PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Kenneth L. Dudley	05/07/2012
George N. Szatkowski	05/09/2012
Marie Woodard	05/10/2012
Truong X. Nguyen	05/07/2012
Jay J. Ely	05/07/2012
Sandra V. Koppen	05/07/2012
Laura J. Smith	05/04/2012

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:	DISTRICT OF COLUMBIA
Postal Code:	20546

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13453717

CORRESPONDENCE DATA

Fax Number: (757)864-9190 **Phone**: 757-864-3226

Email: elaine.c.mcmahon@nasa.gov

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: NASA Langley Research Center

Address Line 1: Office of Chief Counsel

Address Line 2: Mail Stop 30

Address Line 4: Hampton, VIRGINIA 23681-2199

PATENT

REEL: 028261 FRAME: 0607

501931881

ATTORNEY DOCKET NUMBER:	LAR 18037-1
NAME OF SUBMITTER:	Robin W. Edwards
Total Attachments: 5 source=2033414#page1.tif source=2033414#page2.tif source=2033414#page3.tif source=2033414#page4.tif source=2033414#page5.tif	

PATENT REEL: 028261 FRAME: 0608



Title of Invention: Lightning Protection and	Detection Sys	stem for AIRCRAFT	Vehicles					
	Kenneth L. Dudley, George N. Szatkowski, Stanley E. Woodard, Truong X. Nguyen, Jay J. Ely, Chuantong Wang, John J. Mielnik, Sandra V. Koppen, and Laura J. Smith							
NASA Case No.: <u>LAR-18037-1</u> App	lication No.*:	13/453,717	Filing Date*:	04/23/2012				
WHEREAS, the parties to this Assignment and Government (hereafter Government), as represended an initial stration;	Agreement a sented by the	re the undersigned in Administrator of the N	ventor(s) and the U ational Aeronautic	inited States s and Space				
WHEREAS, the making of this Assignment and	d Agreement i	s in accordance with 3	37 CFR Part 501; a	nd				
WHEREAS, the undersigned inventor(s) has (high states Patent on the above-entitled invention.	nave) execute	d, on the date(s) indic	ated below, an app	lication for United				
NOW THEREFORE, in consideration of employ 1. Assign to the Government my (our) full a America, its territories and possessions, and ma corresponding continuation or divisional applica-	and exclusive by (our) entire	right in and to said inv right, title and interest	rention within the U in and to said appl	nited States of lication, and any				
 Agree to grant to the Government my (o with 37 CFR 501.9(d), including rights of priorit Government chooses not to file an application accordance with 37 CFR 501.9(d), and such rig irrevocable, royalty-free license in the invention such reservation will appear, where practicable 	y under the In in any foreign ghts will be su i with power to	ternational Convention country, I (we) may re bject to the reservation grant licenses for all	n of Paris (1883), a equest rights in that n to the Governmen governmental purp	s amended. If the country, in nt of a nonexclusive, loses. The terms of				
Agree, at the expense of the Government information to, and (c) to cooperate in any man interest transferred by this Assignment and Agr	ner with the G	ite any document for, overnment in order to	(b) to deliver any reallow the Government	equested nent to protect any				
*4. Authorize and request the attorneys of r above when required.	ecord in the a	pplication to insert the	application number	er and filing date				
Kunutt L Dudley		ブ May 2.0) late Assignment Execute	2 7 MA	2012				
(Signature of Inventor)	{C	late Assignment Execute	ed) (Date Applic	ation Executed)				
Kenneth L. Dudley		s Lane, Newport New						
(Inventor's Typed Name)		lress - Including Country	***************************************	·				
9 1 5 4		May 9, 2012		9 2012				
(Signature of Inventor)		May 4, 2012 late Assignment Execute		ation Executed)				
George N. Szatkowski		**-		ation Executed)				
(Inventor's Typed Name)	***************************************	Chase Ridge, Charlott Iress - Including Country						
(Signature of Inventor) Legal Representativ Marie Woodard	311 Beech	nount Drive, Hampto	n, VA 23669	ation Executed)				
(Inventor's Typed Name)		lress - Including Country)					
NASA FORM 430 DEC 2000 PREVIOUS EDITIONS	ARE OBSOLE	TE.						

PATENT REEL: 028261 FRAME: 0609



Title of Invention:	vention: Lightning Protection and Detection System for AIRCRAFT Vehicles							
Inventor(s):	Kenneth L. Dudley, George	Kenneth L. Dudley, George N. Szatkowski, Stanley E. Woodard, Truong X. Nguyen, Jay J. Ely,						
A	Chuantong Wang, John J. I	Mielnik, San	dra V. Koppen, and L	aura J. Smith				
NASA Case No.:	LAR-18037-1 Applic	cation No.*:	13/453,717	Filing Date*:	04/23/2012			
	ties to this Assignment and A fter Government), as represe							
WHEREAS, the ma	king of this Assignment and A	Agreement is	s in accordance with 3	7 CFR Part 501; a	nd			
WHEREAS, the und States Patent on the	dersigned inventor(s) has (ha e above-entitled invention.	ve) executed	d, on the date(s) indica	ated below, an app	lication for United			
 Assign to the America, its territori 	in consideration of employn Government my (our) full an es and possessions, and my nuation or divisional applicat	id exclusive (our) entire i	right in and to said inv right, title and interest	ention within the U in and to said appl	nited States of ication, and any			
with 37 CFR 501.9(Government choose accordance with 37 irrevocable, royalty-	nt to the Government my (our d), including rights of priority as not to file an application in CFR 501.9(d), and such righ free license in the invention v I appear, where practicable, i	under the Int any foreign its will be sul vith power to	ternational Convention country, I (we) may re oject to the reservation grant licenses for all	n of Paris (1883), a quest rights in that n to the Governmen governmental purp	s amended, If the country, in t of a nonexclusive, oses. The terms of			
information to, and	expense of the Government (c) to cooperate in any manno by this Assignment and Agre	er with the G	ite any document for, overnment in order to	(b) to deliver any rallow the Government	equested nent to protect any			
*4. Authorize an above when require	d request the attorneys of red d.	cord in the a	pplication to insert the	application number	er and filing date			
			·					
(Signature of Inventor).		ate Assignment Execute	d) (Date Applic	ation Executed)			
Kenneth L. Dudley			s Lane. Newport New					
(Inventor's Typed Nan	ne)	(Mailing Add	lress - Including Country,	}	******************************			
(Signature of Inventor	<u> </u>		ate Assignment Execute	d) (Date Applie	tion Comments of			
George M. Szatkow	· •		Chase/Ridge, Charlotte		ation Executed)			
(Inventors Typed Name): Market Mil			ress including Country,	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	10/20=			
(Signature of Invento	egal Representative	of the	ate Assiphment Execute	ey E. Qate Aspir	ation Executed)			
Triang residuals		311 Beech	nount Drive, Hampto	n, VA 23669	.s			
(inventor's Typed Nan	10)	(Mailing Add	ress - Including Country,					

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23351

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial Number: 13/453,717

In re application of: Stanley E. Woodard

Filed: April 23, 2012

Confirmation No.: 7930

For: Lightning Protection and Detection System

SIGNING BY THE EXECUTOR ON BEHALF OF DECEASED INVENTOR (37 CFR 1.42 and 1.43)

I, Marie Woodard, hereby declare that I am a citizen of Canada, residing at 311 Beechmount Drive, Hampton, VA 23669, and that I am executing and signing the Assignment to the Government (by Government Employee) to the Government to which this is attached as the executor of:

The Estate of Stanley E. Woodard, deceased.

That, upon information and belief, I aver those facts that the inventor is required to state.

73 ast ...

Manie Woodard Executor

(3.0103667.1 }

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Little of Invention:	Lightning Protecti	on and Detection Sys	tem for AIRCKAF I	Venicies				
Inventor(s):	Kenneth L. Dudley, George N. Szatkowski, Stanley E. Woodard, Truong X. Nguyen, Jay J. Ely, Chuantong Wang, John J. Mielnik, Sandra V. Koppen, and Laura J. Smith							
NASA Case No.:	LAR-18037-1	Application No.*	13/453,717	Filing Date*:	04/23/2012			
		ent and Agreement a s represented by the						
WHEREAS, the ma	king of this Assignm	ent and Agreement is	s in accordance with	37 CFR Part 501; a	ind			
WHEREAS, the und States Patent on th	dersigned inventor(s e above-entitled inve) has (have) executed ention.	d, on the date(s) indi	cated below, an app	olication for United			
 Assign to the America, its territori 	Government my (or es and possessions	employment by the turn full and exclusive , and my (our) entire lapplication(s) and a	right in and to said in right, title and interes	nvention within the U st in and to said app	Inited States of lication, and any			
with 37 CFR 501.9(Government choose accordance with 37 irrevocable, royalty-	d), including rights o es not to file an appli CFR 501.9(d), and free license in the in	nt my (our) full and ex of priority under the In ication in any foreign such rights will be su evention with power to cticable, in any foreig	ternational Conventi- country, I (we) may bject to the reservati grant licenses for a	on of Paris (1883), a request rights in tha on to the Governme Il governmental pur	as amended. If the t country, in int of a nonexclusive poses. The terms of			
information to, and		vernment, (a) to exec ny manner with the G and Agreement.						
*4. Authorize an above when require		eys of record in the a	pplication to insert th	ne application numb	er and filing date			
Morgre	344	ني _{لا} د	7 May-2012 Pate Assignment Execu	- 7 May	2012			
(Signature of Inventor)	(L	ate Assignment Execu	ited) (Date Applic	cation Executed)			
Truong X. Nguyen		1 Appaloo	sa Court, Hampton,	VA 23666				
(Inventor's Typed Nar	ne), /	(Mailing Add	iress - Including Count	ny)				
- A. II	4 A		5/7/201	2 0/	7/2012			
(Signature of Inventor	1 / / 		Pate Assignment Execu		cation Executed)			
Jay J. Ely		*	Lane, Yorktown, V.		,			
(Inventor's Typed Nar	ne)		tress - Including Count	·····				
			5/7/2012	1	10012			
Snucle // (Signature of Inventor	1/2//shee		ate Assignment Execu	deciment and the second	ration Executed)			
Sandra V. Koppen	K &	•	wood Circle, Suffolk		and the same of the same of the same			
Unventor's Typed Nar	lari	······	tress - Including Count	******************************	***************************************			

NASA FORM 430 DEC 2000 PREVIOUS EDITIONS ARE OBSOLETE:

PATENT REEL: 028261 FRAME: 0612



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Title of Invention:	Lightning Protection an	u Detection Sy	REIR IOF AIRCRAFT	Venicies		,,
			1.6 00 2 00 17.60			X 173
Inventor(s): Kenneth L. Dudley, George N. Szatkowski, Stanley E. Woodard, Truong X. Ng Chuantong Wang, John J. Mielnik, Sandra V. Koppen, and Laura J. Smith						Jay J. Ely,
	Chuantong Wang, John	J. Milelnik, San	dra v. Koppen, and	Laura J. Sm	mi	
NASA Case No.	<u>LAR-18037-1</u> Ap	oplication No.*:	13/453,717	Filing D)ate*: <u>()</u>	4/23/2012
	ties to this Assignment ar fter Government), as repr					
WHEREAS, the ma	king of this Assignment a	nd Agreement i	s in accordance with	37 CFR Par	t 501; and	
	dersigned inventor(s) has e above-entitled invention		d, on the date(s) indi	cated below	, an applicatio	on for United
 Assign to the America, its territori 	, in consideration of emples Government my (our) fulles and possessions, and inuation or divisional appli	It and exclusive my (our) entire	right in and to said in right, title and interes	nvention with st in and to s	nin the United aid application	
with 37 CFR 501.9(Government choose accordance with 37 irrevocable, royalty- such reservation wi	nt to the Government my d), including rights of prior es not to file an application CFR 501.9(d), and such free license in the invention il appear, where practicab	rity under the In n in any foreign rights will be su on with power to le, in any foreig	ternational Conventi country, I (we) may bject to the reservati grant licenses for a in patent which may	on of Paris (request right on to the Go Il government issue on suc	1883), as amels in that cour overnment of a ntal purposes the invention.	ended. If the stry, in a nonexclusive . The terms of
information to, and	e expense of the Governm (c) to cooperate in any ma by this Assignment and A	anner with the C				
*4. Authorize ar above when require	nd request the attorneys o	f record in the a	pplication to insert th	ne applicatio	n number and	d filing date
Laura	Smith		5-4-12		5-4-1	2
(Signature of Inventor)	(1	Date Assignment Execu	ited) (Da	ate Application	Executed)
Laura J. Smith		113 Spruc	e Drive, Yorktown, '	VA 23693		******************
(Inventor's Typed Na	ne)	(Mailing Adi	dress - Including Count	ry).		
(Signature of Inventor	3.	(1	Date Assignment Execu	ited) (Di	ate Application	Executed)
(Inventor's Typed Nar	me)	(Mailing Ad	dress - Including Count	ry)		
(Signature of Inventor	7	(4	Date Assignment Execu	ited) (Di	ate Application	Executed)
(Inventor's Typed Nai	ne)	(Mailing Ad	dress - Including Count	ry)	***************************************	***************************************

PATENT REEL: 028261 FRAME: 0613

RECORDED: 05/24/2012

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