TO THE ASSISTANT COMMISSIONER FO

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I documents or copy thereof.

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1.	Name of conveying party(ies): (If multiple assignors, list numerically) 1) John A. Roscigno 2) Craig W. Hodgson 3) Donald A. Frederick 4) William C. Knaack Additional name(s) of conveying party(ies) attached? () Yes (X) No	2. Name and address of receiving party(ies): Name: Litton Systems, Inc. Internal Address: Street Address: 21240 Burbank Boulevard City: Woodland Hills State: CA ZIP: 91367 Additional name(s) of receiving party(ies) at hed? () Yes (X) No							
3.	Nature of conveyance:	4. Application number(s) or Patent number(s):							
	(X) Assignment () Merger () Security Agreement () Change of Name () Other: Execution Date: (If multiple assignors, list execution as in numerical order corresponding to numbers indicated in love) 1) 1/7/00 2) 1/7/00 3) 1/7/00 4) 1/7/00	 () Application(s) filed herewith Execution Date(s): (X) Patent Application No.: 09/429,048 Filing Date: October 29, 1999 () Patent No.: Issue Date: Additional numbers attached? () Yes (X) No 							
5.	Name and address of party to whom correspondence concerning document should be mailed: Name: Jerry T. Sewell	 Total fee (37 CFR 3.41): \$40 (X) Enclosed (X) Authorized to be charged to deposit account if any additional fees are required, or to credit any overpayment Deposit account number: 11-1410 Please charge this account for any additional fees which may be required, or credit any overpayment to this account. 							
6.	Total number of applications and patents involved: 1								
9. Tota									

Mail documents to be recorded with required cover sheet information to:

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Assistant Commissioner for Patents Box Assignments Washington, D.C. 20231

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> PATENT REEL: 010571 FRAME: 0120

Application No. 09/429,048 Filing Date: October 29, 1999

ASSIGNMENT

WHEREAS, We, John A. Roscigno, a United States citizen, residing at 25914 Coleridge Place, Stevenson Ranch, California 91381, Craig W. Hodgson, a United States citizen, residing at 2807 Irongate Place, Thousand Oaks, California 91362, Donald A Frederick, a United States citizen, residing at 3490 High Point Place, Simi Valley, California 93065, and William C. Knaack, a United States citizen, residing at 7829 Faust Avenue, West Hills, California 91304 have invented certain new and useful improvements in an ACOUSTIC SENSING SYSTEM FOR DOWNHOLE SEISMIC APPLICATIONS UTILIZING AN ARRAY OF FIBER OPTIC SENSORS, for which we filed U.S. Patent Application No. 09/429,048 on October 29, 1999;

AND WHEREAS, LITTON SYSTEMS, INC. (hereinafter "ASSIGNEE"), a Delaware corporation, with a principal place of business at 21240 Burbank Boulevard, Woodland Hills, California 91367, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said ASSIGNEE, successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

WITNESS my hand and official seal.

[SEAL]

instrument.

DAWN HROMADKA
Commission: # 1201249
Notary Public - California
Los Angeles County
My Comm. Expires Nov 27, 2002

Notary Signature

PATENT REEL: 010571 FRAME: 0121

Page 2 IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 7th day of January, 2000. STATE OF CALIFORNIA COUNTY OF On Kin 7 2000, before me, Craig W. Modgson, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that they executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. [SEAL] DAWN HROMADKA Commission # 1201249 Notary Public - California Los Angeles County My Comm. Expires Nov 27, 2002 IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 7th day of JANJAKY, 2000. STATE OF CALIFORNIA COUNTY OF On ruce 1200, before me, Donald A. Frederick, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted. executed the instrument. WITNESS my hand and official seal. [SEAL] DAWN HROMADIKA Commission # 120:249

> Notary Public - California Los Angeles County Vly Comm. Expires Nov 27, 2002

Application No. 09/429,048
Filing Date: October 29, 1999

PATENT Attorney Docket No. LITTONP.016A

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day of _

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STATE OF CALIFORNIA

COUNTY OF

ss.

On finite of the personally appeared William C. Knaack, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Notary Signature

JTS-3984.DOC 2000104/2 DAWN HROMADKA
Commission # 1201249
Notary Public - California
Los Angeles County
My Comm. Expires Nov 27, 2002

PATENT REEL: 010571 FRAME: 0123

RECORDED: 02/07/2000