From: Graybeal Jackson LLP 4254551046 To: USPTO

USPTO

10/26/2008 12:40:58 PM

3/024 PAGE

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

10/22/2008 700388649

Corrective Cover Sheet

Date: 10/22/2008 Time: 2:22:54 PM

Page 3 of 22

Furnt PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office				
RECORDATION FORM COVER SHEET					
Docket Number: 1934-048-03 PATENT					
	e record the attached documents or the new address(es) below				
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)				
See Attached	Name: Lockheed Martin Corporation				
	Internal Address:				
!					
Additional name(s) of conveying party(les) attached? Yes No					
3. Nature of conveyance/Execution Date(s):	Street Address: B801 Rockladge Drive				
Execution Date(s) See Attached					
Assignment Merger	04. p.4				
Security Agreement Change of Name	City. Bethesda				
Joint Research Agreement	State: Maryland				
Government Interest Assignment	Country: US Zip:20817				
Executive Order 9424, Confirmatory License	COUNTY, US				
Other	Additional name(s) & address(es) attached? 🔲 Yes 🗹 No				
4. Application or patent number(s):	document is being filed together with a new application.				
A. Patent Application No.(s)	B. Patent No.(s)				
12/152,274					
!					
Additional resembles A	ached? Yes ()No				
	Total number of applications and patents				
5. Name and address to whom correspondence concerning document should be mailed:	involved: 1				
Name: Bryan A. Santarelli					
	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00				
Internal Address:	Authorized to be charged by credit card				
	Authorized to be charged to deposit account				
Street Address: 155 - 108th Avenue NE, Suite 350	Enclosed				
	None required (government interest not affecting title)				
City: Bellevue	8. Payment Information				
State:WA Zip: 98904	a. Credit Card Last 4 Numbers				
	Expiration Date				
Phone Number: 425-455-5575	Deposit Account Number 07-1897				
Fex Number: 425-455-1046	Mothorized User Name				
Email Address: bryans@graybeal.gom					
9. Signature:	August 18, 2008				
Signature	Oate				
Bryan A Santarolli Name of Payson Signing	Total number of pages including cover sheet, attachments, and documents:				

Documents to be recorded (including cover sheet) should be taxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.D.Box 1450, Alexandria, V.A. 22313-1450

Name of Person Signing

PATENT REEL: 021836 FRAME: 0351

700390960

10/26/2008 12:40:58 PM

Date: 11/13/2008 Time: 3:39:04 PM PAGE 4/024

Fax Server

COMPANY: 155 - 108TH AVENUE NE, SUITE 350 TO:BRYAN A. SANTARELLI

From: Graybeal Jackson LLP 4254551048 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

· Corrective Cover Sheet Supp.

ATTACHMENT TO FORM PTO-1595

Additional Names of Conveying Parties - Continuation of Item 1

John W. Rapp Nicholas J. Nagumy Robert J. Howard Jared Gilbert Eliot Goldstein John Gornowich Matthew Herbek Nicole Andertson Nicole Anderson Austin Lu Jennifer Dolson Ariel Brown Gordon Briggs

Additional Dates of Execution of Conveyance by Additional Parties - Continuation of item 3

15 May 2008

21 May 2008

18 May 2008

16 May 2008

21 May 2008

20 May 2008

19 May 2008 20 May 2008

19 May 2008

20 May 2008

23 May 2008

15 May 2008

USPTO

10/26/2008 12:40:58 PM

PAGE 5/024

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeel Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:64 PM

Page 5 of 22

Original Cover Sheet

Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office			
RECORDATION FO	RM COVER SHEET			
Docket Number: 1934-048-03 PATENTS ONLY				
To the Director of the U.S. Patent and Trademark Office: Pleas	e record the attached documents or the new address(es) below.			
1. Name of conveying party(ies)	2. Name and address of receiving party(les)			
See Altached	Name: Lockheed Martin Corporation			
	Internal Address:			
Additional name(s) of conveying party(les) attached? Yes No. 3. Nature of conveyance/Execution Date(s):	Street Address: 5801 Rockledge Drive			
Execution Date(s) See Attached	Silect Address. By Trosperigo Silvo			
✓ Assignment Merger	No. of the last of			
Security Agreement Change of Name	City: Bethesda			
Joint Research Agreement	State; Maryland			
Government Interest Assignment				
Executive Order 9424, Confirmatory License	Country: US Zip:20817			
Other	Additional name(s) & address(es) attached? Yes Vos			
12/152,274 Additional numbers at	ached? Yes V No			
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents Involved: 1			
Name: Bryan A. Sentarelli	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 45.00			
Internal Address:	Authorized to be charged by credit card			
	Authorized to be charged to deposit account			
Street Address: 155 - 108th Avenue NE, Suite 350	Enclosed			
	None required (government interest not affecting title)			
City: Ballevue	8. Payment information			
State:WA Zip: 98004	a. Credit Card Last 4 Numbers			
Phone Number: 425-456-5575	Expiration Date			
Fax Number: 425-455-1046	/ S Debgsit Account Number			
Email Address: bryans@graybeal.pdm	juthorized User Name			
9. Signature:				
Signature	August 18, 2008 Date			
Bryan A. Santarelli Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:			

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

USPTO

10/26/2008 12:40:58 PM PAGE 6/024 Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 6 of 22

Original Cover Sheet Supp.

ATTACHMENT TO FORM PTO-1595

Additional Names of Conveying Parties - Continuation of Item 1

John W. Rapp

Nicholas J. Nagurny

Robert J. Howard

Jared Gilbert

Eliot Goldstein

John Gomowich

Matthew Herbek

Nicole Andertson

Austin Lu

Jennifer Dolson

Ariel Brown

Gordon Briggs

PATENT

USPTO

10/26/2008 12:40:58 PM

PAGE 7/024

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeat Jackson LLP 4254551046 To: USPTO Date: 10/22/2008 Time: 2:22:64 PM Page 7 of 22

ASSIGNMENT OF U.S. AND FOREIGN RIGHTS IN INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One United States Dollar (\$1.00) or its equivalent, the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNOR John W. Rapp residing or having a principal place of busines	S
at 9350 River Crest Road, Manassas, Virginia 20110 , and a citizen of	ж
juristic entity of the United States,	
ASSIGNOR Nicholas J. Nagurny, residing or having a principal place of	эf
business at 7020 Bruin Ct., Manassas, Virginia 20111 and a citizen c	7
juristic entity of the United States,	
ASSIGNOR Robert J: Howard , residing or having a principal place of	υf
business at 13852 Springstone Drive, Clifton, Virginia 20124 , and	ď
a citizen or juristic entity of the United States.	
ASSIGNOR Jared Gillbert , residing or having a principal place of busines	Ş
at 4509 Kingsley Road, Dale City, Virginia 22193, and a citizen of	ıŗ
juristic entity of the United States,	
ASSIGNOR <u>Eliot Goldstein</u> , residing or having a principal place of business	S
at 233 Greenwood Drive, West Palm Beach, Florida 33405 and	ď
a citizen or juristic entity of the United States,	
ASSIGNOR John Gornowich , residing or having a principal place of	ŧ
business at 2744 Marsala Ct., Woodbridge, Virginia 22192 and	3
citizen or juristic entity of the United States,	
ASSIGNOR <u>Matthew Herbek</u> , residing or having a principal place of business at 14249 Clubhouse Road, Gainesville, Virginia 20155, and a	3
at 14249 Clubhouse Road, Gainesville, Virginia 20155 , and a	ì
citizen or juristic entity of the United States.	
ASSIGNOR <u>Nicole Anderson</u> , residing or having a principal place or	₹
transfer	•
business at <u>545 E. 600 N., Provo, Utah 84606</u> , and a citizen or	•
business at 545 E, 600 N., Provo, Utah 84606, and a citizen of the United States.	•
business at <u>545 E, 600 N., Provo, Utah 84606</u> , and a citizen of juristic entity of the United States , ASSIGNOR <u>Austin Lu</u> , residing or having a principal place of business at	r E
pusiness at 545 E, 600 N., Provo, Utah 84606 , and a citizen of juristic entity of the United States , ASSIGNOR Austin Lu , residing or having a principal place of business at 9403 Wrought Iron Court, Fairfax, Virginia 22032 , and a citizen or juristic	r E
business at <u>545 E, 600 N., Provo, Utah 84606</u> , and a citizen of the United States,	r E
business at 545 E, 500 N., Provo, Utah 84606 , and a citizen of juristic entity of the United States . ASSIGNOR Austin Lu , residing or having a principal place of business at 9403 Wrought Iron Court, Fairfax, Virginia 22032 , and a citizen or juristic entity of the United States , ASSIGNOR Jennifer Dolson , residing or having a principal place of business	f f
pusiness at 545 E, 600 N., Provo, Utah 84606 , and a citizen of juristic entity of the United States , ASSIGNOR Austin Lu , residing or having a principal place of business at 9403 Wrought Iron Court, Fairfax, Virginia 22032 , and a citizen or juristic	f f

USPTO 10/26/2008 12:40:58 PM PAGE 8/024 Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO Date: 10/22/2008 Time: 2:22:54 PM Page 8 of 22

Date: 11/13/2008 Time: 3:39:04 PM

, residing or having a principal place of business Ariel Brown at 570 Hood Road, Stockridge, GA 30281, and a citizen or juristic entity of the States .

, residing or having a principal place of business ASSIGNOR Gordon Briggs at 4526 N. 39th Street, Arlington, Virginia 22207, and a citizen or juristic entity of the United States

hereby sell, assign, and transfer to:

ASSIGNEE Lockheed Martin Corporation , residing or having a principal place of business at 6801 Rockledge Drive, Bethesda, Maryland 20817, and a citizen or juristic entity of Maryland, and the successors, assigns, and legal representatives of the ASSIGNEE, the entire right, title, and interest in the United States and in all foreign countries, including all rights to claim priority, in and to any and all improvements which are disclosed in the invention entitled ENGINE AND TECHNIQUE FOR GENERATING AN ACOUSTIC SIGNAL and which is found in United States patent application serial number 12/152,274, filed on 12 May 2008 (if not present when this instrument is executed, applicant's attorney or agent is authorized to enter the application serial number upon receipt of the same from the United States Patent and Trademark Office), and in and to all Letters Patent to be obtained from said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to Letters Patent from any reissue or re-examination thereof.

ASSIGNORS hereby covenant that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts, documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation, or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, and enforce said application, said invention, and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purpose thereof.

2

8

PATENT

USPTO

10/26/2008 12:40:58 PM PAGE 9/024

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 9 of 22

ASSIGNOR:
Name: John W. Rapp
Signature: W. Rught
Title (if applicable):
EXECUTED ON, and effective from this 15th day of May 2008 at Cocklean Martin Manassas
I hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duly sign and execute the same on this _/
LOCKHOOD MARTIN, HANASSAS, UR. 20110
WITNESS
Name: Cannie Chapman
Signature: Carrie Character

3

PATENT

10/26/2008 12:40:58 PM PAGE 10/024

* J*

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:64 PM

Page 10 of 22

ASSIGNOR	₹:	
Name:	Nicholas J. Nagurny	
Signature:	Mula a Magnery	
Title (If appl	licable): M. Melaved Engineer	
executed at	D ON, and effective from this 2/5+ day of May ;	2008
personally keeps the same or	eclare that I was personally present and did see the ASSIGNOR, we known to me to be a person named in the assignment, duly sign and ex in this, day of, 2008 of his own frecose therein expressed at the following location:	ecute
	LOCKHED HARTIN MANASSAS, VA 20	//6
WITNESS		
Name:	Carrie Chapman	

10/26/2008 12:40:58 PM PAGE 11/024

.

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

ASSIGNOR:

Date: 10/22/2008 Time: 2:22:54 PM

Page 11 of 22

Absorbit.	
Name: Robert J. Howard	· · · · · · · · · · · · · · · · · · ·
Signature: <u>Rolest & Haward</u>	
Title (if applicable): Senior System Engine	
EXECUTED ON, and effective from this 18 th day of Many at Many (LMCs)	2008
I hereby declare that I was personally present and did see the ASSI personally known to me to be a person named in the assignment, duty si the same on this/	gn and execute
LOCKHOED MARTIN MANASSAS VA	20118
WITNESS	
Name: Conne Chapman	
Signature: Come Chymne	

11

10/26/2008 12:40:58 PM

LOCKHEED MARTIN PS

PAGE 12/024

. .

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

MAY-2:-2209 15:03 FR

Date: 10/22/2008 Time: 2:22:54 PM

Page 12 of 22

ŢÇ

3328 P.02/73

ASSIGNOR:

Name: Jared Gilbert

Signature: Jared Gilbert

EXECUTED ON, and effective from this day of May 2008 at Lander March - March - Seas Building 120 Lens HHSS

I hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duly sign and execute the same on this 16th day of 121-4 2008 of his own free will for the purpose therein expressed at the following location:

Lockhed Martin - Manages - Building 120 Room HHSS

WITNESS

Name: Kolvin D. Wharles

12

USPTO

10/26/2008 12:40:58 PM PAGE 16/024 Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 13 of 22

ASSIGNOR:				
Name: Eliot Goldstein				
Signature: Dist / flots				
Title (if applicable):			,	
EXECUTED ON, and effective from this	215	day of	May	2008
I hereby declare that I was personally personally known to me to be a person rethe same on this 2/2 day of for the purpose therein expressed at the form	amed in th	e sssignme	nt duly sion a	nci execute
WITNESS				•
Laluicha Rlas	ال.			
Neme: Latrisha Blan Signature: Actush Ba	<u> </u>			

USPTO

10/26/2008 12:40:58 PM PAGE 18/024 Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 14 of 22

ASSIGNOR:	
Name: John Gornowich	
Signature: The Breach	
Title (if applicable):	
EXECUTED ON, and effective from this 30th day of May at MANASSAU	_ 2008
I hereby declare that I was personally present and did see the ASSIGNOR personally known to me to be a person named in the assignment, duly sign and the same on this day of	avende
LH HANASSAS	_
WITNESS	
Name: Conne Chaparau Signature: Chaparau	
Name: Comme	

18

10/26/2008 12:40:58 PM PAGE 14/024

Date: 11/13/2008 Time: 3:39:04 PM

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybest Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 15 of 22

ASSIGNO	
Name:	Matthew Herbek
Signature:	midw
Title (if ap	pable): Enginese (1940-n)
EXECUTE	ON, end effective from this 19 day of 11AY 2008 LOCKHOOD HARTIN, HANASSAS (1A
personally the same	clare that I was personally present and did see the ASSIGNOR, who is nown to me to be a person named in the assignment, duly sign and execute this day of
-	Kheed HARTIN, HANASSAS VA. 20110
WITNESS	
Name:	Onnie Chapman
Signature	Corne Classe

14

USPTO

10/26/2008 12:40:58 PM PAGE 20/024 Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

LAGUALIAN.

Date: 10/22/2008 Time: 2:22:54 PM

Page 16 of 22

ASSIGNUR:
Name: Nicole Anderson
Signature: Missle - Stroke son.
Title (if applicable):
EXECUTED ON, and effective from this 20 day of May 2008 at LMCO - MANASSAS VA.
hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duly sign and execute the same on this
LOCKHOOD MARTIN HANASSAS VA 20110
WITNESS
Name: Conse Chapman
Signature: Carrie Olympia

20

10/26/2008 12:40:58 PM PAGE 19/024 Fax Server

2 .

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551048 To: USPTO Date: 10/22/2008 Time: 2:22:54 PM

Page 17 of 22

SSIGNOR:
ame: Austin Lu
Signature: St.
itle (if applicable):
EXECUTED ON, and effective from this 19 day of May 2008 1 Phillips Hall, Cornell University
hereby declare that I was personally present and did see the ASSIGNOR, who is ersonally known to me to be a parson named in the assignment, duly sign and execute ne same on this
Philips Hall, Connell University, Thaca, 24/1485
WITNESS ,
lame: SHLLY BIRL
Sprature: Sauge Suri
Notary Public - Note of New York

19

ASSIGNOR:

Date: 11/13/2008 Time: 3:39:04 PM

USPTO

10/26/2008 12:40:58 PM PAGE 17/024

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 18 of 22

Name:	Jennifer Dolso	n			
	zenny				
Title (if appli	icable):				
executed at <u>200</u> 5	ON, and effective	from this 20 ^M	day of	May 9 27124	2008
personally k the same or	nown to me to be this day	personally present a person named in of	the assignm	ent, duly sign er	execute
2809	Bree Hill A	end Oakto	n VA	22/24	· <u>-</u> · · ·
WITNESS			•		
Name:	aurie L.	Dolson L. Dula			
Signature:	Launi	L) la	~~		

10/26/2008 12:40:58 PM

PAGE 13/024

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551046 To: USPTO

Date: 10/22/2006 Time: 2:22:54 PM

Page 19 of 22

ASSIGNOR:
Name: Ariel Brown
Signature: Axiel C. Erew

Title (if applicable):
EXECUTED ON, and effective from this <u>23rd</u> day of <u>May</u> 2008 at <u>2:11 pm</u>
I hereby declare that I was personally present and did see the ASSIGNOR, who is personally known to me to be a person named in the assignment, duty sign and execute the same on this 32-4 day of 7/6- 2008 of his own free will for the purpose therein expressed at the following location: 575 Hoods
Read The will for the purpose merein expressed at the following location. 1701 10000
Stockbridge Da 30281
WITNESS
Name: Vanice H. Brown
Signatura A. Brown

내가 52 2008 82:05HK 65

52X NO. : 7785877718

MUCAE: MORE

10/26/2008 12:40:58 PM PAGE 15/024

Fax Server

TO:BRYAN A. SANTARELLI COMPANY:155 - 108TH AVENUE NE, SUITE 350

From: Graybeal Jackson LLP 4254551048 To: USPTO

Date: 10/22/2008 Time: 2:22:54 PM

Page 20 of 22

05/15/2005 01:45 FAK

Ø002

15

PATENT REEL: 021836 FRAME: 0368