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**Commissioner of Patents and Trademarks** Washington, D.C. 20231

**Attention: Assignment Division** 

Please record the attached original documents or copy thereof.

Conveying Party(ies): Charles Cornelius, Richard Counts, Neill Myers, Jeffrey Lackey, (1)

Warren Peters Michael Shadoan, David Sparks and Timothy Lawrence

National Aeronautics and Space Administration (2)Receiving Party(ies):

Washington, D.C. 20546

(3)Nature of Conveyance: Assignment

Execution Date: December 9, 1998

(4) Application Number: NASA Case No.: MFS-31138-1

Application Title: Rocket Engine Thrust Chamber Assembly

This document is being filed together with a new patent application for letters patent. The execution date of the application is: December 9, 1998.

(5) Name and address of party to whom correspondence concerning document should be mailed:

National Aeronautics and Space Administration

Marshall Space Flight Center Attn: CC01/Robert L Broad, Jr

Marshall Space Flight Center, AL 35812

(6) Total number of applications involved a Que)

(7) **Total fee (37 CFR 3.41)**: \$40.00. Authorized to be charged to deposit account.

Deposit account number: 14-0116 (8)

(9)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. This cover sheet consists of one page.

Respectfully

Enclosure(s):

Registration No. 18 757

NASA FORM 430

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## EXPRESS MAIL EE018085182US

Patent Application Page 1 of 3

#### ASSICNMENT AND AGREEMENT

National Aeronautics and Space Administration

	8. Richard H. Counts, W. Neill Myers, Jeffrey D. Lackey, Warren Peter
Michael D. Shadoan and David	L. Sparks and Timothy Lawrence
NASA Case No.: <u>MFS-31138-1</u>	Application No.* Filing Data*
	againment and Agreement are the undersigned inventor(8) and the Unite I Starter, as represente I by the Administrator of the National Aeror autics and Sparters
WHEREAS, the making of this As	ssignment and As reement is in accordance with 37 CFR Part 101; and
WHEREAS, the undersigned inve United States Patent on the above-	ntor(s) has (have executed, on the date(s) indicated below, an application to entitled invention.
1. Assign to the Gover United States of America, its territ	tion of employment by the Government, the undersigned hereby: niment my (our) full and exclusive right in and to said invention within to ories and possessions, and my (our) entire right, title and interest in and to sa ig continuation or divisional application(s), and any patent(c) that may iss
invention, in accordance with 37 of Paris (1883), as amended. If the	he Government my (our) full and exclusive foreign rights in and to sa CFR 501.9(d), including rights of priority under the International Conventi e Government chooses not to file an application in any foreign country 1 (v
reservation to the Government of	thin accordance with 37 CFR 501.9(d), and such rights will be subject to a nonexclusive, irrevocable, royalty-free license in the invention with power I purposes. The terms of such reservation will appear, where practicable in a such invention.
reservation to the Government of grant licenses for all governmenta foreign patent which may issue or 3. Agree, at the experrequested information to, and (a	a nonexclusive, irrevocable, royalty-free license in the invention with power I purposes. The terms of such reservation will appear, where practicable in a
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reservation to the Government of grant licenses for all governmenta foreign patent which may issue or 3. Agree, at the experrequested information to, and (a Government to protect any interes * 4. Authorize and requesting date above when required.  (Scenatory of Inventor)  Charles S. Cornelius	a nonexclusive, irrevocable, royalty-free license in the invention with power I purposes. The terms of such reservation will appear, where practicable in such invention.  se of the Government. (a) to execute any document for, (b) to deliver a to cooperate in any manner with the Government in order to allow a transferred by this Assignment and Agreement.  st the attorneys of record in the application to insert the application number a topically any manner with the Application Executed)  [Date Application Executed]
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reservation to the Government of grant licenses for all governmenta foreign patent which may issue or 3. Agree, at the experrequested information to, and (of Government to protect any interes *4. Authorize and requestiling date above when required.  (Signature of Inventor)  Charles S. Cornelius  (Inventor's Typed Name)  (Signature of Inventor)  Richard H. Counts  (Inventor's Typed Name)  W. Mell Myers  (Signature of Inventor)	a nonexclusive, irrevocable, royalty-free license in the invention with power I purposes. The terms of such reservation will appear, where practicable in such invention.  See of the Government. (a) to execute any document for, (b) to deliver a to cooperate in any manner with the Government in order to allow a transferred by this Assignment and Agreement.  Set the attorneys of record in the application to insert the application number a total point of the application of the application for a set the attorneys of record in the application to insert the application for any application for a set the attorneys of the Address - Including Country)  12/9/98  (Date Application Executed)  12/9/98  (Date Application Executed)  (Date Application Executed)
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### EXPRESS MAIL EE018085182US

Parent Application Page 2 of 3

## ASSIGNMENT AND AGREEMENT

National Aeronautics and Space Administration

Space Administration	
Title of Invention Rocket Engine Thrust Chamber Assembly	
Inventor(s): Charles S. Cornelius, Richard H. Counts, W. Neill Myers, Jeffrey D. Lackey, Warren Pet- Michael D. Shadoan and David L. Sparks and Timothy W. Lawrence	ers,
NASA Case No.: MFS-31138-1 Application Nc.*: Filing Date*	
WHEREAS, the parties to this Assignment and Agreement are the undersigned inventor(s) and the Uni Government (hereafter Government), as represented by the Administrator of the National Aeronautes a Administration:	
WHEREAS, the making of this Assignment and Agreement is in accordance with 37 CFR Part 501; and	1
WHEREAS, the undersigned inventor(s) has (have) executed, on the date(s) indicated below—in application that on the above-entitled invention	ation for a
NOW THEREFORE, in consideration of employment by the Government, the undersigned hereby:  1. Assign to the Government my (our) full and exclusive right in and to said invention of United States of America, its territories and possessions, and my (our) entire right, title and interest in a application, and any corresponding continuation or divisional application(s), and any patent(s) that therefrom	ind to said
2. Agree to grant to the Government my (our) full and exclusive foreign rights in an invention, in accordance with 37 CFR 501.9(d), including rights of priority under the International C of Paris (1883), as amended. If the Government chooses not to file an application in any foreign count may request rights in that country, in accordance with 37 CFR 501.9(d), and such rights will be subjectivation to the Government of a nonexclusive, prevocable, royalty-free license in the invention with grant licenses for all governmental purposes. The terms of such reservation will appear, where practical foreign patent which may issue on such invention.	'onvention try, I (we) ject to the 1 power to
3. Agree, at the expense of the Government, (a) to execute any document for (b) to dequested information to, and (c) to cooperate in any manner with the Government in order to Government to protect any interest transferred by this Assignment and Agreement.	
*4. Authorize and request the attorneys of record in the application to insert the application milling date above when required.	ımber and
Signature of Inventor 12/9/98 (Date Application Execute 1)	
Signature of Inventor (Date) (Date Application Execute I)  Jeffrey D. Lackey 907 County Read 1843, Arab, AL 35016	
Coventor's Typed Napic) (Post Office Acidress - Including Country)	
Waren Letere 12/9/18	
(Signature of Inventor) (Late: (Date Application Execute t) Warren Peters (104 Elton Drize, Meridianville, AL 35759)	
+ nventur's Typed Name) (Post Off. w Ac dress - Including Country)	
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Michael D. Shadoan  112 Tumbleweed Drive, Madison, AL 35758  MAILING  (Post Opice A Litres Checkain Country)  This corresponds	
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Date: 12/10/98 SIGNATUREEL. 9701 FR	Hughes AMÉ: 0123



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Patent Application
Page > of 3

#### ASSIGNMENT AND AGREEMENT

space Administration			
fitle of Invention: Rocket Engine Thrust (	Chamber A sembly		
Inventor(s): <u>Charles S. Cornelius, Richard Michael D. Shadoan and David L. Spark</u>	rd H. Counts, W. Neill M ss and Timothy W.	yers, Jeffrey D. Lackey, Warrer Peter Lawrence	
NASA Case No.: MFS-31138-1 Ap	pheation No.*	Filing Date*:	
WHEREAS, the parties to this Assignment fovernment (hereafter Government), as readministration;	•		
WHEREAS, the making of this Assignmen	nt and Agreement is in ac	cordance with 37 CFR Part 501 and	
WHEREAS, the undersigned inventor(s) h United States Patent on the above-entitled		e date(s) indicated below, an apolicati	ion for a
NOW THEREFORE, in consideration of each to the Government in United States of America, its territories and application, and any corresponding continuererrom.	ny (our ful and exclusi d possessions, and my (ou	ve right in and to said invention wi ir) entire right, title and interest in an	d to said
2. Agree to grant to the Governmention, in accordance with 37 CFR 50 of Paris (1883), as amended. If the Governmay request rights in that country, in accreservation to the Government of a nonexogrant licenses for all governmental purpose toreign patent which may issue on such in	1.9(d), including rights of nment chooses not to file cordance with 37 CFR 50 clusive, arrevocable, royal test. The terms of such rescues.	an application in any foreign country (1.9(d), and such rights will be subjectly-free license in the invention with	nver (on y, I we) set to (he power to
F. Agree, at the expense of the requested information to, and (c) to coordinate transfer transfer.	operate in any manner		
*4. Authorize and request the attilling date above when required.	torneys of record in the aj	oplication to insert the application nur	nber and
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(Menature of Inventor) David L. Sparks	(Date) 4014 Astadot Drive, Hunts	(Date Application Execute 1)	
· mental's Typed Name)	(Post Office Acdress - Includir		
The Williams	1: 15/48		
Signature of Inventor	(Later	(Date Application Execute 1)	<del></del>
Timothy Ma Lawrence 10	06 Lindell Drive, (Post Office Acdres Includin		
(Signature of Inventor)	(Late	(Date Application Execute 1)	
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