ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-3040

COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE

November 15, 1991

Rene Anselmo
Chairman
Alpha Lyracom/Pan American Satellite
One Pickwick Plaza
Greenwich, CT 06830

Dear Mr. Anselmo:

This is in response to your October 30, 1991, letter to Secretary Cheney concerning the U.S. separate satellite policy.

The Department of Defense has participated with other agencies of the Executive Branch in a review of the separate satellite systems policy. This review was initiated in response to your petition filed with the Federal Communications Commission (FCC). Full review and consideration have been given to the views of your company as expressed in the petition and related documents filed with the FCC. Because of this review, the U.S. Government has not engaged in any ex parte contacts concerning the separate satellite policy.

Your understanding of our position on this matter is appreciated. I can assure you that your concerns have been fully considered in the deliberation and will have a bearing on the Administration's revised policy for the separate satellite system which is expected to be rendered in the near future.

Sincerely,

Duane P. Andrews

ALPHA LYRACOM
PAN AMERICAN SATELLITE

VIA FEDERAL EXPRESS

October 30, 1991

The Honorable Richard B. Cheney
Secretary of Defense
The Pentagon
Washington, D.C. 20301-1000

Dear Mr. Secretary:

I am writing you out of deep concern about how the Administration is handling the issue of connection to the Public Switched Network by international satellite systems. This is an important trade and communications policy issue currently before the FCC, where there is nearly unanimous agreement that the U.S. should remove this restriction on separate satellite systems that does not apply to Intelsat or fiber optic cable operators.

I am concerned on two levels. First, the Administration is conducting its review of the issue in a highly classified NSC forum that precludes full consideration of the business environment. Second, as a result of Comsat's arrangements with the government, technical issues may mask broader national policy issues; the attached Wall Street Journal editorial says it well.

Clearly there needs to be a balance of national security and economic interests, and because the national security element cannot be addressed openly, the government should be sure to get a full understanding of all outside interests. Yet DOD and NSC officials have repeatedly refused to meet with us to discuss our business and establish a basis for future cooperation. For example, I wrote Assistant Secretary Andrews in May indicating our awareness of his concerns and asking to discuss the issues with him, but never received a reply.

The national security community and Comsat have had ample opportunity to contribute their views, but we and our customers have been excluded. Moreover, if Comsat is privy to any pertinent national security matters, Alpha Lyracom also should have the opportunity to work with the government on the same basis. Alpha Lyracom officials have held appropriate clearances in the past and can readily be cleared for such a discussion.

Mr. Secretary, since the national security interests involved here are under your responsibility, I hope you will take the time to review this matter both procedurally and from the perspective of broader national interests and that you will arrange for us to meet with you and/or with Secretary Andrews and Secretary Wolfowitz to hear our side of this issue.

Sincerely,

Rene Anselmo
Chairman

Enclosures:

Wall Street Journal editorial
The Economist editorial
Aviation Wekk and Space Technology editorial
Letter to Duane Andrews

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To TOM WHITEHEAD	From RENE ANSELMO
Co.	Co.
Dept.	Phone #
Fax #	Fax #

LYRACOM
PAN AMERICAN SATELLITE

VIA FEDERAL EXPRESS

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Secretary of Defense
The Pentagon
Washington, D.C. 20301-1000

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The Honorable Richard B. Cheney
Secretary of Defense
10/30/91 Page -2-

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The Economist editorial
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Letter to Duane Andrews

ALPHA LYRACOM
PAN AMERICAN SATELLITE

October 30, 1991

The Honorable Daniel K. Inouye
United States Senate
722 Senate Hart Office Building
Washington, D.C. 20510

Dear Senator Inouye:

I understand that you met with General Scowcroft to determine the basis for NSA's position that the PSN Restriction on Pan American Satellite not be lifted, or totally lifted, for national security reasons. For that I thank you. I do not know the outcome of your discussion, and of course, I have not been privy to the national security reasons underlying the NSA's position. Indeed, despite our requests to be heard, we have been totally excluded from the proceedings that have led to this decision. Since you have been briefed, perhaps you can tell whether the national security rationale is justified or is only a smokescreen for tossing yet another plum to the COMSAT/INTELSAT cartel. Not having been briefed, I can conclude only that it is the latter.

If, however, it turns out that, for national security reasons, the COMSAT/INTELSAT monopoly on international telephone service is preserved for an additional period of time, I hope that I can count on you to urge the FCC to impose adequate structural and regulatory safeguards on COMSAT. Such safeguards are critical to assure that COMSAT cannot leverage a "temporary" monopoly into a permanent, anticompetitive lock on the market that will exist long after any national security reasons for prolonging the monopoly have passed.

I am deeply indebted to you for your interest and help.

Sincerely,

Rene Anselmo
Chairman

COMMERCE PLAZA • GREENWICH, CONNECTICUT 06830 • TELEPHONE (203) 622-3981 • FAX (203) 622-3980

ALPHA LYRACOM
SPACE COMMUNICATIONS

FACSIMILE MESSAGE SHEET
Fax: 203-622-9163

Date: 10-30-91

TO: TOM WHITEHEAD

FROM: RENE ANSELMO

Fax No:

Number of pages to follow: 1

Delivery instructions:

PLEASE DELIVER IMMEDIATELY [ ]

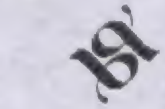
CONFIDENTIAL [ ]

NORMAL PROCESSING [X]

OTHER

MESSAGE:
THE FOLLOWING LETTER WAS ALSO SENT TO SENATOR STEVENS.

If transmission is incomplete, please call 203-622-6664.



ALPHA LYRACOM
PAN AMERICAN SATELLITE

May 22, 1991

The Honorable Duane P. Andrews
Assistant Secretary of Defense
Department of Defense
The Pentagon, Room 3E 172
Washington, D.C. 20201-2400

Dear Secretary Andrews:

As you know, Alpha Lyracom has requested the FCC to remove the restriction on separate international satellite systems connecting to the public switched network (PSN).

This restriction prohibits not only the carriage of public switched telephone traffic, but also the provision of circuits for private networks that also utilize PSN facilities; for example, we are not allowed to provide circuits for a customer's private network where that network also utilizes a virtual private line provided by a PSN carrier.

This matter has drawn considerable attention throughout the telecommunications industry and within the Federal government, with nearly unanimous support for removal of the restriction.

Our country has made great strides during the Reagan and Bush administrations in adopting policies that promote open entry and free competition in the telecommunications marketplace. The results demonstrate that these policies are in the best interest of the customer, the telecommunications industry and the Federal government. President Reagan's initiative to authorize competitive separate satellite systems is a good example of this policy.

We believe our petition to the FCC is consistent with the Administration's telecommunications policy direction and that, by furthering the growth of competition, it will help advance economic growth throughout the world,

ONE PICKWICK PLAZA • GREENWICH, CONNECTICUT 06830 • TELEPHONE 203/622/6664 • FAX 203/622/9163

foster more freedom of information which promotes democracy and political stability, and produce significant exports of technology-based products and services by U.S. industry.

The governments of every major country are aware of the impact of telecommunications technology on their economic infrastructure and its role in their economic development. Following the lead of the U.S., they have learned that policies of deregulation and competition increase the availability of telecommunications services and decrease the prices in the market, enhancing economic growth.

I understand and firmly support the need for continued U.S. national security as it relates to international satellite communications. The Departments of Defense and State already are important customers, and Alpha Lyracom would never knowingly jeopardize the national security. Indeed, insofar as I am aware of the issues in this regard, our present and planned business activities enhance, and in no way detract from, our national security interests.

I would like to assure you that I will work in close cooperation with DCA, NSA and your staff to insure that the proper procedures and mechanisms are put into place to promote and protect the continued national security of our country. I would be happy to meet with you to discuss any concerns you may have regarding the PSN issue and longer-run procedures for coordination and cooperation between the government and Alpha Lyracom that would help assure that national security interests are protected.

Sincerely,

Rene Anselmo
Chairman

ALPHA LYRACOM
PAN AMERICAN SATELLITE

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Sincerely,

Rene Anselmo
Chairman

ALPHA LYRACOM
SPACE COMMUNICATIONS

FACSIMILE MESSAGE SHEET
Fax: 203-622-9163

Date: 10-25-91

TO: Lisa

FROM: Ursula

Fax No:

Number of pages to follow: 2

Delivery instructions:

PLEASE DELIVER IMMEDIATELY	X
CONFIDENTIAL	[ ]
NORMAL PROCESSING	[ ]
OTHER	

MESSAGE:

Lisa: Do you can see this letter is from back in May. Let me know if it is not the one Tom is referring to.

KDA

If transmission is incomplete, please call 203-622-6664

2 DOCUMENTS WITHHELD FROM PRODUCTION
ATTORNEY CLIENT PRIVILEGE

99

100

ALPHA LYRACOM
SPACE COMMUNICATIONS

May 22, 1991

Reply to:
Clay Whitehead Associates
1320 Old Chain Bridge Rd.
McLean, Virginia 22101

Mr. Bill Sullivan
Chief, G
National Security Agency
Department of Defense
9800 Savage Road
Fort George G. Meade, Maryland 20755

Dear Bill:

Here are some materials prepared by Alpha Lyracom as an initial response to your questions. We have tried to be timely, but can provide additional or more specific specific information based on your review of this material.

Regarding your question about embassies, Alpha Lyracom now provides such service only to the U.S. Department of State. However, discussions are underway with the governments of Venezuela and Argentina for some such service.

Regarding the last of your questions, Alpha Lyracom can provide information such as you have requested on a continuing and periodic basis once the appropriate procedures have been established. I am enclosing a letter written by Rene Anselmo to Duane Andrews that shows his commitment to work with the government on a close and continuing basis. (By the way, his offer to meet with Secretary Andrews is not intended to supersede the meeting at NSA that we discussed.)

As I have said before, I believe the establishment of specific procedures and mechanisms to promote and protect the national security is a far better approach than the continuation of the blanket PSN restriction.

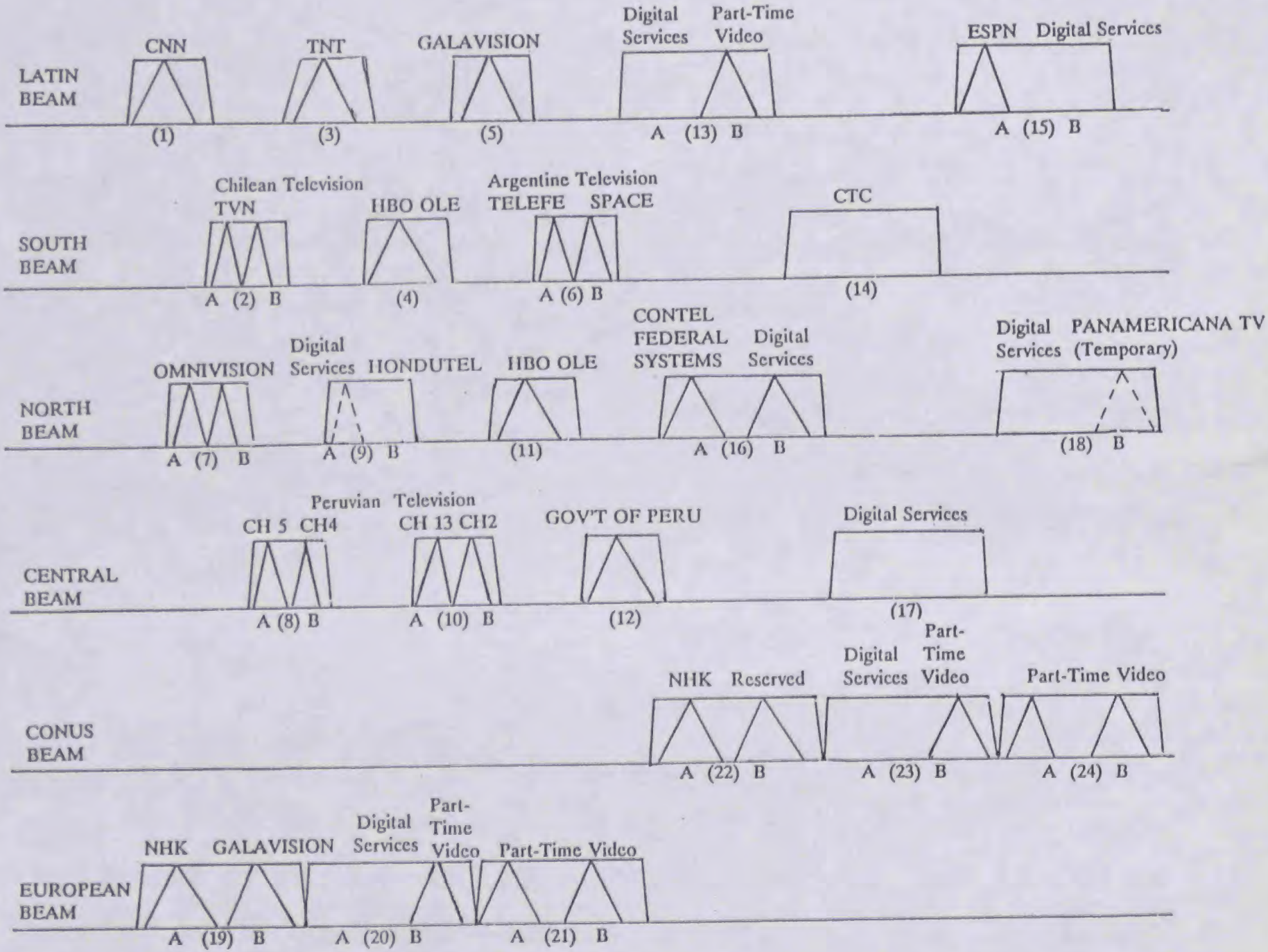
Please let me know if I can provide any further information.

Sincerely,

Tom

Clay T. Whitehead
Vice Chairman

PAS-1 TRANSPONDER PLAN
MAY 1991



Digital Services include: IDS, VSAT, Government Services, Radio and Business Television.

ALPHA LYRACOM SPACE COMMUNICATIONS, INC.

SERVICE SUMMARY

5/15/91

SPOT BEAM SALES

All spot beam sales are until the end of life of the PAS-1 satellite. Earth station facilities are provided by the customer. Video service is to television stations and cable headends. Telephone networks utilize satellite space segment for the provision of a hub-based VSAT network for business communications and rural telephone traffic.

CHANNEL 2 PERU

Country Coverage:	Peru.
Type of Service:	Video.
Channels/Bandwidth:	17.5 MHz transponder.
Implementation Schedules:	September 20, 1989.

CHANNEL 4 PERU

Country Coverage:	Peru.
Type of Service:	Video.
Channels/Bandwidth:	17.5 MHz transponder.
Implementation Schedules:	October 20, 1989.

CHANNEL 13 PERU

Country Coverage:	Peru.
Type of Service:	Video.
Channels/Bandwidth:	17.5 MHz transponder.
Implementation Schedules:	October 3, 1989.

COMPANIA DE TELEFONOS DE CHILE

Country Coverage:	Chile.
Type of Service:	Telephone network.
Channels/Bandwidth:	72MHz transponder.
Implementation Schedules:	May 4, 1989.

EMPRESA HONDURENA DE TELECOM

Country Coverage:	Honduras.
Type of Service:	Telephone network.
Channels/Bandwidth:	18 MHz transponder.
Implementation Schedules:	November 11, 1989.

OMNIVISION

Country Coverage:	Venezuela.
Type of Service:	Video.
Channels/Bandwidth:	36 MHz transponder.
Implementation Schedules:	April 23, 1991.

TELECINEMA

Country Coverage:	Argentina.
Type of Service:	Video.
Channels/Bandwidth:	18 MHz transponder.
Implementation Schedules:	January 1, 1991.

TELEVISION FEDERAL, S.A.

Country Coverage:	Argentina.
Type of Service:	Video.
Channels/Bandwidth:	18MHz.
Implementation Schedules:	April 27, 1990.

BROADCAST SERVICE AGREEMENTS

ABC

Type of Service:	Video. Flexible schedule.
Uplink Service:	Provided by G.E. Americom, Vernon Valley, New Jersey including NTSC to PAL standards conversion.
Downlink Service:	United Kingdom reception via BTI London Dockland. Teleport plus interconnection to the London Telecom Tower.
Channels/Bandwidth:	36MHz transponder, 7 hours per week.
Implementation Schedules:	July 1, 1990, annual contract.

BBC

Type of Service:	Video. Flexible schedule.
Uplink Service:	Washington D.C. (USA) by Professional Video Transmission Services and New York City, New York (USA) at Atlantic Satellite Communications.
Downlink Service:	United Kingdom reception via BTI London Dockland.
Channels/Bandwidth:	36MHz transponder.
Implementation Schedules:	August 30, 1990, 3 year contract, 20,000 minutes per year.

BBC RADIO(1)

Uplink Service:	British Telecom delivers audio baseband to the Homestead teleport where it is uplinked onto the Latin Beam for reception in Latin America.
Type of Service:	Radio.
Channels/Bandwidth:	Wegener 15 Khz SCPC audio over video subcarrier.
Implementation Schedules:	July 16, 1990, three year contract.

BBC RADIO (2)

Type of Service:	Radio, 15 Khz.
Implementation Schedules:	3 year contract.

CARACOL

Country Coverage:	Columbia.
Type of Service:	Radio.
Channels/Bandwidth:	256 kbps.
Implementation Schedules:	June 1, 1991 till end of life of PAS-1 satellite.
Uplink & Downlinks:	Provided by Caracol.

CBS

Country Coverage:	United States of America to Europe.
Type of Service:	Video, 540 hours per annum.
Channels/Bandwidth:	36MHz transponder.
Implementation Schedules:	July 24, 1989, 2 year contract.

ESPN

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Downlink Service:	From Spacenet II satellite.
Uplink Service:	From Alpha Lyracom's Homestead teleport.
Channels/Bandwidth:	36 MHz transponder.
Implementation Schedules:	January 1, 1990 until end of life of PAS-1 satellite.

EUROVISA

Country Coverage:	United States of America to Europe.
Type of Service:	One video and two audio channels.
Donwlink:	Conus beam C-band downlink to Alpha Lyracom's Homestead teleport.
Uplink:	From Homestead via the European beam Ku-band.
Downlink:	BTI London Dockland teleport.
Channels/Bandwidth:	30 MHz transponder.
Implementation Schedules:	June 21, 1990 until end of life of PAS-1 satellite.
Earth Station Specifications:	

HOME BOX OFFICE

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	Two 36 MHz transponders.
Implementation Schedules:	February 28, 1991 until February 28, 2001.
Earth Station Specifications:	Provided by Home Box Office.

TV BANDEIRANTES

Country Coverage:	Latin America.
Type of Service:	Video. Flexible Schedule. 21.67 hours per annum.
Channels/Bandwidth:	18 Mhz transponder.
Implementation Schedules:	April 30, 1991. Annual contract.
Earth Station Specifications:	3/4" tape playout and uplink to PAS-1.

NHK

Country Coverage:	Europe and the United States of America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	2 18MHz transponders (Conus and European beams).
Implementation Schedules:	March 28, 1991, two year contract.
Earth Station Facilities:	GE Americom at South Mountain, California uplinks the signal to 1) PAS-1's Conus beam for reception by GE Americom at its Vernon Valley, New Jersey teleport; and 2) PAS-1's European beam for reception by British Telecom's Docklands Teleport in London, England.

RADIOMAR (1)

Country Coverage:	Peru.
Type of Service:	Radio.
Channels/Bandwidth:	256 kbps.
Implementation Schedules:	January 1, 1991. Seven year contract.
Earth Station Specifications:	RadioMar provides earth station facilities.

RAI CORPORATION

Country Coverage:	Brazil, Chile, Costa Rica, Dominican Republic, Guatemala, Honduras, Peru and the United States of America.
Type of Service:	Video, 756 hours per annum.
Channels/Bandwidth:	18 MHz transponder.
Implementation Schedules:	January 1, 1990. Two year contract.
Earth Station Specifications:	Downlink from Satcom 3R Transponder 4 to Alpha Lyracom's Homestead teleport. Uplink to PAS-1.

SPACE CONNECTION

Country Coverage:	United States to Europe.
Type of Service:	Video, 180 hours per annum.
Channels/Bandwidth:	36 MHz transponder.
Implementation Schedules:	October 8, 1990, one year contract.
Earth Station Specifications:	Downlink to British Telecom Tower, London, England.

TELEVISA, S.A.

Country Coverage:	Latin America.
Type of Service:	Video.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	April 1, 1990 until the end of life of PAS-1.
Earth Station Specifications:	Downlink from Spacenet II to Alpha Homestead's Homestead teleport and uplink to PAS-1's Latin beam.

TELEVISION NACIONAL DE CHILE

Country Coverage:	Chile.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	October 3, 1989 until end of life of PAS-1 satellite.

TPI

Country Coverage:	Latin America.
Type of Service:	Video, 1,080 minutes per annum.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 4, 1991, annual contract.
Earth Station Specifications:	3/4" NTSC videotape playback and uplink service from Alpha Lyracom's Homestead teleport.

TURNER BROADCASTING SYSTEM - CNN

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 2, 1991 until the end of life of the PAS-1 satellite.
Earth Station Specifications:	Downlink from Morelos 2 satellite to Alpha Lyracom's Homestead teleport. Encrypted uplink to PAS-1's Latin Beam.

TURNER BROADCASTING SYSTEM - TNT

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 1, 1991 until the end of life of PAS-1 satellite.
Earth Station Specifications:	Turner Broadcasting provides all earth station facilities.

TWI

Country Coverage:	Latin America.
Type of Service:	Video.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	March 1, 1991, annual contract.
Earth Station Specifications:	Downlink from Westar 4 satellite to Alpha Lyracom's Homestead teleport. Uplink to PAS-1's Latin beam.

VISNEWS

Country Coverage:	Latin America.
Type of Service:	Video. Flexible schedule.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	December 1, 1991, annual contract.
Earth Station Specifications:	Downlink from a U.S.A. domsat to Alpha Lyracom's Homestead teleport. Uplink to PAS-1's Latin beam.

WTN

Country Coverage:	United States of America to Europe.
Type of Service:	Video. Fixed schedule.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 1, 1990, annual contract.
Earth Station Specifications:	WTN is responsible for earth station facilities.

DATA SERVICE AGREEMENTS

ASSOCIATED PRESS (1)

Country Coverage:	Latin America.
Type of Service:	Text and photos.
Channels/Bandwidth:	64 kbps.
Implementation Schedules:	February 7, 1991. 5 year contract.
Earth Station Specifications:	9 C - 105 Data Receive terminals.

ASSOCIATED PRESS (2)

Country Coverage:	Latin America.
Type of Service:	Text and photos.
Channels/Bandwidth:	64 kbps.
Implementation Schedules:	December 19, 1990. 5 year contract.
Earth Station Specifications:	C - 105 Data Receive terminal.

BANCO DEL PACIFICO

Country Coverage:	Ecuador and the United States of America.
Type of Service:	IDS: Miami - Guayaquil. Galapagos - Guayaquil.
Channels/Bandwidth:	2 64 kbps duplex channels.
Implementation Schedules:	Miami - Guayaquil Jaunuary 1, 1991. Guayaquil - Galapagos June 1, 1991. 5 year contract.
Earth Station Specifications:	Provided by Banco del Pacifico.

BANCO POPULAR

Country Coverage:	Ecuador and the United States of America.
Type of Service:	IDS: Quito - Miami.
Channels/Bandwidth:	One duplex 56 kbps channel.
Implementation Schedules:	April 25, 1991. 5 year contract.
Earth Station Specifications:	Ecuador - customer premise earth station. U.S.A. - Alpha Lyracom's Homestead teleport.

CITIBANK

Current Country Coverage:	Quito, Ecuador. Port of Prince, Haiti. Kingston, Jamaica. Panama City, Panama. Homestead, Florida.
Future Country Coverage:	La Paz, Bolivia. Bogota, Columbia. Tegucigalpa, Honduras. Nassau, Bahamas. San Jose, Costa Rica. Montevideo, Uruguay. Caracas, Venezuela. Asuncion, Paraguay.
Type of Service:	IDS. Financial information.
Channels/Bandwidth:	56/64 kbps.
Implementation Schedules:	Progressive schedule. 5 year contract.
Earth Station Specifications:	3.7 meter earth stations.

DATAPORT

Country Coverage:	Costa Rica.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps channel.
Implementation Schedules:	April 3, 1991. Three year contract.
Earth Station Specifications:	Provided by Dataport.

EDIMPRES

Country Coverage:	Ecuador.
Type of Service:	Newspaper text and photos.
Channels/Bandwidth:	64 kbps duplex circuit.
Implementation Schedules:	June 17, 1991. 5 year contract.
Earth Station Specifications:	

EL TIEMPO

Country Coverage:	Columbia.
Type of Service:	IDS.
Channels/Bandwidth:	One 512 kbps simplex and two 64 kbps duplex channels.
Implementation Schedules:	Bogota - Cali/Barranquilla July 27, 1990. Bogota - Cali August 5th 1990. Bogota - Barranquilla August 15th 1990.
Earth Station Specifications:	3.5 - 4.5 meter earth stations.

FILAN BANCO

Country Coverage:	Ecuador.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel
Implementation Schedules:	May 20, 1991. 7 year contract.
Earth Station Specifications:	Customer premise earth stations in Ecuador and Alpha Lyracom's Homestead teleport in the United States of America.

INTELFAX

Country Coverage:	Costa Rica.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps simplex channel.
Implementation Schedules:	March 1, 1991. Three year contract.
Earth Station Specifications:	Intelfax earth station and Alpha Lyracom's Homestead teleport.

MICROSPACE

Country Coverage:	United States to Europe.
Type of Service:	Space Segment. FM Squared.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	December 1, 1990 to end of life of PAS-1 satellite.
Earth Station Specifications:	Provided by Microspace.

SAN ISIDRO

Country Coverage:	Dominican Republic and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	T-1.
Implementation Schedules:	November 1, 1990. Annual contract.
Earth Station Specifications:	Provided by customer.

SERTELSA

Country Coverage:	Peru.
Type of Service:	Voice and data.
Channels/Bandwidth:	39 VSAT terminals.
Implementation Schedules:	May 15, 1991. Three year term.
Earth Station Specifications:	1.8 and 2.4 meter.

SITA

Country Coverage:	Costa Rica and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel.
Implementation Schedules:	August 1, 1990. Annual contract.
Earth Station Specifications:	Provided by SITA.

TECSEL

Country Coverage:	Argentina.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	September 15, 1990. Five year contract.
Earth Station Specifications:	Provided by TECSEL.

TRICOM

Country Coverage:	Dominican Republic.
Type of Service:	PSN.
Channels/Bandwidth:	T-1.
Implementation Schedules:	October 31, 1991. Five year contract.
Earth Station Specifications:	Provided by Tricom.

TRT/FTC

Country Coverage:	Costa Rica and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel.
Implementation Schedules:	August 15, 1990. Five year contract.
Earth Station Specifications:	RACSA's San Jose teleport and Alpha Lyracom's Homestead teleport.

VOLVO/GM TRUCKS

Country Coverage:	Sweden and the United States of America.
Type of Service:	Voice, data, CAD/CAM.
Channels/Bandwidth:	512 kbps duplex channel.
Implementation Schedules:	October 15, 1990. Three year contract.
Earth Station Specifications:	3.5 meter earth station.

DATA CARRIER AGREEMENTS

CONTEL FEDERAL SYSTEMS

Country Coverage:	Bolivia and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	T-1.
Implementation Schedules:	January 15, 1991. Annual contract.
Earth Station Specifications:	Space segment only.

IETEL

Country Coverage:	Ecuador.
Type of Service:	IDS.
Channels/Bandwidth:	10 64 kbps channels.
Implementation Schedules:	8 channels May 1, 1990. 1 channel June 11, 1990. 1 channel August 15, 1990. 4 year contract.
Earth Station Specifications:	Provided by IETEL.

INFOWARE

Country Coverage:	Germany.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	October 1, 1990. Five year contract.
Earth Station Specifications:	Provided by customer.

PITTSBURGH TELEPORT

Country Coverage:	Germany and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	256 duplex channel.
Implementation Schedules:	December 17, 1990. Annual contract.
Earth Station Specifications:	Provided by customer.

RACSA

Country Coverage:	Costa Rica and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	August 1, 1990. Five year contract.
Earth Station Specifications:	3.7 meter earth station.

VIASAT (1)

Country Coverage:	Europe and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	February 1, 1991. Annual contract.
Earth Station Specifications:	Provided by VIASAT.

VITACOM

Country Coverage:	Chile and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel.
Implementation Schedules:	July 20, 1990. Annual contract.
Earth Station Specifications:	Provided by Vitacom.

ALPHA LYRACOM SPACE COMMUNICATIONS, INC.

SERVICE SUMMARY

5/15/91

SPOT BEAM SALES

All spot beam sales are until the end of life of the PAS-1 satellite. Earth station facilities are provided by the customer. Video service is to television stations and cable headends. Telephone networks utilize satellite space segment for the provision of a hub-based VSAT network for business communications and rural telephone traffic.

CHANNEL 2 PERU

Country Coverage:	Peru.
Type of Service:	Video.
Channels/Bandwidth:	17.5 MHz transponder.
Implementation Schedules:	September 20, 1989.

CHANNEL 4 PERU

Country Coverage:	Peru.
Type of Service:	Video.
Channels/Bandwidth:	17.5 MHz transponder.
Implementation Schedules:	October 20, 1989.

CHANNEL 13 PERU

Country Coverage:	Peru.
Type of Service:	Video.
Channels/Bandwidth:	17.5 MHz transponder.
Implementation Schedules:	October 3, 1989.

COMPANIA DE TELEFONOS DE CHILE

Country Coverage:	Chile.
Type of Service:	Telephone network.
Channels/Bandwidth:	72MHz transponder.
Implementation Schedules:	May 4, 1989.

EMPRESA HONDURENA DE TELECOM

Country Coverage:	Honduras.
Type of Service:	Telephone network.
Channels/Bandwidth:	18 MHz transponder.
Implementation Schedules:	November 11, 1989.

OMNIVISION

Country Coverage:	Venezuela.
Type of Service:	Video.
Channels/Bandwidth:	36 MHz transponder.
Implementation Schedules:	April 23, 1991.

TELECINEMA

Country Coverage:	Argentina.
Type of Service:	Video.
Channels/Bandwidth:	18 MHz transponder.
Implementation Schedules:	January 1, 1991.

TELEVISION FEDERAL, S.A.

Country Coverage:	Argentina.
Type of Service:	Video.
Channels/Bandwidth:	18MHz.
Implementation Schedules:	April 27, 1990.

BROADCAST SERVICE AGREEMENTS

ABC

Type of Service:	Video. Flexible schedule.
Uplink Service:	Provided by G.E. Americom, Vernon Valley, New Jersey including NTSC to PAL standards conversion.
Downlink Service:	United Kingdom reception via BTI London Dockland. Teleport plus interconnection to the London Telecom Tower.
Channels/Bandwidth:	36MHz transponder, 7 hours per week.
Implementation Schedules:	July 1, 1990, annual contract.

BBC

Type of Service:	Video. Flexible schedule.
Uplink Service:	Washington D.C. (USA) by Professional Video Transmission Services and New York City, New York (USA) at Atlantic Satellite Communications.
Downlink Service:	United Kingdom reception via BTI London Dockland.
Channels/Bandwidth:	36MHz transponder.
Implementation Schedules:	August 30, 1990, 3 year contract, 20,000 minutes per year.

BBC RADIO(1)

Uplink Service:	British Telecom delivers audio baseband to the Homestead teleport where it is uplinked onto the Latin Beam for reception in Latin America.
Type of Service:	Radio.
Channels/Bandwidth:	Wegener 15 Khz SCPC audio over video subcarrier.
Implementation Schedules:	July 16, 1990, three year contract.

BBC RADIO (2)

Type of Service:	Radio, 15 Khz.
Implementation Schedules:	3 year contract.

CARACOL

Country Coverage:	Columbia.
Type of Service:	Radio.
Channels/Bandwidth:	256 kbps.
Implementation Schedules:	June 1, 1991 till end of life of PAS-1 satellite.
Uplink & Downlinks:	Provided by Caracol.

CBS

Country Coverage:	United States of America to Europe.
Type of Service:	Video, 540 hours per annum.
Channels/Bandwidth:	36MHz transponder.
Implementation Schedules:	July 24, 1989, 2 year contract.

ESPN

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Downlink Service:	From Spacenet II satellite.
Uplink Service:	From Alpha Lyracom's Homestead teleport.
Channels/Bandwidth:	36 MHz transponder.
Implementation Schedules:	January 1, 1990 until end of life of PAS-1 satellite.

EUROVISA

Country Coverage:	United States of America to Europe.
Type of Service:	One video and two audio channels.
Donwlink:	Conus beam C-band downlink to Alpha Lyracom's Homestead teleport.
Uplink:	From Homestead via the European beam Ku-band.
Downlink:	BTI London Dockland teleport.
Channels/Bandwidth:	30 MHz transponder.
Implementation Schedules:	June 21, 1990 until end of life of PAS-1 satellite.
Earth Station Specifications:	

HOME BOX OFFICE

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	Two 36 MHz transponders.
Implementation Schedules:	February 28, 1991 until February 28, 2001.
Earth Station Specifications:	Provided by Home Box Office.

TV BANDEIRANTES

Country Coverage:	Latin America.
Type of Service:	Video. Flexible Schedule. 21.67 hours per annum.
Channels/Bandwidth:	18 Mhz transponder.
Implementation Schedules:	April 30, 1991. Annual contract.
Earth Station Specifications:	3/4" tape playout and uplink to PAS-1.

NHK

Country Coverage:	Europe and the United States of America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	2 18MHz transponders (Conus and European beams).
Implementation Schedules:	March 28, 1991, two year contract.
Earth Station Facilities:	GE Americom at South Mountain, California uplinks the signal to 1) PAS-1's Conus beam for reception by GE Americom at its Vernon Valley, New Jersey teleport; and 2) PAS-1's European beam for reception by British Telecom's Docklands Teleport in London, England.

RADIOMAR (1)

Country Coverage:	Peru.
Type of Service:	Radio
Channels/Bandwidth:	256 kbps.
Implementation Schedules:	January 1, 1991. Seven year contract.
Earth Station Specifications:	RadioMar provides earth station facilities.

RAI CORPORATION

Country Coverage:	Brazil, Chile, Costa Rica, Dominican Republic, Guatemala, Honduras, Peru and the United States of America.
Type of Service:	Video, 756 hours per annum.
Channels/Bandwidth:	18 MHz transponder.
Implementation Schedules:	January 1, 1990. Two year contract.
Earth Station Specifications:	Downlink from Satcom 3R Transponder 4 to Alpha Lyracom's Homestead teleport. Uplink to PAS-1.

SPACE CONNECTION

Country Coverage:	United States to Europe.
Type of Service:	Video, 180 hours per annum.
Channels/Bandwidth:	36 MHz transponder.
Implementation Schedules:	October 8, 1990, one year contract.
Earth Station Specifications:	Downlink to British Telecom Tower, London, England.

TELEVISA, S.A.

Country Coverage:	Latin America.
Type of Service:	Video.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	April 1, 1990 until the end of life of PAS-1.
Earth Station Specifications:	Downlink from Spacenet II to Alpha Homestead's Homestead teleport and uplink to PAS-1's Latin beam.

TELEVISION NACIONAL DE CHILE

Country Coverage:	Chile.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	October 3, 1989 until end of life of PAS-1 satellite.

TPI

Country Coverage:	Latin America.
Type of Service:	Video, 1,080 minutes per annum.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 4, 1991, annual contract.
Earth Station Specifications:	3/4" NTSC videotape playback and uplink service from Alpha Lyracom's Homestead teleport.

TURNER BROADCASTING SYSTEM - CNN

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 2, 1991 until the end of life of the PAS-1 satellite.
Earth Station Specifications:	Downlink from Morelos 2 satellite to Alpha Lyracom's Homestead teleport. Encrypted uplink to PAS-1's Latin Beam.

TURNER BROADCASTING SYSTEM - TNT

Country Coverage:	Latin America.
Type of Service:	Video. 24 hours a day.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 1, 1991 until the end of life of PAS-1 satellite.
Earth Station Specifications:	Turner Broadcasting provides all earth station facilities.

TWI

Country Coverage:	Latin America.
Type of Service:	Video.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	March 1, 1991, annual contract.
Earth Station Specifications:	Downlink from Westar 4 satellite to Alpha Lyracom's Homestead teleport. Uplink to PAS-1's Latin beam.

VISNEWS

Country Coverage:	Latin America.
Type of Service:	Video. Flexible schedule.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	December 1, 1991, annual contract.
Earth Station Specifications:	Downlink from a U.S.A. domsat to Alpha Lyracom's Homestead teleport. Uplink to PAS-1's Latin beam.

WTN

Country Coverage:	United States of America to Europe.
Type of Service:	Video. Fixed schedule.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	January 1, 1990, annual contract.
Earth Station Specifications:	WTN is responsible for earth station facilities.

DATA SERVICE AGREEMENTS

ASSOCIATED PRESS (1)

Country Coverage:	Latin America.
Type of Service:	Text and photos.
Channels/Bandwidth:	64 kbps.
Implementation Schedules:	February 7, 1991. 5 year contract.
Earth Station Specifications:	9 C - 105 Data Receive terminals.

ASSOCIATED PRESS (2)

Country Coverage:	Latin America.
Type of Service:	Text and photos.
Channels/Bandwidth:	64 kbps.
Implementation Schedules:	December 19, 1990. 5 year contract.
Earth Station Specifications:	C - 105 Data Receive terminal.

BANCO DEL PACIFICO

Country Coverage:	Ecuador and the United States of America.
Type of Service:	IDS: Miami - Guayaquil. Galapagos - Guayaquil.
Channels/Bandwidth:	2 64 kbps duplex channels.
Implementation Schedules:	Miami - Guayaquil Jaunuary 1, 1991. Guayaquil - Galapagos June 1, 1991. 5 year contract.
Earth Station Specifications:	Provided by Banco del Pacifico.

BANCO POPULAR

Country Coverage:	Ecuador and the United States of America.
Type of Service:	IDS: Quito - Miami.
Channels/Bandwidth:	One duplex 56 kbps channel.
Implementation Schedules:	April 25, 1991. 5 year contract.
Earth Station Specifications:	Ecuador - customer premise earth station. U.S.A. - Alpha Lyracom's Homestead teleport.

CITIBANK

Current Country Coverage:	Quito, Ecuador. Port of Prince, Haiti. Kingston, Jamaica. Panama City, Panama. Homestead, Florida.
Future Country Coverage:	La Paz, Bolivia. Bogota, Columbia. Tegucigalpa, Honduras. Nassau, Bahamas. San Jose, Costa Rica. Montevideo, Uruguay. Caracas, Venezuela. Asuncion, Paraguay.
Type of Service:	IDS. Financial information.
Channels/Bandwidth:	56/64 kbps.
Implementation Schedules:	Progressive schedule. 5 year contract.
Earth Station Specifications:	3.7 meter earth stations.

DATAPORT

Country Coverage:	Costa Rica.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps channel.
Implementation Schedules:	April 3, 1991. Three year contract.
Earth Station Specifications:	Provided by Dataport.

EDIMPRES

Country Coverage:	Ecuador.
Type of Service:	Newspaper text and photos.
Channels/Bandwidth:	64 kbps duplex circuit.
Implementation Schedules:	June 17, 1991. 5 year contract.
Earth Station Specifications:	

EL TIEMPO

Country Coverage:	Columbia.
Type of Service:	IDS.
Channels/Bandwidth:	One 512 kbps simplex and two 64 kbps duplex channels.
Implementation Schedules:	Bogota - Cali/Barranquilla July 27, 1990. Bogota - Cali August 5th 1990. Bogota - Barranquilla August 15th 1990.
Earth Station Specifications:	3.5 - 4.5 meter earth stations.

FILAN BANCO

Country Coverage:	Ecuador.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel
Implementation Schedules:	May 20, 1991. 7 year contract.
Earth Station Specifications:	Customer premise earth stations in Ecuador and Alpha Lyracom's Homestead teleport in the United States of America.

INTELFAX

Country Coverage:	Costa Rica.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps simplex channel.
Implementation Schedules:	March 1, 1991. Three year contract.
Earth Station Specifications:	Intelfax earth station and Alpha Lyracom's Homestead teleport.

MICROSPACE

Country Coverage:	United States to Europe.
Type of Service:	Space Segment. FM Squared.
Channels/Bandwidth:	36 Mhz transponder.
Implementation Schedules:	December 1, 1990 to end of life of PAS-1 satellite.
Earth Station Specifications:	Provided by Microspace.

SAN ISIDRO

Country Coverage:	Dominican Republic and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	T-1.
Implementation Schedules:	November 1, 1990. Annual contract.
Earth Station Specifications:	Provided by customer.

SERTELSA

Country Coverage:	Peru.
Type of Service:	Voice and data.
Channels/Bandwidth:	39 VSAT terminals.
Implementation Schedules:	May 15, 1991. Three year term.
Earth Station Specifications:	1.8 and 2.4 meter.

SITA

Country Coverage:	Costa Rica and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel.
Implementation Schedules:	August 1, 1990. Annual contract.
Earth Station Specifications:	Provided by SITA.

TECSEL

Country Coverage:	Argentina.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	September 15, 1990. Five year contract.
Earth Station Specifications:	Provided by TECSEL.

TRICOM

Country Coverage:	Dominican Republic.
Type of Service:	PSN.
Channels/Bandwidth:	T-1.
Implementation Schedules:	October 31, 1991. Five year contract.
Earth Station Specifications:	Provided by Tricom.

TRT/FTC

Country Coverage:	Costa Rica and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel.
Implementation Schedules:	August 15, 1990. Five year contract.
Earth Station Specifications:	RACSA's San Jose teleport and Alpha Lyracom's Homestead teleport.

VOLVO/GM TRUCKS

Country Coverage:	Sweden and the United States of America.
Type of Service:	Voice, data, CAD/CAM.
Channels/Bandwidth:	512 kbps duplex channel.
Implementation Schedules:	October 15, 1990. Three year contract.
Earth Station Specifications:	3.5 meter earth station.

DATA CARRIER AGREEMENTS

CONTEL FEDERAL SYSTEMS

Country Coverage:	Bolivia and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	T-1.
Implementation Schedules:	January 15, 1991. Annual contract.
Earth Station Specifications:	Space segment only.

IETEL

Country Coverage:	Ecuador.
Type of Service:	IDS.
Channels/Bandwidth:	10 64 kbps channels.
Implementation Schedules:	8 channels May 1, 1990. 1 channel June 11, 1990. 1 channel August 15, 1990. 4 year contract.
Earth Station Specifications:	Provided by IETEL.

INFOWARE

Country Coverage:	Germany.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	October 1, 1990. Five year contract.
Earth Station Specifications:	Provided by customer.

PITTSBURGH TELEPORT

Country Coverage:	Germany and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	256 duplex channel.
Implementation Schedules:	December 17, 1990. Annual contract.
Earth Station Specifications:	Provided by customer.

RACSA

Country Coverage:	Costa Rica and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	August 1, 1990. Five year contract.
Earth Station Specifications:	3.7 meter earth station.

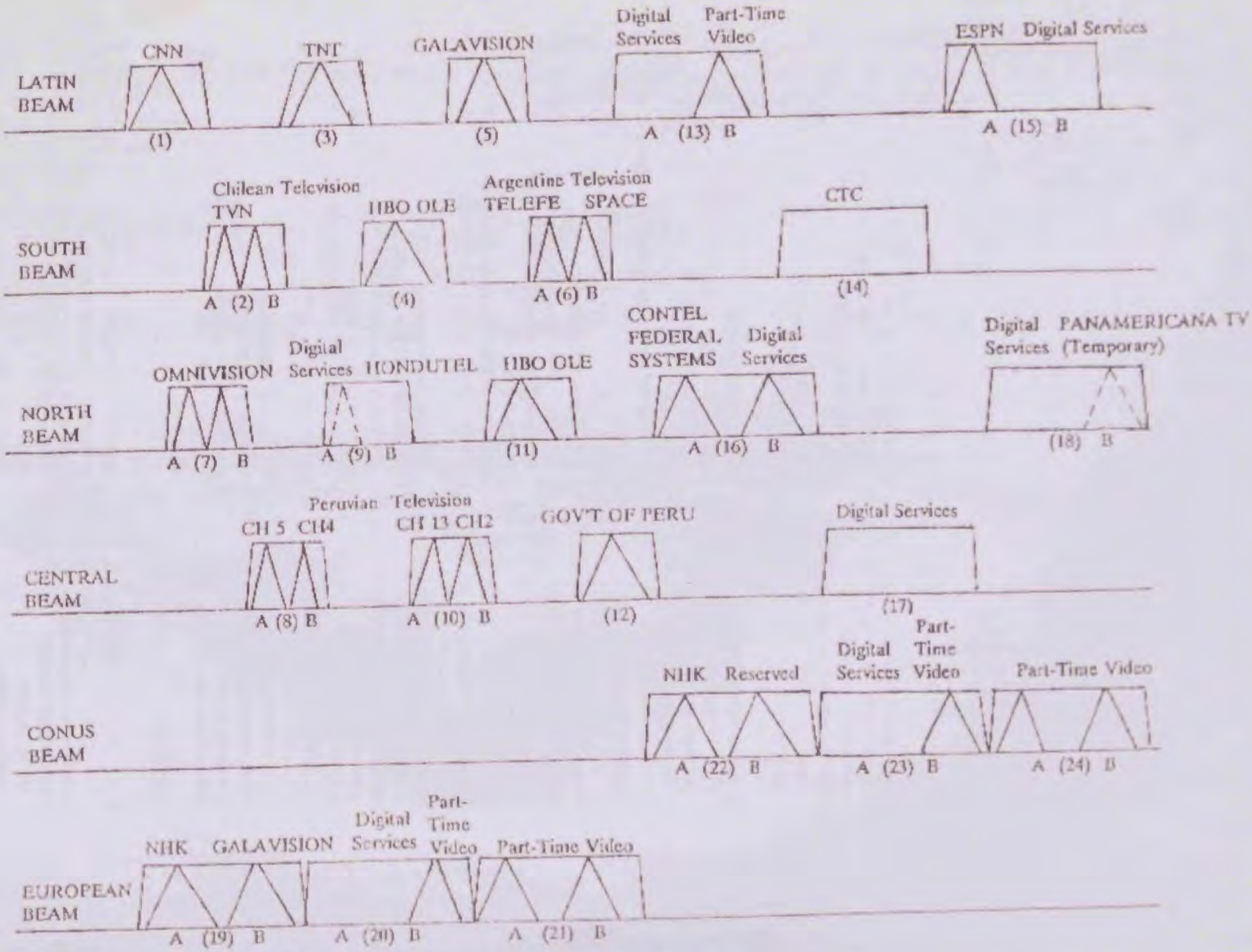
VIASAT (1)

Country Coverage:	Europe and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	64 kbps duplex channel.
Implementation Schedules:	February 1, 1991. Annual contract.
Earth Station Specifications:	Provided by VIASAT.

VITACOM

Country Coverage:	Chile and the United States of America.
Type of Service:	IDS.
Channels/Bandwidth:	56 kbps duplex channel.
Implementation Schedules:	July 20, 1990. Annual contract.
Earth Station Specifications:	Provided by Vitacom.

PAS-1 TRANSPONDER PLAN
MAY 1991



Digital Services include: IDS, VSAT, Government Services, Radio and Business Television

FACSIMILE COVER SHEET

CLAY WHITEHEAD ASSOCIATES
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TO: Fred Landman

COMPANY: Alpha Lyracom Space Communications

FAX #: 1-203-622-9163

DATE: July 17, 1991 TIME: 2:30 pm

FROM: Clay T. Whitehead

Pages following this cover sheet: 1 pages.

COMMENTS:

Fred: This was delivered in a plain brown wrapper.

cc: Henry Goldberg, Phil Rubin

As we mentioned during our earlier discussions, specific detailed information concerning system plans and technical specifications, particularly in relation to foreign services, is often very useful for long range planning purposes. In all honesty, the data you initially volunteered was, for the most part, too general to be of much value.

Of good utility would be a comprehensive listing of specific country-by-country service arrangements including type of service (vsat/private/fixed/mobile), number of channels/bandwidth, signal modulation and multiplexing, implementation schedules, and earth segment specifications for each type of service. The initial package provided only a sketchy listing of vehicle #1 customers, countries, and types of service. More in depth data would be very helpful, not only for vehicle # 1, but also for the follow-on vehicles (2-7) especially future technical planning data on potential foreign services, complete country plans and long term foreign commitments transponder-by-transponder. Should any plans arise for DCMS/E implementation, details of the foreign arrangements in advance of service initiation would be very useful.

In summary, specific, up-to-date details on system plans and activities to include foreign subscriber information, signal technical parameters/specifications, and implementation schedules would be very helpful. Of particular immediate interest would be detailed technical data regarding foreign private/VSAT network services you are currently providing and those that you are projecting in your future plans.

QUESTIONS FOR CLAY WHITHEAD

General description and specifications of the satellite and earth segment to include:

* Cross-connections between communications uplinks/downlinks for each ocean region. For example, for PAS-3 North West (NW) Cband to any other Cband, to any other Kband; and NW Kband to any other Cband, any other Kband.

* Specific country-by-country service arrangements, including type of service, (VSAT/fixed/mobile), no. of channels/bandwidth, implementation schedules, earth segment specs for each type service

* Technical description of modulation, multiplexing, and compression (DCMS/E) systems/schemes employed including available equipment nomenclatures for all services provided or proposed

* ~~Frequency plans and~~ long term commitments transponder by transponder

* Ability to provide above planning data and documentation on a continuing, periodic basis

Digital Circuit Multiplication System D.C.M.S.

Digital Circuit Multiplication Equipment D.C.M.E.

multiplet ?