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GENER.	C COMPANY		Name: United States Air Force						
		ned? □ Yes ⊠ No	Internal Address: AFMC LO/JAZ						
	 Nature of conveyance: ☐ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☑ Other Confirmatory License 			Street Add	dress:	2240 B Street, R	oom 100		
□ S				City: Wright-Patterson Air Force Base					
		-	,	State:	Ohio	Zip	: 45433-7109		
Execution	Execution Date(s): 8 September 2003								
	☑ This instrument should be recorded on the governmental register in accordance with 37 CFR 7.1(e)(1).				Additional name(s) & address(es) attached? □ Yes ☒ No				
4. Appli	cation number(s	s) or patent nu	mber(s):						
If this	If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s): B. Patent No.(s): 10/452,420 Additional numbers attached? Yes No								
A. Pa	atent Application	n No.(s):		B. Patent No.(s):					
		10/452,420		= n					
			Additional numbers atta						
5. Name	e and address (erning documer	of party to whom	n correspondence	6. Total r	number of a	applications and pate	ents involved.		
concerning document should be mailed:					1				
Nama	En.	adria I Cinda	_						
Name:		edric L. Sinder		7 Total	fee (37 CI	FR 3.41)	\$ 0		
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Street Ad	uress. 22	240 B Street, R	00m 100	I .			s not an instrument		
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	Fredric L. Sinder						8/29/2003		
Name of person signing Signature Date									
Total number of pages including cover sheet, attachments, and document:									

PATENT REEL: 014554 FRAME: 0904

RD-29519 (Consolidated herein RD-29410;

127091; 133495)

CONTRACTOR'S CONFIRMATORY LICENSE TO THE UNITED STATES GOVERNMENT

Pursuant to, and in confirmation of, the provisions therefor contained in Contract Number F33615-99-2-5215 General Electric Company (hereinafter, "contractor") does hereby grant and convey to THE UNITED STATES GOVERNMENT (hereinafter, "the Government") a nonexclusive, nontransferable, irrevocable paid-up license to have practiced for or on behalf of the Government, throughout the world, in the manufacture, use, and disposition according to the law, of any invention embodied in the claims covered by the following application for Letters Patent and any resulting Letters Patent therefrom,

TO WIT:

Inventor's Name	Serial Number	Filing Date	Title of Invention
Pazhayannur Ramanathan	10/452,420	5/30/2003	APPARATUS AND METHOD
Subramanian;			FOR FRICTION STIR WELDING
Bernard Patrick Bewlay;			OF HIGH STRENGTH
Earl Claude Helder;			MATERIALS, AND ARTICLES
Timothy Joseph Trapp			MADE THEREFROM

Any license granted herein shall not convey any right to the Government to manufacture, have manufactured, or use any invention covered by the claims of said application for Letters Patent and said resulting Letters Patent for the purpose of providing services or supplies to the general public in competition with the Contractor or the Contractor's commercial licensees in the licensed fields.

The acceptance of this license shall not constitute any acknowledgement of the validity or scope of any patent, and the GOVERNMENT shall have and retain the rights to terminate this license at any time by mailing notice of its intention to do so to the undersigned at the address set forth below.

IN WITNESS WHEREOF the undersigned has executed this instrument this 8th day of Sept 2003.

WITNESS:

Donald S. Ingraham, Attesting Secretary

RECORDED: 10/06/2003

GENERAL ELECTRIC COMPANY

Licensor

Christian G. Cabou, General Counsel

Global Intellectual Property and Legal Operation

GE Global Research

PO Box 8, Schenectady, NY 12301

(Address of Licensor)

PATENT REEL: 014554 FRAME: 0905