503639597 01/07/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3686230

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANTTI A. PULKKINEN	01/04/2016
TODD M. BONALSKY	01/06/2015
TROY J. AMES	12/29/2015
CARL F. HOSTETTER	12/02/2015

RECEIVING PARTY DATA

Name:	UNITED STATES OF AMERICA AS REPRESENTED BY THE ADMINISTRATOR OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Street Address:	300 E STREET SW
City:	WASHINGTON
State/Country:	D.C.
Postal Code:	20546

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14856090

CORRESPONDENCE DATA

Fax Number: (301)286-9502

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 3012862385

Email: Milelene.Gunyon-1@nasa.gov

Correspondent Name: MILELENE GUNYON

Address Line 1: NASA GODDARD SPACE FLIGHT CENTER
Address Line 2: OFFICE OF PATENT COUNSEL M/S 140.1

Address Line 4: GREENBELT, MARYLAND 20771

ATTORNEY DOCKET NUMBER:	GSC-17256-1
NAME OF SUBMITTER:	MILELENE GUNYON
SIGNATURE:	/MILELENE GUNYON/
DATE SIGNED:	01/07/2016

Total Attachments: 5

source=Assignment-Final#page1.tif

source=Assignment-Final#page3.tif

source=Assignment-Final#page4.tif

source=GSC-17256-1Assignment-2-hostetter copy#page1.tif

source=assignment-bonalsky-final#page1.tif



Assignment to the Government (by Government Employee)

I INS OF INVENTION:		SING POWER GRII GEOPHYSICAL IN			
Inventor(s):	Aotti Pulkkinen,	Todd Bonalsky, Tro	y Ames, Carl Host	etter	
NASA Čaše No	GSC-17256-1	Application No.*:	14/856090	Filing Date*	9/16/2015
WHEREAS, the par Government (herea Administration;	ties to this Assignme fter Government), as	nt and Agreement an represented by the A	e the undersigned inv dministrator of the N	rentor(s) and the t ational Aeronautic	United States as and Space
WHEREAS, the ma	king of this Assignme	ent and Agreement is	in accordance with 3	7 CFR Part 501; i	and
	dereigned inventor(s) s above-entitled inve	has (have) executed ntion	on the date(s) indica	ated below, an ap	plication for United
Assign to the America, its territori	Government my (ou es and possessions.	employment by the G ir) full and exclusive a and tray (out) enters of applicasonal, and en	and to said inv	ention within the ling and to said app	
accordance with 37 amended. If the Go country, in accordance country, in accordance country, in except accordance with 37 amended accordance win	CFR 501 9(d), including the comment chooses in the comment chooses in the comment of the comment	timy (con) full and exting dights of poority of to file an application .9(d), and such rights rense in the invention will appear, where p	in any foreign countries with power to the subject to the with power to grant I	if Convention of P toy I (we) may req reservation to the icenses for all gov	eris (1883), as puest rights in that a Government of a pernmental
information to, and		ernment, (a) to execu ny manner with the Go and Agreement.			
*4 Authorize ar above when require	nd request the attome	eys of record in the ap	plication to insert the	application numb	oer and filing date
	weeter (a. See Janaan		14/120	1/4/	1016
(Signature of Invento	x)	<u>}_</u>	Assignment Execu	led) (Dale App	よい (C alication Executed)
Antti A. Pulkkine (Inventor's Typed Na		(Mailing Add	dress-including Counti	N 57,	N IV. ARE,
(Signature of invento			Date Assignment Execu	lad) (Date App	olication Executed)
Todd M. Bonalsk	,	the trailing on the set	udana na na sa sa na ka sudi na	• •1	
(Inventor's Typed Na	तर क्या है। इ.स.च्या है	(manng AG	dress - Including Countr	31	
(Signature of Invento	w}	<u> </u>	Date Assignment Execu	ted) (Date App	olication Executed)
Troy J. Ames		HODDINANA AND AND AND AND AND AND AND AND AND			
(Inventor's Typed Na	me)	(Mailing Add	dress - Including Counti	y)	The state of the s

NASA FORM 430 DEC 2000 PREVIOUS EDITIONS ARE OBSOLETE.



Title of Invention:

Assignment to the Government (by Government Employee)

Title of Invention:	METHOD OF USING POWER GRID AS LARGE ANTENNA FOR GEOPHYSICAL IMAGING Antti Pulkkinen, Todd Bonalsky, Troy Ames, Carl Hostetter						
inventor(s):							
NASA Case No.:	GSC-17256-1	Application No.*:	14/856090	Filing Date*:	9/16/2015	-	
			e the undersigned invent dministrator of the Natio				
WHEREAS, the mal	ding of this Assignme	ent and Agreement is	in accordance with 37 C	FR Part 501; a	and		
	ersigned inventor(s) above-entitled inver		, on the date(s) indicated	below, an app	plication for United		
 Assign to the America, its territorie 	Government my (ou s and possessions,	r) full and exclusive ri and my (our) entire ri	overnment, the undersig ight in and to said inventi ght, title and interest in a y patent(s) that may issu	on within the t nd to said app			
accordance with 37 armended. If the Gov country, in accordant nonexclusive, irrevo	CFR 501.9(d), includ remment chooses no ce with 37 CFR 501. cable, royalty-free lic	ling rights of priority u st to file an application 9(d), and such rights ense in the invention	lusive foreign rights in ar inder the International Co in any foreign country, I will be subject to the res with power to grant licen acticable, in any foreign	onvention of Properties (1) (we) may requerted to the ervation to the ses for all governers.	aris (1883), as uest rights in that Government of a remmental		
nformation to, and (y manner with the Go	te any document for, (b) overnment in order to allo				
*4. Authorize and above when required		ys of record in the ap	plication to insert the app	olication numb	er and filing date		
(Signature of Inventor)		(D	ate Assignment Executed)	(Date App	lication Executed)		
Antti A. Pulkkinen (Inventor's Typed Nan		(Mailing Add	ress - Including Country)				
(Signature of Inventor)	<u> </u>	(D	ate Assignment Executed)	(Date App	lication Executed)	_	
Todd M. Bonalsky (Inventor's Typed Nan		(Mailing Add	ress - Including Country)				
1100 Am	les	12	2/29/2015	<u>:</u> :			
(Signature of Inventor))	(D	ate Assignment Executed)	(Date App	lication Executed)	_	
Ггоу J. Ames			nart Drive, Laurel, MD,	20723 USA	<u> </u>		
(Inventor's Typed Nan	īө)	(Mailing Add	ress - Including Country)			_	
IARA CORRESO DE	COMO DREVIOUS EN	NTIONS ARE ORSOLE	TC				



Assignment to the Government (by Government Employee)

Title of Invention:		SING POWER GRII GEOPHYSICAL IN			
Inventor(s):	Antti Pulkkinen,	Todd Bonalsky, Tro	y Ames, Carl Hoste	etter	
NASA Case No.:	GSC-17256-1	Application No.*:	14/856090	Filing Date*:	9/16/15
WHEREAS, the par Government (herea Administration;	ties to this Assignmer fter Government), as	nt and Agreement are represented by the A	the undersigned invediged the National Investment of the National Investment (International International Internat	entor(s) and the Û ational Aeronautics	nited States s and Space
WHEREAS, the ma	king of this Assignme	nt and Agreement is	in accordance with 37	7 CFR Part 501; a	nd
	dersigned inventor(s) a above-entitled inven		on the date(s) indica	ted below, an app	lication for United
 Assign to the America, its territori 	Government my (our es and possessions, a	r) full and exclusive ri and my (our) entire ri	overnment, the under ght in and to said inve ght, title and interest in patent(s) that may is	ention within the U n and to said appl	Inited States of ication, and any
accordance with 37 amended. If the Gor country, in accordar nonexclusive, irrevo	CFR 501.9(d), including the comment chooses no note with 37 CFR 501.9 cable, royalty-free lice	ing rights of priority u t to file an application 9(d), and such rights ense in the invention	lusive foreign rights in nder the International in any foreign countr will be subject to the i with power to grant lic acticable, in any forei	Convention of Pa y, I (we) may requ reservation to the senses for all gove	iris (1883), as lest rights in that Government of a ernmental
nformation to, and (expense of the Gove c) to cooperate in any by this Assignment ar	y manner with the Go	e any document for, (vernment in order to a	(b) to deliver any r allow the Governn	requested nent to protect any
*4. Authorize an above when require	d.	ys of record in the ap	plication to insert the	application numbe	er and filing date
(Signature of Inventor)	(Di	ate Assignment Execute	d) (Date Appli	cation Executed)
Carl F. Hostetter (Inventor's Typed Nar	ne)	*********	ling Circle Crofton, l ress - Including Country)		
(Signature of Inventor)	(Di	ate Assignment Execute	d) (Date Appli	cation Executed)
(Inventor's Typed Nar	ne)	(Mailing Addi	ress - Including Country)	i	
(Signature of Inventor)	(De	ate Assignment Execute	d) (Date Appli	cation Executed)
(Inventor's Typed Nar	ne)	 (Mailing Addi	ress - Including Country)	}	

NASA FORM 430 DEC 2000 PREVIOUS EDITIONS ARE OBSOLETE.



Assignment to the Government (by Government Employee)

Title of Invention:	METHOD OF USING ANTENNA FOR GE					
Inventor(s):	_Antti Pulkkinen, Too	ld Bonalsky, Tro	oy Ames, Carl Ho	stetter		
NASA Case No.:	GSC-17256-1	Application No.*:	14/856090	Filin	g Date*:	9/16/15
	es to this Assignment a er Government), as rep					
WHEREAS, the mak	ing of this Assignment a	and Agreement is	in accordance with	37 CFR F	art 501; a	nd
	ersigned inventor(s) has above-entitled invention		, on the date(s) indi	cated belo	w, an app	lication for United
 Assign to the America, its territorie 	in consideration of emp Government my (our) fu s and possessions, and uation or divisional app	ıll and exclusive r l my (our) entire ri	ight in and to said ir ght, title and interes	nvention w st in and to	rithin the U said appl	
accordance with 37 (amended. If the Gov country, in accordan nonexclusive, irrevoc	t to the Government my CFR 501.9(d), including ernment chooses not to ce with 37 CFR 501.9(d) cable, royalty-free licens of such reservation will	rights of priority u file an application), and such rights e in the invention	inder the Internation in any foreign cou will be subject to th with power to grant	nal Conve ntry, I (we) ne reservat t licenses t	ntion of Pa) may requ tion to the for all gove	ris (1883), as lest rights in that Government of a ernmental
information to, and (expense of the Governr c) to cooperate in any m y this Assignment and A	anner with the Go				
*4. Authorize and above when required	I request the attorneys o	of record in the ap	oplication to insert th	ne applicat	ion numbe	er and filing date
Cal J. Hoste	d-	1	2/2/2015			
(Signature of Inventor)			ate Assignment Exec	uted)	(Date Appli	ication Executed)
Carl F. Hostetter (Inventor's Typed Nam	ne)		oling Circle Crofto Iress - Including Coun		114	
(Signature of Inventor)		(C	ate Assignment Exec	uted)	(Date Appli	cation Executed)
(Inventor's Typed Nam	ne)	(Mailing Add	lress - Including Coun	try)		
(Signature of Inventor)		(E	ate Assignment Exec	uted)	(Date Appli	cation Executed)
(Inventor's Typed Nam	ne)	(Mailing Add	lress - Including Coun	try)		

NASA FORM 430 DEC 2000 PREVIOUS EDITIONS ARE OBSOLETE.



Title of Invention:

Assignment to the Government (by Government Employee)

Title of Invention:	METHOD OF USING POWER GRID AS LARGE ANTENNA FOR GEOPHYSICAL IMAGING Antti Pulkkinen, Todd Bonaisky, Troy Ames, Carl Hostetter							
Inventor(s):								
NASA Case No.:	GSC-17256-1	Application No.*:	14/856090	Filing Date*:	9/16/2015	_		
			e the undersigned inven dministrator of the Natio					
WHEREAS, the mal	king of this Assignme	ont and Agreement is	in accordance with 37 C	FR Part 501; a	and			
	lersigned inventor(s) e above-entitled inver		on the date(s) indicated	d below, an ap	plication for United			
 Assign to the America, its territoric 	Government my (ou es and possessions,	r) full and exclusive ri and my (our) entire ri	overnment, the undersight in and to said inventight, title and interest in a patent(s) that may issu	tion within the land to said app				
accordance with 37 amended. If the Gov country, in accordan nonexclusive, irrevo	CFR 501.9(d), includ vernment chooses no ice with 37 CFR 501. cable, royalty-free lice	ling rights of priority unit to file an application 9(d), and such rights ense in the invention	lusive foreign rights in a nder the International C i in any foreign country, will be subject to the rei with power to grant licei acticable, in any foreign	onvention of P I (we) may req servation to the ases for all gov	aris (1883), as juest rights in that e Government of a vernmental			
nformation to, and (y manner with the Go	te any document for, (b) wernment in order to all					
*4. Authorize and above when required		ys of record in the ap	plication to insert the ap	plication numb	er and filing date			
(Signature of Inventor		(Di	ate Assignment Executed)	- (Date App	lication Executed)			
Anitti A. Pulkkiner (Inventor's Typed Nan		(Mailing Add	ress - Including Country)					
Todd M.	Bonalsky	· -	1/10/16					
(Signature of Inventor		(Di	ete Assignment Executed)	(Date App	lication Executed)	-		
Todd M. Bonalsky (Inventor's Typed Nan			on Ave. Fords, NJ ress - Including Country)					
(Signature of Inventor)	(Da	ate Assignment Executed)	(Date App	lication Executed)	_		
Froy J. Ames						_		
(Inventor's Typed Nan	ne)	(Mailing Addi	ress - Including Country)					

NASA FORM 430 DEC 2000 PREVIOUS EDITIONS ARE OBSOLETE.