend contractual commitments.

- Increase and diversify geographical markets object of business activity as well as new business areas.

Therefore, during 2002, despite the crisis in the telecommunications sector, which had lower repercussions in contracts, the occupation rate of HISPASAT's System capacity was around 85%.

Amongst all business activities we must highlight the agreements reached with current system clients that used the Hispasat 1A satellite for migration and renovation of contracts on the newly launched Hispasat 1D. This fact assures a large occupation of the system and continuity of services that were rendered. Specifically, it is important to point out the renovation made by the

▼ En el 2002 se instalaron nuevos equipos de control y antenas en el Centro de Control de Satélites de HISPASAT de Arganda del Rey que darán servicios al satélite 1D y a la plataforma multimedia de HISPASAT.

Por otro lado, ha crecido la demanda de servicios IP, servicios banda ancha y servicios multimedia frente a los tradicionales servicios de radiodifusión. No por ello ha dejado de ser importante para HISPASAT el acuerdo alcanzado con Globecast Francia para el desarrollo de una Plataforma Digital Europa-América, que unida a las ya constituidas con anterioridad con Telefónica Servicios Audiovisuales y Retevisión permiten a HISPASAT posicionarse como referente en el mercado de transporte de contenidos audiovisuales hacia América.

También se llegaron a importantes acuerdos de volumen con GLOBECAST ESPAÑA, RETEVISIÓN, TRADIA, Castilla La Mancha TELECOM para usos ocasionales y planificados de capacidad. En este sentido, HISPASAT ha logrado una relevancia internacional notable gra-

cias a los eventos distribuidos a través de su flota, con la transmisión de diversos acontecimientos deportivos (GP de Fórmula 1 , ATP Tenis, partidos de fútbol de la liga española y portuguesa, la Vuelta a España,…) e informativos.

A lo largo del año 2002 ha entrado en operación la nueva red VSAT corporativa de UNION FENOSA que permite la interconexión de los cientos de centros operativos de esta compañía en Europa y América. La nueva red de telecomunicaciones vía satélite se orienta en un principio a la transmisión de datos, con posibilidad de ampliarla a comunicaciones de voz en un futuro. Además, se ha puesto en marcha una red de comunicaciones para la Dirección General de Protección Civil que permite dotar a este organismo de una red de cobertura nacional de alta fia-

Telefónica Group and Retevisión of capacity used in the HISPASAT System.

Likewise, during 2002, new clients have come into business operations which allows us to increase and diversify our client portfolio and conduct transatlantic services in which the HISPASAT System is clearly competitive in the data communication market.

HISPASAT has also had to increase the coverage of its services in new geographical markets like Colombia, Cuba, the Caribbean and Morocco.

Nevertheless we must point out that the business activities in 2002 clearly show that the market trend is for lesser capacity contracts and for less time (3-5 years). On the other hand, the demand for IP services has grown as well as broad band and multimedia service compared to traditional broadcasting services. Nevertheless the agreement reached with Globecast Francia to develop a Digital European-American Platform is very important and that, together with those already made with Telefónica Servicios Audiovisuales and Retevisión, allow HISPASAT to position itself as a reference in the audiovisual content transport market towards America.

Important volume agreements were also reached with GLOBECAST ESPAÑA, RETEVISIÓN, TRADIA, and Castilla La Mancha TELECOM for occasional planned use of capacity. In this sense, HISPASAT ha gained notable international relevance thanks to events distributed via its fleet, with the transmission of several sporting events (Formula 1, ATP Tennis, Spanish and Portuguese football matches, the cycling event Vuelta a España, ...) and news.

During 2002 the new corporate VSAT network of UNION FENOSA came into operation which allows this company's operating centers to interconnect in Europe and America. The new via satellite telecommunications network is mainly aimed for data transmission, with the possibility of including voice communication in the future. Likewise, a

communication network was put into operation for the Civil Protection Organization which provides it with a network with highly reliable national coverage to handle voice and data communication in critical and emergency situations.

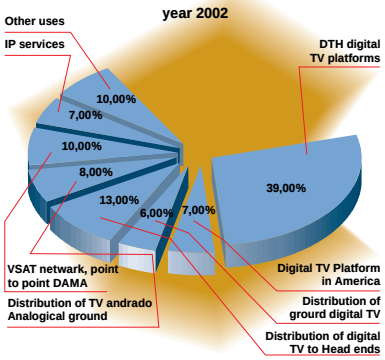
The success in the migration of the audiovisual sector to broadband satellite services and the penetration into new markets (America, Europe and the Mediterranean) allow for a forecast of sustained growth for HISPASAT's.

Lastly, we must highlight that during 2002, the contracts with the Defense Department have continued satisfactorily via X-band capacity and the support network in Ku-band which make up the governmental mission of the system.

SYSTEM OCCUPATION AND SERVICES

The Hispasat 1D came into service in December 2002 and provoked an increase in the total available capacity of the system of over 1,841 MHz available at 2,077 MHz. The transfer of services that the Hispasat 1A satellite used to the Hispasat 1D was successfully carried out and did not cause any inconvenience for the clients from a quality point of view. In this manner the capacity of the Hispasat 1A satellite was totally freed up as had be planned for the end of its operating life.

Services on Hispasat System



NETWORK DESIGN, NETWORK MANAGEMENT AND CONTROL

In 2002 the technical analyses were also carried out that were needed to adapt all operating networks in the Hispasat 1A

▼ Una constante renovación del sistema ha permitido tener preparadas las instalaciones de cara al lanzamiento y puesta en órbita del nuevo satélite Hispasat 1D.

bilidad para soportar comunicaciones de voz y datos en situaciones críticas y de emergencia.

Asimismo, el éxito en la migración del sector audiovisual a los servicios de banda ancha por satélite y en la penetración en nuevos mercados (América, Europa y Cuenca Mediterránea) permiten prever un crecimiento sostenido en el negocio de HISPASAT.

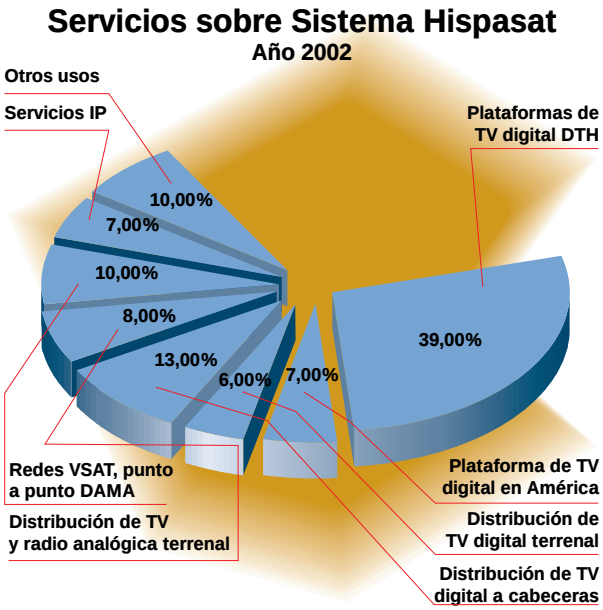
Por último, reseñar que durante el ejercicio 2002, se han continuado prestando a plena satisfacción los servicios contratados con el Ministerio de Defensa a través de la capacidad en banda X y la red de respaldo en banda Ku que constituyen la misión gubernamental del sistema.

Servicios y ocupación del Sistema ▶ La entrada en servicio del satélite Hispasat 1D en diciembre de 2002 ha supuesto un aumento de la capacidad total disponible en el sistema, pasando de 1.841 MHz disponibles a 2.077 MHz. La transferencia de los servicios que utilizaban el satélite Hispasat 1A al Hispasat 1D fue realizada con éxito, no habiendo supuesto ningún inconveniente para los clientes desde el punto de vista de calidad. De esta forma, se liberó totalmente la capacidad del satélite Hispasat 1A tal como estaba previsto al finalizar su vida útil.

Diseño de redes, control y gestión de red ▶ En el ejercicio 2002 se han realizado también los análisis técnicos necesarios para la adaptación de todas las redes operativas en el satélite Hispasat 1A a las nuevas características técnicas del Hispasat 1D, teniendo en cuenta las ventajas tecnológicas de este nuevo satélite (ampliación de coberturas sobre Europa, linealizadores, etc.).

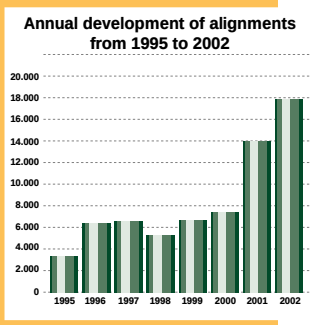
La planificación coordinada de todas las actividades de diseño, control y gestión ha permitido el éxito de la transferencia de todos los servicios en los tiempos planificados y sin incidencias operacionales.

Por otra parte, en el año 2002, continuó la tendencia creciente de transmisiones, debido fundamentalmente al aumento de equipos de transmisión de TV digital instalados por los usuarios del sistema y, como consecuencia, al aumento del número de portadoras de TV por transpondedor. Adicionalmente, la mejora en la capacidad de compresión de



satellite to the new technical characteristics of the Hispasat 1D, taking into consideration the technological advantages of this new satellite (increase of coverage for Europe, linearizers, etc.).

The coordinated planning of all of the design, control and management activities has meant the success in transferring all the service in the planned times and without operational incidents.



Likewise in 2002 the transmission growth trend continued mainly due to the increase in digital TV transmission equipment installed by system users and, as a consequence, there was an increase in the number of TV carriers per transponder. Additionally, the improvement in compression capacity of equipment allows for the broadcasting of quality signals on smaller and smaller broadband.

The total number of alignments made in 2002 was eighteen thousand two hundred and thirty three, a new record for alignments made in one year and an increase of 29% compared to the year before.

In regards to the new ground stations coming into service, more than 600 new stations came into service in 2001 of which 52 are ground stations with a diameter greater than 1.8 m. It must also be pointed out that 42 new transportable stations came into service in the HISPASAT system this year, which contributed to the consolidation of occasionally offered services.

Broadband Access, Multimedia Services and Internet

HISPASAT is aware of the growing need for broadband communications propelled by the growing convergence between information and entertainment, which requires faster connections to global information infrastructures. The target markets of broadband service vary from some systems to others although the majority focuses on Internet access as the star service for the market. Once the multimedia service platform is established, the list of end services to offer through HISPASAT is never-ending: file transfer, Internet access, electronic commerce, telework, VPN, interconnection of LAN's, etc.

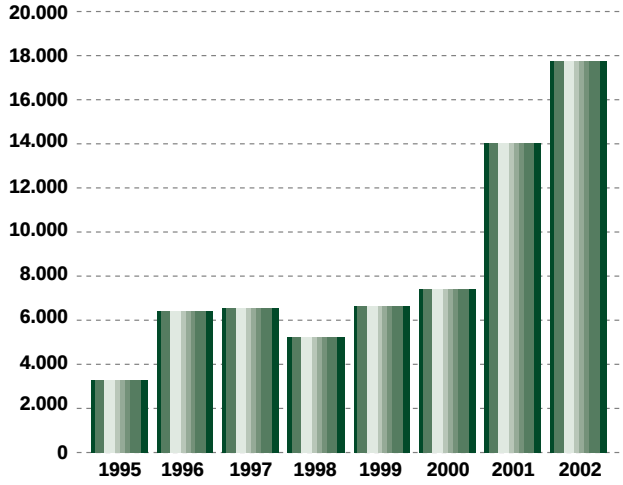
HISPASAT considers, without any doubt, that its future will be based on broadband and new technologies. Proof is that it was a pioneer in developing the standard DVB-S, which not only implies broadcasting TV signals in MPEG-2 form, but also consists in supporting transport for the majority of digital communications, whether they be video, audio or data. HISPASAT is continually developing projects based on interactivity, return channel via satellite, IP network design, voice on IP and TCP-SAT tunnels for different technological projects.

Moreover, the different multimedia services (associated with INTERNET technology) that HISPASAT can offer on its satellite system, are potentially unending with a large number of them already provided by our satellites; the most significant are:

- Backbone services, which are considered to be links between two points of INTERNET data flow of capacities that can vary between 8 Mbps and 52 Mbps.
- Internet services for end users.
- VPN services with Internet access via VSAT or DVB-RCS networks.

Thanks to this work during 2002, HISPASAT carried out the start-up of the pilot stage of a bi-directional satellite service network that allows for providing IP connectivity services and

Evolución de alineamientos en los años 1995 a 2002



los equipos está permitiendo transmitir señales de calidad en anchos de banda cada vez menores.

El número total de alineamientos realizados en el año 2002 ha sido de dieciocho mil doscientos treinta y tres, que es un nuevo máximo histórico de alineamientos realizados en un año, y que supone un incremento del 29% respecto al año anterior.

En relación con la entrada en servicio de nuevas estaciones terrenas, durante el año 2001 han entrado en servicio mas de 600 nuevas estaciones de las cuales 52 son estaciones terrenas de diámetro superior a 1,8 m. También cabe destacar que 42 nuevas estaciones transportables han causado alta en el Sistema HISPASAT este año, lo cual ha contribuido a la consolidación de los servicios ocasionales ofrecidos.

Acceso a la banda ancha. Servicios Multimedia e Internet

HISPASAT es consciente de que existe una necesidad cada vez mayor de comunicaciones de banda ancha impulsada por una convergencia creciente entre información y entretenimiento, que demanda, cada vez más, conexiones más rápidas a las infraestructuras globales de información. Los mercados objetivo de los servicios de banda ancha varían de unos sistemas a otros, aunque la mayoría se centran en el acceso a Internet como el servicio estrella para el mercado. Una vez que se establece la plataforma de servicios multimedia, es interminable la lista de servicios finales a ofrecer a través de HISPASAT: transferencia de ficheros, acceso a Internet, comercio electrónico, teletrabajo, VPN, interconexión de LAN´s etc.

HISPASAT considera, sin lugar a dudas, que su futuro pasa por la banda ancha y las nuevas tecnologías. Prueba de ello es que fue pionero en el desarrollo del estándar DVB-S, que no sólo implica la difusión de señales de TV en formato MPEG-2, sino que constituye el soporte del

transporte para la mayor parte de las comunicaciones digitales, ya sean de vídeo, audio o datos. Sobre esta base, HISPASAT sigue desarrollando proyectos basados en la interactividad, el canal de retorno por satélite, el diseño de redes IP, la voz sobre IP y los túneles TCP-SAT a lo largo de diferentes proyectos tecnológicos.

Por otro lado, los distintos servicios multimedia (asociados a la tecnología INTERNET) que HISPASAT puede ofrecer sobre su sistema de satélites, son potencialmente interminables, gran número de ellos son ya prestados por nuestros satélites; los más significativos son:

- Servicios de Backbone, considerándose como tales los enlaces entre dos puntos de un caudal de datos INTERNET de capacidades que podrían oscilar entre 8 Mbps y 52 Mbps.

- Servicios de Internet a usuario final.

- Servicios de VPN con acceso a Internet a través de redes VSATs o DVB-RCS.

Fruto de estos trabajos, a lo largo del año 2002, HISPASAT ha llevado a cabo la puesta en marcha en fase piloto de una red de servicios bidireccionales por satélite que permite la provisión de servicios de conectividad IP y Acceso a Internet. Dicha red está basada en estándares internacionales: DVB-S y DVB-RCS. Con esta red, HISPASAT ofrece a sus clientes el acceso a infraestructuras de telecomunicaciones que permiten llevar a cabo un despliegue de banda ancha de una forma rápida y amplia. HISPASAT llevará a cabo la comercialización de esta red a lo largo del año 2003 y principalmente orientada a operadores que configuren sus servicios sobre ella. De esta forma, HISPASAT se adelanta a la previsible demanda que este tipo de servicios tendrá en los próximos años, ofreciendo capacidades de comunicación a empresas dentro de la cobertura global de sus satélites en zonas que difícilmente podrán contar con infraestructuras terrenas por su ubicación.

HISPASAT es consciente de que existe una necesidad cada vez mayor de comunicaciones en banda ancha impulsada por una convergencia creciente entre información y entretenimiento

Internet Access. Said network is based on international standards: DVB-S and DVB-RCS. With this network, HISPASAT offers telecommunication infrastructure access to its clients that allow for executing fast and extensive broadband distribution. HISPASAT will carry out the commercialization of this network during 2003 and it will be mainly aimed at operators that configure services on it. Therefore, HISPASAT is a step ahead of the foreseen demand that this type of service will have in the following years, by offering communication capacity to companies within the global coverage of its satellites in areas that hardly have ground infrastructures for their location.

Obtaining orbit resources and landing rights

The strategic development of HISPASAT's geographic expansion towards new markets has been articulated during 2002 around several business areas related to international frequency coordination and obtaining new orbit resources, amongst which the following are highlighted:

FREQUENCY COORDINATION

HISPASAT has concluded the coordination process of the Ka band at 30º West with operators such as Eutelsat and Astra and the Administrations of Italy and Japan. The coordination process of frequencies used by Hispasat 1D in America with different American operators has also finished.

In regards to the AMAZONAS satellite, the coordination procedures of Ku band have continued and the coordination processes have concluded successfully with the Administrations of France (Eutelsat), United States (Panamsat), Cuba, the Netherlands, Germany and Malaysia. Likewise, coordination meetings were held with LORAL and ANDESAT, which will conclude in 2003. Moreover, based on the agreements reached with Telemar, HISPASAT/HISPAMAR has taken on the coordination of C-band (SBTS-B3) for the AMAZONAS satellite.

We must also highlight the collaboration and support offered by HISPASAT to

Obtención de recursos órbita y derechos de aterrizaje

El desarrollo de la estrategia de expansión geográfica de HISPASAT hacia nuevos mercados se ha articulado a lo largo del año 2002 en torno a varias líneas de trabajo relacionadas con la coordinación internacional de frecuencias y la obtención de nuevos recursos orbitales, entre las que cabe destacar las siguientes actuaciones:

Coordinación de frecuencias ▶ HISPASAT ha concluido el proceso de coordinación de la banda Ka en 30º Oeste con los operadores Eutelsat y Astra y las Administraciones de Italia y Japón. También ha finalizado el proceso de coordinación de frecuencias utilizadas por Hispasat 1D en América, con distintos operadores americanos

Con respecto al satélite AMAZONAS, se han continuado los procedimientos de coordinación de la banda Ku, concluyendo con éxito los procesos de coordinación con las Administraciones de Francia (Eutelsat), Estados Unidos (Panamsat), Cuba, Países Bajos, Alemania y Malasia. Asimismo, se han mantenido reuniones de coordinación con LORAL y ANDESAT, que concluirán a lo largo de 2003. Además, en base a los acuerdos cerrados con Telemar, HISPASAT/HISPAMAR ha asumido la coordinación de la banda C (SBTS-B3) del satélite AMAZONAS.

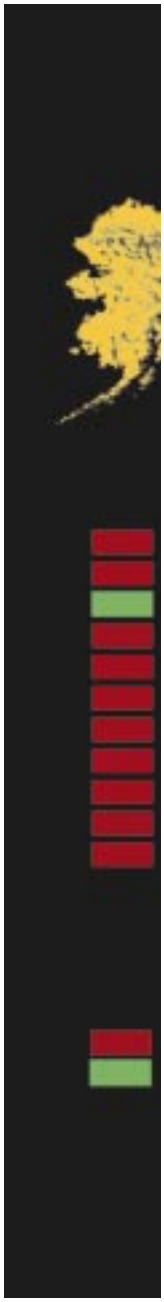
Por otro lado, cabe destacar la colaboración y el soporte ofrecido por HISPASAT a HISDESAT y al Ministerio de Defensa en este ámbito, participando en las reuniones para la coordinación de frecuencias de los satélites SPAINSAT y XTAR-EUR. En este sentido, se ha concluido satisfactoriamente la coordinación en 30º Oeste y en 29º Este de la banda X, con la Administración de Estados Unidos y la OTAN. En 2003, está previsto iniciar la negociación con Rusia, otra de las Administraciones clave, con el objetivo de concluir el acuerdo de coordinación, junto con las de Reino Unido y Francia, ese mismo año.

También, durante el año 2002, HISPASAT/HISPAMAR ha venido asesorando puntualmente a la Agencia Nacional de Telecomunicaçoes (ANATEL) en la forma y métodos de implementación de la Norma de Operación a 2º de separación orbital de satélites en Brasil, mediante reuniones periódicas mantenidas a lo largo del año.

Derechos de aterrizaje ▶ HISPASAT en estos momentos es el primer operador de satélites europeo y segundo a escala mundial que dispone del mayor número de licencias en América, gracias a la ardua actividad desarrollada en años anteriores para la obtención de derechos de aterrizaje de señales (landing rights) en la práctica totalidad de países iberoamericanos.

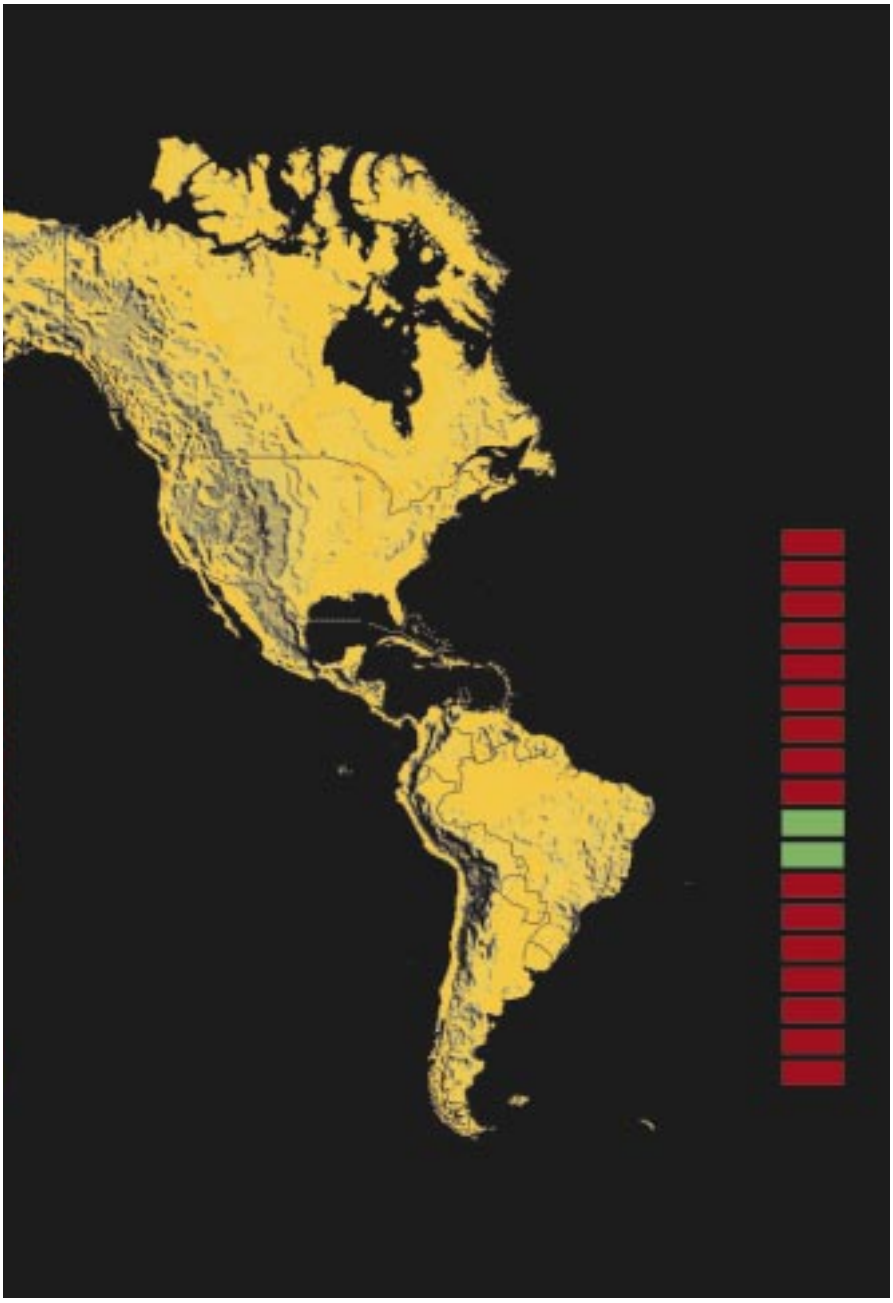
Continuando con esta labor, durante 2002 se han obtenido los derechos de aterrizaje (landing rights) para el satélite Hispasat 1C en los siguientes países: Ecuador, Honduras, Nicaragua, Paraguay, Uruguay (licencia definitiva) y Surinam.

También han proseguido las negociaciones para obtenerlos en México y Venezuela, y se continúan los trámites en otros países de menor interés comercial, como Jamaica y Trinidad y Tobago. Por otra parte, se han comenzado a presentar las solicitudes correspondientes para la obtención de licencias del satélite Hispasat 1D.



Participación en Foros Nacionales e Internacionales

En el ejercicio del 2002 hay que destacar la fuerte actividad desarrollada por la compañía en foros internacionales y nacionales. Un trabajo que



▼ Mapa de Derechos de Aterrizaje Hispasat 1C.

tuvo su reconocimiento internacional, con el nombramiento del Consejero Delegado de HISPASAT, Jacinto García Palacios, como Vicepresidente de la Asociación de Operadores de Satélites Europeos (ESOA), constituida en Bruselas en marzo de ese año y en la que están presenten Eutelsat, Inmarsat, SES-Global, Telespazio, Nordic Satellite, EuropeStar, Eurasiasat, New Skies y Telenor.

El 24 de junio de 2002, HISPASAT fue anfitrión de la primera reunión del Consejo Ejecutivo de la Asociación que, a propuesta de HISPASAT, aprobó una resolución para establecer un Marco de Coopera-

HISDESAT and to the Defense Department in this area with participation in the coordination meetings for the frequencies of the SPAINSAT and XTAR-EUR satellites. Therefore the coordination of 30º West and 29º East of X-band has successfully finished, with the United States Government and NATO. In 2003 there are plans to begin negotiations with Russia, another one of the key Government Administrations, with the aim of concluding the coordination agreement together with those of the United Kingdom and France in the same year.

Also in 2002, HISPASAT/HISPAMAR has acted as a consultant to the National Telecommunications Agency (ANATEL) of Brazil in the method and way of implementing the Operation Standard to 2º of orbital separation from satellites in Brazil, by means of periodical meetings held during the year.

LANDING RIGHTS

HISPASAT is now the first European satellite operator and second in the world in the number of licenses in America, thanks to the arduous activity that took place in previous years to obtain landing rights in almost all Latin American countries.

In 2002, in continuation with this effort, landing rights were obtained for the Hispasat 1C satellite in: Ecuador, Honduras, Nicaragua, Paraguay, Uruguay (definitive license) and Surinam.

Negotiations are also underway to obtain landing rights in Mexico and Venezuela, and steps are being made in countries with lesser commercial interest such as Jamaica and Trinidad & Tobago. Requests for obtaining licenses for the Hispasat 1D satellite have also been made.

Participation in National and International Summits

We must also point out the strong presence of the company in 2002 in international and national summits. This effort was internationally acknowledged with the appointment of HISPASAT's General Manager, Jacinto García Palacios, as Vicepresident of the European Satellite Operators Association

(ESOA), incorporated in Brussels in March 2002 and in which Eutelsat, Inmarsat, SES-Global, Telespazio, Nordic Satellite, EuropeStar, Eurasiasat, New Skies and Telenor are also present.

On June 24th, 2002, HISPASAT was the host of the first Executive Council meeting of the Association that, as requested by HISPASAT, approved the motion to establish a Cooperation Framework in the Latin American market (satellite and communication companies, regulation authorities, etc.). Said initiative is aimed at solving access problems that operators may have in said market as well as preparing common criteria to manage the Frequency Spectrum.

The ESOA Council also agreed on including several work groups related to the Associations' priorities for 2002, amongst which are the collaboration in Research and Investigation projects aimed at optimizing design engineering and operation of future satellites and the start-up of an international relations program with companies and institutions of different regions of the world.

We must also highlight the cooperation maintained with other ESOA members to define common positions for the upcoming World Radio Communication Conference (WRC -2003).

Its also necessary to mention company's participation in the International Union of Telecommunications (ITU), with the objective of following the development of the Recommendations of possible modifications of the Radio Communication Regulations in the WRC-2003 and of the Procedural rules of the ITU.

HISPASAT has also been actively present, as commissioned by the Spanish Government, in work groups of the European Conference of Postal and Telecommunication Administrations (CEPT) in which common European positions are established which will be defined in the WRC-2003.

Likewise, HISPASAT, on behalf of HISPAMAR, has collaborated as a Brazilian

▼ El 24 de junio de 2002 HISPASAT presidió la primera reunión del Consejo Ejecutivo de la Asociación de Satélites Europeos (ESOA), creada el 1 de marzo en Bruselas. En la imagen, miembros del Consejo en su reunión de Madrid.

ción en el mercado iberoamericano (empresas de satélites y comunicaciones, autoridades de regulación, etc). Dicha iniciativa está encaminada a resolver los problemas de acceso que puedan tener los operadores en dicho mercado, así como a elaborar criterios comunes para la gestión del Espectro de Frecuencias.

El Consejo de ESOA también acordó la constitución de varios grupos de trabajo relacionados con las prioridades de la Asociación para el 2002, entre ellas la colaboración en proyectos de Investigación y Desarrollo orientados a optimizar la ingeniería de diseño y operación de los satélites del futuro, y la puesta en marcha de un programa de relaciones internacionales con empresas e instituciones de distintas regiones del mundo.

También hay que señalar la cooperación mantenida con otros miembros de ESOA para la definición de posiciones comunes ante la próxima Conferencia Mundial de Radiocomunicación (CMR -2003).

Por otra parte, hay que destacar la participación desarrollada por la compañía en la Unión Internacional de Telecomunicaciones (UIT), con el objetivo de seguir la evolución de las Recomendaciones, de las posibles modificaciones del Reglamento de Radiocomunicaciones en la CMR-2003 y de las Reglas de Procedimiento de la UIT.

HISPASAT también ha estado presente activamente, por encargo de la Administración española, en los grupos de trabajo de la Conferencia Europea de Correos y Telecomunicaciones (CEPT) en la que se establecen las posiciones comunes europeas que serán defendidas en la CMR-2003.

Asimismo, HISPASAT, en representación de HISPAMAR, ha estado colaborando como operador brasileño tanto en reuniones nacionales brasileñas como en foros internacionales (CITEL, UIT) formando parte de

la Delegación de Brasil, en reuniones dirigidas principalmente a preparar la próxima CMR-03 y a abordar asuntos regulatorios. En el marco de la Comisión de las Comunidades Europeas (CE), HISPASAT viene participando en los trabajos del "Satellite Action Plan" (SAP) y en su Grupo de Regulación (REG).

Por otra parte, y ya en el ámbito nacional, HISPASAT ha participado en las actividades de la Asociación Nacional de Industrias Electrónicas (ANIEL); entre las que cabe reseñar la redacción y discusión de las normas reglamentarias puestas a consulta por la Administración, así como otras actividades relacionadas con la industria española. Como miembro de AUTEL, Asociación de Usuarios de Telecomunicaciones, también ha participado en las actividades desarrolladas a lo largo del 2002 por la asociación.

Presencia de HISPASAT en ferias y eventos

La actividad de comunicación comercial, a lo largo del 2002, tuvo como objetivo principal potenciar la presencia comercial HISPASAT en los mercados nacionales e internacionales, reforzando a su vez la imagen institucional de la compañía. Así HISPASAT desarrolló una intensa actividad, estuvo presente en las principales ferias y eventos nacionales e internacionales del sector de las telecomunicaciones, y participó activamente en un amplio número de seminarios y encuentros internacionales como respaldo a la labor comercial.

Durante el año 2002, la compañía estuvo presente en las principales ferias y eventos del sector de las telecomunicaciones:

▼ NAB: Producida cada año en el mes de abril en Las Vegas (EEUU) por la Nacional Association of Broadcasters, HISPASAT estuvo presente con su propio stand apoyando la actividad del departamento comercial.

operator in Brazilian national meetings and in international conferences (CITEL, ITU) making up part of the Delegation of Brazil, in meetings mainly aimed at preparing the next WRC-03 and approaching regulatory issues. HISPASAT has participated in the framework of the European Community Commission in the "Satellite Action Plan" (SAP) project and its Regulation Group (REG).

Moreover, and in a national scope, HISPASAT has participated in activities of the National Association of the Electronic Industry (ANIEL); such as the drafting and discussion of regulatory standards to be consulted by the Administration, as well as other activities related to the Spanish Industry. As a member of AUTEL, the Telecommunication User Association, it has also participated in activities held by the association in 2002.

HISPASAT's presence in fairs and events

The main objective of the business communication activity in 2002 was to promote HISPASAT's presence in national and international markets, thus reinforcing the institutional image of the company. Therefore, HISPASAT was actively present in the most important national and international fairs of the telecommunications sector and actively participated in a large number of seminars and international encounters in support of its business activity.

The company was present in the main fairs and events of the telecommunications sector in 2002:

▶ NAB: Held every year in April in Las Vegas (US) by the National Association of Broadcasters, HISPASAT attended with its own stand to support the activity of the sales department.

▶ IBC: In September 2002, HISPASAT went to the Fair in Amsterdam and shared a stand with Eutelsat. This international broadcasting fair is the main European event in the technological sector and the new addition to our fleet, the Hispasat 1D satellite, was introduced to the European market.

▼ IBC: En el mes de septiembre de 2002, HISPASAT acudió a la Feria de Ámsterdam, compartiendo stand con Eutelsat. Esta feria internacional sobre radiodifusión es el principal evento europeo dentro de la tecnología del sector y en ella se presentó al mercado europeo el nuevo satélite de nuestra flota, el Hispasat 1D.

▼ Matelec: Celebrada en octubre del 2002 en Madrid, HISPASAT estuvo presente en el Salón Internacional de Material Eléctrico y Electrónico en IFEMA (Madrid), donde acudió con el objetivo principal de mostrar las potencialidades que ofrecen sus satélites de comunicaciones como infraestructura idónea para el acceso a Internet en banda ancha allí donde no llegan las redes terrestres. En el marco de esta feria, HISPASAT y Vía Digital presentaron a los instaladores el acuerdo firmado entre ambas compañías con el que ofrecerán a las viviendas de nueva construcción la instalación de la tecnología necesaria para la recepción directa en todos los hogares de las señales del sistema de satélites HISPASAT, que incluyen la oferta de canales y servicios interactivos de Vía Digital.

Además, HISPASAT participó activamente a lo largo del año en el desarrollo de otros eventos relevantes del sector como, la feria TECNIMAP donde realizó demostraciones de Internet por satélite, el SIMO 2002, en el que participó con una ponencia sobre Infraestructuras Digitales y las XII Jornadas de TELECOM I+D que tuvieron lugar en noviembre de 2002, en el Palacio de Comunicaciones del Ministerio de Ciencia y Tecnología. En estas jornadas se presentaron los proyectos de la compañía relacionados con la recepción de señal en barcos y los sistemas de procesado a bordo en los satélites HISPASAT.

Actividad Institucional

El acontecimiento más relevante fue la visita que S.A.R. el Príncipe de Asturias realizó el 20 de marzo de 2002, al Centro de Control de Satélites de Arganda del Rey, donde pudo comprobar como se realiza el control y supervisión de la flota de satélites mediante los equipos técnicos más avanzados.

El Centro de Control de Satélites de Arganda del Rey también abrió sus puertas al público durante la II Semana de la Ciencia, organizada por la Comunidad de Madrid, cuyo objetivo es crear una relación más cercana y armoniosa entre la ciencia y la sociedad. El rotundo éxito e interés de la convocatoria ha obligado a aumentar el número de visitas y ampliar el plazo, de tal forma que hay visitas organizadas hasta marzo de 2003.

Uno de los campos donde se centró gran parte de la actividad institucional de la compañía en el 2002 fue el de la educación. HISPASAT patrocinó el Curso de Verano de El Escorial, de la Universidad Complutense de Madrid, "Los satélites de comunicaciones en el mundo actual" que se celebró del 22 al 26 de julio, y que ofreció a los alumnos una visión global del mundo de los satélites de comunicación y sus usos en la vida cotidiana. Las ponencias y mesas redondas abordaron asuntos como la expansión y posibilidades de negocio de los satélites de comunicaciones; su aportación a la expansión de los medios de comunicación y el desarrollo de las plataformas de televisión digital y canales temáticos, así como la influencia de las telecomunicaciones y los satélites en el mundo del deporte y de la cultura, como fenómenos globales.

La Universidad Francisco de Vitoria de Madrid realizó en el mes de diciembre, la SEMANA HISPASAT, con el objetivo de acercar a los estudiantes el funcionamiento del sistema español de comunicaciones por satélite.

▼ ▼ ▼ ▶Matelec: Held in October 2002 in Madrid, HISPASAT attended the International Exhibition of Electrical and Electronic Equipment in the Exhibition Center (IFEMA) in Madrid with the objective of demonstrating the potential of its communication satellites as an ideal infrastructure for broadband Internet access for places without land networks. HISPASAT and Vía Digital presented to those attending the fair the agreement signed between both companies that will offer new houses the technological installations needed to directly receive HISPASAT's satellite system signal including Via Digital's interactive services and channels.

HISPASAT also actively participated in other relevant events in the sector such as the TECNIMAC fair where it made demonstrations of Internet via satellite, the SIMO 2002, in which it participated with a presentation on Digital Infrastructures and the XII TELECOM I+D Conference that took place in November 2002, in the Palacio de Comunicaciones of the Spanish government's Science and Technology Department. Company projects were presented in these conferences related to signal receiving on ships and on board processing systems in HISPASAT satellites.

Institutional Activity

The most relevant visit was that of His Royal Highness the Prince of Spain on March 20th, 2002 to the Satellite Control Center of Arganda del Rey, where he saw how the control and supervision of the satellite fleet is conducted by means of the most advanced technical equipment.

The Satellite Control Center in Arganda del Rey also opened its doors to the public during the II Science Week, organized by the Comunidad de Madrid, whose objective is to create a closer and more harmonious relationship between science and society. The complete success and interest of the event made it necessary to increase the number of visits and increase the number of days it was open with organized visits until March 2003.

One of the fields in which a large portion of the institutional activity focused on was educa-

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▼ Stand de HISPASAT en la feria NAB de Las Vegas.

tion. HISPASAT presented at Summer School in El Escorial, of the Universidad Complutense de Madrid, "Communication Satellites in Today's World" which was held from July 22nd to the 26th, that offered the students a global vision of the world of satellite communication and its uses in everyday life. The conferences and round tables discussed issues such as expansion and business possibilities of communication satellites; their contribution to the media expansion and the development of digital television platforms and theme channels, as well as the influence of telecommunications and satellites on the world of sports and culture as global phenomena.

The Francisco de Vitoria University of Madrid held in December the HISPASAT WEEK, in order to bring students closer to the operation of the Spanish satellite communication system.

Moreover, and within the wide range of international activity, HISPASAT also participated in the XII Latin American Summit held on November 15th and 16th in Playa Bávaro, Dominican Republic, where it facilitated space capacity to the European and American telecommunication operators and television channels that covered this important event. HISPASAT's presence was the result of tight collaboration that it maintains with the Secretaría de Cooperación Iberoamericana (SECIB), thus reinforcing the strategic vocation of the Spanish Satellite Company as a joining link between different Latin American countries and the European continent.

Ground Control Segment

HISPASAT continued in 2002 to modernize and prepare the Ground Control Segment of Arganda, Gobelas and Maspalomas (Canary Islands), in order to equip them with the most advanced control techniques that allow for guaranteeing maximum quality and reliability for services provided to customers.

A constant system renovation (new control equipment and more computers and control equipment in the operations room of Arganda and Gobelas)

which has got the facilities ready for the launching and putting into orbit of the new Hispasat 1D satellite. Thus, the Arganda Control Center came into full operation for the new 1D satellite, therefore keeping the activities of the 1A, 1B, and 1C satellites normal.

We must highlight that during the launching and putting into orbit of the 1D satellite, the activities were monitored from Arganda of the reception of the satellite telemetry in the LEOP stage. Once the satellite was in the proximity of the orbital position, the in-orbit tests (IOT) were carried out to verify proper operation of all subsystems after the launching, and especially the payload as a prior step to accepting the satellite from the manufacturer (Alcatel), and its business start-up. The in-orbit testing stations in Ku-band and BSS were used for these tests, as well as the land testing equipment (IOT-bench), which was modified to adapt it to the new 1D satellite requirements.

In regards to the Control Center facilities of Maspalomas on the Gran Canaria Island, in 2002 the work was finished for the start up of the telemetry and tele-command (TTC) station location in accordance with the specific collaboration agreement tat was signed in 2001 with INTA. The new station is remotely operated from the Satellite Control Center of Arganda, via VSAT-type satellite links. These facilities have also come into operation for the new 1D satellite. The advantages of this new location are the increase in localization accuracy, which will allow for including a greater number of satellites in the 30º West orbital window. Likewise, given the geographical characteristics, the location of Maspalomas will allow for telemetry and tele-command (TTC) services for the AMAZONAS satellite.

Moreover, in regards to the collaboration with HISDESAT for the SPAINSAT satellite, work began in Arganda for the location of 16m and 6.3 m diameter TTC antennas for the control of said satellite, all in accordance with the agreement subscribed between the Defense Department and the HISPASAT and HISDESAT companies in July 2001. Besides the previously

▼ Centro de Control de Satélites de HISPASAT en Arganda.

Por otra parte, y dentro de la amplia actividad internacional desarrollada, HISPASAT también participó en la XII Cumbre Iberoamericana celebrada los días 15 y 16 de noviembre en Playa Bávaro, República Dominicana, donde facilitó capacidad espacial a los operadores de telecomunicaciones y cadenas de televisión, europeas y americanas que dieron cobertura informativa a este importante encuentro. La presencia de HISPASAT, fruto de la estrecha colaboración que mantiene con la Secretaría de Cooperación Iberoamericana (SECIB), refuerza la vocación estratégica de la compañía española de satélites como vínculo de unión entre los diferentes países de la Comunidad Iberoamericana y el continente europeo.

Hispasat ha continuado a lo largo de 2002 con la modernización de las instalaciones de segmento terreno de control de Arganda del Rey

Segmento Terreno de Control

HISPASAT ha continuado a lo largo del 2002 con la modernización y preparación de las instalaciones de Segmento Terreno de Control de Arganda, Gobelas y Maspalomas (Canarias), con el fin de dotarlas de los equipos técnicos de control más avanzados que permitan garantizar con la máxima calidad y fiabilidad los servicios que presta a sus clientes.

Una constante renovación del sistema (dotación de nuevos equipos de control y la ampliación del número de ordenadores y equipos de control en la sala de operación de Arganda y de Gobelas en el centro backup) que ha permitido tener preparadas las instalaciones de cara al lanzamiento y puesta en órbita del nuevo satélite Hispasat 1D. Así el Centro de Control de Arganda entró en operación plena para el nuevo satélite 1D, siguiendo con normalidad las actividades de los satélites 1A, 1B, y 1C.

mentioned work, conditioning activities will be conducted on the existing facilities to house the main Control Center of SPAINSAT, which will come into operation at the end of 2003 or beginning of 2004.

In regards to the AMAZONAS satellite, detailed design work was carried out in 2002 of the Ground Control Segment with the INDRA manufacturing company. The manufacturing of the control antennas as well as the rest of elements is moving according to schedule, which foresees installation and start-up for the end of 2003. An agreement was signed for the location of the Ground Control Segment elements with the Emergia/Brasil company, a Teléfonica subsidiary, for joint use with facilities it has in Recreo dos Bandeirantes (Río de Janeiro) and which will allow for housing of the satellite control stations. Other TTC equipment locations for the AMAZONAS satellite are Maspalomas and Arganda, thus obtaining synergies with in-course activities in these centers.

Hay que señalar que, durante el lanzamiento y puesta en órbita del satélite 1D, desde Arganda se realizó también un seguimiento de las actividades con la recepción de la telemetría del satélite en la fase LEOP. Una vez se tuvo el satélite en las proximidades de la posición orbital, se llevaron a cabo las pruebas en órbita (IOT) para comprobar el buen funcionamiento del todos los subsistemas tras el lanzamiento, y en especial la carga útil, como paso previo a la aceptación del satélite al fabricante (Alcatel), y su entrada en explotación comercial. Para estas pruebas se utilizaron las estaciones de pruebas en órbita en banda Ku y BSS, así como el equipamiento de pruebas en tierra (IOT-bench), que fue modificado para adaptarlo a los requisitos del nuevo satélite 1D.

En lo que respecta a las instalaciones del Centro de Control de Maspalomas en Gran Canaria, a lo largo de 2002 se han finalizado las tareas para la puesta en marcha de la nueva ubicación de la estación de telemetría y telecomando (TTC) conforme al convenio y acuerdo especifico de colaboración que se firmó en 2001 con el INTA. La nueva estación es operada de forma remota desde el Centro de Control de Satélites de Arganda, mediante enlaces de satélite tipo VSAT. Esta instalación ha entrado en funcionamiento también para el nuevo satélite 1D. Las ventajas de esta nueva ubicación residen en el aumento de precisión de localización lo que permitirá incluir un mayor numero de satélites en la ventana orbital 30º Oeste. Además, dadas las características geográficas, la ubicación de Maspalomas permitirá también servicios de telemetría y telecomando (TTC) para el satélite AMAZONAS.

Por otra parte, en el marco de colaboración con HISDESAT para el satélite SPAINSAT, se iniciaron las obras en Arganda para la ubicación de antenas de TTC de 16 m y 6,3 m de diámetro para el control de dicho satélite, todo ello conforme al acuerdo suscrito entre el Ministerio de Defensa, y las empresas HISPASAT e HISDESAT de julio de 2001. Además de las citadas obras se van a realizar actividades de acondicionamiento en las instalaciones existentes para alojar el Centro de Control principal de SPAINSAT, que entrará en operación a finales de 2003 o principios de 2004.

En lo que respecta al satélite AMAZONAS, en 2002 se realizaron las labores de diseño detallado del Segmento Terreno de Control con la empresa INDRA fabricante del mismo. La fabricación de las antenas de control, así como el resto de elementos progresa dentro de los calendarios previstos, que prevén su instalación y puesta en marcha a finales de 2003. En cuanto a la ubicación de los elementos del Segmento Terreno de Control, se ha firmado un acuerdo con la empresa Emergia/Brasil, filial de Telefónica para utilizar de forma conjunta las instalaciones que posee en Recreo dos Bandeirantes (Río de Janeiro) y que permitirá alojar las estaciones de control del satélite. Otras ubicaciones de equipos TTC del satélite AMAZONAS son Maspalomas y Arganda, obteniéndose sinergias de las actividades en curso en estos centros.

Su Alteza Real el Principe de Asturias comprobó el funcionamiento, mediante los equipos técnicos más avanzados, del Centro de Control de Satélites de Arganda del Rey

▼ El 20 de marzo de 2002 S.A.R. El Príncipe de Asturias visitó el Centro de Control de Satélites de Arganda del Rey.

annual report 2002 informe anual

hispasat

acercando culturas

A lo largo del ejercicio 2002, HISPASAT ha mantenido una participación activa en diferentes proyectos de Investigación e Innovación Tecnológica relacionados con el desarrollo de nuevas oportunidades de telecomunicaciones por satélite en banda ancha y servicios móviles. La contribución de HISPASAT en este campo le ha permitido conseguir un importante reconocimiento nacional e internacional, y liderar proyectos de investigación de gran importancia, tanto por su complejidad técnica como por sus perspectivas comerciales, que abren nuevas posibilidades en la provisión de servicios de telecomunicación por satélite.

AMERHIS, un sistema de procesado a bordo para el AMAZONAS

En este sentido, HISPASAT se ha involucrado decididamente en la definición y diseño de sistemas de procesado a bordo que serán incorporados en su nueva generación de satélites. Estos sistemas permitirán a los usuarios de capacidad satelital independizarse para su uso de las redes terrestres, facilitando su conexión directa en ambos sentidos con el proveedor de servicios.

El acuerdo de colaboración firmado, en octubre de 2002, por HISPASAT, la Agencia Espacial Europea (ESA), y el Centro para el Desarrollo Tecnológico Industrial (CDTI) tiene por objeto el desarrollo del nuevo sistema de comunicaciones multimedia AMERHIS (Advanced Multimedia Enhanced Regenerative Hispasat System), que será embarcado en el satélite AMAZONAS.

El AMERHIS, proporcionará conectividad entre los terminales de usuario ubicados en cualquier punto dentro de las áreas de cobertura del AMAZONAS. La principal innovación introducida por AMERHIS reside en su capacidad como nodo de conmutación de banda ancha, en oposición a la función convencional de transmisión por satélite, con lo que proporcionará aplicaciones multimedia interactivas para usuarios profesionales y corporaciones.

El núcleo del sistema es un procesador digital que gestiona cuatro transpondedores interconectados a 36 MHz. A bordo del satélite, las señales generadas por usuarios y proveedores de servicios dentro de cualquiera de las zonas de cobertura es procesada y redirigida hacia su canal de destino.

El diseño de AMERHIS está basado en las normas DVB (DVB-S para el enlace descendente y DVB-RCST para el ascendente) con el fin de garantizar la plena compatibilidad con otros sistemas y conseguir una reducción de costes en los terminales de usuario. El sistema en su conjunto se compondrá tanto por el equipamiento embarcado para el procesado de señales (OBP) como por el segmento terreno necesario para la validación y puesta en marcha del sistema y sus aplicaciones.

El sistema AMERHIS permitirá a HISPASAT evaluar la actuación técnica y operacional de los desarrollos europeos en conmutación re-

TECHNOLOGICAL innovation

HISPASAT maintained active participation in different Technological and Research projects related to the development of new broadband satellite telecommunication opportunities and mobile services in 2002. HISPASAT's contribution in this field allowed it to achieve important national and international recognition and to lead very important research projects of technical complexity and relevant business perspectives, which open new possibilities in providing satellite telecommunication services.

AMERHIS, an on-board processing system for AMAZONAS

HISPASAT has decidedly become involved in the definition and design of on-board processing systems that will be incorporated in its new generation of satellites. These systems will allow satellite capacity users to become independent for use in land networks, thus making bi-directional direct connections with service providers easier.

The collaboration agreement signed in October of 2002, by HISPASAT, with the European Space Agency (ESA), and the Industrial Technological Development Center (CDTI) intend to develop the multimedia communication system AMERHIS (Advanced Multimedia Enhanced Regenerative Hispasat System), which will be placed on the AMAZONAS satellite.

AMERHIS will provide connectivity between user terminals located at any point within the AMAZONAS coverage area. The main innovation that AMERHIS will introduce is its capacity as a broadband commutation node opposed to the conventional functions of satellite transmission, which will provide interactive multimedia applications for professional users and corporations.

The system nucleus is a digital processor that manages

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four transponders interconnected to 36 MHz. Aboard the satellite, the signals generated by users and service providers in any of the coverage areas is processed and redirected to its channel destination.

The AMERHIS is based on DVB regulations (DVB-S for the descendent link and DVB-RCST for the ascendant) in order to guarantee full compatibility with other systems and to achieve cost reductions in the user's terminals. The system as a whole will be made up of equipment put on board for signal processing (OBP) and for land segment needed for validation and start up of the system and its applications.

The AMERHIS will allow HISPASAT to evaluate the technical and operational performance of the European developments in regenerative commutation of multi-point channels prior to progressive implementation in future systems.

This initiative will reinforce the position of the European and Canadian industries in the broad band satellite market, and will help consolidate the advanced communication standards promoted from Europe.

Likewise, the growing importance of the Spanish space industry and its high technical capacity can be confirmed. The industrial consortium for the development of AMERHIS is made up by Alcatel Espacio (Spain), Mier (Spain), Indra (Spain), Alcatel Space (France), EMS (Canada) and NERA (Norway).

Research and Development Programs

HISPASAT also actively participated in other technological projects in the Research and Development Framework of the European Union with projects such as:

MOBILITY: THE FIRST STEP TOWARDS MOBILE SERVICES THROUGH THE HISPASAT SATELLITE SYSTEMS

HISPASAT is the Mobility project coordinator, which the European Commission partially finances and promotes. The objective of this project is for DVB-S signals to be received on ships, aircraft and land vehicles that travel

generativa de canales multipunto, de forma previa a su progresiva implementación en futuros sistemas.

Esta iniciativa reforzará la posición de las industrias europea y canadiense entre los líderes del mercado de satélites de banda ancha, y ayudará a consolidar los estándares avanzados de comunicaciones impulsados desde Europa.

Paralelamente confirma la creciente importancia de la industria espacial española y su alto nivel de capacitación técnica. El consorcio industrial para el desarrollo de AMERHIS esta formado por Alcatel Espacio (España), Mier (España), Indra (España), Alcatel Space (Francia), EMS (Canadá) y NERA (Noruega).

Proyectos de Investigación y Desarrollo

Durante el año 2002, HISPASAT también ha participado activamente en otros proyectos tecnológicos dentro del V Programa Marco de Investigación y Desarrollo de la Unión Europea. Entre estos proyectos se encuentran:

MOBILITY: un primer paso hacia los servicios móviles a través de los sistemas de satélite HISPASAT ▶ HISPASAT actúa como coordinador del proyecto Mobility que promueve y financia parcialmente la Comisión Europea. Con este proyecto se persigue que se puedan recibir señales DVB-S, en las que se transmiten hoy en día los innumerables programas de las plataformas de televisión digitales por satélite, desde barcos, aviones y vehículos terrestres que viajen dentro de la cobertura de los satélites HISPASAT. Durante este año 2002 se han llevado a cabo los desarrollos de la antena de "array" para la recepción de TV en barcos y se han preparado las pruebas que tendrán lugar durante el primer trimestre del año 2003 en barcos de la compañía Transmediterránea.

FLEXIMATV o la solución flexible para las instalaciones colectivas ▶ Durante el año 2002 HISPASAT ha continuado sus trabajos del proyecto europeo FLEXIMATV (Flexible and Intelligent (S)MATV Systems), que desarrolla soluciones flexibles e innovadoras para la distribución de televisión digital en sistemas de antena colectiva (SMATV) mediante cabeceras controlables por el equipo de usuario. Este proyecto pretende desarrollar una solución flexible para la distribución de televisión digital en sistemas de antena colectiva mediante cabeceras controlables por el equipo de usuario

El Proyecto IBIS ▶ HISPASAT a través del Proyecto IBIS, también ha abierto una línea de investigación conjunta con ALCATEL ESPACIO en el cual se va a desarrollar una técnica de procesado a bordo que combina los estándares para la difusión, DVB-S, y para la prestación de servicios interactivos, DVB-RCS, lo que permitirá a los sistemas de satélite incorporar un medio sumamente eficaz y competitivo para ofrecer servicios interactivos, Internet y multimedia a los mercados.

Otros proyectos en los que participa HISPASAT son:

▼ El programa **ACCESS-MAINTS**, que tiene como objetivo el desarrollo de una plataforma común de Gestión del Conocimiento Corporativo que permita la reutilización de conocimientos y experiencias de un proyecto a otro, en el ámbito de la industria espacial.

▼ **HPOD (High Precision Orbit Determination)**. Este proyecto, desarrollado junto con CRISA para la Agencia Espacial Europea, tiene por ob-

▼ La firma del acuerdo de colaboración para el desarrollo del Sistema AMERHIS tuvo lugar el día 8 de octubre en la Embajada de España en París por el Consejero Delegado de HISPASAT, Jacinto García Palacios; el Director General de la ESA, Antonio Rodotá, y el Director General del CDTI, Vicente Gómez.

within HISPASAT satellite coverage. In 2002 developments were made in the array antenna for TV reception in ships, and tests have been prepared that will take place during the first quarter of 2003 in ships belonging to the Transmediterránea company.

FLEXIMATV OR THE FLEXIBLE SOLUTION FOR COLLECTIVE INSTALLATIONS

In 2002 HISPASAT continued work on the European project called FLEXIMATV (Flexible and Intelligent (S)MATV Systems), which develops flexible and innovative solutions for digital television distribution in collective antenna systems (SMATV) through headends controlled by the user's device. This project goal is to develop a flexible solution for digital television distribution in collective antenna systems through headends controllable through the user's equipment.

THE IBIS PROJECT

HISPASAT through the IBIS project, has also opened a joint research line with ALCATEL ESPACIO in which an on-board processing technique will be developed that combines standards for broadcasting, DVB-S, and for providing interactive services, DVB-RCS, which will allow satellite systems to incorporate an extremely efficient and competitive means of offering interactive services, Internet and multimedia to markets.

Other projects that HISPASAT is participating on are:

- The ACCESS-MAINTS program, which is aimed at developing a common platform of Corporate Knowledge that allows for reusing knowledge and experience from one project to another in the space industry sector.

- HPOD (High Precision Orbit Determination). This project, jointly developed with CRISA for the European Space Agency, is aimed at designing a highly accurate and low cost satellite localization system based on interferometry.

GALILEO Program

HISPASAT has taken an important strategical step to position itself at the head of space technology and of satellite

Representantes de la industria aeroespacial española (HISPASAT, Alcatel Espacio, Aena, EADS-CASA Espacio, GMV, Indra Espacio y Sener) y la Ministra de Ciencia y Tecnología, Anna Birulés, firmaron el 18 de marzo de 2002 el contrato de integración del consorcio español Galileo Servicios y Sistemas en el proyecto europeo Galileo.

jetivo diseñar un sistema de localización de satélites de alta precisión y bajo coste basado en interferometría.

Programa GALILEO

HISPASAT ha realizado una decidida apuesta por situarse a la cabeza de la tecnología espacial y de las comunicaciones por satélite, participando, con un 14,28% en el capital social, de la sociedad GALILEO SISTEMAS Y SERVICIOS (GSS). Además de Hispasat, participan Alcatel Espacio, Aena, EADS-CASA Espacio, GMV, Indra Espacio y Sener.
El objeto de esta sociedad es canalizar e impulsar la participación de la industria espacial española en el desarrollo del Proyecto Galileo aprobado por la Unión Europea en la cumbre de Barcelona celebrada en el verano del 2002, bajo presidencia española.

En este sentido, los responsables de la industria aeroespacial española y de la Comisión Europea firmaron, el 18 de marzo de 2002 en presencia de la Ministra de Ciencia y Tecnología, Anna Birulés, el protocolo de integración del consorcio español GSS en el consorcio europeo denominado Galileo Industries. Esta firma ratificó el fuerte compromiso de la industria española en el desarrollo del proyecto, promovido conjuntamente por la Comisión Europea y por la Agencia Europea del Espacio, y que tiene por objetivo dotar a Europa de una infraestructura global para servicios de localización y sincronización por satélite totalmente autónoma y de titularidad civil.

Hay que señalar, que uno de los propósitos de HISPASAT se centra en aportar su amplia experiencia y capacidad operativa en Iberoa-

mérica para el desarrollo de las aplicaciones de Galileo en el continente americano. Su participación y el fuerte impulso que quiere dar al proyecto se ha completado también, a lo largo de 2002, con su presencia activa en la asociación europea Galileo Services (GS).

En lo que refiere a la actividad desarrollada por GSS en el ejercicio 2002 destacan las negociaciones mantenidas por la compañía para finalizar el acuerdo de accionistas con el consorcio europeo GaIn, con una toma del 12% de su capital social. Dicho acuerdo está previsto que se formalice en el primer trimestre de 2003.

Desde el punto de vista del proyecto Galileo lo más destacable del año 2002 ha sido la aprobación del programa y el mandato para la puesta en marcha de la estructura de dirección del mismo, a través de la denominada "Joint Undertaking". Estará formada por la Comisión Europea, la Agencia Espacial Europea y contará con representación de los Estados miembros. A finales de año se inició el proceso de selección de su máximo ejecutivo.

En el ámbito industrial, la Agencia Espacial Europea ha convocado un concurso para el suministro del primer satélite GALILEO, denominado GSTB V2 (Galileo System Test Bed V2).

Este satélite tiene por objeto la demostración de determinadas tecnologías del sistema, tales como los relojes atómicos de alta estabilidad, además de ayudar al proceso de coordinación internacional de frecuencias derivado de la última Conferencia Mundial de Radiocomunicaciones celebrada en Estambul. A este concurso ha presentado oferta el consorcio GaIn, formando parte activa de la misma las empresas participantes de GSS, entre las que se encuentra HISPASAT. El período de análisis y evaluación de las ofertas se ha iniciado, esperándose algún avance dentro del segundo trimestre de 2003.

Aplicaciones comerciales ▶ Por otra parte, GALILEO SISTEMAS Y SERVICIOS ha iniciado estudios económicos y de mercado orienta-

communications by participating in 14.28% of the corporate equity of the GALILEO SISTEMAS Y SERVICIOS (GSS) company. The goal of this company is to channel and promote participation of the Spanish space industry in the development of the Galileo Project approved by the European Union in the Barcelona summit held in the summer of 2002, under the Spanish Presidency.

In this sense, the heads of the Spanish airspace industry and of the European Commission signed on March 18th, 2002 in presence of the Science and Technology Minister, Anna Birulés, the integration protocol of the Spanish consortium GSS in the European consortium called Galileo Industries. This signing ratified the strong compromise of the Spanish industry in the development of the project, jointly promoted by the European Commission and by the European Space Agency with the objective of providing Europe with a global infrastructure for totally independent and civil satellite localization and synchronization services.

We must point out that one of HISPASAT's proposals is centered on providing wide experience and operating capacity in Latin America for the development of Galileo applications on the American continent. The project's participation and strong impulse was completed in 2002 with the active presence of the European Association, Galileo Services (GS).

In GALILEO SISTEMAS Y SERVICIOS, besides HISPASAT, Alcatel Espacio, Aena, EADS-CASA Espacio, GMV, Indra Espacio and Sener also participate.

In reference to the activity carried out by GSS in 2002 we must point out the negotiations held by the company to close the shareholders' agreement with the European consortium GaIn, by taking on 12% of its corporate equity. Said agreement is planned to be formalized in the first quarter of 2003.

From the point of view of the Galileo project the highlight of 2002 was the approval of the program and the term for the

start-up of its management structure through the Joint Undertaking. It will be made up by the European Commission, the European Space Agency and will be represented by Member States. At the end of the year the selection process of the upper management began.

On an industrial level, the European Space Agency called for bids for the supply of the first, GALILEO satellite, called GSTB V2 (Galileo System Test Bed V2). The proposal of this satellite is to demonstrate certain system technologies, such as high stability atomic clocks, as well as aiding in the international coordination process of frequencies derived from the last Broadcasting World Conference held in Istanbul. The GaIn Consortium made a bid for this call with the companies that make up GSS making and active part of it, amongst whom are HISPASAT. The analysis period and evaluation of bids has begun with some sort of advance news expected in the second quarter of 2003.

BUSINESS APPLICATIONS

Moreover, GALILEO SISTEMAS Y SERVICIOS began economic and market surveys aimed at rendering added value services based on navigation systems. The goal here is to advance in the rapid introduction of business applications based on satellite location systems for land, sea and aeronautic markets in order for them to be up and operating before the Galileo system comes into operation in 2008.

The Galileo system will allow for a wide range of offers of applications based on localization systems for citizens that will provide improvements in the efficiency and safety of operation of divers means of transportation: aeronautic, sea, train and road.

▼ **Prototipo** de antena desarrollada por el Proyecto Mobility en el Buque Juan J. Sister de Transmediterránea.

dos a la prestación de servicios de valor añadido basados en sistemas de navegación. Se pretende con ello avanzar en la rápida introducción de aplicaciones comerciales basadas en los sistemas de localización por satélite para mercados terrestres, marítimos y aeronáuticos, con objeto de que estén operativos antes de la entrada en funcionamiento del nuevo sistema Galileo en 2008.

El sistema Galileo permitirá ofrecer en el ámbito civil un muy extenso abanico de aplicaciones basadas en los sistemas de localización para los ciudadanos que comportarán importantes mejoras en la eficiencia y seguridad de operación de los diversos medios de transporte: aeronáuticos, marítimos, ferroviarios o por carretera.

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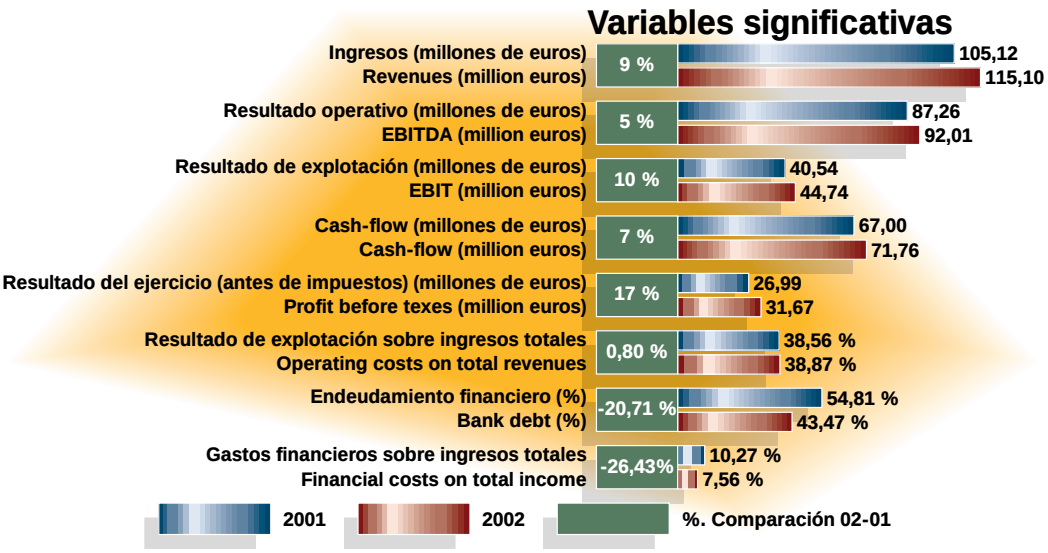
Cuadro de variables significativas



Resultados económicos

Las cuentas anuales del grupo empresarial HISPASAT, correspondientes al ejercicio 2002 han registrado unos beneficios netos, después de impuestos de 24,4 millones de euros, lo que ha supuesto un incremento del 20,7 por ciento respecto al año anterior. Este buen comportamiento ha venido motivado principalmente por el crecimiento experimentado por la partida de ingresos, un ajustado control del gasto y la mejora de los resultados financieros de la compañía.

El resultado de las actividades ordinarias se situó en 34,8 millones de euros, lo que significa un aumento del 17,6 por ciento respecto al 2001. Los ingresos alcanzaron los 115,1 millones de euros, un 9,5 por ciento más que en el ejercicio anterior y el resultado operativo consolidado del Grupo (EBITDA) se situó en 92 millones de euros.

Por lo que se refiere a la sociedad matriz del grupo, HISPASAT S.A., cerró el ejercicio con unos beneficios netos de 17,7 millones de euros, pese a la fuerte depreciación registrada a lo largo del 2001 por el Real brasileño, que incidió en 6,6 millones de euros en el resultado del ejercicio. En el 2002, los fondos propios de la compañía experimentaron un crecimiento del 64%, situándose en 271 millones de euros, frente a los 165,2 millones al cierre del ejercicio 2001.

ECONOMIC RESULTS

The HISPASAT Groups annual accounts for 2002 recorded after tax profits of 24.4 million Euros, a 20.7 percent increase compared to the previous year. This good performance is mainly due to the growth in the revenue column, tight expenditure control and improvement in the company's financial results.

The ordinary activity result was situated at 34.8 million Euros, an increase of 17.6 percent compared to 2001. Revenue reached 115.1 million Euros, 9.5 percent more than the previous year and the Group's EBITDA figure reached 92 million Euros.

In regards to the parent company, HISPASAT S.A., closed the period with a net profit of 17.7 million Euros, despite the strong depreciation of the

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Brazilian Real during 2001 which had an affect of 6.6 million Euros on the year's results. In 2002, the company's shareholders' equity grew 64%, thus reaching 271 million Euros, compared to 165.2 million at the end of 2001.

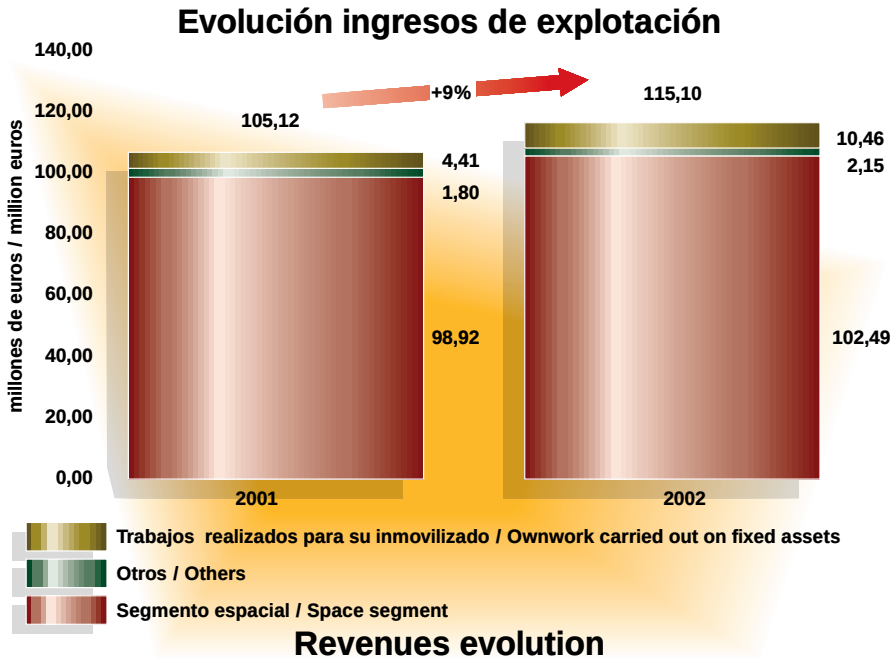
These results go to show the company's flexibility to adapt to new market conditions, characterized by the telecommunication sector crisis. Below we shall summarize the performance of the main entries that explain the development of the income statement during the year:

Estos resultados ponen de manifiesto la flexibilidad de la compañía para adaptarse a las nuevas condiciones de los mercados, caracterizado por la crisis del sector de las telecomunicaciones. A continuación se resume el comportamiento de las principales partidas que explican la evolución de la cuenta de resultados durante el ejercicio:

Ingresos

Los ingresos de explotación ascendieron en el ejercicio 2002 a 115,10 millones de euros, lo que representa un crecimiento de un 9% con respecto al año anterior. Los ingresos de explotación están integrados por los de arrendamiento de capacidad espacial, ingresos accesorios a la explotación y trabajos realizados por la empresa para su propio inmovilizado.

Los ingresos por arrendamiento de capacidad espacial ascendieron a 102,49 millones de euros, aumentando un 3,6% respecto al pasado año, en



REVENUES
Revenues rose to 115.10 million Euros in 2002, thus representing a 9% increase compared to the previous year. Revenues are made up of space capacity, accessory business revenues and work carried out by the company for its own investments.

Space capacity leasing revenue totaled 102.49 million Euros, an increase of 3.6% compared to last year, in a year of weak demand due to the world crisis in the telecommunications sector.

un año marcado por la debilidad de la demanda como consecuencia de la crisis por la que atraviesa el sector de telecomunicaciones a nivel mundial.

La partida de "Ingresos accesorios y otros de gestión corriente", que representa aproximadamente el 2% respecto a los ingresos de explotación, ha alcanzado a cierre de 2002 un importe de 2,1 millones de euros frente a los 1,8 del ejercicio 2001.

Finalmente, los trabajos realizados por la empresa para su inmovilizado se elevan hasta los 10,4 millones de euros, lo que significa un incremento del 137% frente al nivel registrado en 2001 como consecuencia de la continuación y finalización del programa Hispasat 1D, puesto en órbita con éxito a finales del ejercicio 2002.

Gastos de explotación

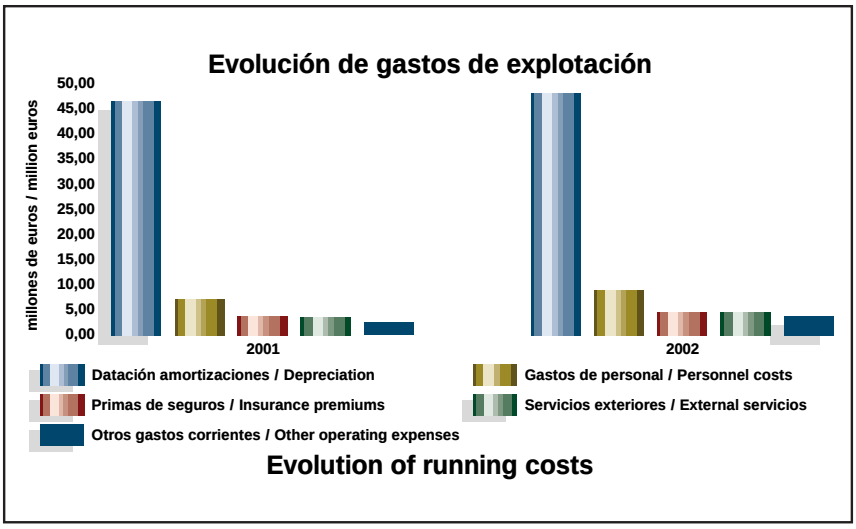
Los gastos operativos que incluyen aprovisionamientos, servicios exteriores, gastos de personal, tributos y otros gastos de gestión co-

rriente han registrado en el ejercicio 2002 un importe total de 21,9 millones de euros.

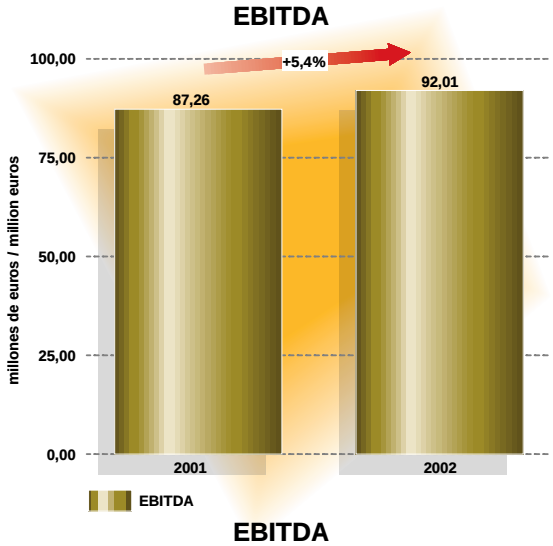
El crecimiento del gasto respecto al ejercicio anterior se centra, fundamentalmente, en el epígrafe de "Otros gastos de explotación" con un aumento de 1,8 millones de euros. Los gastos incurridos con motivo del lanzamiento del satélite Hispasat 1D han incidido en el volumen de gasto registrado durante el ejercicio fundamentalmente en las partidas de gastos de viaje y publicidad, propaganda y relaciones institucionales.

Así mismo, también ha experimentado un incremento la partida de gastos de personal, con motivo del incremento de plantilla, fundamentalmente en el área comercial, para hacer frente a los retos comerciales a los que se enfrenta la compañía.

Por lo que se refiere al capítulo de amortizaciones y provisiones, el importe registrado en el ejercicio 2002 fue de 48,47 millones de euros, debido principalmente al inicio de la amortización del satélite 1D desde el primero de diciembre de 2002.



El EBITDA en el ejercicio 2002 ha experimentado un avance del 5,4%, alcanzando los 92,01 millones de euros, frente al nivel registrado en 2001; 87,26 millones. El crecimiento está motivado por el mejor comportamiento de los ingresos frente al crecimiento del gasto operativo. El margen de EBITDA se sitúa en el 80%, uno de los más altos del sector.



The "Accessory revenue and others of common business" column, which represents approximately 2% of the revenues, reached an amount of 2.1 million Euros at the end of 2002 compared to 1.8 in 2001.

Finally, work carried out by the company for its investments reached a figure of 10.4 million Euros, a 137% increase compared to the 2001 level as a consequence of the continuation and finalization of the Hispasat 1D program, successfully put into orbit at the end of 2002.

RUNNING COSTS

The running costs that include supplies, external services, personnel expenses, taxes and other common business expenses totaled 21.9 million Euros in 2002.

The increase in expenses compared to the previous year is mainly due to the "Other running costs" column with an increase of 1.8 million Euros. The expenses taken on due to the launching of the Hispasat 1D satellite affected the expense volume recorded during the year, mainly in travel, advertising, publicity and institutional relation expense entries.

Moreover, personnel expenses have also increased due to staff growth, especially in the sales department in order to take on the sales challenges the company must tackle.

In regards to the amortization and supplies chapter, the amount accounted for in 2002 was 48.47 million Euros, mainly due to the amortization of the 1D satellite from the first of December of 2002.

The EBITDA in 2002 advanced 5.4%, reaching 92.01 million Euros, compared to the level recorded in 2001; 87.26 million. This growth is motivated by the improved performance of the growth of the operating expenses. The EBITDA margin is positioned at 80%, one of the highest in the sector.

FINANCIAL RESULT
The negative net financial result of 2002 is 8.7 million Euros, which is a decrease of 2.1 million. This reduction is basically due to a combined effect of less expenses and greater financial revenues; on one hand the capital increases produced a lower level of debt and consequently less financial expenses, and on the other hand financial revenues were generated as a consequence of the liquidity during the year.

RESULT OF ORDINARY ACTIVITIES
In regards to the previously mentioned revenue development, expenses and financial results, the result of the ordinary activities in 2002 totaled 34.8 million Euros, 17.6% more than in 2001.

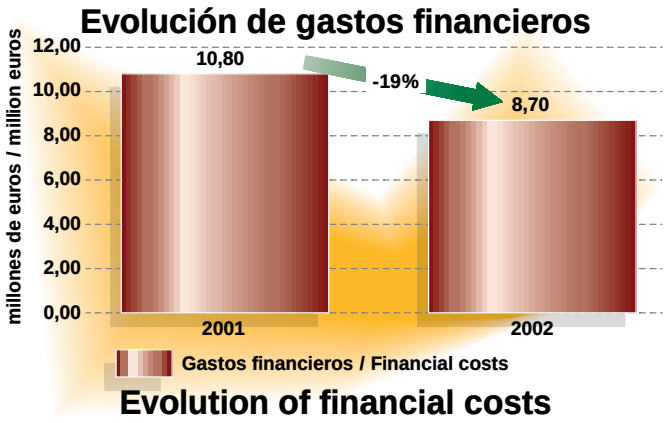
RESULTS BEFORE TAX
The net negative extraordinary results were 3.1 million Euros, compared to 2.6 million in 2001.

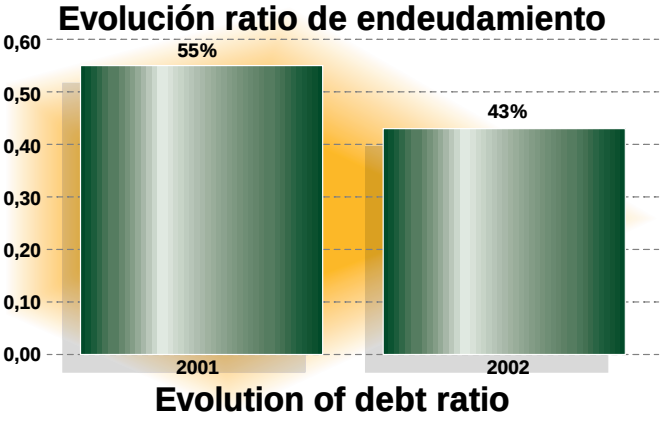
AFTER TAX PROFIT
The corporate tax cost was 7.2 million Euros, compared to 6.7 million Euros incurred in 2001, which is an increase of 7.5%.

Finally, the net consolidated result of the year reached 24.48 million Euros, 20.7% more than that recorded in 2001.

Resultado financiero

El resultado financiero negativo neto del ejercicio 2002 alcanza los 8,7 millones de euros, lo que supone una disminución de 2,1 millones. Esta reducción se debe básicamente a un efecto combinado de menores gastos y mayores ingresos financieros; por una parte las ampliaciones de capital realizadas han producido un menor nivel de endeudamiento y en consecuencia menores gastos financieros, por otra parte se han generado ingresos financieros como consecuencia de las disponibilidades de tesorería habidas a lo largo del ejercicio.





Resultado de las actividades ordinarias

En relación con la evolución de los ingresos de explotación, gastos y resultados financieros antes citados, el resultado de las actividades ordinarias en 2002 ascendió a 34,8 millones de euros, un 17,6 superior al de 2001.

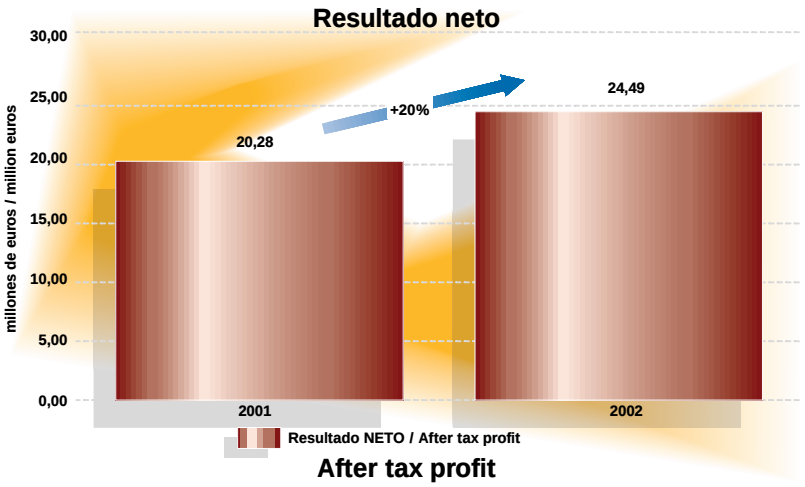
Resultados antes de impuestos

Los resultados extraordinarios negativos netos fueron de 3,1 millones de euros, frente a los 2,6 millones del ejercicio 2001.

Beneficio neto

El gasto por impuesto de sociedades se elevó a 7,2 millones de euros, que frente a los 6,7 millones de euros incurridos en el ejercicio 2001 supone un incremento de 7,5%.

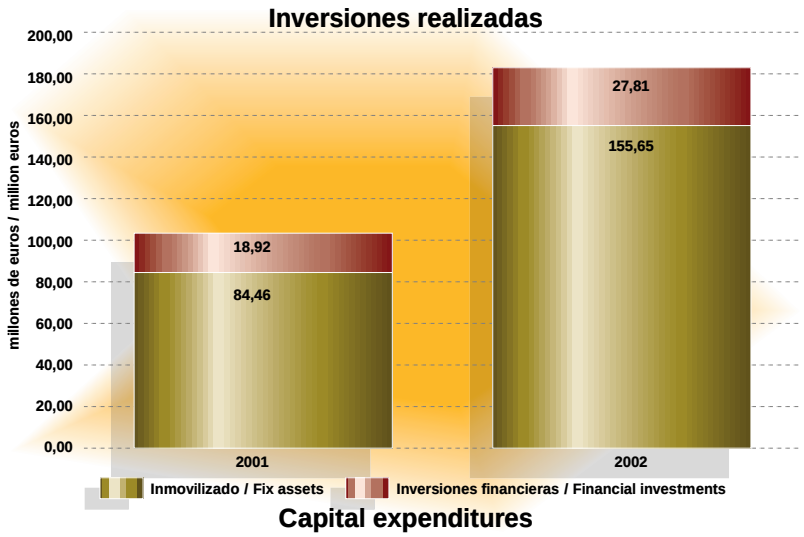
Finalmente, el resultado neto consolidado del ejercicio alcanzó los 24,48 millones de euros, un 20,7% superior al registrado en el ejercicio 2001.



Actividad inversora

El Grupo HISPASAT ha realizado inversiones materiales e inmateriales durante el ejercicio 2002 por importe de 155,65 millones de euros, fundamentalmente destinadas a la puesta en órbita de su cuarta unidad de vuelo, el satélite Hispasat 1D y al proyecto AMAZONAS.

Adicionalmente la compañía ha invertido otros 27,81 millones de euros en sus sociedades participadas, fundamentalmente en HISDESAT SERVICIOS ESTRATÉGICOS, S.A. Estos recursos han sido destinados a la ejecución del plan de inversiones previsto por esta sociedad que se concreta en los proyectos SPAINSAT y XTAR-EUR.



INVESTMENTS

The HISPASAT Group made tangible and intangible investments in 2002 for an amount of 155.65 million Euros, mainly focused on putting its fourth flight unit in orbit, the Hispasat 1D satellite and the AMAZONAS project.

The company additionally invested 27.81 million Euros in

participating companies, mainly in HISDESAT SERVICIOS ESTRATÉGICOS, S.A. These resources were used for investments planned by the company which focus on the SPAINSAT and XTAR-EUR projects.

FINANCING

On April 8th, 2002 two capital increases were made which the Extraordinary Shareholders' Meetings of the parent company held on February 28th, 2002 and March 22nd, 2002, respectively approved. Corporate equity increased by 6,097,148.96 Euros. The new shares were issued with an issue premium and therefore the effective amount of the subscription reached 45,206,565.96 Euros.

Moreover, the net debt of the HISPASAT Group increased 29.5% in 2002 to 188.2 million Euros, with these resources being destined to financing the investment plan, which is currently being executed.

The main financial operations carried out in 2002 were:

- On January 18th, 2002 the second loan disposal of the European Investment Bank took place which was conceded on October 15th, 2001 for an amount of 20 million Euros.

- On July 26th, 2002 the third disposal of said loan took place for an amount of 15 million Euros.

Financiación

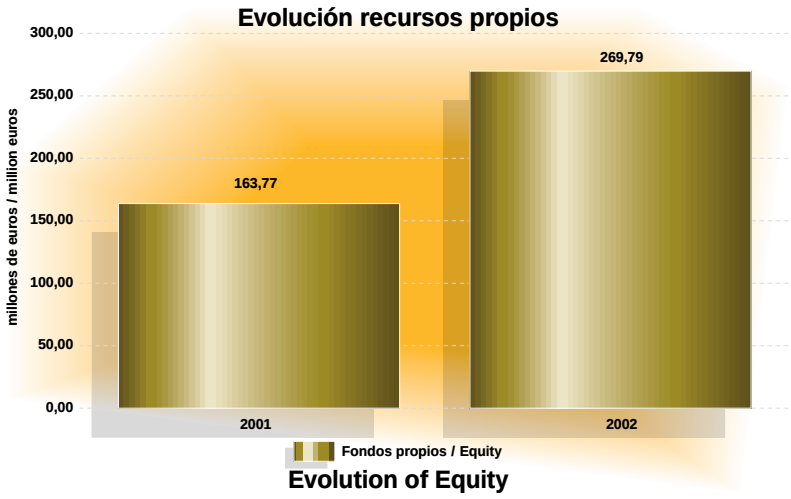
Con fecha 8 de abril de 2002 se ejecutaron las dos ampliaciones de capital aprobadas por las Juntas Extraordinarias de Accionistas de la sociedad dominante, celebradas los días 28 de febrero de 2002 y 22 de marzo de 2002 respectivamente. El capital social se aumentó en 6.097.148.96 euros. Las nuevas acciones fueron emitidas con prima de emisión, por lo que el importe efectivo de la suscripción ascendió a 45.206.565,96 euros.

Por otra parte , el endeudamiento neto del Grupo HISPASAT se ha incrementado en el ejercicio 2002 un 29,5% hasta los 188,2 millones de euros, habiéndose destinado estos recursos a la financiación del plan de inversiones actualmente en ejecución.

Las principales operaciones de financiación realizadas en el ejercicio han sido:

- El 18 de Enero de 2002 se produjo la segunda disposición del préstamo concedido por el Banco Europeo de Inversiones el 15 de octubre de 2001 por importe de 20 millones de euros.

- El 26 de julio de 2002 se produjo la tercera disposición del citado préstamo por importe de 15 millones de euros.



▼ Campo de antenas Centro de Control de Satélites de Arganda del Rey (Madrid).

Coordinación Editorial:
ARES Comunicación Corporativa

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Diseño original de David Velasco
Maquetación: Basi Berlanga
y Manuel Lasvignes
Gráficos: Jesús Rica

Imprime:
JACARYAN,

Depósito Legal:
MMMMMMMMMM

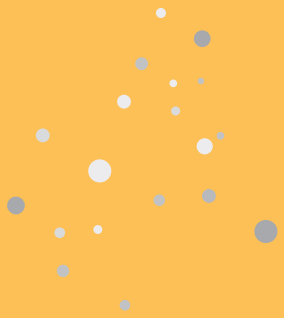

Exhibit 1

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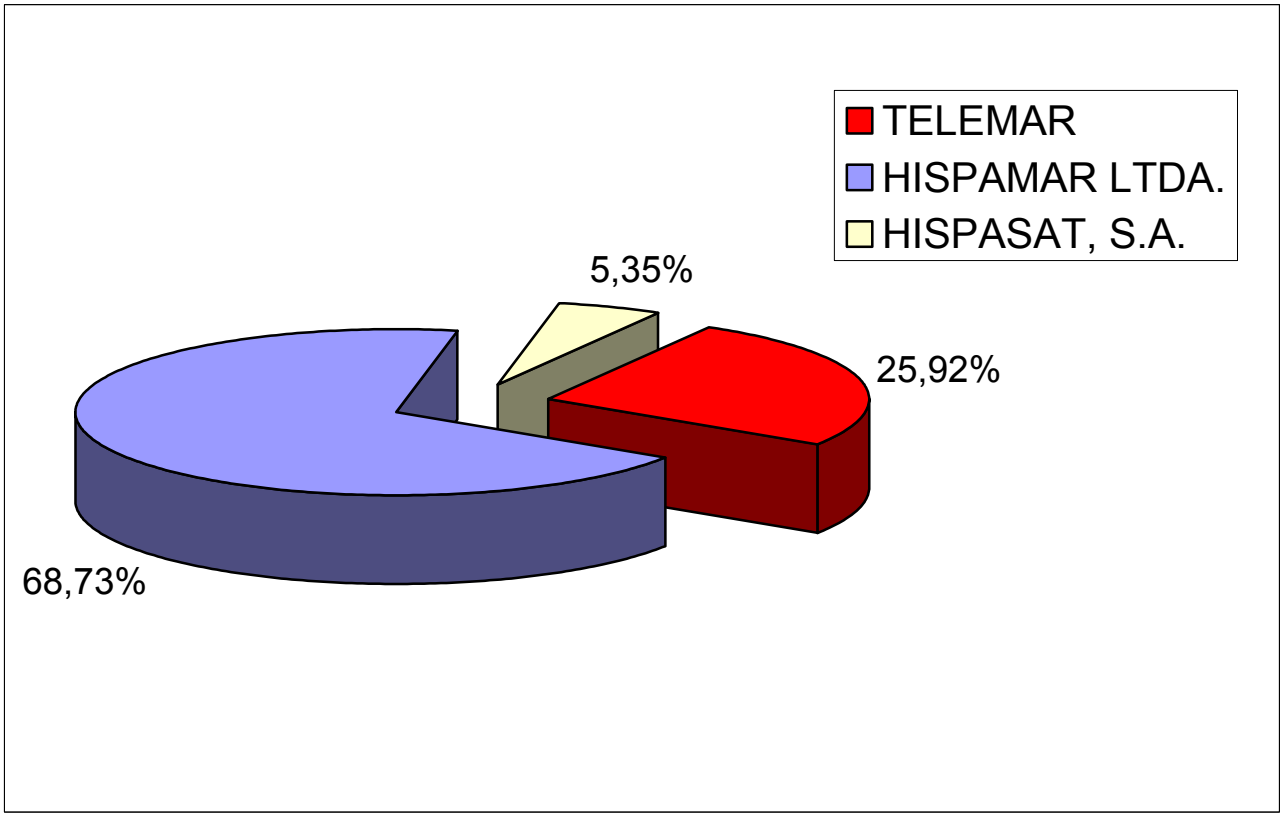
HISPAMAR SATÉLITES, S.A. - SHAREHOLDERS (November, 2003)



HISPAMAR LTDA. .- A Brazilian company operating communications satellites - 68,73% (Brazil)

HISPASAT, S.A..- A Spanish company operating communications satellites - 5,35% (Spain)

TELEMAR.- A Brazilian company operating telecommunication services – 25.92% (Brazil)

HISPASAT HOLDING

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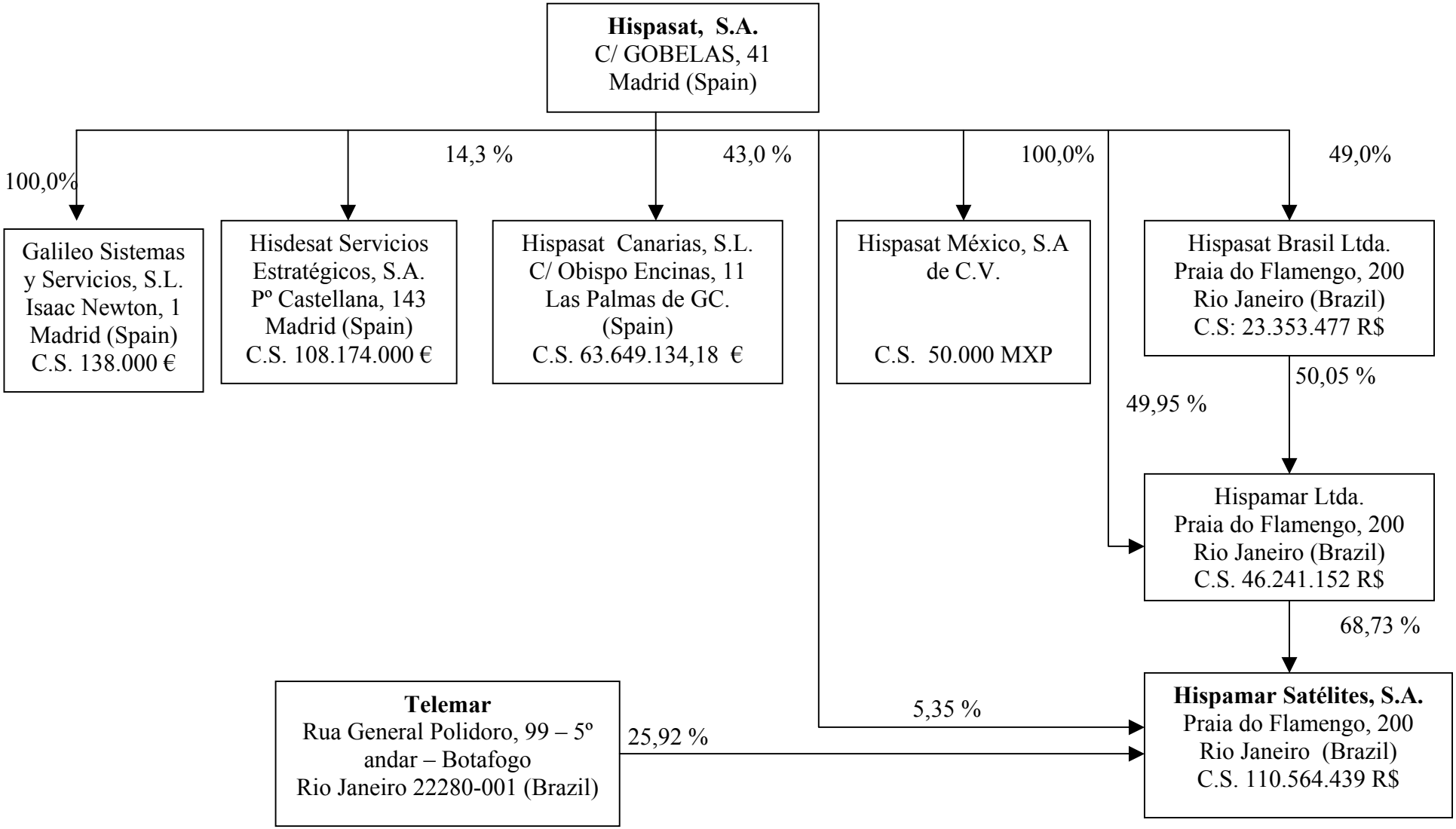

Exhibit 2

HISPAMAR SATÉLITES BOARD OF DIRECTORS (November 2003)			
SHAREHOLDER	**NAME**	**ADDRESS**	**NACIONALITY**
HISPASAT	Mr. Jacinto Guillermo García Palacios	Gobelas 41.- 28023 Madrid (Spain)	Spanish
HISPASAT	Mr. Pascual Menéndez	Gobelas 41.- 28023 Madrid (Spain)	Spanish
HISPASAT	Mr.Pedro José Domínguez Bidagor (CEO)	Praia do Flamengo, 200, 17 Rio de Janeiro (Brazil)	Spanish
INDEPENDENT	Mr. Luiz Francisco Tenório Perrone (Chairman of the Board)	Praia do Flamengo, 200, 17 Rio de Janeiro (Brazil)	Brazilian
INDEPENDENT	Mr. Vicente Gómez	Cid, 4 Madrid (Spain)	Spanish
INDEPENDENT	Mr. José Fernandes Pauletti	Rua Barão da Torre, 574 Rio de Janeiro (Brazil)	Brazilian
INDEPENDENT	Mr. Francis Jean-Pierre Francis Latapie	5112 Dalecarlia Drive Bethesda, MD 20816 (USA)	French
INDEPENDENT	Mr. Henoch Aguiar	Estudio Aguiar y Marsiglia, Zenteno 3175 CP 1425, Capital Federal da República da Argentina	Argentine