Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

701 Pennsylvania Avenue, N.W. Washington, D.C. 20004

Benjamin J. Griffin Christopher R. Bjornson

Direct dial 202 661 8720 bgriffin@mintz.com SAT-PDR-20020823-00161 Spacecom Satellite Communications Services S.C.C. Ltd.

August 23, 2002

RECEIVED

Ms. Marlene H. Dortch Secretary Federal Communications Commission 455 12th Street, S.W. Washington, D.C. 20554

AUG 2 3 2002

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

Dear Ms. Dortch:

On behalf of Spacecom Satellite Communications Services S.C.C. Ltd., enclosed please find an original and four copies of a Petition for Declaratory Ruling to add the AMOS-2 satellite at 4° W.L. to the Commission's Permitted Space Station List. Also enclosed is an additional copy, which we ask you to date stamp and return with our messenger.

Please do not hesitate to contact the undersigned with any questions you may have regarding this petition.

Sincerely,

Christy R Br

Benjamin J. Griffin Christopher R. Bjornson

Counsel for Spacecom Satellite Communications Services S.C.C. Ltd.

Enclosures

Washington Boston New York Reston New Haven

202 434 7300 202 434 7400 *fax*

Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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RECEIVED

AUG 2 3 2002

FEDERAL COMMUNICATIONS COMMISSION

OFFICE OF THE SECRETARY

In the Matter of

Spacecom Satellite Communications Services S.C.C. Ltd.

Petition for Declaratory Ruling to Add Spacecom Satellite Communications Services Ltd. AMOS-2 Satellite At 4° W.L. to the Commission's Permitted Space Station List SAT-PDR-20020823-00161 Spacecom Satellite Communications Services S.C.C. Ltd.

To: International Bureau

PETITION FOR DECLARATORY RULING

Spacecom Satellite Communications Services S.C.C. Ltd. ("Spacecom"), by

counsel and pursuant to Section 25.137 of the Commission's rules and the DISCO II First

Reconsideration Order,^{1/} hereby respectfully requests that the Commission add the

AMOS-2 satellite at 4° W.L. to the Commission's Permitted Space Station List, for the

provision of services to and from the United States covered by the World Trade

Organization's Basic Telecommunications Agreement ("WTO Basic Telecom

Agreement").

Specifically, Spacecom requests that AMOS-2 be permitted to receive

transmissions from U.S. uplink earth stations in the 13.75-14.5 GHz band and transmit to

¹⁷ 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, IB Docket No. 96-111, *First* Order on Reconsideration, FCC 99-325, 15 FCC Rcd 7207 (rel. Oct. 29, 1999) ("DISCO II First Reconsideration Order").

U.S. receive earth stations in the 11.45-11.7 band ("Ku-band").^{2/} To the extent U.S.licensed earth stations have an "ALSAT" designation and communicate with AMOS-2 in the conventional Ku-band frequencies, such earth stations would be permitted to communicate with AMOS-2 without further authorization once AMOS-2 is placed on the Permitted Space Station List.^{3/}

A FCC Form 312 application, together with exhibits providing the information required under Sections 25.114 and 25.137 of the Commission's rules are attached hereto. Grant of this petition will serve the public interest by providing consumers with more alternatives in choosing communications service providers, reducing prices and facilitating technological innovation.

Spacecom will launch AMOS-2 to the 4° W.L. orbital slot in early 2003 to provide capacity for transatlantic communications services. Spacecom currently operates the AMOS-1 satellite at 4° W.L. with coverage of the Middle East and Central Europe. AMOS-2 will be coordinated with AMOS-1, and include coverage of the eastern United States as well as the Middle East and Europe. Grant of the instant petition will permit all U.S. Ku-band earth stations with an "ALSAT" designation to enjoy greater access to enhanced transatlantic facilities and services through expansion of Spacecom's space segment capacity made available for such services. As demonstrated in this petition and the accompanying attachments, AMOS-2 satisfies all legal and technical requirements for U.S. service.

2

^{2/} Spacecom does not seek authority to provide Direct-to-Home service, Direct Broadcasting Service or Digital Audio Radio service in the United States.

^{3/} Although AMOS-2 also will operate in the "extended" Ku-band frequencies (13.75-14.0 GHz and 11.45-11.7 GHz), Spacecom understands that any U.S. earth station wishing to transmit in the extended Ku-band uplink frequencies would need to modify its license on a case-by-case basis in order to obtain authorization to do so. In addition, proposed downlinks in the extended Ku-band would be for international services only, as permitted by the Commission's Rules.

I. AMOS-2 Meets the Requirements for Inclusion on the Permitted Space Station List.

In the *DISCO II First Reconsideration Order*, the Commission stated that it will grant a declaratory ruling request by a foreign satellite operator regarding provision of C-band and Ku-band service in the United States – and include the operator's satellite on the Permitted Space Station List – where the request is accompanied by information demonstrating compliance with Section 25.137 of the Commission's rules.^{4/} The Commission concluded that:

U.S. earth stations with ALSAT licenses should be permitted to communicate with any non-U.S. satellite just as easily as they communicate with any U.S.licensed satellite, provided that those communications do not cause harmful interference to or require protection from adjacent satellite operations, and otherwise comply with *DISCO II*.^{5/}

The AMOS-2 satellite will fully comply with the requirements applicable to U.S. satellites and will not "cause harmful interference to or require protection from adjacent satellite operations." Furthermore, this petition includes all of the information required under Sections 25.114 and 25.137 and other relevant parts of the Commission's rules. Accordingly, Spacecom urges the Commission to grant the instant petition and include

AMOS-2 on the Permitted Space Station List.

A. Section 25.137(a)

Section 25.137(a) requires an applicant seeking to operate with a non-U.S.

licensed space station to submit as an exhibit to its Form 312 application a showing that

U.S.-licensed satellite systems have effective competitive opportunities to provide

analogous services in the country in which the non-U.S. licensed space station is licensed,

^{4/} Disco II First Reconsideration Order, 15 FCC Rcd at 7212, ¶ 10.
 ^{5/} Id. at 7214, ¶ 16.

and all countries in which communications with the U.S. earth station will originate and terminate.^{6/}

The AMOS-2 satellite will be owned and operated by Spacecom, an Israeli company. It will operate at the 4° W.L. orbital position, co-located with AMOS-1, already positioned in this position since May 1996 and marketed by Spacecom, pursuant to Israel's frequency assignment.^{7/} In its *DISCO II Order*,^{8/} the Commission established a rebuttable presumption in favor of entry by satellites licensed by other WTO members and certain IGO's to provide services covered by the U.S. commitments under the WTO Basic Telecom Agreement. In this case, the presumption is in favor of entry is applicable because Israel is a WTO member^{9/} and a signatory to the WTO Basic Telecom Agreement^{10/} and because only fixed-satellite services are contemplated. To the extent these services are provided on extended Ku-band frequencies, they will comply with all FCC requirements.

B. Section 25.137(b)

Section 25.137(b) requires petitioners to submit, as an exhibit to their Form 312 applications, the legal, technical and financial information required of applicants seeking space station authorizations from the Commission, in accordance with Part 25 of the

^{7'} Israel Ministry of Communication confirmation to Spacecom, MG (194) 6895 dated May 27, 2002.

^{9/} See World Trade Organization, Members and Observers, at

4

^{6/} 47 C.F.R. § 25.137(a).

^{8/} 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, IB Docket No. 96-111, 12 FCC Rcd 24094 (1997) ("DISCO II").

http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (Sept. 25, 2001) (providing a list of WTO members).

¹⁰ See World Trade Organization, *Telecommunications Services: List of Commitments and Exemptions, at* <u>http://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_commit_exempt_list_e.htm</u> (Sept. 25, 2001) (providing a list of WTO Basic Telecom Agreement signatories).

Commission's rules.^{11/} The technical information is provided in Attachment A to the Form 312. Information related to Spacecom's financial qualifications is provided in Attachment B to the Form 312, and information related to Spacecom's legal qualifications is provided in Attachment C to the Form 312.

1. Legal Qualifications

Spacecom's legal qualifications are set forth in the Form 312 and Attachment C. Spacecom meets all of the legal qualifications required by the Commission of space station licensees and will abide by all of the Commission's rules.

2. Technical Qualifications

Technical information for AMOS-2, as required by Sections 25.114 and 25.140(b) of the Commission's rules, is attached as Attachment A to Form 312. Coordination of AMOS-2 operations at 4° W.L. is in progress and should not prevent operation of AMOS-2 in the manner contemplated in this Petition. There are no Ku-band U.S. networks operating or proposed for operation in the vicinity of 4° W.L. Furthermore, AMOS-2 is fully consistent with the Commission's two-degree spacing policy.

3. Financial Qualifications

Because the satellite is not yet in orbit, financial information demonstrating the ability of Spacecom to construct, launch and operate the satellite for one year, as required under Sections 25.114(c)(17) and 25.140(b)(3)&(4) is attached as Attachment B to the Form 312.

II. Access to the U.S. Market for AMOS-2 Will Serve the Public Interest.

Access by all U.S. earth stations with an ALSAT designation to AMOS-2 would produce substantial public interest benefits. As stated above, AMOS-2 will enhance

^{11/} 47 C.F.R. § 25.137(b).

Spacecom's transatlantic offerings by providing U.S. earth stations operators with a greater range of space station service choices and more capacity. The expansion of capacity available to the U.S. market will stimulate lower prices, improve service quality, increase service options and foster technological innovation.

III. Conclusion

Therefore, for the reasons set out above, Spacecom respectfully requests that the Commission issue a declaratory ruling adding the AMOS-2 satellite to the Permitted Space Station List.

Respectfully Submitted,

Spacecom Satellite **Communications Services S.C.C.** Ltd.

Churtyhn R By Benjamin J. Griffin Christopher R. Bjornson MINTZ, LEVIN, COHN, FERRIS, **GLOVSKY AND POPEO, P.C.** 701 Pennsylvania Avenue, N.W. Suite 900 Washington, D.C. 20004 (202) 434-7300

6

FCC 312 Main Form	Approved by OMB 3060-0678 Est. Ave Burden Hours	FCC Use Only File Number:
FEDERAL COMMUNICATIONS COMMISSION	Per Response; 11 Hrs.	Call Sign:
APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHO	DRIZATIONS	Fee Number:

APPLICANT INFORMATION						
1. Legal Name of Applicant Spacecom Satellite Communications Services S.C.C. Ltd.		2. Voice Telephone M 011-972-3-613	Number 34720			
3. Other Name Used for Doing Business (if any) AMOS Satellite Communications		4. Fax Telephone Number 011-972-3-6134723				
5. Mailing Street Address or P.O. Box Twin Towers 1, 33 Jabotinsky Street	6. City Ramat Gan					
ATTENTION: David Pollack	7. State / Country (if not U.S.A.) srael		8. Zip Code 52511			
9. Name of Contact Representative (If other than applicant) Benjamin J. Griffin		10. Voice Telephone (202) 434-730	Number 0			
11. Firm or Company Name Mintz. Levin, Cohn, Ferris, Glovsky and Popeo, P.C.		12. Fax Telephone N (202) 434-740	umber 10			
13. Mailing Street Address or P.O. Box 701 Pennsylvania Avenue, N.W.	14. City Washington, D.					
ATTENTION: Benjamin J. Griffin	15. State / Country (it	f not U.S.A)	16. Zip Code 20004-2608			

	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. Ma	rk only one box for 17a and only one box for 17b.						
	b1. Application for License of New Station	b6. Transfer of Control of License or Registration						
al. Earth Station	b2. Application for Registration of New Domestic Receive-Only Station	b7. Notification of Minor Modification						
	b3. Amendment to a Pending Application	b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite						
a2. Space Station	b4. Modification of License or Registration	b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States						
	b5. Assignment of License or Registration	b10. Other (Please Specify): Petition for Declaratory Ruling						
18. If this filing is in reference to	o an existing station, enter:	19. If this filing is an amendment to a pending application enter:						
Call sign of station:		(a) Date pending application was filed: (b) File number of pending application:						

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 b. Mobile Satellite c. Radiodetermination Satellite c. Bay in the provide of the provide					
21. STATUS: Place an "X" in the box next to the applicable status. Mark only one box. a. Common Carrier Image: Common Carrier 22. If earth station applicant, place an "X" in the box(es) next to all that apply. a. Common Carrier Image: 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					
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). a. C-Band (4/6 GHz) 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.					
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 relace antenna e - authorization to relace fixed station g - authorization to change assigned frequency(ies) h - authorization to change assigned frequency(ies) i - authorization to change Points of Communication (satellites & countries) j - 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? 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.

XNO YES

FCC 312, Main Form - Page 2 February, 1998

A I	IFN	OWNERSH	HP.
		U II	

29. Is the applicant a foreign government or the representative of any foreign government?	YES	XNO
30. Is the applicant an alien or the representative of an alien?	YES	XNO
31. Is the applicant a corporation organized under the laws of any foreign government?	XYES	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?	XYES	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	XNO
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.		

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	XNO
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	XNO
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	XNO
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	XNO
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	XNO
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, addresses, and citizenship 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 control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer's voting and addresses of the officers.	of those of fiduciary Filer.	
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 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 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 sections of the section of the	YES e purposes.	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.	X 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?		

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

The purpose of this application is to request addition of the AMOS-2 satellite at 4 degrees W.L. to the Permitted Space Station List in order to allow all U.S. Ku-band earth stations with ALSAT designation to uplink to the satellite in the conventional Ku-band uplink frequencies and receive transmissions from the satellite. Earth stations seeking to transmit in extended Ku-band frequencies would be required to obtain separate license modifications.

Exhibit No.	Identify all exhibits that are attached to this application.
Attachment A	Technical Information
Attachment B	Financial Information
Attachment C	Foreign Ownership Information
l	
	

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 X d. Corporation	e. Governmental Entity f. Other (Please specify)					
45. Typed Name of Person Signing	46. Title of Person Signing					
David Pollack	CEO and Managing Director					
47. Signature Dervich Kelleich	48. Date August 14, 2002					
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).						

FEDERAL COMMUNICATIONS COMMISSION FCC 312 - Schedule A (Place an "X" in one of the blocks below)					FCC Use (Only		
CONSENT TO TRANSFER OF C	CONTROL	CONSENT TO ASS	SIGNMENT OF I	LICENSE	}			
NOTIFICATION OF TRANSFE	R OF CONTROL	NOTIFICATION CONTINUES OF RECEIVE ONI	OF ASSIGNMEN LY REGISTRAT	Г ЮN				
A1. Name of Licensee or Registrant					A2. Voice	Telephone N	umber	
A3. Mailing Street Address or P.O. Box	,				A4. Fax To	elephone Nur	nber	
ATTENTION:				A6 State / Countr	v (if not U.S.A		7. Zip Code	
A.S. City				AU. Gale / Count	(.,		
A8. List Call Sign(s) of station(s) being assigned or tra	nsfered							A9. No. of station(s) listed
A10. Name of Transferor/Assignor (if different than lic	ensee or registrant)		A15. Name of Trans	feree/Assignee			<u></u>	
A11, Mailing Street Address or P.O. Box			A16. Mailing Street	Address or P.O. Box				
A12. City	A13. State/Country	A14. Zip Code	A17. City			A18. State/C	Country	A19. Zip Code
A20. If these facilities are licensed, is the tra If Yes, attach as an exhibit, a statemen identifies the nature and extent of com entity and any intermediate subsidiarie equity stock of those stockholders hold	ansferee/assignee direct th (including organizat rol including: (1) the sor parties; and (2) th ding 10 percent or mo	ctly or indirectly contr ional diagrams where name, address, citizen names, addresses, c re of the controlling co	olled by any other appropriate) which ship, and primary l itizenship, and the orporation's voting	entity? a fully and comp pusiness of the c percentages of v stock.	letely ontrolling oting and	ΓY	ES	
A21. If these facilities are licensed, attach at	s an exhibit, a comple	te statement setting for	rth the facts which	show how the a	ssignment o	or transfer v	will serve th	e public interest.
		CERTIF	ICATION					
1. The undersigned, individually and for lice are true, complete and correct to the best of complete and constitute the full agreement.	ensee, certifies that all his/her knowledge and	attached exhibits pert d belief. The undersig	inent to Schedule A med also certifies t	A and all stateme hat any contract:	ents made in s or other in	n Schedule istruments	A of this a submitted h	pplication rerewith are
control or assignment of license will be com within 30 days of consummation.	pleted within 60 days	of Commission conse	ent. The undersign	ed also acknowl	edges that t	the Commis	ssion must	be notified by letter
A22. Printed Name of Licensee (Must agree with A1)	A23. Signature	5		A24. 1	itle (Office He	eld by Person	Signing)	A25. Date
A26. Printed Name of License Transferor/Assignor (If different than license. Must agree with A10)	nse Transferor/Assignor A27. Signature A28. 1 st agree with A10)			itle (Office He	eld by Person	Signing)	A29. Date	
A30. Printed Name of License Transferce/Assignee (Must agree with A15)	A31. Signature	;		A32. 1	itle (Office He	eld by Person	Signing)	A33. Date
	<u>-</u> - <u>-</u>			<u></u>				FCC 312 - Schedule A

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FCC 312 Schedule B	FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS	Page 1: Location
ĺ	(Technical and Operational Description)	
	(Place an "X" in one of the blocks below)	
License of New Stat	ion Registration of New Domestic Receive-Only Station Amendment to a Pending Application Modification of License/Registration	Notification of Minor Modification

B1. Location of Earth Station Site. If temporary-fixed, mobile, or VSAT remote facility, specify area of operation and point of contact. If VSAT hub station, give its location. For VSAT networks attach individual Schedule B, Page 1 sheets for each hub station and each remote station. Individually provide the Location, Points of Communications, and Destination Points for each hub and remote station.

Boodition, I owned of Communication, and D total of the of the set								
B1a. Station Call Sign	B1b. Site Identifier (HUB, REMOTE1, etc.)		B1c. Telephone Number		B1j. Geographic Coordinates N/S, Deg Min Sec E/W		Bik. Lat./Lon. Coordinates are:	
Bld. Street Address of Station or A	rea of Operation		Ble. Name of Contac	t Person	- <u></u>	Lat		NAD-27
						Lon		NAD-83
B1f. City	······································	Big. County	L	Bih. State	Bli. Zip Code		B11. Site Elevation (AMSL)	
(meters

B2. Points of Communications: List the names and orbit locations of all satellites with which this earth station will communicate. The entry "ALSAT" is sufficient to identify the names and locations of all satellite facilities licensed by the U.S. All non-U.S. licensed satellites must be listed individually.

Satellite Name and Orbit Location	Satellite Name and Orbit Location	Satellite Name and Orbit Location

B3. Destination points for communications using non-U.S. licensed satellites. For each non-U.S. licensed satellite facility identified in section B2 above, specify the destination point(s) (countries) where the services will be provided by this earth station via each non-U.S. licensed satellite system. Use additional sheets as needed.

Satellite Name	List of Destination Points

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

Page 2: Antennas

B4. Earth Station Antenna Facilities: Use additional pages as needed.

(a) Site ID*	(b) Antenna ID**	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Antenna Gain Transmit and/or Receive (dBi at GHz)
		· · · · · · · · · · · · · · · · · · ·				
· · · · · · · · · · · · · · · · · · ·						
<u> </u>						

B5. Antenna Heights and Maximum Power Limits: (The corresponding Antenna ID in tables B4 and B5 applies to the same antenna)

(a) Antenna ID**	(b) Antenna Structure Registration No.	(c) Above Ground Level (meters)	ntenna Height (d) Above Mean Sea Level (meters)	(c) Building Height Above Ground Level (meters)***	(f) Maximum Antenna Height Above Rooftop (meters)***	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
			ļ				<u> </u>
			ļ	ļ		ļ	ļ
	L					<u> </u>	
							
L							

Notes: * If this is an application for a VSAT network, identify the site (Item B1b, Schedule B, Page 1) where each antenna is located. Also include this Site-ID on Schedule B, Page 5. ** Identify each antenna in VSAT network or multi-antenna station with a unique identifier, such as HUB, REMOTE1, A1, A2, 10M, 12M, 7M, etc. Use this same antenna ID throughout tables B4, B5, B6, and B7 when referring to the same antenna.

*** Attach sketch of site or exemption, See 47 CFR Part 17.

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

Page 3: Coordination

		in pages as acce						
(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) Range of Satellite Arc Eastern Limit**	(d) Range of Satellite Arc Western Limit**	(e) Antenna Elevation Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(h) Earth Station Azimuth Angle Western Limit	(i) Maximum EIRP Density toward the Horizon (dBW/4kHz)
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· · · · · · · · · · · · · · · · · · ·								
·····								
							1	

B6. Frequency Coordination Limits: Use additional pages as needed.

Notes: • Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and orbital arc range is associated.

** If operating with geostationary satellites, give the orbital arc limits and the associated elevation and azimuth angles. If operating with non-geostationary satellites, give the notation "NON-GEO" for the satellite arc and give the minimum operational elevation angle and the maximum azimuth angle range.

FCC 312, Schedule B - Page 3 February, 1998

Page 4: Particulars

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

(a) Antenna ID*	(b) Frequency Bands (MHz)	(c) T/R Mode **	(d) Antenna Polarization (H,V,L,R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
							-
				·			
						_	

B7. Particulars of Operation (Full particulars are required for each r.f. carrier): Use additional pages as needed.

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and emission is associated. For VSAT networks, include frequencies and emissions for all HUB and REMOTE units. ** Indicate whether the earth station transmits or receives in each frequency band.

> FCC 312, Schedule B - Page 4 February, 1998

Page 5: Questions

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

If VSA	T Network, provide the SITE-ID (Iter	n B1b) of the station that E	38-B13 are in resp	conse to (HUB, REMOTE1	, etc.):				
B8. lf co me	18. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification weasurements? If NO, provide as an exhibit, a technical analysis showing compliance with two-degree spacing policy.								
B9. If (F Se	19. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25 209(a2) and (b) as demonstrated by the manufacturer's gualification measurements?								
B10. I	s the facility operated by remote control Remote Control Point Location [B10a, Street Address	ol? If YES, provide the loc	cation and telepho	one number of the control p	oint.		YES	NO	-7
	B10b. City		B10c. County B10d. State / Country				B10e. Zip C	Code	
	B10f. Telephone Number		L	B10g. Call Sign of Control Stati	on (if appropriate)				
B11. I	s frequency coordination required? If	YES, attach a frequency co	oordination repor	t as an exhibit.			YES	NO	
B12. I a	112. Is coordination with another country required? If YES, attach the name of the country(ies) YES NO and plot of coordination contours as an exhibit.								
B13. I	B13. FAA Notification - (See 47 CFR Part 17 and 47 CFR Part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 YES NO and/or the FAA's study regarding the potential hazard of the structure to aviation? FAULUNE TO COMPLY WITH 47 CFP PAPTS 17 AND 25 WILL PESULT IN THE RETURN OF THIS APPLICATION.								

FCC 312, Schedule B - Page 5 February, 1998 Spacecom Petition for Declaratory Ruling To Add AMOS-2 to the Permitted Space Stations List

Attachment A

S2593 SAT-PDR-20020823-00161 Spacecom Satellite Communications Services S.C.C. Lt

ATTACHMENT A

SECTION 25.114(c) TECHNICAL INFORMATION

ENGINEERING CERTIFICATION

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this Petition and its attachments, that I am familiar with Part 25 of the Commission's rules, that I have reviewed the engineering information submitted in this Petition, and that it is complete and accurate to the best of my knowledge and belief.

Shain

Avi Shaviv Technical Manager Spacecom Satellite Communications Services SCC Ltd.

Date: Aug 14, 2002

SECTION 25.114(c) INFORMATION FOR THE AMOS-2 SPACE STATION

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

Spacecom Satellite Communications Services S.C.C. Ltd. Twin Towers I 33 Jabotinsky Street Ramat Gan 52511 Israel Tel: 011-972-3-6134720 Fax: 011-972-3-6134723

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

Counsel for Spacecom Satellite Communications Services SCC Ltd. Benjamin J. Griffin Christopher R. Bjornson Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. 701 Pennsylvania Avenue, N.W. Suite 900 Washington, D.C. 20004 (202) 434-7300 (202) 434-7400 (fax)

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

Spacecom requests that the Commission add the AMOS-2 satellite to 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, IB Docket No. 96-111, First Order on Reconsideration, FCC 99-325, 15 FCC Rcd 7207 (rel. Oct. 29, 1999).

The AMOS-2 satellite will be launched in early 2003 and will be operated at the 4.0° W.L. orbital location where Spacecom is currently providing services within Israel using Ku-band transponders on the AMOS-1 satellite. In addition to

ensuring continuity of these services, the AMOS-2 satellite will provide capacity for transatlantic communications services as a complement to capacity available from AMOS-1's 4.0° W.L. orbital location.

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

Spacecom is currently operating the AMOS-1 satellite located at 4° W.L. AMOS-1 was developed and manufactured by Israel Aircraft Industry (IAI) and was launched in May 1996. AMOS-1 has two beams covering the Middle-East and Europe . AMOS-2 will be co-located with Amos-1 at 4° W.L, used to provide a wide range of telecommunication services, such as: DBS/DTH, TV& Audio distribution, High speed/two-way Internet access, Broadband communication services and VSAT networks. AMOS-2 will not be used to provide DBS/DTH services in the United States.

(5) (a) Radio Frequencies and polarization plan (including beacon, telemetry and telecommand functions):

The frequency and polarization plan of AMOS-2 satellite is shown in Annex 1.

The antenna polarization will be linear. The two orthogonal polarizations are denoted as X and Y. The reference X polarization is defined as that polarization whose plane makes an angle of 90° in anti-clockwise direction, looking towards the earth, about a reference vector with respect to a plane containing this vector and the satellite pitch axis (Y axis in the satellite coordinate system). The reference vector will be the antenna focal axis and be pointed to a location, to be selected, within European or Middle-Eastern coverage. The Y polarization is defined as polarization whose plane contains the reference vector and is orthogonal to the X polarization plane. (In Annex 1: Pol. H = X; Pol. V = Y).

In the Middle-East beam, 5 transmission channels will be able to operate in both polarizations in the D/L, while two receive channels will be able to operate in both polarizations in the U/L.

In the NA beam, U/L and D/L will operate in H Pol.

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

<u>Telecommand:</u> 14249.0 MHz or 14251.0 MHz . Polarization V or H . <u>Telemetry</u>: 11200.0 MHz or 10949.0 MHz . Polarization LHCP or RHCP.

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

The receive and transmit center frequencies are shown in <u>Annex 2</u>. The bandwidth of each transponder is 72MHz.

(c) Emission designators and allocated bandwidth of emission:

Emission Designators: $16K0G1D \rightarrow 72M0G1D$

 $16K0G1W \rightarrow 72M0G1W$ $18M0F3F \rightarrow 36M0F3F$

Allocated Bandwidth: 16KHz to 72 MHz.

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

The AMOS-2 satellite will use fixed receive and transmit beams over Europe, Middle-East and North-America.

Coverage maps are presented in Annex 3.

The connectivity of each and every channel and beam is presented in the table of Annex 2.

Up to 11 channels will be assigned to the Middle-East beam (channels 11 to 21). Two channels (14 & 15) will be able to operate in both polarizations (V or H), in the up-link and in the down-link, while three other channels (19,20,21) will be able to operate in both polarizations in the down-link only.

Up to 6 channels will be assigned to the European beam (channels 22 to 27). There will be no operational constraints for channels using the same frequencies in Europe and the Middle-East.

Channels 20, 21 in the Middle-East beam and channels 26, 27 in the European beam will be able to be cross-connected simultaneously in both directions.

Up to 8 channels can be up-linked from the North-America service area, to be down-linked to the Middle-East service area (11,12,13,17,18,19,20,21) and/or to the European service area (22-27).

Up to two channels (19,20) can be up-linked from the ME to be down-linked to NA (channels 28,29).

One channel will be shared between the ME beam (21) and Europe (27) to also be down-linked to NA (30) (e.g., the lower half channel will be allocated to the ME while the upper half channel to Europe), in this application the receive G/T will be decreased by 3dB.

	Middle	Europe	NA		
U/L (H)	U/L (V)	D/L (H)	D/L (V)	D/L (H)	D/L (H)
11			11		
12			12		
13			13		
	14	14			
	15	15			
14'			14		
15'			15		
16			16		
17			17		
18			18		
	19	19	19		28
	20	20	20	26	29
	21	21	21	27	30

1

The following tables summarize the channel allocation options:

Eur	ope	ME		ME NA		NA
U/L (V)	D/L (H)	D/L (H)	D/L (V)	D/L (H)		
22	22					
23	23					
24	24					
25	25					
26	26	20				
27	27	21		30		

NA	М	EUROPE	
U/L (H)	D/L (H)	D/L (V)	D/L (H)
111/122		11	22
112/123	· · · · · · · · · · · · · · · · · · ·	12	23
113/124	······································	13	24
117		17	
118		18	
119/125	19		25
120/126	20		26
121/127	21		27

(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):

All the TWTA's used in the Amos2 payload have 75W saturated output power (18.75 dBW).

Net loss between TWTA's output and input of antenna is 1.4dB (a representative figure of channel #11, including: W/G, switches and OMUX loss).

Maximum saturated EIRP for each beam is listed below :

Beam	ME-V	МЕ-Н	EU-H	NA-H
EIRP	57.5	57.2	56.5	53.2
[dBW]				

ME-V : Middle-East Vertical

ME-H : Middle-East Horizontal

EU-H : Europe Horizontal

NA-H : North-America Horizontal

EIRP coverage maps of the various beams are presented in annex 3.

(f) Receiving system noise temperature:

Maximum receiving system noise temperature is 27.2dBK (525° K), with each receive antenna (Tant = 271° K).

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

Saturation Flux Densities for the different receive beams are presented in the following table:

Beam	SFD @ Min. Gain Setting [dBW/m ²]	SFD @ Max. Gain Setting [dBW/m ²]
ME-H	-65.3-G/T	-90.3-G/T
ME-V	-64.7-G/T	-89.7-G/T
EU-V	-65.3-G/T	-90.3-G/T
NA-H	-64.8-G/T	-89.8-G/T

G/T coverage maps of the various beams are presented in annex 3.

(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 in steps of 1.0dB ± 0.3 dB (total of 25dB),

Min. Gain	100.7 dB
Max. Gain	125.7 dB

(i) Predicted receiver and transmitter channel filter response characteristics:

• Predicted channel filter out-of-band response characteristics (Between receive antenna output and TWT):

Offset frequency				
CF ± MHz	47	51	60	
Rejection [dB]	28	33	45	

• Predicted OMUX channel filter out-of-band response characteristics (Between TWTA output and antenna input):

Offset frequency			<u> </u>
CF ± MHz	47	51	60
Rejection [dB]	15	16	25

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

The AMOS-2 satellite will be operated at the 4.0° W.L. orbital location. (Co-located with Amos1 satellite).

(7) Predicted space station antenna gain contour(s) for each transmit and each receive antenna beam and orbital location, 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 values, with the peak value and sense of polarization clearly specified on each plotted contour:

Antenna gain contours are presented in annex 4:

European beam Tx & Rx

ME beam Tx&Rx

NA beam Tx&Rx

Description of the types of services to be provide, and the areas to be (8) **(a)** served:

(See detailed coverage maps) Beam Countries

The Amos-2 satellite will serve the following service areas:

Deam	Countries
Middle-East	Israel, Egypt, Jordan, Syria, Kuwait, Lebanon, Cyprus,
	Turkey, Iraq, Iran
Europe	Hungary, Ukraine, Bulgaria, Romania, Poland, Croatia,
	Serbia, Bosnia, Albania, Greece, Turkey, Czeck Republic,
	Lithuania, Latvia, Austria, France, England, Russia, Germany.
East-Coast US	NYC, Boston, Montreal (AMOS-2 will not provide DBS,
and Canada	DTH or DARS services to these service areas).

Types of services to be provided in the Middle East and Europe are summarized ٠ below:

Analog	• FMTV (w/ multiple audio S/C) - SNG, Point to Point, Distribution
	and Contribution.
	• SCPC/FM
Digital	• Direct to Home (Digital Video and Internet applications)
	Direct Broadcasting Service
	Digital Audio Radio service
	Point to Point data services
	Data Transactions (VSAT Networks)

•

(b) Description of the transmission characteristics and performance objectives for each type of proposed service:

The following tables summarize the various transmission characteristics and performance objectives for the different service types:

 DBS/DTH, Video distribution, DSNG etc. based on DVB-S and DVB-DSNG standards (EN300-421 and EN 301-210):

Modulation	<u>FEC</u>	Spectral Efficiency	Eb/No @QEF	Eb/No @ QEF (Satellite Loop)
			[dB]	[dB]
QPSK	1/2	1.08511	4.5	5.0
	2/3	0.81383	5.0	5.5
	3/4	0.72340	5.5	6.0
	5/6	0.65106	6.0	6.5
	7/8	0.62006	6.4	6.9
8PSK	2/3	0.54255	6.9	7.9
	5/6	0.43404	8.9	9.9
	8/9	0.40691	9.4	10.4
16QAM	3/4	0.36170	9.0	10.5
	7/8	0.31003	10.7	12.2

2. Digital Point-to-Point data services, Data Transactions (VSAT Networks)

·			
QPSK / Viterbi			
	Eb/No [dB] \$	Specification	
BER	R1/2	R3/4	R7/8
- ·		-	-
1.0E-03	4.2	5.2	6.4
1.0E-04	4.8	6.0	7.2
1.0E-05	5.5	6.7	7.9
1.0E-06	6.1	7.5	8.6
1.0E-07	6.7	8.2	9.2
1.0E-08	7.2	8.8	9.9

QPSK / Viterbi +RS			
	Eb/No [dB]	Specificatio	n
BER	R1/2	R3/4	R7/8
		-	-
1.0E-06	4.1	5.6	6.7
1.0E-07	4.2	5.8	6.9
1.0E-08	4.4	6.0	7.1
1.0E-10	5.0	6.3	7.5

56Kbps)			
	Eb/No [dB]	Specificatio	n '
BER	R1/2	R3/4	R7/8
1.0E-03		4.6	- 5.5
1.0E-04	4.1	5.1	6.1
1.0E-05	4.5	5.5	6.6
1.0E-06	5.0	5.9	7.3
1.0E-07	5.4	6.4	7.8
1.0E-08	5.8	6.8	8.4

8PSK		
	Eb/No [dB] S	Specification
BER	R2/3	R2/3
-	_ (+RS)	
1.0E-06	6.1	8.7
1.0E-07	6.4	9.5
1.0E-08	6.6	10.2
1.0E-09	6.9	11.0
1.0E-10	7.2	11.8

.

Eb/No (dP)		
	Specification	n
R1/2	R3/4	R7/8
ļ	-	-
4.1	5.2	6.4
4.9	6.0	7.2
5.6	6.7	7.9
6.3	7.5	8.6
6.9	8.2	9.2
7.5	8.8	9.9
	R1/2 4.1 5.6 6.3 6.9 7.5	R1/2 R3/4 4.1 5.2 4.9 6.0 5.6 6.7 6.3 7.5 6.9 8.2 7.5 8.8

Eb/No (dB) Specificat	ion
R1/1	
-	-
8.8	
9.6	
10.8	
11.6	
12.4	
	Eb/No (dB) Specificat R1/1 8.8 9.6 10.8 11.6 12.4

Analog FMTV, Deviation 6.4MHz (Video only), 7 MHz (Video+Audio) Total BW 30-36 MHz

Threshold C/N $\sim 7~dB$

(c) Details of the link noise budget:

See Link Calculations (Annex 5)

(d) Typical or baseline earth station parameters:

Transmit Earth-Stations:

Beam	Minimum Antenna	Off Axis Gain Pattern	
	Diameter		
Middle-East	0.6m		
Europe	0.6m	ITU Rec BO1213	
East-Coast US	4.5m		
	1		

Receive Earth-Stations:

Beam	Minimum Antenna Diameter	Off Axis Gain Pattern
Middle-East	0.6m	
Europe	0.6m	ITU Rec BO1213
East-Coast US	2.4m	

(e) Modulation parameters:

See paragraph 8(b) above

(f) Overall link performance analysis (including an analysis of the effects of each contributing noise and interference source):

See Link Calculations (Annex 5)

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

AMOS-2 satellite will be maintained at 4°W.L with a longitudinal accuracy of 0.05°.

Its orbital inclination will be maintained within $\pm 0.405^{\circ}$.

Antenna axis stability: 0.15°

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

Coverage Area	Maximum Power Flux Density
Middle-East	-148dBW/m ² .4KHz
Europe	-149dBW/m ² .4KHz
East-Coast US	-152dBW/m ² .4KHz

The above power densities are calculated for saturated transponder EIRPoperating point which will never be implemented (maximum is -2dB back-off).

(11) Arrangement for tracking, telemetry, and control:

TTC functions will be performed using Earth-station located at MBT (Yehud,Israel) : Longitude 34.90445° E; Latitude 32.02692° N.

(9)

(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 AMOS-2 satellite:

Dimensions:	2.4 x 2.3 x 2.5 m
Solar panels in deployed configuration:	~ 11 m
Mass on ground ("dry")	640 kg.
At launch	1,360 kg.
Power beginning of life	2,400 W
End of life	1,850 W
Estimated operational lifetime	11.5 years
Reliability	0.7 for 11.5 year
-	lifetime

(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:

Information demonstrating the financial qualifications of Spacecom is 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 transponder to be offered on a non-common carrier basis:

The AMOS-2 satellite will be operated on a non-common carrier basis and all transponders will be available for use on a non-common carrier basis. Spacecom will lease capacity pursuant to commercial contracts.

It is not Spacecom's customary practice to hold itself out as a common carrier for hire, and Spacecom 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 AMOS-2 satellite is under construction. Its construction will be completed by the end of 2002. Its launch is scheduled for early 2003 for a placement into service within thirty days after launch.

(16) Public interest considerations in support of grant:

The AMOS-2 satellite will provide an additional source of capacity for authorized digital transmission services (including video and Internet services) between the United States, Europe and the Middle East.

The entry of the AMOS-2 satellite into the market to meet customers' demand for such services will enhance competition in that market. Accordingly, the grant of this application is in the public interest.

The attached Petition for Declaratory Ruling also contains reasoning as to why the grant is in the public interest.

Frequency Plan

AMOS-2 Frequency Plan



AMOS-2 Frequency Plan





Center Frequencies

&

Transponder Bandwidths

Channels	Up-Link from	Center Freq. BW=72MHz	Down-Link to	Channels	Center Freq. BW=72MHz
11, 12, 13	Middle East	13040.5, 13124, 13207.5	Middle East	11, 12, 13	10740.5, 10824, 10907.5
14, 15	Middle East	14040.5, 14124	Middle East	14, 15	10990.5, 11074
16, 17, 18	Middle East	13790, 13873.5, 13957	Middle East	16, 17, 18	11240, 11323.5, 11407
19, 20, 21	Middle East	14292.5, 14376, 14459.5	Middle East	19, 20, 21	11492.5, 11576, 11659.5
20, 21	Middle East	14376, 14459.5	Europe	26, 27	11576, 11659.5
19, 20, 21	Middle East	14292.5, 14376, 14459.5	North America	28, 29, 30	11492.5, 11576, 11659.5
22, 23, 24	Europe	13040.5, 13124, 13207.5	Europe	22, 23, 24	10740.5, 10824, 10907.5
25, 26, 27	Europe	13792.5, 13876, 13959.5	Europe	25, 26, 27	11492.5, 11576, 11659.5
26, 27	Europe	13876, 13959.5	Middle East	20, 21	11576, 11659.5
27	Europe	13959.5	North America	30	11659.5
111, 112, 113	North America	13790.5, 13874, 13957.5	Middle East	11, 12, 13	10740.5, 10824, 10907.5
122, 123, 124, 125	North America	13790.5, 13874, 13957.5, 14292.5	Europe	22, 23, 24, 25	1074.5, 10824, 10907.5, 11492.5
117, 118	North America	14123.5, 14207	Middle East	17, 18	11323.5, 11407
119, 120, 121	North America	14292.5, 14376, 14459.5	Middle East	19, 20 ,21	11492.5, 11576, 11659.5
126, 127	North America	14376, 14459.5	Europe	26, 27	11576, 11659.5
19, 20, 21	Middle East & Europe	14292.5, 14376, 14459.5	North America	28, 29, 30	11492.5, 11576, 11659.5

G/T and EIRP

Coverage Maps

Insert after this page the following maps from the file "Amos 2 – payload performance.pdf":

Pages 2-19, 2-22, 2-26, 2-29, 2-30, 2-31, 2-35, 2-38, 2-42, 2-43.

Antenna Gain Contours (Tx & Rx)

Insert after this page the following maps from the file "Antenna Gain Contours.pdf":

Pages 03-2, 03-3, 03-4, 03-5, 03-6, 03-7, 03-9, 03-10.

Link Calculations

Amos 2- Sample Link Calculation

	Satellite:		Amos2		
	Transponder		21/30 (Cross-Connect)		
	Uplink:		Jerusalem		
	DownLink:		NYC		
	Project :		FCC Amos2 sample Link Calculat	ion	
Satellite Parameters			Link Parameters		
			Mod. Type (BPSK=1,QPSK=2)		2
EIRPav	[dBW]	.0	Bit Rate	[Kb/s]	36863.0
Input Back Off	[dB]	-4.5	FEC (0.5 for 1/2,etc)	3/4+RS	0.691
Output Back Off	[dB]	-2.0	Overhead	[%]	0.0
					(DVB)
SFD	[dB/m^2]	-88.7	<u>Transmitter</u>		
(G/T)s	[dB/k]	15.0			
Up Frequency	[GHz]	14.500	Dt	[meter]	4.60
Down Frequency	[GHz]	11.700	Efficiency	[%]	65.0
			Pt	[Watt]	15.70
(C/Io) total	[dB-Hz]	99.0			1
			Off Beam Loss	[dB]	0.0
			Output circuit loss	[dB]	0.5
Satellite parameters are ba	sed on :		Pointing/Tracking Loss	[dB]	0.5
Satellite specifications			Other losses	[dB]	0.0
			Uplink Fade Margin	[dB]	0.0
			<u>Receiver</u>		
			Dr	[meter]	4.60
			Efficiency	[%]	65.0
			LNB-Noise Temperature	[K]	85.0
			Elevation angle	[deg]	6.5
			Off Beam Loss	[dB]	0.0
			Pointing/Tracking Loss	[dB]	0.5
			Loss between LNB & Ant	[dB]	0.2
			Downlink Fade Margin	[dB]	0.0

Link Calculations Results

<u>(Eb/No)up =</u>	26.6 [dB]	Transmission Rate	53333.7[Kbps]
<u>(Eb/No)down =</u>	24.8 [dB]	Symbol Rate Satellite EIRP	26666.9 [Ksps] 47 [dBW]
(Eb/No)total=	19.9[dB]	Allocated Bandwidth	36000.2 [KHz]

Satellite:		Amos2		
Transponder		111/11 (Cross-Connect)		
Uplink:		NYC		
DownLink:		Jerusale m		
Project :		FCC Amos2 sample Link Calculat	ion	
		Link Parameters		
		Mod Type (BPSK=1.OPSK=2)		2
	56.0	Bit Rate	[Kb/s]	36863.0
[ab]	-4 5	EFC $(0.5 \text{ for } 1/2.\text{etc})$	3/4+RS	0.691
[db]	-7.0	Overhead	[%]	0.0
[db]	-2.0			(DVB)
[dB/m^2]	-88.7	Transmitter		
[dB/k]	15.0			1.60
[GHz]	14.500	Dt	[meter]	4.00
[GHz]	11.700	Efficiency	[%]	27.01
		Pt	[watt]	27.91
[dB-Hz]	99.0			
[02 12-]		Off Beam Loss	[dB]	0.0
		Output circuit loss	[dB]	3.0
pased on :		Pointing/Tracking Loss	[dB]	0.5
		Other losses	[dB]	0.0
		Uplink Fade Margin	[dB]	0.0
		Receiver		
		Dr	[meter]	0.80
		Efficiency	[%]	65.0
		I NB-Noise Temperature	[K]	85.0
		Elevation angle	[deg]	6.5
			-	
		Off Beam Loss	[dB]	0.0
		Pointing/Tracking Loss	[dB]	0.5
		Loss between LNB & Ant	[dB]	0.2
		Downlink Fade Margin	[dB]	0.0
,	Satellite: Transponder Uplink: DownLink: Project : [dBW] [dB] [dB] [dB/m^2] [dB/k] [GHz] [GHz] [dB-Hz] pased on :	Satellite: Transponder Uplink: DownLink: Project : [dBW] 56.0 [dB] -4.5 [dB] -2.0 [dB/m^2] -88.7 [dB/k] 15.0 [GHz] 14.500 [GHz] 11.700 [dB-Hz] 99.0 pased on :	Satellite: Amosz Transponder 111/11 (Cross-Connect) Uplink: NYC DownLink: Jerusalem Project : FCC Amos2 sample Link Calculat Image: Constraint of the state Link Parameters Mod. Type (BPSK=1,QPSK=2) Mod. Type (BPSK=1,QPSK=2) [dBW] 56.0 Bit Rate [dB] -4.5 FEC (0.5 for 1/2,etc) [dB] -2.0 Overhead [dB/m^2] -88.7 Transmitter [dB/k] 15.0 Dt [GHz] 14.500 Dt [dB-Hz] 99.0 Off Beam Loss Output circuit loss Output circuit loss Pointing/Tracking Loss Other losses Uplink Fade Margin Dr Efficiency LNB-Noise Temperature Elevation angle Off Beam Loss Pointing/Tracking Loss Loss between LNB & Ant Dreweine LNB & Ant Dreweine LNB & Ant	Satellite: Amos2 Transponder 111/11 (Cross-Connect) Uplink: NYC DownLink: Jerusalem Project : FCC Amos2 sample Link Calculation [dBW] 56.0 [dB] 4.5 [dB] 4.5 [dB] -4.5 [dB] -2.0 Overhead [%] [dB/m^2] -88.7 [dB/k] 15.0 [GHz] 14.500 Dt [meter] [dB/k] 15.0 [GHz] 11.700 Efficiency [%] Pt [Watt] [dB-Hz] 99.0 Off Beam Loss [dB] Output circuit loss [dB] Output circuit loss [dB] Other losses [dB] Uplink Fade Margin [dB] Dr [meter] Efficiency [%] LNB-Noise Temperature [K] Elevation angle [deg] Off Beam Loss [dB] Pointing/Tracking Loss <td< td=""></td<>

Amos 2- Sample Link Calculation

Link Calculations Results

(Eb/No)up =	26.6 [dB]	Transmission Rate	53333.7[Kbps]
<u>(Eb/No)down =</u>	13.6 [dB]	Symbol Rate Satellite EIRP	26666.9 [Ksps] 51 [dBW]
(Eb/No)total=	<u>12.9 [dB]</u>	Allocated Bandwidth	<u>36000.2 [KHz]</u>

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Spacecom Petition for Declaratory Ruling To Add AMOS-2 to the Permitted Space Stations List

Attachment B

ATTACHMENT B

SECTION 25.140 FINANCIAL INFORMATION



CERTIFICATION 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 on August 19, 2002 in Ramat Gan, Israel

Itzhak Shnaiberg VP Finance Spacecom Satellite Communications Services SCC Ltd.

Spacecom Ltd.

Twin tower1, Suite 1017, 33 Jabotinsky St., Ramat Gan 52511, Israel. Tel: 972 3 6134720 Fax: 972 3 6134723 e-mail: info@spacecom.co.il www.spacecom.co.il

SECTION 25.140(b) & (c) INFORMATION FOR THE AMOS-2 SPACE STATION

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

Estimated costs of construction, launch, launch insurance and operating expenses for one year after launch of the space station: \$136 million

Section 25.140(c)(1)

Balance sheet current for the latest fiscal year: See attachment.

Exhibit demonstrating that the applicant has current assets and operating income sufficient to meet the costs specified in paragraphs (b)(3) and (b)(4):

The project is financed by Publicly Traded Bonds, Banks Credit, Vendor and Shareholders Equity totaling \$157M. The attached balance sheet reflects the financing sources for the project except for credit extended by banks. These credit lines account for more than \$100 million of the potential financing for the project.

Profit and Loss summary report - see attachment.

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Balance Sheets

	December 31	December 31	
	2000	2001	
	KUSd	KUSd	
			ASSETS
			FIXED ASSETS
	160	58,956	Assets under construction (satellite)
_	2,250	3,481	Other assets
	2,411	62,437	TOTAL FIXED ASSETS
	330	574	LONG TERM RECEIVABLE
			CURRENT ASSETS
	267	1,647	Other receivables
	250	596	Trade receivables
	23,017	2,155	Cash and cash equivalents
-	23,533	4,398	TOTAL CURRENT ASSETS
-	26,274	67,409	TOTAL ASSETS
			LIABILITIES
			LONG TERM LIABILITIES
	14,811	16,229	Bonds
	356	27,290	loans
		10,250	Vendors' financing
	404	611	Interested parties and others liabilities
	15,572	54,381	TOTAL LONG TERM LIABILITIES
			CURRENT LIABILITIES
		2,921	Interested parties
	1,456	763	Trade and checks payables
	246	164	Current maturities of long term loans
	1,701	3,848	TOTAL CURRENT LIABILITIES
	9,001	9,180	SHAREHOLDERS' EQUITY
	26,274	67,409	TOTAL LIABILITIES

SPACECOPM SATTELITE COMMUNICATION SERVICES S.C.C. LTD.

Statements of Opearations

	For the year ended	For the year ended	
	December 31	December 31	
	2000	2001	
	KUSd	KUSd	
			REVNEUES
	937	1,187	Marketing commissions
-	418	437	Up link services
	1,355	1,624	
	228	213	Up link services- operation and maintenance
			6 6 4
	1,127	1,411	Gross profit
	165	318	Marketing expenses
	449	554	General and administrative expenses
-	614	872	
	513	539	Income from opraition
	268	271	Financing expenses, net
			NOT BLOOKE FOR AUF VEAD
	244	268	NET INCOME FOR THE IEAR

Attachment C

Spacecom Petition for Declaratory Ruling To Add AMOS-2 to the Permitted Space Stations List

ATTACHMENT C

FOREIGN OWNERSHIP INFORMATION

FOREIGN OWNERSHIP INFORMATION

Question 34 Information

Ownership interests in Spacecom Satellite Communications Services S.C.C. Ltd. ("Spacecom") are held by the following entities with percentage interests indicated: Israel Aircraft Industries (24.25%), Eurocom Holdings (1979) Ltd. (24.25%), General Satellite Services Co. Ltd. (24.25%) and Mer Services Group Ltd. (24.25%). These entities are all corporations organized under the laws of Israel. The remaining 3% of the company's shares are beneficially held by Spacecom's CEO, Mr. David Pollack, an Israeli citizen.

Commission Policy to Foreign Ownership as Applied to Spacecom's Application

In questions 31 and 32, Spacecom identifies itself as a corporation organized under the laws of a foreign government. However, this Petition for Declaratory Ruling seeks only to permit U.S.-licensed ALSAT earth stations to access AMOS-2, a non-U.S. satellite, consistent with the *DISCO II Reconsideration Order*.^{1/} Thus, Spacecom's foreign ownership poses no U.S. licensing concerns.

In any event, in the *DISCO II Order*, the Commission essentially created a blanket waiver of alien ownership restrictions by adopting "a rebuttable presumption that applications by investors from WTO Member countries to exceed the 25 percent foreign ownership limitation under Section 310(b)(4) will promote competition."^{2/} Accordingly,

^{1/} 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, IB Docket No. 96-111, *First* Order on Reconsideration, FCC 99-325, 15 FCC Red 7207 (rel. Oct. 29, 1999).

²¹ 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, IB Docket No. 96-111, *Report* and Order, FCC 97-399, 12 FCC Rcd 24094, 24159 (rel. Nov. 26, 1997).

Spacecom's Petition for Declaratory Ruling raises no foreign ownership concerns and should be granted.

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