

FORM PTO-1619A  
Expires 06/30/99  
OMB 0651-0027



11-04-1998



100868163

U.S. Department of Commerce  
Patent and Trademark Office  
PATENT

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PATENTS ONLY

4,414,754

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☐ Resubmission (Non-Recordation)  
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☐ Correction of PTO Error  
Reel #  Frame #   
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Reel #  Frame #

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☐ License ☐ Change of Name  
☐ Merger ☐ Other   
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☐ Departmental File ☐ Secret File

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**Correspondent Name and Address**

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(504) 733-6000

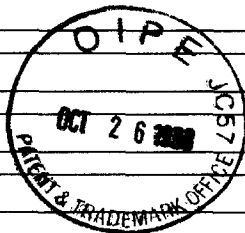
Name James T. Cronvich

Address (line 1) The Laitram Corporation

Address (line 2) 220 Laitram Lane

Address (line 3) Harahan, La 70123

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**Pages**

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

# 9

**Application Number(s) or Patent Number(s)**

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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)

08/950,827

09/094,487

4,414,754

4,471,534

4,671,120

09/043,447

4,425,716

4,503,621

4,698,912

09/043,458

4,443,795

4,631,711

4,711,194

If this document is being filed together with a new Patent Application, enter the date the patent application was

Month Day Year

**Patent Cooperation Treaty (PCT)**

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

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**Number of Properties**

Enter the total number of properties involved.

# 29

**Fee Amount**

Fee Amount for Properties Listed (37 CFR 3.41):

\$ 1,160.00

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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 herein.

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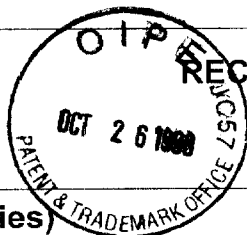
Name of Person Signing

James T. Cronvich

Signature

Oct. 23, 1998

Date

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## Application Number(s) or Patent Number(s)

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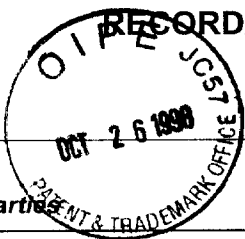
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## Patent Application Number(s)

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## Patent Number(s)

4,720,631	5,200,930	5,359,575
4,725,995	5,201,128	5,378,864
4,912,684	5,214,617	5,418,757
5,031,159	5,214,612	5,507,243
5,142,507	5,321,668	5,529,011



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**PATENT ASSIGNMENT  
TO  
DigiCourse, Inc.**

WHEREAS, The Laitram Corporation, a corporation of the State of Louisiana, having a place of business at 220 Laitram Lane, Harahan, Louisiana 70123, warrants that it is the owner of the entire right, title, and interest in and to the patents or patent applications indicated below;

WHEREAS, DigiCourse, Inc., a corporation of the State of Louisiana, having a place of business at 5200 Toler Street, Harahan, Louisiana 70123, is desirous of acquiring the entire right, title, and interest in and to the patents or patent applications identified below;

NOW THEREFORE, be it known by all whom it may concern that for and in consideration of Ten Dollars (\$10.00), the receipt of which is hereby acknowledged, and other good and valuable consideration, The Laitram Corporation does hereby assign, sell, and transfer unto DigiCourse, Inc., for the territory of the United States of America and the entire world, its entire right, title, and interest in and to the following patents or patent applications, including all priority rights for patent applications foreign to the United States of America, and the right to collect damages, lost profits, and/or attorney's fees for any and all past infringements of said patents:

<u>Country</u>	<u>Patent No.</u>	<u>Title</u>	<u>Issue Date</u>
United States	4414754	HIGH RESOLUTION COMPASS CARD POSITION DECODER	15NO1983
United States	4425716	FLOATING NON-GIMBALLED COMPASS	17JA1984
United States	4443795	REMOTE INDICATOR FOR DISPLAYING TRANSMITTED DATA BY ANGULAR DISPLACEMENT	17AP1984
United States	4471534	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	18SE1984
United States	4503621	SOLID STATE COMPASS	12MR1985
United States	4631711	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	23DE1986
United States	4671120	COMBINED HEADING AND DEPTH SENSOR	09JE1987

<u>Country</u>	<u>Patent No.</u>	<u>Title</u>	<u>Issue Date</u>
United States	4698912	MAGNETIC COMPASS CALIBRATION	13OC1987
United States	4711194	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	08DE1987
United States	4720631	ELECTRO-OPTICAL COMPASS CARD WHEREIN TRANSMISSIVE MEMBER HAS RANDOM PATTERNS	19JA1988
United States	4725995	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	16FE1988
United States	4912684	SEISMIC STREAMER COMMUNICATION SYSTEM	27MR1990
United States	5031159	HYDROACOUSTIC RANGING SYSTEM	09JL1991
United States	5142507	HYDROACOUSTIC RANGING SYSTEM	25AU1992
United States	5200930	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	06AP1993
United States	5201128	MINIATURE GIMBAL MOUNTED MAGNETIC FIELD DETECTORS	13AP1993
United States	5214617	HYDROACOUSTIC RANGING SYSTEM	25MY1993
United States	5214612	SWING PLATE LATCH MECHANISM	25MY1993
United States	5321668	HYDROACOUSTIC RANGING METHOD USING BOTTOM REFLECTIONS	14JE1994
United States	5359575	UNDERWATER PULSE TRACKING SYSTEM	25OC1994
United States	5378864	NON-RESETTABLE PRESSURE- ACTUATED SWITCH	03JA1995
United States	5418757	LONG LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	23MY1995
United States	5507243	CONNECTOR FOR UNDERWATER CABLES	16AP1996
United States	5529011	CONNECTOR FOR UNDERWATER CABLES	25JE1996

<u>Country</u>	<u>Patent No.</u>	<u>Title</u>	<u>Issue Date</u>
United States	5709964	MODULAR BATTERY PACK	20JA1998
Australia	644843	HYDROACOUSTIC RANGING SYSTEM	23DE1993
Australia	656084	SWING PLATE LATCH MECHANISM	19JA1995
Australia	669817	UNDERWATER PULSE TRACKING SYSTEM	09OC1996
Australia	682763	LONG LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	16OC1997
Australia	689186	CONNECTOR FOR UNDERWATER CABLES	09JL1998
Canada	1056594	ELECTROMAGNETIC COMPASS	19JE1979
Canada	1111239	PHOTOELECTRIC BOREHOLE SURVEYING APPARATUS WITH A MAGNETIC COMPASS	27OC1981
Canada	1193094	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	10SE1985
Canada	1194291	SOLID STATE COMPASS	01OC1985
Canada	1207073	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	02JL1986
Canada	1260772	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	26SE1989
Canada	1270635	MAGNETIC COMPASS CALIBRATION	26JE1990
Canada	2099144	SWING PLATE LATCH MECHANISM	01SE1998
Canada	2130217	UNDERWATER PULSE TRACKING SYSTEM	17FE1998
Canada	2087552	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	25AU1998
France	EP0110230	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	02SE1987
France	EP0111265	SOLID STATE COMPASS	27JL1988

<u>Country</u>	<u>Patent No.</u>	<u>Title</u>	<u>Issue Date</u>
France	EP0110229	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	01FE1989
France	EP0193215	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	21NO1991
France	EP0225493	MAGNETIC COMPASS CALIBRATION	22JL1992
France	EP0330784	SEISMIC STREAMER COMMUNI- CATION SYSTEM	07JL1993
France	EP0331262	METHOD OF CALIBRATING A COMPASS HEADING	21AU1996
France	EP0447783	HYDROACOUSTIC RANGING SYSTEM	23AP1997
France	EP0581441	SWING PLATE LATCH MECHANISM	27AU1997
France	EP0552769	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	12NO1997
France	EP0686553	LONG LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	15JL1998
Great Britain	EP0110230	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	02SE1987
Great Britain	EP0111265	SOLID STATE COMPASS	27JL1988
Great Britain	EP0110229	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	01FE1989
Great Britain	EP0193215	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	21NO1991
Great Britain	EP0225493	MAGNETIC COMPASS CALIBRATION	22JL1992
Great Britain	EP0330784	SEISMIC STREAMER COMMUNI- CATION SYSTEM	07JL1993
Great Britain	2241330	HYDROACOUSTIC RANGING SYSTEM	14SE1994
Great Britain	EP0331262	METHOD OF CALIBRATING A COMPASS HEADING	21AU1996
Great Britain	EP0581441	SWING PLATE LATCH MECHANISM	27AU1997

<u>Country</u>	<u>Patent No.</u>	<u>Title</u>	<u>Issue Date</u>
Great Britain	EP0552769	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	12NO1997
Great Britain	EP0686553	LONG LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	15JL1998
Germany	P3373363.5-08	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	02SE1987
Germany	P3377519.8-08	SOLID STATE COMPASS	27JL1988
Germany	P3379113.9-08	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	01FE1989
Germany	P3682517.4-08	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	06DE1991
Germany	P3686138.3-08	MAGNETIC COMPASS CALIBRATION	22JL1992
Germany	P3882221.0	SEISMIC STREAMER COMMUNICATION SYSTEM	07JL1993
Germany	P69125747.7-08	HYDROACOUSTIC RANGING SYSTEM	23AP1997
Germany	P69313380.5	SWING PLATE LATCH MECHANISM	27AU1997
Germany	P69315094.7-08	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	12NO1997
Germany	P69507362.6-08	LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	15JL1998
Italy	EP0225493	MAGNETIC COMPASS CALIBRATION	22JL1992
Japan	1672961	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	12JE1992
Japan	1780280	SOLID STATE COMPASS	13AU1993
Japan	1838695	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	25AP1994
Japan	2549283	MAGNETIC COMPASS CALIBRATION	08AU1996

<u>Country</u>	<u>Patent No.</u>	<u>Title</u>	<u>Issue Date</u>
Netherlands	EP0110230	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	02SE1987
Netherlands	EP0111265	SOLID STATE COMPASS	27JL1988
Netherlands	EP0110229	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	01FE1989
Netherlands	EP0447783	HYDROACOUSTIC RANGING SYSTEM	23AP1997
Netherlands	EP0581441	SWING PLATE LATCH MECHANISM	27AU1997
Netherlands	EP0552769	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	12NO1997
Netherlands	EP0686553	LONG LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	15JL1998
New Zealand	237024	HYDROACOUSTIC RANGING SYSTEM	15SE1993
Norway	165003	REMOTE READING COMPASS WITH 360 DEGREE ROLL CAPABILITY	05DE1990
Norway	165774	SYSTEM FOR REMOVABLY HOUSING AND ALIGNING COMPONENTS IN A TOWED ARRAY	10AP1991
Norway	166976	SOLID STATE COMPASS	25SE1991
Norway	169922	STREAMER INTERFACE ADAPTER CABLE MOUNTED LEVELER	19AU1992
Norway	172912	SEISMIC STREAMER COMMUNICATION SYSTEM	22SE1993
Norway	302720	HYDROACOUSTIC RANGING SYSTEM	14AP1998
Norway	303093	TWO-WIRE MULTI-CHANNEL STREAMER COMMUNICATION SYSTEM	25MY1998
Norway	303194	SWING PLATE LATCH MECHANISM	08JE1998
Singapore	1597/94	HYDROACOUSTIC RANGING SYSTEM	29NO1994

<u>Country</u>	<u>Patent Application Serial Number</u>	<u>Title</u>	<u>Filing Date</u>
United States	08/950827	UNDERWATER DEVICE WITH A SACRIFICIAL LATCH MECHANISM	15OC1997
United States	09/043447	COIL SUPPORT DEVICE FOR AN UNDERWATER CABLE	20MR1998
United States	09/043458	ELECTRICAL POWER DISTRIBUTION AND COMMUNICATION SYSTEM FOR AN UNDER- WATER CABLE	20MR1998
United States	09/094487	DEPTH CONTROL DEVICE FOR AN UNDER- WATER CABLE	10JE1998
Australia	73751/96	COIL SUPPORT DEVICE FOR AN UNDER- WATER CABLE	20SE1996
Australia	72419/96	ELECTRICAL POWER DISTRIBUTION AND COMMUNICATION SYSTEM FOR AN UNDER- WATER CABLE	20SE1996
Australia	69997/98	DEPTH CONTROL DEVICE FOR AN UNDER- WATER CABLE	09JE1998
Canada	2036124	HYDROACOUSTIC RANGING SYSTEM	11FE1991
Canada	2143245	CONNECTOR FOR UNDERWATER CABLES	23FE1995
Canada	2149101	LONG LIFE BATTERY OPERATED ACOUSTIC UNDERWATER BUOY RELEASE SYSTEM	10MY1995
Canada	2232570	COIL SUPPORT DEVICE FOR AN UNDER- WATER CABLE	20SE1996
Canada	2232562	ELECTRICAL POWER DISTRIBUTION AND COMMUNICATION SYSTEM FOR AN UNDER- WATER CABLE	20SE1996
Canada	2240223	DEPTH CONTROL DEVICE FOR AN UNDER- WATER CABLE	10JE1998
European Patent Convention	94306061.6	UNDERWATER PULSE TRACKING SYSTEM	17AU1994