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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
Docket 68746

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
Lockheed Martin Corporation

2. Name and address of receiving party(ies):  
General Atomics  
3550 General Atomics Court  
San Diego, CA 92186-9784

Additional name(s) of conveying party(ies) attached?  
 Yes  No

3. Nature of conveyance:

- Assignment       Merger
- Security Agreement    Change of Name
- Other \_\_\_\_\_

Execution Date: February 29, 2000

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Appln. No.(s):

B. Patent No.(s) 5,010,255; 5,050,293; 5,228,351;  
5,347,251; 5,361,055; 5,389,907; 5,423,185; 5,479,144;  
5,565,763; 5,583,319; 5,593,949; 5,600,095; 5,812,353

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

James J. Schumann  
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120 S. La Salle Street, Suite 1600  
Chicago, IL 60603-3406

6. Total number of applications and patents involved: 13

7. Total fee (37 CFR 3.41): \$ 520.00

- Enclosed
- Authorized to be charged to deposit account

8. Deposit account number: 06-1135

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9. 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.*

James J. Schumann  
Name of person signing

Signature

Date: December 12, 2001

10. Total number of pages including cover sheet, attachments and document: 3

01/07/2002 LNUELLER 00000128 061135 5010255  
01 FC:581 520.00 CH

**List of Patents**

<b>U. S. PATENT NO.</b>	<b>TITLE OF PATENTS</b>	<b>ISSUE DATE</b>
5,010,255	HIGH CURRENT MAGNETOHYDRODYNAMIC GIGAWATT PULSE GENERATOR	04/23/91
5,050,293	METHOD OF MAKING A LAMINATED CONDUCTOR FOR HIGH CURRENT COILS	09/24/91
5,228,351	ARRANGEMENT FOR MEASURING THE FIELD ANGLE OF A MAGNETIC FIELD AS A FUNCTION OF AXIAL POSITION WITHIN A MAGNET BORE TUBE	07/20/93
5,347,251	GAS COOLED HIGH VOLTAGE LEADS FOR SUPERCONDUCTING COILS	09/13/94
5,361,055	PERSISTENT PROTECTIVE SWITCH FOR SUPERCONDUCTIVE MAGNETS	11/01/94
5,389,907	HIGH TEMPERATURE SUPERCONDUCTOR MULTIPLE CORRECTORS FOR PARTICLE ACCELERATORS	02/14/95
5,423,185	HIGH EFFICIENCY REFLECTIVE OPTICAL SYSTEM	06/13/95
5,479,144	MULTIPLE CONNECTOR FOR ACCELERATOR MAGNET ENDS	12/26/96
5,565,763	THERMOELECTRIC METHOD AND APPARATUS FOR CHARGING SUPERCONDUCTING MAGNETS	10/15/96
5,583,319	LOW RESISTANCE SUPERCONDUCTOR CABLE SPLICE AND SPLICING METHOD	12/10/96
5,593,949	HIGH TEMPERATURE CONDUCTOR PROBES FOR DETERMINING LIQUID LEVEL OF CRYOGENS	01/14/97
5,600,095	SPLICE FOR A SUPERCONDUCTING CABLE- IN-CONDUIT CONDUCTOR	02/04/97
5,812,353	CURRENT LIMITER FOR ELECTRICAL TRANSMISSION/DISTRIBUTION PROTECTION SYSTEMS	09/22/98

ASSIGNMENT  
of  
U.S. PATENTS and PATENT APPLICATIONS

LOCKHEED MARTIN CORPORATION ("ASSIGNOR"), a Maryland corporation and successor in interest to Martin Marietta Corporation, for Ten Dollars (\$10.00) and other good and valuable consideration the receipt of which is hereby acknowledged, hereby sells, assigns, transfers and sets over to GENERAL ATOMICS, a California corporation, 3550 General Atomics Court, San Diego, CA ("ASSIGNEE"), its successors and assigns, the entire right, title and interest of ASSIGNOR in and to the said inventions covered by said Letters Patent and applications listed in APPENDIX A hereof and in and to each and everyone of said Letters Patent and applications and all reissues, divisions and extensions thereof and legal equivalents thereof in all foreign countries, including all rights of action arising from said Letters Patent and applications, and all claims for damages by reason of past infringement thereof and the right to sue and collect such damages the same to be held and enjoyed by ASSIGNEE for its own use and benefit and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent are granted or for Letters Patent resulting from said patent applications, as fully and entirely as the same would have been held by ASSIGNOR had this assignment not been made.

IN WITNESS WHEREOF, LOCKHEED MARTIN CORPORATION has cause this Assignment to be executed by its duly authorized representative this 28<sup>TH</sup> day of SEPTEMBER 1998.

ATTEST:

By: \_\_\_\_\_  
GAYLWIN

LOCKHEED MARTIN CORPORATION



By: PATRICK M. HOGAN

Title: Vice President and  
Associate General Counsel

U.S. Patents and Applications  
(Space Magnetics)

Patent Number	Publication Number	Date	Priority Date	Inventor	Expiration Date	Abstract
DA-00213	335,216	24-Nov-1978	4,277,768	07-Jul-1981	24-Nov-1998	SMD-6661 Superconducting Magnetic Coil
DA-00217	015,270	26-Feb-1979	4,187,387	05-Feb-1980	26-Feb-1999	SMD-6701 Electrical Lead for Cryogenic Devices
DA-00236	194,566	06-Oct-1980	4,371,943	01-Feb-1983	06-Oct-2000	SMD-6811 External Means for Detecting Normal Zones in Superconducting Magnets or Coils
DA-00244	275,923	22-Jun-1981	4,348,710	07-Sep-1982	22-Jun-2001	SMD-6854 Method and Structure for Vanalons In Vapor Cooled Lead Resistance of Superconducting Magnets
DA-00246	303,731	21-Sep-1981	4,482,878	13-Nov-1984		SMD-6856 Integrated Conductor and Coil Structure for Superconducting Coils
DA-00304	066,929	29-Jun-1987	4,851,789	01-Mar-1983	21-Sep-2001	SMD-6870 Electronic Circuit for the Detection and Analysis of Normal Zones in a Superconducting Coil
DA-00296	946,986	29-Dec-1986	4,760,365	25-Jul-1989	29-Jun-2007	SMD-7019 High Uniformity Magnetic Field Using Passive Compensation Coils
DA-00300	010,667	04-Feb-1987	4,789,349 (E2)	26-Jul-1988	29-Dec-2006	SMD-7026 Metallic Turn to Turn Insulation for High Field Resistive Coils
DA-00302	061,761	15-Jun-1987	4,894,556	06-Dec-1988	04-Feb-2007	SMD-7077 Thermal Contraction Conductor Joint
DA-00338	437,702	17-Nov-1989	5,050,283	16-Jan-1990	15-Jun-2007	SMD-7124 Hybrid Pulse Power Transformer
DA-00321	227,974	11-Aug-1988	4,954,127	02-Jun-1992	02-Jun-2009	SMD-7136 Laminated Conductor for High Current Coils
DA-00340	461,510	05-Jan-1990	5,010,255	04-Sep-1990	11-Aug-2008	SMD-7146 Hybrid Transformer Current Zero Switch
DA-00352	344,308	06-Apr-1989	4,944,212	23-Apr-1991	05-Jan-2010	SMD-7154 High Current MHD Gigawatt Pulse Generator (HOMGPG)
DA-00345	Abandoned	05-Mar-1990		31-Jul-1990	06-Apr-2009	SMD-7165 Magnetic Advanced Hybrid (MAH) Gun
DA-00367	563,654	13-May-1991	5,173,568 (E1)	22-Dec-1984		SMD-7200 High Efficiency Coaxial Launcher
DA-00387	730,141	15-Jul-1991		28-Sep-1993	13-May-2011	SMD-7254 Integrated Superconducting Reconnecting Magnetic Gun
DA-00354	540,981	20-Jun-1990		08-Jun-1993	18-Oct-2011	SMD-7274 Electromagnetic Sabot Separation Technique
DA-00384	777,826	15-Oct-1991	5,228,351	18-Oct-1993		SMD-7291 Phase Change Cooling Scheme for an Electromagnetic Launch
DA-00421	155,413	16-Nov-1993	5,347,251	20-Jul-1993	15-Oct-2011	SMD-7308 A Method for Switching off Large Solenoids used in Electromagnetic Launchers
DA-00787	251,211	31-May-1994	5,593,949	13-Sep-1994	16-Nov-2013	SMD-7324 Gas Cooled Leads for Superconducting Coils
DA-00422	154,205	19-Nov-1993	5,565,763	14-Jan-1987	31-May-2014	SMD-7344 High Temperature Conductor Probes for Determining Liquid Level of Cryogenics
DA-00409	087,829	06-Jul-1993	5,423,185	15-Oct-1996		SMD-7356 Thermoelectric Method and Apparatus for Charging Superconducting Magnets
DA-00423	169,092	17-Dec-1993	5,361,055	13-Jun-1995	06-Jul-2013	SMD-7388 High Efficiency Reflective Optical Systems, Formerly entitled Superconductor Surface Treatment Using the Material
DA-00415	124,125	17-Sep-1993		01-Nov-1994	17-Dec-2013	SMD-7430 Persistent Protective Switch for Superconductive Magnets
DA-00419	140,367	21-Oct-1993	5,583,319	10-Dec-1996		SMD-7431 Method and Apparatus for Locating Magnetic Center of an Accelerator Magnet
DA-00417	133,687	07-Oct-1993	5,389,907	14-Feb-1995	07-Oct-2013	SMD-7436 Low Resistance Superconductor Cable Splice and Splicing Method
DA-00416	130,329	01-Oct-1993	5,479,144	26-Dec-1995	01-Oct-2013	SMD-7437 High Temperature Superconductor Multipole Correctors for Particle Accelerators
DA-00418	133477	07-Oct-1993				SMD-7451 Multiple Corrector for Accelerator Magnet Ends
DA-00739	08276,808	18-Jul-1994	5,600,095	04-Nov-1997	18-Jul-2014	SMD-7457 Persistent Current Harmonic Corrector for Superconducting Particle Accelerators
DA-00730	08730,080					0574 PAT Splice Design for a Superconducting Cable-in-Conduit Conductor Current Limiter for Electrical Transmission/Distribution Protection System

RECORDED: 12/17/2001

PATENT REEL: 012418 FRAME: 0221