

**WILLKIE FARR & GALLAGHER**  
May 7, 2003

**Received**

**MAY 22 2003**

1875 K Street, N.W.  
Washington, DC 20006-1238  
Tel: 202 303 1000  
Fax: 202 303 2000

**Policy Branch  
International Bureau**

**FCC/MELLON**

**MAY 07 2003**

Federal Communications Commission  
International Bureau - Satellites  
P.O. Box 358210  
Pittsburgh, PA 15251-5210

**S2160 SAT-MOD-20030507-00097**  
**LORAL SPACECOM CORPORATION**  
**Telstar 8 (Loral 2)**

Re: Loral SpaceCom Corporation - Telstar 8 - Request for Extension of Milestones and Waiver of Filing Fee - Petition for Reconsideration - SAT-MOD-20020408-00060; SAT-MOD-19991101-00107, SAT-MOD-19991102-00105

Dear Sir or Madam:

Loral SpaceCom Corporation ("Loral SpaceCom"), by its attorneys, hereby resubmits its May 1, 2003, original and nine copies of an application on Form 312 to extend the construction completion and launch milestones associated with the Telstar 8 satellite at 89° W.L. The filing on May 1, 2003, inadvertently remitted the old filing fee (\$6,670) for satellite modifications and was returned (see attached). Accordingly, enclosed is a new Form 159 and a check for \$7,050 to cover the applicable filing fee. Please date-stamp and return a copy of the enclosed filing in the envelope provided. Any inquiries related to this request should be directed to the undersigned.

The pleading filed May 1, 2003, also contained a request for waiver and petition for reconsideration of the International Bureau's April 1, 2003, order with respect to the above-referenced file numbers.<sup>1</sup> The petition for reconsideration and waiver was not subject to a fee but was merely combined with the modification for ease of consideration. The petition for reconsideration and waiver was properly filed May 1, 2003, and we therefore request that it be processed *nunc pro tunc*.

Respectfully submitted,



Philip L. Verveer  
Jennifer D. McCarthy

Counsel for Loral SpaceCom Corp.

<sup>1</sup> In re Loral SpaceCom Corporation and Loral SpaceCom Corporation, Applications for Modification of Fixed-Satellite Service Space Station Authorizations; Applications for Extension of Milestone Dates, Memorandum Opinion, Order and Authorization, DA 03-1045 (rel. April 1, 2003).

READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING

FEDERAL COMMUNICATIONS COMMISSION  
REMITTANCE ADVICE

Approved by OMB  
3060-0589  
Page No 1 of 1

(1) LOCKBOX # **358210**

SPECIAL USE

FCC USE ONLY

SECTION A - PAYER INFORMATION

(2) PAYER NAME (if paying by credit card, enter name exactly as it appears on your card)  
**Willkie Farr & Gallagher**

(3) TOTAL AMOUNT PAID (U.S. Dollars and cents)  
**\$7,050.00**

(4) STREET ADDRESS LINE NO. 1  
**1875 K Street, N.W.**

(5) STREET ADDRESS LINE NO. 2

(6) CITY  
**Washington**

(7) STATE  
**DC**

(8) ZIP CODE  
**20006-1238**

(9) DAYTIME TELEPHONE NUMBER (include area code)  
**(202)303-1145**

(10) COUNTRY CODE (if not in U.S.A.)

FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED

(11) PAYER (FRN)  
**0003-7337-48**

(12) PAYER (TIN)  
**13-5536844**

IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B  
IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)

(13) APPLICANT NAME  
**Loral SpaceCom Corp.**

(14) STREET ADDRESS LINE NO. 1  
**c/o Loral Space & Communications Ltd.**

(15) STREET ADDRESS LINE NO. 2  
**1755 Jefferson Davis Highway, Suite 1007**

(16) CITY  
**Arlington**

(17) STATE  
**VA**

(18) ZIP CODE  
**22202-3501**

(19) DAYTIME TELEPHONE NUMBER (include area code)  
**(703)414-1060**

(20) COUNTRY CODE (if not in U.S.A.)

FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED

(21) APPLICANT (FRN)  
**0005-0150-52**

(22) APPLICANT (TIN)  
**13-3867427**

COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET

(23A) CALL SIGN/OTHER ID  
**TelStar 8 - S2160**

(24A) PAYMENT TYPE CODE  
**BFY**

(25A) QUANTITY  
**1**

(26A) FEE DUE FOR (PTC)  
**\$7,050.00**

(27A) TOTAL FEE  
**\$7,050.00**

FCC USE ONLY

(28A) FCC CODE 1

(29A) FCC CODE 2

(23B) CALL SIGN/OTHER ID

(24B) PAYMENT TYPE CODE

(25B) QUANTITY

(26B) FEE DUE FOR (PTC)

(27B) TOTAL FEE

FCC USE ONLY

(28B) FCC CODE 1

(29B) FCC CODE 2

SECTION D - CERTIFICATION

(30) CERTIFICATION STATEMENT

I, \_\_\_\_\_, certify under penalty of perjury that the foregoing and supporting information is true and correct to the best of my knowledge, information and belief. SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

SECTION E - CREDIT CARD PAYMENT INFORMATION

(31)  MASTERCARD

MASTERCARD/VISA ACCOUNT NUMBER:

EXPIRATION DATE:

VISA

I hereby authorize the FCC to charge my VISA or MASTERCARD for the service(s)/authorization herein described.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC

05-02-03

Re: FRN 0005-0150-02  
CallSign/ID         
FCC Code#1         
FCC Code#2       

Loral Space Com Corp.  
600 Third Avenue  
New York, NY 10016

Dear FCC Customer:

Re: Return of Unprocessable Application

This is to notify you that your application package is being returned for the following reasons:

- No application/filing accompanied your submission.
- No remittance accompanied your submission. Please refer to the appropriate Fee Filing Guide
- The remittance for payment type code BFY is now \$ 7050.<sup>00</sup>
- Your check is not acceptable for this reason \_\_\_\_\_
- Multiple checks for a single application are not accepted, please send one check for \$ 7050.<sup>00</sup>
- No remittance advice (FCC Form 159) accompanied your submission.
- The payment type code is needed.
- The remittance advice form (FCC Form 159) is incomplete.
- The credit card section of FCC Form 159 Remittance Advice needs \_\_\_\_\_ Expiration date \_\_\_\_\_ Signature.
- Block 3 must be completed (please enter \$ \_\_\_\_\_) to authorize a credit charge, only the credit card holder can complete this item.
- Your credit card was denied by Authorizations; please confirm or correct card number.
- Your credit card was declined; if any question, please contact bank that issued card.
- The FCC Form 159, Remittance Advice, used is obsolete. Please use the February 2000 edition. See enclosed Public Notice for further information.
- The Payer/Applicant FCC Registration Number (FRN) is missing from the Form 159. This number is required in order to process your filing. See enclosed News Release for further assistance.
- Payment for your electronically filed application cannot be processed without the confirmation number in the FCC Code 2 block of the FCC Form 159. Payment must be received within 10 business days from the receipt date of your electronically filed application to avoid dismissal. If payment is not received within 10 days, you must file another electronically filed application, properly complete a FCC Form 159, which includes the required confirmation number, and send another payment.**
- Other.

Please refer to the enclosed Fee Filing Guide for further instructions, and mail your corrected application, remittance advice form and payment to the appropriate P.O. Box in Pittsburgh, PA.

If you have further questions, please contact the FCC at 202-418-1995.

Sincerely,

FCC Financial Operations

Enclosures: INT-SAT  
Filing Guide         
Check(s) # 108897 \$ 6670.<sup>00</sup>  
FCC Form(s) 159/312 Rec'd in P.O.Box # 210

For Office Use Only:

Proc # 1 1661  
Proc #2       

142

# WILLKIE FARR & GALLAGHER

May 1, 2003

1875 K Street, N.W.  
Washington, DC 20006-1238  
Tel: 202 303 1000  
Fax: 202 303 2000

Federal Communications Commission  
International Bureau - Satellites  
P.O. Box 358210  
Pittsburgh, PA 15251-5210

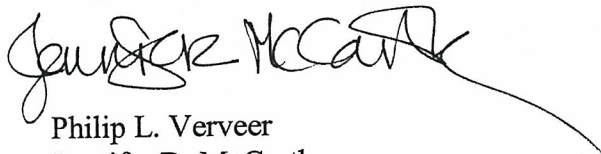
FCC/MELLON  
MAY 01 2003

Re: Loral SpaceCom Corporation - Telstar 8 - Request for Extension of Milestones and Waiver or Petition for Reconsideration - SAT-MOD-20020408-00060; SAT-MOD-19991101-00107; SAT-MOD-19991102-00106

Dear Sir or Madam:

Loral SpaceCom Corporation ("Loral SpaceCom"), by its attorneys, hereby submits an original and nine copies of an application on Form 312 to extend the construction completion and launch milestones associated with the Telstar 8 satellite at 89° W.L. Also enclosed is a completed Form 159 and a check to cover the applicable filing fee. The pleading also contains a request for waiver and petition for reconsideration of the International Bureau's April 1, 2003 order in the above-referenced proceedings.<sup>1</sup> Please date-stamp and return a copy of the enclosed filing in the envelope provided. Any inquiries related to this request should be directed to the undersigned.

Respectfully submitted,



Philip L. Verveer  
Jennifer D. McCarthy

Counsel for Loral SpaceCom Corp.

cc: attached certificate of service

---

<sup>1</sup> In re Loral SpaceComSpaceCom Corporation and Loral SpaceComSpace & Communications Corporation, Applications for Modification of Fixed-Satellite Service Space Station Authorizations; Applications for Extension of Milestone Dates, Memorandum Opinion, Order and Authorization, DA 03-1045 (rel. April 1, 2003).

**FCC 312**  
Main Form

**FEDERAL COMMUNICATIONS COMMISSION**

**APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS**

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

Approved by OMB  
3060-0678  
Est. Avg. Burden Hours  
Per Response: 11 Mts.

**APPLICANT INFORMATION**

1. Legal Name of Applicant <b>Loral SpaceCom Corporation</b>		2. Voice Telephone Number <b>(703) 414-1060</b>
3. Other Name Used for Doing Business (if any) <b>c/o Loral Space &amp; Communications Ltd.</b>		4. Fax Telephone Number <b>(703) 414-1079</b>
5. Mailing Street Address or P.O. Box <b>1755 Jefferson Davis Highway, Suite 1007</b>		8. Zip Code <b>22202-3501</b>
ATTENTION: <b>John P. Stern, Deputy General Counsel, Regulatory Affairs</b>		10. Voice Telephone Number <b>(202) 303-1000</b>
9. Name of Contact Representative (if other than applicant) <b>Philip L. Verveer/Jennifer McCarthy</b>		12. Fax Telephone Number <b>(202) 303-2000</b>
11. Firm or Company Name <b>Willkie Farr &amp; Gallagher</b>		14. City <b>Washington</b>
13. Mailing Street Address or P.O. Box <b>1875 K Street, N.W., 10th Floor</b>		15. State / Country (if not U.S.A) <b>D.C.</b>
ATTENTION:		16. Zip Code <b>20006</b>

**CLASSIFICATION OF FILING**

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

<input type="checkbox"/> a1. Earth Station	<input type="checkbox"/> b1. Application for License of New Station
<input checked="" type="checkbox"/> a2. Space Station	<input type="checkbox"/> b2. Application for Registration of New Domestic Receive-Only Station
	<input type="checkbox"/> b3. Amendment to a Pending Application
	<input checked="" type="checkbox"/> b4. Modification of License or Registration
	<input type="checkbox"/> b5. Assignment of License or Registration
	<input type="checkbox"/> b6. Transfer of Control of License or Registration
	<input type="checkbox"/> b7. Notification of Minor Modification
	<input type="checkbox"/> b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
	<input type="checkbox"/> b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
	<input type="checkbox"/> b10. Other (Please Specify):

19. If this filing is in reference to an existing station, enter:  
Call sign of station: **Telstar 8, S2160**

(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.

a. Fixed Satellite  c. Radiodetermination Satellite  e. Direct to Home Fixed Satellite

b. Mobile Satellite  d. Earth Exploration Satellite  f. Digital Audio Radio Service  g. Other (please specify)

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

a. Common Carrier  b. Non-Common Carrier

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

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

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

a. Connected to the Public Switched Network  b. Not connected to the Public Switched Network **N/A**

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

a. C-Band (4/6 GHz)  c. Other (Please specify)

**Ka-Band**

**TYPE OF STATION**

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

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

If space station applicant, go to Question 27.

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

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

**PURPOSE OF MODIFICATION OR AMENDMENT**

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

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

**Request for extension of milestones.**

**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.

YES  NO

**ALIEN OWNERSHIP**

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
30. Is the applicant an alien or the representative of an alien?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned 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?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> 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 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?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit, the identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	<b>See Exhibit A</b>	

**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 exemptions with supporting documents.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
36. Has the applicant or any party to this application had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of the circumstances.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
37. Has the applicant, or any party to this application, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of the circumstances.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of the circumstances.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If Yes, attach as an exhibit, an explanation of the circumstances.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, addresses, and citizenship of those stockholders owning of record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.	<b>See Exhibit B</b>	
41. By checking Yes, the undersigned certifies, that neither the applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> 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.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> 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?	<b>N/A</b>	

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

**Request for extension of construction completion and launch milestones associated with the Telstar 8 authorization. See attached narrative.**

Exhibit No.	Identify all exhibits that are attached to this application.
A	Response to Item 34
B	Response to Item 36

**CERTIFICATION**


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

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

a. Individual   
 b. Unincorporated Association   
 c. Partnership   
 d. Corporation   
 e. Governmental Entity   
 f. Other (Please specify) \_\_\_\_\_

46. Title of Person Signing  
**Deputy General Counsel**  
**Loral Space & Communications Ltd.**

45. Typed Name of Person Signing  
**John P. Stern**

47. Signature  


48. Date  
**5/1/03**

**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).**



Loral SpaceCom Corporation ("Loral SpaceCom"), a U.S. corporation, is a wholly owned subsidiary of Loral Space & Communications Corporation, also a U.S. corporation. Loral Space & Communications Corporation is a wholly owned subsidiary of Loral Space & Communications, Ltd. ("Loral"), a Bermuda company publicly traded on the New York Stock Exchange. The Commission has determined that Loral's home market is the United States. See In re Application of AT&T Corp. and Loral SpaceCom Corporation, Order and Authorization, 12 FCC Rcd. 925 (1997).

On April 1, 2003, the International Bureau affirmed its decision not to extend the milestones applicable to the licenses of Loral Space & Communications Corporation to launch and operate GSO FSS Ka-band payloads at the 89° W.L., 81° W.L., 47° W.L. and 78° E.L. orbital locations and declared these authorizations null and void. In re Loral SpaceComSpaceCom Corporation and Loral SpaceComSpace & Communications Corporation, Applications for Modification of Fixed-Satellite Service Space Station Authorizations; Applications for Extension of Milestone Dates, Memorandum Opinion, Order and Authorization, DA 03-1045 (rel. April 1, 2003).

BEFORE THE  
Federal Communications Commission  
WASHINGTON, D.C.

In the Matter of	)	
	)	
Loral SpaceCom Corporation	)	File Nos. _____
Applications for Extension of	)	SAT-MOD-20020408-00060;
Milestone Dates	)	SAT-MOD-19991101-00107
	)	
Application for Modification of Fixed-Satellite	)	SAT-MOD-19991102-00106
Service Space Station Authorization	)	

**REQUEST FOR EXTENSION OF MILESTONES AND WAIVER OR PETITION FOR  
RECONSIDERATION**

Telstar 8 is the first Space Systems/Loral ("SS/L") "FS 1300S" class spacecraft and is the highest power and largest satellite SS/L has designed to date. The satellite is currently in thermal vacuum testing. All of the parts for the satellite have been constructed and assembly of the entire satellite is approximately 80% complete.<sup>1</sup> However, the manufacturing process is taking longer than expected because of unanticipated technical problems experienced during the construction and testing of the spacecraft. SS/L engineers have re-designed and re-qualified several key satellite elements in order to resolve these development problems. These and other unanticipated manufacturing challenges described below are the basis for this request for an additional extension of the construction completion and launch milestones for Telstar 8.

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<sup>1</sup> Attached as Exhibit 1 are current photographs of the satellite.

I. **BACKGROUND**

On November 2, 1999, Loral SpaceCom Corporation ("Loral SpaceCom"), filed requests to modify its authorization for the planned Telstar 8 satellite. These applications included a request to add a Ka-band payload to Telstar 8. The satellite would then be a C-, Ku- and Ka-band hybrid and would operate at 89° W.L. (where Telstar 4 currently operates). A request was also made to extend the construction completion and launch milestones. On April 8, 2002, Loral SpaceCom filed a request to further extend the Telstar 8 milestones based on a series of unanticipated technical problems encountered during the construction of the satellite.<sup>2</sup> Loral SpaceCom's applications were granted, in part, in an order released by the International Bureau on April 1, 2003.<sup>3</sup> For the reasons discussed below, Loral SpaceCom submits this additional milestone extension application and requests the following milestone dates for Telstar 8:

Construction completion  
Second quarter 2004

Launch  
Third quarter 2004

This additional extension request is based on a series of new unanticipated technical problems that SS/L is overcoming during the construction of the spacecraft. In the alternative, Loral SpaceCom seeks reconsideration of the International Bureau's decision as it relates to the Telstar 8 milestones. Loral SpaceCom also seeks a waiver

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<sup>2</sup> In re Loral SpaceCom Corporation Application for Extension of Milestone Dates (filed April 8, 2002) (Report No. SAT-00109). Loral SpaceCom's request was unopposed.

<sup>3</sup> In re Loral SpaceCom Corporation and Loral Space & Communications Corporation, Applications for Modification of Fixed-Satellite Service Space Station Authorizations; Applications for Extension of Milestone Dates; Request for Extension of Time to Construct, Launch and Operate a Ka-band Satellite System in the Fixed-Satellite Service, Memorandum Opinion, Order and Authorization, DA 03-1045 (rel. April 1, 2003) ("Order").

of Sections 25.210(e) and (g) of the Commission's rules, which requires that U.S.-licensed satellites be configured for full frequency re-use.

## II. REQUEST FOR MILESTONES EXTENSION

As described in detail in Loral SpaceCom's previous filings, Telstar 8 is an advanced, high-power spacecraft that will operate in the C-, Ku- and Ka-band frequencies. Telstar 8 is the first SS/L "FS 1300-S" class spacecraft of its kind. It has been designed to incorporate significant increases in mass, power and, most importantly, capability. Specifically, Telstar 8, as compared to traditional SS/L satellites, will have a 50% increase in mass, a 50% increase in power and 1.5 times the payload capability. The electric propulsion system will use xenon ions for more efficient fuel usage. Six panel solar arrays will be used, compared to the typical four, and will employ both dual junction gallium arsenide and high efficiency silicon to generate electrical power. An enhanced power control unit and solar array drive mechanism are additional features of the new design.

Two significant innovations that will be used for the first time are Deployable Thermal Radiators (DTRs), and Deployable Battery Modules (DBMs). The DTRs will be deployed when the satellite is in final orbit. The DTR significantly increases the transfer of heat (generated by the payload) to space by providing additional surface area. The enhanced capacity batteries are contained in the DBM. In previous SS/L satellite designs, battery modules remain within the satellite main body and limit the size (i.e., the number of transponders) of the communications panels. Use of DBMs (deployed when the satellite is in final orbit) allows for increased panel size, hence additional payload.

Telstar 8 will utilize an enhanced attitude control system employing three momentum wheels (as opposed to the typical two). New deployment mechanisms, including a Split-Spool Device (SSD) (reduces shock from appendage deployments) and a Dual Reflector Hold-down (DRH), have been added to accommodate the increased complexity of antenna reflector configurations.

Finally, the satellite will utilize new Ka-band technologies. SS/L's engineers have had to re-design, re-test and re-qualify certain elements of the satellite communications sub-system in order to meet these challenging design requirements. These efforts have required additional time beyond that requested in the previous extension.

Subsequent to Loral SpaceCom's April 2002 extension request, Telstar 8 is requiring additional testing and qualification of certain components and sub-systems in order to fully validate the specified operation and performance of this satellite. Some examples follow:

- (1) A failure of an SSD during cold temperature testing of a solar array required a re-design and re-qualification of the devices.
- (2) A deployment failure of two antenna reflectors utilizing the DRHs on another program, which also required a re-design and re-testing of deployment clearances as well as procedure modifications.
- (3) The newly designed Power Processing Units (PPUs) had to be removed from the communication panels for re-work after the discovery of a latent manufacturing defect. Re-testing was required before the units could be re-integrated onto the satellite.
- (4) A new design of the command receiver architecture inadvertently led to the possibility of a single point failure. Correction of this problem also required re-design, re-work and re-testing.
- (5) The Ka-band linearized channel amplifiers and down-converters needed to be removed from the communication panels to permit the venting of residual

hydrogen from some hermetically sealed gallium arsenide components. Unit acceptance testing of these systems had to be repeated and the communication panels had to be re-integrated on to the satellite.

The Commission has held that an extension of milestones may be warranted if the licensee demonstrates significant efforts to implement the system.<sup>4</sup> For example, the Commission recently waived Astrolink's Ka-band construction commencement milestone because the satellite was substantially complete.<sup>5</sup> As noted above, construction of Telstar 8 is approximately 80% complete. Loral SpaceCom has expended substantial sums of money - - almost 60% of the final cost of the satellite (including launch and insurance).

Telstar 8 started thermal vacuum testing on March 21, 2003, with an expected completion date in May 2003. Subsequent to the thermal vacuum testing, the following major construction steps will be performed: dynamics testing and alignments, compact antenna range testing, final performance testing, and final assembly. To accommodate additional construction and testing uncertainties, Loral SpaceCom projects that construction of Telstar 8 will be completed during the second quarter of 2004 with launch in the third quarter.

At this time, additional unanticipated technical work may be required to complete construction. The scope of these efforts will depend on the outcome of analyses and testing that is currently underway. Three examples follow:

- (1) The momentum wheels in the newly designed Attitude Control Sub-system may not provide the necessary precision when wheel speeds transition

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<sup>4</sup> See e.g., R/L DBS Company L.L.C., For Extension of its Direct Broadcast Satellite Construction Permit, *Memorandum Opinion and Order*, 16 FCC Rcd. 9 at ¶ 15 (2000).

<sup>5</sup> In re Astrolink International LLC, Application for Authority to Construct, Launch and Operate a Ka-band Satellite System in the Fixed-Satellite Service, *Memorandum Opinion and Order*, 17 FCC Rcd. 11267 at ¶ 6 (2002).

through zero from positive to negative rotation. An investigation is currently underway to evaluate the required design changes.

(2) Recent updates from Sea Launch, SS/L's contracted launch provider, to the worst case separation shock levels encountered during the launch sequence, will require a review of the qualification shock testing results of some Telstar 8 components. Re-qualification of some components may be required.

(3) While the various sub-system components (e.g., solar arrays, battery modules, thermal radiators, communication panels, etc.) have been tested at the sub-system level, these sub-systems are now being attached to the main body of the satellite to allow for system testing of the entire spacecraft. System test results may necessitate re-work or realignment.

Based on Loral SpaceCom and SS/L's experience to date with the challenges presented by manufacturing this first of its kind high-power hybrid spacecraft, the requested milestone dates also reflect the best estimate of the additional time that will be needed to complete each of the remaining test phases and provide a cushion for additional, unforeseen difficulties and testing.

The Commission has consistently granted milestone extensions in instances in which the delay is due to circumstances beyond the control of the licensee and has found that "unanticipated technical problems with a satellite during construction" constitute such circumstances.<sup>6</sup> Such circumstances, which the Commission agreed warranted the extension of Loral SpaceCom's remaining milestones granted in the Order, still exist here.<sup>7</sup> In another recent case, the Commission granted a milestone extension requested by Intelsat LLC to correct technical problems that had arisen during construction. The Commission determined that the public interest would be best served by granting the request, in order to ensure that the satellite would be "technically

<sup>6</sup> In re Intelsat LLC Modification of Authorization to Launch C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit, Order and Authorization, 17 FCC Rcd. 2391 at ¶ 5 & n.12 (2002) ("Intelsat Order").

<sup>7</sup> Order at ¶ 9.



capable of providing services anticipated by the public,” and noted that the extension was “relatively brief and commensurate with the time needed to effect the necessary repairs and launch the satellite.”<sup>8</sup> Loral SpaceCom’s request is based on “tangible, physical, construction-related concerns, and thus, grantable under [the FCC’s] precedent.”<sup>9</sup> The extension sought here is relatively brief and is commensurate with the best current estimate of the time needed to solve novel and unanticipated technical design and construction problems to ensure that the satellite is technically capable of performing to meet specified customer needs and provide the services anticipated by the public.

The public interest will also be served by grant of this extension request. Telstar 8 is a state-of-the art, first of its kind C-, Ku- and Ka-band hybrid satellite. It is one of the most powerful communications satellites ever designed. The new and unique features of Telstar 8 translate into far more capacity than offered before as well as higher orbital spectrum and resource efficiency, resulting in lower costs to the public.

In the alternative, Loral SpaceCom seeks reconsideration of the International Bureau’s Order with respect to the milestones established for Telstar 8. The Bureau’s Order was released and effective April 1, 2003, one day after the construction completion milestone imposed on Loral. Based on the facts discussed above, it was impossible for Loral SpaceCom to meet the milestones set out in the Order. The public interest clearly warrants an extension of Loral SpaceCom’s remaining milestones and reconsideration of the milestones set forth in the Order, consistent with this request.

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<sup>8</sup> Intelsat Order at ¶ 5.

<sup>9</sup> Order at ¶ 9.

### III. REQUEST FOR WAIVER

Loral SpaceCom also requests a waiver of Sections 25.210(e) and (g) of the Commission's rules requiring full frequency re-use. The Commission's Order stated that, based on the International Bureau's review of the Telstar 8 modification application, the proposed C- and Ku-band South American coverage does not meet the FCC's requirements for full frequency re-use. The Commission deferred action on this part of Loral SpaceCom's modification application. Loral SpaceCom hereby requests a waiver of this requirement.

The Commission may waive its rules for good cause shown.<sup>10</sup> Indeed, waivers have been deemed appropriate if special circumstances warrant a deviation from the rule and such deviation would better serve the public interest and, further, when the relief requested would not undermine the policy objective of the rule.<sup>11</sup> The purpose of Sections 25.210(e) and (g) of the FCC's rules is "to derive the maximum capacity feasible from the assigned orbital location."<sup>12</sup> The proposed operation of Telstar 8 is consistent with these goals. As discussed in detail above, Telstar 8 uses spectrum much more efficiently than many current-generation satellites. It is, in effect, more than 1.5 times as capable as a typical spacecraft. Like current generation satellites, Telstar 8 employs full frequency re-use and polarization for its coverage of the United States.<sup>13</sup>

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<sup>10</sup> 47 C.F.R. § 1.3.

<sup>11</sup> Northeast Cellular Telephone Co. v. FCC, 897 F.2d 1166 (D.C. Cir. 1990); WAIT Radio v. FCC, 418 F. 2d 1153 (D.C. Cir. 1969).

<sup>12</sup> 47 C.F.R. § 25.210(e).

<sup>13</sup> In addition, Telstar 8 uses 500 MHz of Ka-band spectrum in the U.S., further increasing the satellite's efficiency. The satellite provides higher power and more capability than Telstar 4, the satellite it is replacing at 89° W.L.

In addition, Telstar 8 also re-uses 500 MHz of C- and Ku-band spectrum for coverage of South America, effectively increasing by 50% the orbital spectrum efficiency provided by current generation satellites.<sup>14</sup>

PanAmSat was recently granted a similar request for a waiver of these rules for the Galaxy III-C satellite.<sup>15</sup> At the time, Galaxy III-C was one of the largest satellites ever built. PanAmSat argued that technical adherence to the full-frequency re-use requirements would have put additional power budget strain on the already fully-loaded satellite.<sup>16</sup> The Commission recognized the efficient design of the satellite and PanAmSat's desire to be cautious with regard to the power budget and found good cause for a waiver. Similarly, Telstar 8 (as a tri-band, dual-region satellite providing dual polarization C- and Ku-band coverage of the U.S., single polarization C- and Ku-band coverage of South America and Ka-band coverage of the U.S.) is fully loaded with payload equipment in order to provide the most extensive coverage possible.

Whereas typical current-generation U.S. domestic hybrid satellites contain 24 C-band transponders and 24 Ku-band transponders, Telstar 8 includes 22 NAFTA C-band transponders (two are 72 MHz bandwidth), 24 NAFTA Ku-band transponders, 6 South America C-band transponders (72 MHz bandwidth), 12 South America Ku-band transponders, and 4 wide-bandwidth (500 MHz) Ka-band transponders. Telstar 8's total transponder count is 68, which represents more than a 40% increase over the number

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<sup>14</sup> The deployment of Telstar 8 at 89° W.L. does not prevent the future use of the second South American polarization from this location. That is, while Telstar 8 is operating, a future, additional satellite can be co-located with Telstar 8 to provide the second polarization of coverage to South America.

<sup>15</sup> In re PanAmSat Licensee Corp., Application for Authority to Launch and Operate a Replacement C/Ku Hybrid Fixed Satellite Service Space Station at 95° W.L., Order and Authorization, 17 FCC Rcd. 10483 (2002) ("Galaxy III-C Order"). However, unlike Telstar 8, Galaxy III-C could not reuse all frequencies in North America, in addition to South America.

<sup>16</sup> Galaxy III-C Order at ¶ 21.


of transponders on typical, current-generation U.S. domestic hybrid satellites. This increase in the number of transponders, which requires additional physical space, power, and thermal dissipation on the spacecraft, has been made possible by the increased capabilities of the SS/L FS 1300S class spacecraft. However, there is no additional, unused capacity remaining on the spacecraft. Consequently, it is not feasible to add the additional payload equipment needed to provide dual polarization and full frequency re-use for coverage of South America.

#### **IV. SUMMARY**

For the reasons discussed above, Loral SpaceCom requests that the Commission grant this milestones extension request or, in the alternative, Loral SpaceCom's request for reconsideration. Loral SpaceCom also requests that the Commission grant its request for a waiver of Sections 25.210(e) and (g) of the Commission's rules requiring full frequency re-use.

Respectfully submitted,

for LORAL SPACECOM CORPORATION



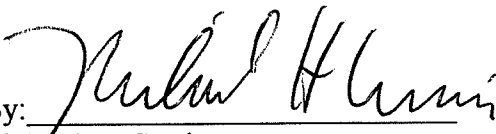
John P. Stern  
Deputy General Counsel  
Loral Space & Communications Ltd.  
1755 Jefferson Davis Highway, Ste. 1007  
Arlington, VA 22202-3501  
(703) 414-1060

May 1, 2003

## ENGINEERING CERTIFICATION

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this Application, of Loral SpaceCom Corporation, for extension of the completion of construction and launch milestones of the Telstar 8 satellite, that I am familiar with Parts 21 and 25 of the Commission's Rules; that I have either prepared or reviewed the engineering information contained in the underlying application; and that it is complete and accurate to the best of my knowledge.

Dated the 30th day of April 2003

By:   
Richard H. Currier  
Executive Vice President  
Engineering & Technical Operations  
Loral Skynet<sup>®1</sup>

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<sup>1</sup> Skynet is a registered trademark of Loral SpaceCom Corporation.

## DECLARATION AND STATEMENT OF VERIFICATION

I, the undersigned, John Brown, am Vice President of Satellite Engineering and Program Management for Loral Skynet, a division of Loral SpaceCom Corporation ("Loral SpaceCom"). I am supervisor of the Loral SpaceCom engineering and program management organization on site at the Space Systems/Loral ("SS/L") satellite manufacturing facility in Palo Alto, California. My principal responsibilities are acting as liaison between Loral SpaceCom and SS/L, monitoring the progress of the satellite's construction, ensuring conformance of the satellite's performance and operation to specification, accepting the results of design reviews and testing, and authorizing any changes to the satellite's specifications. I am made aware of every significant development in the Telstar 8 construction process on an ongoing basis. I hereby declare and verify that I have read the foregoing "Request for Extension of Milestones and Waiver or Petition for Reconsideration" and that the circumstances, justifications and other factual statements made therein are consistent with what I have observed during the manufacturing process or have otherwise been advised by SS/L and are therefore true, correct and accurate to the best of my knowledge, information and belief.

Loral SpaceCom Corporation

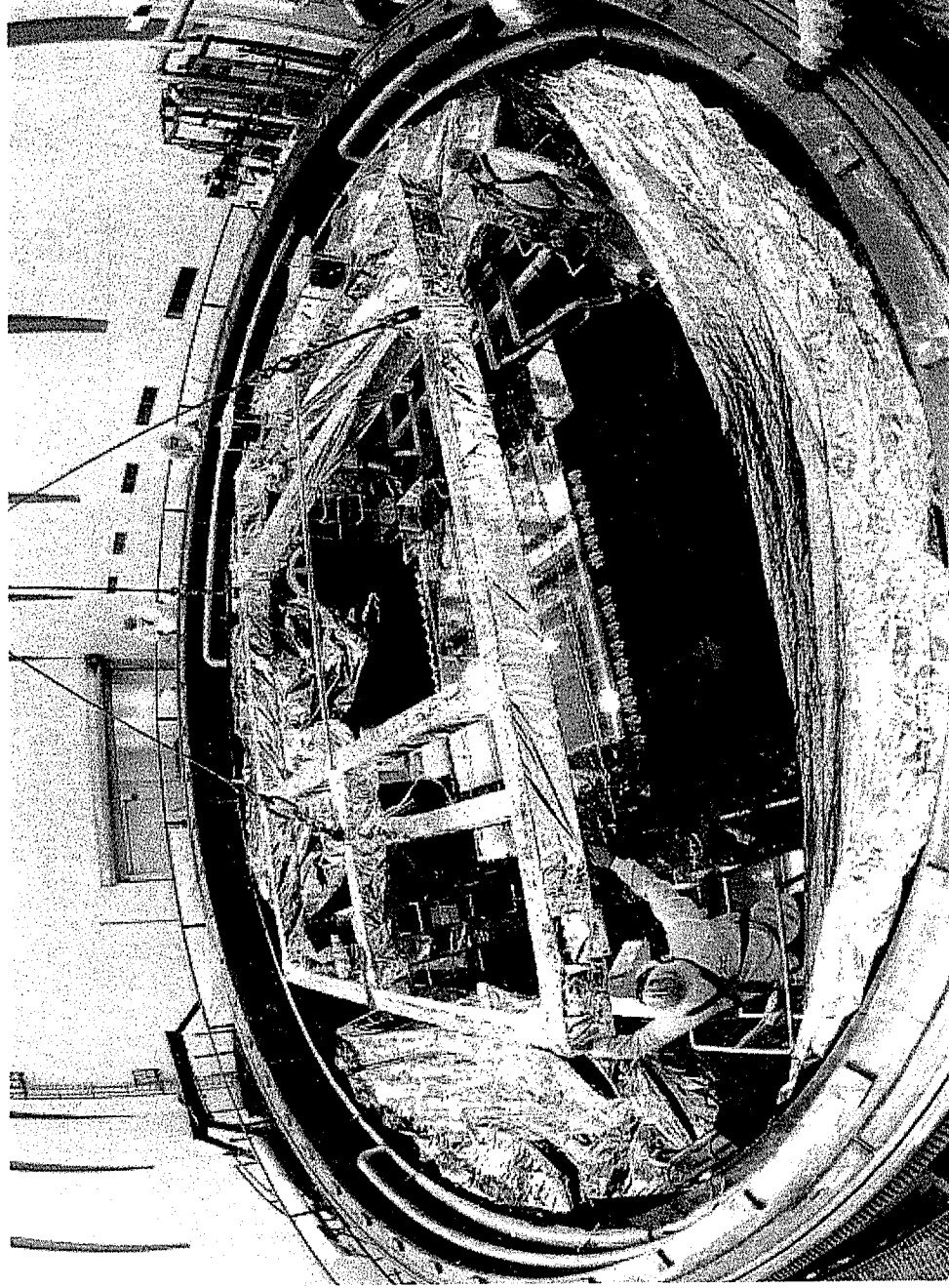
By: John V Brown  
Name: JOHN V BROWN

Title: Vice-President of Satellite Engineering  
and Program Management

April \_\_, 2003

**EXHIBIT 1**

# Telstar 8 Entering Thermal Vacuum Chamber

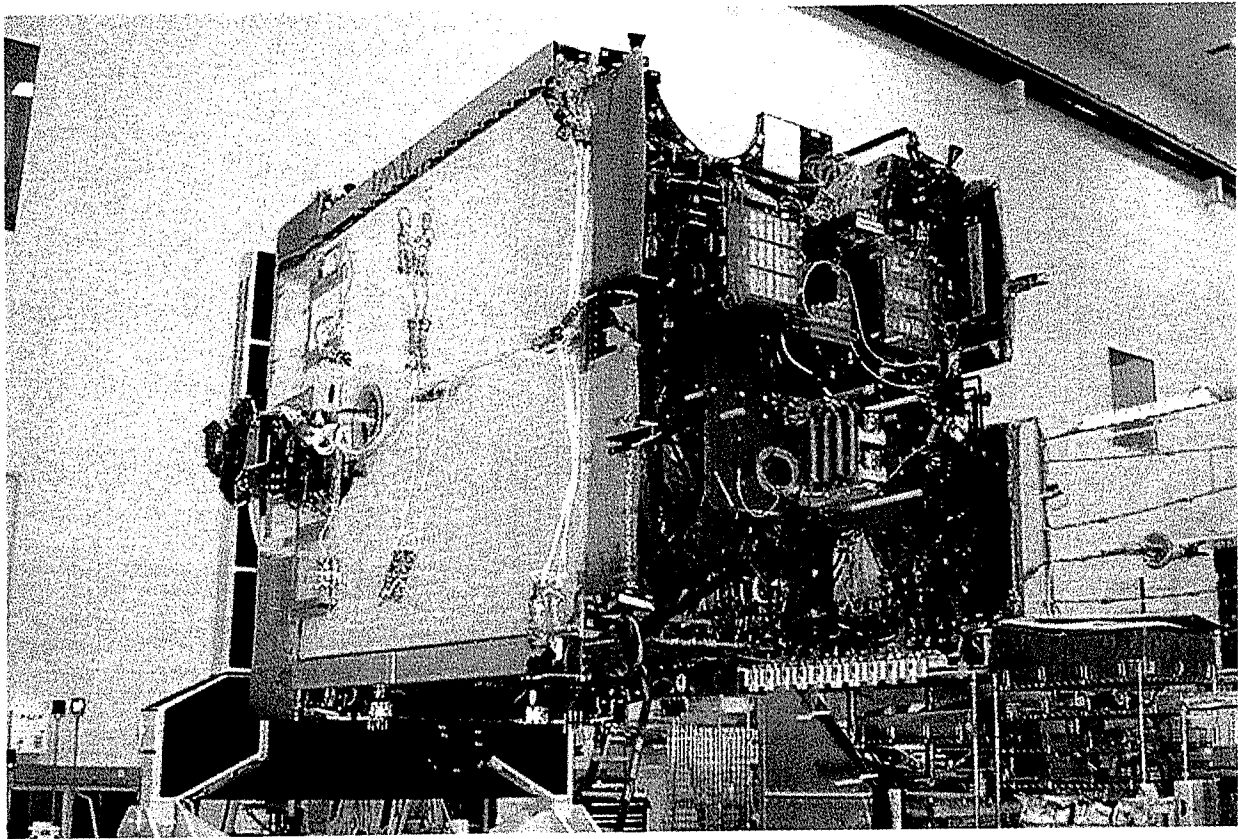


QUARTERLY EXECUTIVE REVIEW 04/2003

*Proprietary*

SPACE SYSTEMS  
**LORAL**





CERTIFICATE OF SERVICE

I, Dennette Manson, do hereby certify that on this 1st day of May, 2003 copies of the foregoing Request for Extension of Milestones and Waiver or Petition for Reconsideration were delivered by hand, unless otherwise indicated, to the following parties:

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Washington, DC 20554

Thomas S. Tycz, Chief  
Satellite and Radiocommunications Division  
International Bureau  
Federal Communications Commission  
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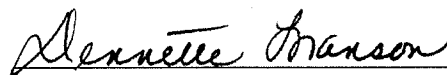
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\*Delivered by first class, postage prepaid mail