

06-13-2002



102121502

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

New
 Resubmission (Non-Recordation)
 Document ID#
 Correction of PTO Error
 Reel # Frame #
 Corrective Document
 Reel# Frame #

Conveyance Type

Assignment
 License
 Merger
 Security Agreement
 Change of Name
 Other
U.S. Government
(For Use ONLY by U.S. Government Agencies)
 Departmental File Secret File

6-10-02

Conveying Party(ies)

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Execution Date
Month Day Year

Name (line 2)

Second Party

Execution Date
Month Day Year

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City

State/Country

Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

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06/12/2002 11:44 AM

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Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

Correspondent Name and Address

Area Code and Telephone Number **(919) 286-8000**

Name **Steven D. Thomas**

Address (line 1) **Moore & Van Allen, PLLC**

Address (line 2) **2200 West Main Street**

Address (line 3) **Suite 800**

Address (line 4) **Durham, North Carolina 27705**

Pages Enter the total number of pages of the attached conveyance document including any attachments.

5

Application Number(s) or Patent Number(s)



Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

5751140

5586165

5915217

5448623

5594780

5400252

5526404

5655005

5317288

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

PCT

PCT

PCT

PCT

PCT

PCT

Number of Properties

Enter the total number of properties involved.

50

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41):

\$ **2,000.00**

Method of Payment:

Enclosed

Deposit Account

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

13-4365

Authorization to charge additional fees:

Yes

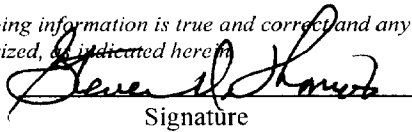
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Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated hereon.

Steven D. Thomas

Name of Person Signing


Signature

May 30, 2002
Date Signed

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Name (line 2)	<input type="text"/>
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Receiving Party(ies) **Mark if additional names of receiving parties attached**

Enter Additional Receiving Party

Name (line 1)	<input type="text"/>
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Address (line 1)	<input type="text"/>
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	City State/Country Zip Code

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Application Number(s) or Patent Number(s) **Mark if additional numbers attached**

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="5422647"/>	<input type="text" value="5349532"/>	<input type="text" value="5486399"/>
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**RECORDATION FORM COVER SHEET
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Receiving Party(ies) **Mark if additional names of receiving parties attached**
Enter Additional Receiving Party

Name (line 1)	<input type="text"/>			<input type="checkbox"/> If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative should be attached. (Designation must be a separate document from Assignment.)
Name (line 2)	<input type="text"/>			
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	City	State/Country	Zip Code	
Name (line 1)	<input type="text"/>			
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Patent Application Number(s)			Patent Number(s)		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="5172876"/>	<input type="text" value="5903837"/>	<input type="text" value="5083094"/>
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**RECORDATION FORM COVER SHEET
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Patent Application Number(s)			Patent Number(s)		
<input type="text"/>	<input type="text"/>	<input type="text"/>	5999047	6242976	4882733
<input type="text"/>	<input type="text"/>	<input type="text"/>	6034506	6188279	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	5939864	6292722	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	4503434	5948556	<input type="text"/>
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NOTICE
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United States Patent and Trademark Office

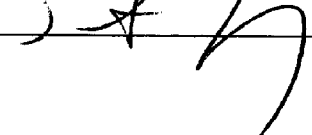
Ladies and Gentlemen:

Please be advised that pursuant to the Security Agreement dated as of December 21, 2001 (the "Security Agreement") by and among the Grantors party thereto (each an "Grantor" and collectively, the "Grantors") and Bank of America, N.A., as Collateral Agent (the "Collateral Agent") for the holders of the Secured Obligations referenced therein, the undersigned Grantor has granted a continuing security interest in and continuing lien upon, the patents and patent applications shown below to the Collateral Agent for the ratable benefit of the holders of the Secured Obligations:

The Grantors and the Collateral Agent, on behalf of the holders of the Secured Obligations, hereby acknowledge and agree that the security interest in the foregoing patents and patent applications (i) may only be terminated in accordance with the terms of the Security Agreement and (ii) is not to be construed as an assignment of any patent or patent application.

Very truly yours,

SPACE SYSTEMS/LORAL, INC.,
a Delaware corporation

By: 
Name:
Title:

Grantor's Address:

SPACE SYSTEMS/LORAL, INC.
c/o Loral SpaceCom Corporation
600 Third Avenue
New York, NY 10019

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Collateral Agent

By: _____
Name:
Title:

The Grantors and the Collateral Agent, on behalf of the holders of the Secured Obligations, hereby acknowledge and agree that the security interest in the foregoing patents and patent applications (i) may only be terminated in accordance with the terms of the Security Agreement and (ii) is not to be construed as an assignment of any patent or patent application.

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c/o Loral SpaceCom Corporation
600 Third Avenue
New York, NY 10019

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Collateral Agent

By: _____

Name:

Title:

STEVE A. ARONOWITZ
MANAGING DIRECTOR

Space Systems/Loral, Inc.

U.S. Patents

Issued Patents

Description	Patent No.	Issued
VOLTAGE CONVERTER WITH BATTERY DISCHARGE PROTECTION	5751140 ✓	05/12/98
SATELLITE TELECOMMUNICATIONS SYSTEM USING NETWORK COORDINATING GATEWAYS OPERATIVE WITH A TERRESTRIAL COMMUNICATION SYSTEM	5448623 ✓	09/09/95
WORLDWIDE SATELLITE TELEPHONE SYSTEM AND A NETWORK COORDINATING GATEWAY FOR ALLOCATING SATELLITE AND TERRESTRIAL GATEWAY RESOURCES	5526404 ✓	06/11/96
SATELLITE AND TERRESTRIAL TELEPHONE	5586165 ✓	12/17/96
SATELLITE COMMUNICATION SYSTEM THAT IS COUPLED TO A TERRESTRIAL COMMUNICATION NETWORK AND METHOD	5594780 ✓	01/14/97
WORLDWIDE TELECOMMUNICATIONS SYSTEM USING SATELLITES	5655005 ✓	08/05/97
WORLDWIDE TELECOMMUNICATIONS SYSTEM USING SATELLITES	5915217 ✓	06/22/99
SPACECRAFT EAST/WEST ORBIT CONTROL DURING A NORTH OR SOUTH STATIONKEEPING MANEUVER	5400252 ✓	03/21/95
CONTINUOUSLY VARIABLE ELECTRONICALLY CONTROLLED PHASE SHIFT CIRCUIT	5317288 ✓	5/31/94
MOBILE COMMUNICATION SATELLITE PAYLOAD	5422647 ✓	6/6/95
MOBILE COMMUNICATION SATELLITE PAYLOAD	5548292 ✓	8/20/96
MOBILE COMMUNICATION SATELLITE PAYLOAD	5623269 ✓	4/22/97
ACTIVE TRANSMIT PHASED ARRAY ANTENNA	5283587 ✓	2/1/94
COLLAPSIBLE APPARATUS FOR FORMING A PARABOLOID SURFACE	5257034 ✓	10/26/93
SPACECRAFT ATTITUDE CONTROL AND MOMENTUM UNLOADING USING GIMBALLED AND THROTTLED THURSTERS	5349532	9/20/94
COLLAPSIBLE APPARATUS FOR FORMING A DISH SHAPED SURFACE	5255006 ✓	10/19/93
DUAL FREQUENCY CIRCULARLY POLARIZED MICROWAVE ANTENNA	5241321 ✓	8/31/93
QUADRATURE AMPLITUDE MODULATION SYSTEM WITH COMPENSATION FOR TRANSMISSION SYSTEM CHARACTERISTICS	5237292 ✓	8/17/93
REPEATER DIVERSITY SPREAD SPECTRUM COMMUNICATION SYSTEM	5233626 ✓	8/3/93
SELF-SUPPORTING CONVEX COVER FOR SPACECRAFT	5486399 ✓	1/23/96
CONDUCTING PLANE RESONATOR STABILIZED OSCILLATOR	5204641 ✓	04/20/93
PUSH-PUSH RING RESONATOR OSCILLATOR	5289139 ✓	02/22/94
THERMAL CONTROL AND ELECTROSTATIC DISCHARGE LAMINATE	5273815 ✓	12/28/93
MINIATURE PLANAR FILTERS BASED ON DUAL MODE RESONATORS OF CIRCULAR SYMMETRY	5172084 ✓	12/15/92
SPIN REORIENTATION MANEUVER FOR SPINNING SPACECRAFT	5172876 ✓	12/22/92
SPIN REORIENTATION MANEUVER FOR SPINNING SPACECRAFT	5255878 ✓	10/26/93

Description	Patent No.	Issued
SEMI-SYSTOLIC ARCHITECTURE FOR DECODING ERROR-CORRECTING CODES	5157671 ✓	10/20/92
WIRELESS TELEPHONE/SATELLITE ROAMING SYSTEM	5303286 ✓	04/12/94
WIRELESS TELEPHONE/SATELLITE ROAMING SYSTEM	5715297 ✓	02/03/98
WIRELESS TELEPHONE/SATELLITE ROAMING METHOD	5903837 ✓	05/11/99
MINIATURE DUAL MODE PLANAR FILTERS	5136268 ✓	08/04/92
HYBRID DIELECTRIC RESONATOR/HIGH TEMPERATURE SUPERCONDUCTOR FILTER	5179074 ✓	01/12/93
CONFORMAL APERTURE FEED ARRAY FOR A MULTIPLE BEAM ANTENNA	5113197 ✓	05/12/92
DIELECTRIC MICROWAVE RESONATOR PROBE	5105158 ✓	04/14/92
SELECTIVE POWER COMBINER USING PHASE SHIFTERS	5083094 ✓	01/21/92
DUAL BAND FREQUENCY REUSE ANTENNA	5258768 ✓	11/02/93
METHOD AND APPARATUS FOR INCLINED ORBIT ATTITUDE CONTROL FOR MOMENTUM BIAS SPACECRAFT	5100084 ✓	03/31/92
DC CURRENT MONITOR	5053695 ✓	10/01/91
METHOD FOR CONTROLLING EAST/WEST MOTION OF A GEOSTATIONARY SATELLITE	5124925 ✓	06/23/92
LINEARIZER FOR USE WITH RF POWER AMPLIFIERS	5999047 ✓	12/7/99
LITHIUM ION SATELLITE BATTERY CHARGE CONTROL CIRCUIT	6034506 ✓	3/7/00
LITHIUM-ION BATTERY CHARGE CONTROL METHOD	5939864 ✓	8/17/99
LOSSLESS ARBITRARY OUTPUT DUAL MODE NETWORK	4503434 ✓	3/5/85
LOW COST BATTERY CHARGING SYSTEMS	6157161 ✓	12/5/00
LOW COST LINEARIZED CHANNEL AMPLIFIER FOR USE WITH HIGH POWER AMPLIFIERS	6242976 ✓	6/5/01
LOW COST MINIATURE BROADBAND LINEARIZER	6188279 ✓	2/13/01
MAGNETIC TORQUER CONTROL WITH THRUSTER AUGMENTATION	6292722 ✓	9/18/01
MASSIVELY PARALLEL SPACECRAFT BATTERY CELL MODULE DESIGN	5948556 ✓	9/7/99
METHOD AND APPARATUS FOR AN UNFURLABLE ISOMETRIC ANTENNA REFLECTOR	6081244 ✓	6/27/00
METHOD AND APPARATUS FOR COMBINING ENCODING AND MODULATION	4882733 ✓	11/21/89

May 30, 2002

Via Certified Mail

7001 2510 0006 1088 4728

Commissioner of Patents and Trademarks
BOX ASSIGNMENTS
Washington, D.C. 20231

Steven D. Thomas
Attorney at Law

T 919 286 8122
F 919 416 8322
steventhomas@mvalaw.com

Moore & Van Allen PLLC

Offices:
Suite 800
2200 West Main Street
Durham, NC 27705-4658

Mailing Address:
Post Office Box 3843
Durham, NC 27702-3843

Re: Recordation of Notice of Grant of Security Interest in Patents.
Attorney Docket Number: 017625.1920

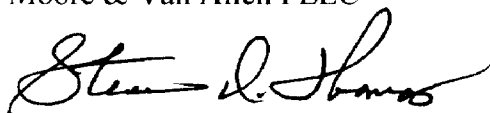
Dear Sir/Madam:

Please find enclosed the following documents for recording with the Patent and Trademark Office.

1. Recordation Form Cover Sheet - Patents;
2. Notice of Grant of Security Interest in Patents, executed December 21, 2001, between Space Systems/Loral, Inc. and Bank of America, N.A., as Collateral Agent;
3. Check No. 34302 in the amount of Two Thousand Dollars (\$2,000.00);
4. Postcard acknowledgment of filed Notice of Grant of Security Interest in Patents documents.

Sincerely yours,

Moore & Van Allen PLLC



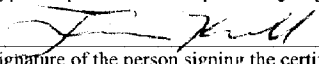
Steven D. Thomas

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, BOX ASSIGNMENTS, Washington, DC 20231.

TIM KROLL

(Typed or printed name of person signing the certificate)



(Signature of the person signing the certificate)

5/30/02

(Date of Signature)

Charlotte, NC
Raleigh, NC
Charleston, SC