# PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
HUGHES ELECTRONICS CORPORATION	10/06/2000

#### **RECEIVING PARTY DATA**

Name:	THE BOEING COMPANY	
Street Address:	100 North Riverside Plaza	
City:	Chicago	
State/Country:	ILLINOIS	
Postal Code:	60606-1596	

#### PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	5285176

#### **CORRESPONDENCE DATA**

Fax Number: (949)790-1211

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Email: debbie.a.herrera@boeing.com

Correspondent Name: Terje Gudmestad

Address Line 1: 15460 Laguna Canyon Road
Address Line 4: Irvine, CALIFORNIA 92618

ATTORNEY DOCKET NUMBER:	090096A
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NAME OF SUBMITTER: Terje Gudmestad

**Total Attachments: 4** 

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PATENT REEL: 016914 FRAME: 0774 H \$40.00

For	m PTO-1595	RECORDATION I	FORM COVER SHEET	U.S. DEPARTMENT OF COMMERCE
,	v. 03/01)		NTS ONLY	U.S. Patent and Trademark Office
ОМ	B No. 0651-0027 (exp.	5/31/2002)		Docket No: <u>090096A</u>
				DOCKET NO. USUSUA
To t	the Honorable Commis	sioner of Patents and Trademarks: Please re	ecord the attached original	documents or copy thereof.
1.	Name of conveying	party(ies):	2. Name and address	of receiving party(ies)
	HUGHES ELECTR	ONICS CORPORATION	Name: THE BOE	
Add	litional name(s) of conv	veying party(ies) attached?  Yes X No	Internal Address:	100 North Riverside Plaza
3.	Nature of conveyar			Chicago, IL 60606-1596
	X Assignment			
		☐ Merger		
	Security Agree	_		
	Other			
Eve	ecution Date: October	6 2000		
	oddion Bato. <u>Gotobor</u>	0,200		
			Additional name(s) &	address(es) attached? ☐ Yes X No
4.		r(s) or patent number(s): 090096A		
	If this document is I	being filed together with a new applicati	on, the execution date o	of the application is:
	A. Patent Applica	tion No.(s):	B. Patent No.(s):	
	07/957,070		5,285,176	
		Additional numbers attach	ned? 🗌 Yes 🗶 No	
5.		of party to whom correspondence	6. Total number of ap	plications and patents involved: 1
	-	ent should be mailed:	7. Total fee (37 CFR	3.41)\$40.00
	Name:	Terje Gudmestad	☐ Enclosed	
	Internal Address:	Boeing Management Company		
		15460 Laguna Canyon Road	X Authorized to t	be charged to deposit account
		Irvine, CA 92618	8. Deposit account nu	ımber:
			<u>18-1730</u>	
			(Attach duplicate copy of	this page if paying by deposit account)
	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		L	
		DO NOT USE T	UIC CDACE	
		DO NOT USE I	HIS SPACE	
9.	copy of the original	nowledge and belief, the foregoing infor document.	rmation is true and corre	ect and any attached copy is a true
	Terje Gudmestad, F Name of Perso	Registration No. 32,232	Signature	Date Date
	Name of Fe180	AT Signing	Oignature	Date

Total number of pages including cover sheet, attachments, and documents: 4

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

# CONFIRMATION OF ASSIGNMENT OF PATENT AND TRADEMARK RIGHTS WITH AUTHORIZATION AND APPOINTMENT BY ASSIGNOR

WHEREAS, HUGHES ELECTRONICS CORPORATION, a corporation of the State of Delaware, United States of America ("Assignor"), having a principal place of business at 200 North Sepulveda, El Segundo, California 90245, is assigning or has assigned all of its rights, title and interests in the United States and throughout the world, in and to the invention disclosures, patent applications and patents listed on Schedule A (the "Patents"), to the Intellectual Property Agreement dated as of the date hereof between Hughes Electronics Corporation, Hughes Space and Communications Company and The Boeing Company (the "Intellectual Property Agreement") to THE BOEING COMPANY ("Assignee"); and

WHEREAS, Assignor is assigning or has assigned all of its rights, title and interests in the United States and throughout the world, in and to the trademarks listed on Schedule B and tradenames listed on Schedule C ("the Trademarks"), to the Intellectual Property Agreement to Assignee; and

WHEREAS, it was contemplated, at the time of assignment and stated in the Purchase Agreement, that the execution and delivery of papers would be necessary for Assignee, its successors, assigns or representatives to perfect, affirm, record and maintain the title to the Patents and the Trademarks in Assignee, its successors, assigns or other legal representatives; and

WHEREAS, Assignor had agreed to generally cooperate to the fullest extent in all matters pertaining to the Patents and the Trademarks, and to do all lawful acts, including the execution and delivery of all papers and proper oaths that are deemed necessary or desirable by Assignee, its successors, assigns or representatives for accomplishing the foregoing;

NOW THEREFORE, Assignor hereby confirms the foregoing assignment and authorizes and appoints Assignee and grants Assignee full power of attorney to execute all necessary papers and oaths on Assignor's behalf and in Assignor's name that are necessary for Assignee, its successors, assigns or representatives to perfect, affirm, record and maintain the title in Assignee, its successors, assigns or other legal representatives to any and all of the Patents and the Trademarks in the United States and throughout the world.

ASSIGNOR:

BY: 🝃

Name: Roxanne S.

Title: Sr. V.P. & CFD

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### STATE OF CALIFORNIA COUNTY OF LOS ANGELES

ON	Septi	mber	5,2000	before me,	ELAINE 14	MEGEE,	a Notary	Public in
and	for	said	State,	personally	appeared	Brent	Reed	

□ personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Notary Public Elaine m. MED.

AGREED TO AND ACCEPTED BY:

ASSIGNEE:

Title:

Confirmation of Assignment of Patent and Trademark Rights

# SCHEDULE A

# **PATENTS**

PATENT_NO	ISSUE_DATE	PD_NO	TITLE  PHASE-LOCKED LOOP FREQUENCY TRACKING DEVICE INCLUDING A DIRECT DIGITAL		
5,184,092	02/02/93	089289	SYNTHESIZER		
5,184,098	02/02/93	089163	SWITCHABLE DUAL MODE DIRECTIONAL FILTER SYSTEM		
5,184,790	02/09/93	088171	TWO-AXIS ATTITUDE CORRECTION FOR ORBIT INCLINATION		
5,187,028	02/16/93	090519	NICKEL-HYDROGEN CELLS		
5,208,112	05/04/93	089648	THERMALLY REGENERATED FUEL CELL		
5,216,345	06/01/93	091316	MIXED MODE STEPPER MOTOR CONTROLLER AND METHOD  D.C. CHOPPER REGULATING METHOD AND APPARATUS INCORPORATING BILATERAL		
5,218,522	06/08/93	091671	REGULATING VOLTAGE PATH		
5,222,142	06/22/93	091564	SEQUENCE GENERATOR		
5,222,178	06/22/93	091615	HIGH DENSITY FIBER OPTIC CABLE PACKAGING METHOD AND APPARATUS FOR ROTATIONAL RATE DETERMINATION USING A STELLAR		
5,223,702	06/29/93	091160	REFERENCE		
5,224,165	06/29/93	085246B	HIGH SPEED WORD GENERATOR		
5,225,295	07/06/93	091138	BI-CELL ELECTRICAL STORAGE BATTERY		
5,227,803	07/13/93	092284	TRANSPONDER LOCATION AND TRACKING SYSTEM AND METHOD		
5,227,943	07/13/93	089629	POWER FAULT PROTECTION FOR HIGH MOMENTUM SYSTEMS		
5,231,411	07/27/93	090300	ONE PIECE MILLIMETER WAVE PHASE SHIFTER/ANTENNA		
5,233,358	08/03/93	087200	ANTENNA BEAM FORMING SYSTEM UTILIZING THERMAL CONDUCTORS TO INCREASE OPERATING POWER OF COAXIAL		
5,247,267	09/21/93	090304	MICROWAVE DEVICES		
5,248,510	09/28/93	091420	COBALT OXIDE PASSIVATION OF NICKEL BATTERY ELECTRODE SUBSTRATES		
5,248,982	09/28/93	090152A	METHOD AND APPARATUS FOR CALIBRATING PHASED ARRAY RECEIVING ANTENNAS		
5,255,879	10/26/93	091157	THREE AXES STABILIZED SPACECRAFT AND METHOD OF SUN ACQUISITION		
5,257,759	11/02/93	090470	METHOD AND APPARATUS FOR CONTROLLING A SOLAR WING OF A SATELLITE USING A SUN SENSOR		
5,257,872	11/02/93	090261	HIGH POWER WAVEGUIDE SWITCH AND METHOD		
5,261,631	11/16/93	090298	MOMENTUM WHEEL PLATFORM STEERING SYSTEM AND METHOD		
5,264,298	11/23/93	091701	LEWIS ACID THERMOELETROCHEMICAL CONVERTER		
5,265,268	11/23/93	090113	IMAGE RECOVERY MIXER		
5,266,421	11/30/93	091399	ENHANCED MEMBRANE-ELECTRODE INTERFACE MULTIPLEXING SYSTEM FOR PLURAL CHANNELS OF ELECTROMAGNETIC SIGNALS		
5,266,911	11/30/93	090353A	MULTIPLEXING SYSTEM FOR PLURAL CHANNELS OF ELECTROMIZATION STORES		
5,282,196	01/25/94	088554A	BURSTED AND NON-BURSTED DATA ROUTER CHARGE BALANCING OF BATTERIES DURING CHARGING		
5,283,512	02/01/94	091333	PROPELLANT IMMOBILIZING SYSTEM AND METHOD		
5,284,309	02/08/94	092131	TEMPERATURE-COMPENSATED WAVEGUIDE ISOLATOR		
5,285,174	02/08/94	091535	FLAT CAVITY RF POWER DIVIDER		
5,285,176	02/08/94	090096A	GAIN LINEARIZATION WITH COPLANAR WAVEGUIDE		
5,291,148	03/01/94	091699	SINGLE ELEMENT DRIVER ARCHITECTURE FOR FERRITE BASED PHASE SHIFTER		
5,302,959	04/12/94	091284	TRANSFORMER DRIVER HAVING UNLIMITED DUTY CYCLE CAPABILITY BY INSERTING		
5,304,863	04/19/94	090273A	NARROW PULSES DURING UNLIMITED DUTY CYCLES		
5,304,944	04/19/94	092121	HIGH FREQUENCY LINEARIZER		
5,305,001	04/19/94	090529	HORN RADIATOR ASSEMBLY WITH STEPPED SEPTUM POLARIZER		
5,308,025	05/03/94	091422	SPACECRAFT SPIN AXIS CAPTURE SYSTEM AND METHOD		
5,310,143	05/10/94	091205A	THREE AXIS THRUSTER MODULATION		
5,310,144	05/10/94	091631	METHOD AND APPARATUS FOR SATELLITE TORQUE BALANCING METHOD FOR STATIONKEEPING CONTROL OF FLEXIBLE SPACECRAFT USING ONBOA		
5,311,435	05/10/94	091210	GAIN SCHEDULING SCHEME		
5,318,255	06/07/94	091560	STAGE SEPARATION MECHANISM FOR SPACE VEHICLES		
5,320,915	06/14/94	091757	GLASS SEALING OF ELECTROCHEMICAL STORAGE CELL STRUCTURES		
5,327,150	07/05/94	092246	PHASED ARRAY ANTENNA FOR EFFICIENT RADIATION OF MICROWAVE AND THERMAL ENERGY		
5,330,585	07/19/94	L92004	GALLIUM ARSENIDE/ALUMINUM GALLIUM ARSENIDE PHOTOCELL INCLUDING		
5,337,981	08/16/94	091048	METHOD AND APPARATUS FOR COMPENSATING FOR SOLAR TORQUE TRANSIENTS ON SATELLITE DURING A SOLAR ECLIPSE		

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October 4, 2000

**RECORDED: 12/20/2005** 

PATENT REEL: 016914 FRAME: 0778