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Form PTO-1595 (Rev. 03-09) OMB No. 0651-0027 (exp. 03/31/2009)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office		
RECORDATION FO	ORM COVER SHEET		
PATEN1	TS ONLY ARL 12-12		
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1. Name of conveying party(ies)	2. Name and address of receiving party(ies)		
Patrick S. Debroux	Name: The United States of America as represented by the		
	Internal Address: Secretary of the Army		
Additional name(s) of conveying party(ies) attached? Yes X No			
3. Nature of conveyance/Execution Date(s):	Street Address: 101 Army Pentagon		
Execution Date(s) 12/5/2013 Assignment Merger			
Security Agreement Change of Name	City: Washington		
Joint Research Agreement	State: DC		
Government Interest Assignment	Statebc		
Executive Order 9424, Confirmatory License	Country: USA Zip: 20310		
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4. Application or patent number(s):	document is being filed together with a new application.		
A. Patent Application No.(s)	B. Patent No.(s)		
14/066,301			
Additional numbers at	│ ttached? │ Yes 汉No		
5. Name and address to whom correspondence	6. Total number of applications and patents		
concerning document should be mailed:	involved: 1		
Name: <u>U.S. Army Research Laboratory</u>	7. Total fee (37 CFR 1.21(h) & 3.41) \$_40.00		
Internal Address: Attn: RDRL-LOC-I/Alan I. Kalb	.,,,,		
	Authorized to be charged to deposit account		
Street Address: 2800 Powder Mill Road	Enclosed		
	None required (government interest not affecting title)		
City: Adelphi	8. Payment Information		
State: Maryland Zip: 20783			
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Fax Number: 301-394-3972	Deposit Account Number 19-2201		
Email Address: <u>nadine.l.loman.civ@mail,mil</u>	Authorized User Name_Alan I, Kalb		
9. Signature:	1/14/10		
Signature			
Alan I. Kalb, Reg. No. 52,486 Name of Person Signing	Total number of pages including cover sheet, attachments, and documents: 2		

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Name of Person Signing

PATENT REEL: 032111 FRAME: 0644

ASSIGNMENT AND AGREEMENT

Title of Invention: METHOD AND APPARATUS FOR DETECTING SUBSURFACE TARGETS USING DATA INVERSION AND A TEMPORAL TRANSMISSION LINE MODEL

Inventor(s): Patrick S. Debroux, Benjamin C. Flores

Date Declaration Executed: 10/28/2013

*Application Serial No.: 14/066,301

*Filing Date:

10/30/2013

Docket No.: ARL 12-12

(*I (We) herby authorize the application serial number and filing date of said application be added when known.)

- I, the undersigned inventor, in consideration of the rights of the Government of the United States acquired by virtue of circumstances under which the above-identified invention was made, hereby:
- 1. Assign to the Government of the United States, as represented by the Secretary of the Army, my entire right, title, and interest throughout the United States, its Territories, Possessions, and Puerto Rico, in and to the above-entitled invention and application for patent and all Letters Patent issuing thereon, and any continuation or division of said application and any reissue or extension of said Letters Patent.
- 2. Agree to assign to the Government upon its request, title and interest in the invention in those foreign countries in which the Government, within eight months of the filing of the United States application for patent, determines to cause an application to be filed; provided that if the Government determines not to cause an application to be filed in any particular foreign country or fails to make such a determination, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me, subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent in which may issue on the invention in such foreign country, including the power to issue sublicenses for use in behalf of the Government and/or furtherance of the foreign policies of the Government.

3. Agree to provide any further information within my knowledge and to execute any further documents necessary

recording of title to patent applications and patents issuing thereon.				
recording of title to pate	nt applications and patent	s issuing thereon.	\mathcal{T}	
Signature of Inventor:	tatust.	Viria	L Demaux	
	(First name)	(Midele Initial	(Last Nar	ne)
Duty Address: White Sa	ands Missile Range	Dona Ana	New Mex	tico
	(Locality)	(County)	(State)	
Date: 05 DEC 2013 Typed name of Inventor: Patrick S. Debroux				
*********(notarizing preferred)********				
State of: New Muxico) SS.				

On the above date <u>Patrick S. Debroux</u> known to me to be the individual described in and who executed the foregoing instrument duly appeared before me and acknowledged to me that the same as his own free act and deed. In witness whereof I hereunto set my hand and official seal.

OF NEW SEARS

(Printed or the ewritten name of notary public)

(Signature of notary public)

) [place where acknowledgement is taken]

My Commission expires on $\frac{5}{20}$

Page 1 of 1

PATENT REEL: 032111 FRAME: 0645

RECORDED: 01/14/2014