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Attorney Docket PD-05W119

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OMB No. 0651-0027 (exp. 6/30/2008)U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

### RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**

Mark D. CHAVIRA  
Hamid KARIMI  
Carolyn BOETTCHER

 Additional name(s) of conveying party(ies) attached?  Yes  No
**3. Nature of conveyance/Execution Date(s):**
 Execution Date(s) August 18, 22 & 24, 2006

- Assignment  Merger  
 Security Agreement  Change of Name  
 Joint Research Agreement  
 Government Interest Assignment  
 Executive Order 9424, Confirmatory License  
 Other \_\_\_\_\_

**2. Name and address of receiving party(ies)**
 Name: RAYTHEON COMPANY

Internal Address: \_\_\_\_\_

Office of the General Counsel

Street Address: \_\_\_\_\_

870 Winter Street

 City: Waltham

 State: MA

 Country: US Zip: 02451

 Additional name(s) & address(es) attached?  Yes  No
**4. Application or patent number(s):**
 This document is being filed together with a new application.

A. Patent Application No.(s)

11/513, 875

B. Patent No.(s)

 Additional numbers attached?  Yes  No
**5. Name and address to whom correspondence concerning document should be mailed:**
 Name: Raytheon Company

 Internal Address: EO/E04/N119
Intellectual Property & Licensing

 Street Address: 2000 East El Segundo Boulevard
PO Box 902

 City: El Segundo

 State: California Zip: 90245-0902

 Phone Number: 310-647-3723

 Fax Number: 310-647-2616

Email Address: \_\_\_\_\_

**6. Total number of applications and patents involved: one (1)**
**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- Authorized to be charged by credit card  
 Authorized to be charged to deposit account  
 Enclosed  
 None required (government interest not affecting title)

**8. Payment Information**
 a. Credit Card Last 4 Numbers \_\_\_\_\_  
 Expiration Date \_\_\_\_\_

 b. Deposit Account Number 60-0616

 Authorized User Name Leonard A. Alkov
**9. Signature:** Leonard A. Alkov  
 Signature

October 9, 2006  
 Date

Leonard A. Alkov  
 Name of Person Signing

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

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
 Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

**Raytheon****PATENT****ASSIGNMENT****Attorney Docket No.: PD-05W119****Page 1 of 4**

WHEREAS, I, as below named joint inventor of the city and state as stated below next to my name, have invented:

**A METHOD FOR REALTIME SCALING OF THE VEHICLE ROUTING PROBLEM**

for which application for Letters Patent of the United States has been executed by me, and

WHEREAS, RAYTHEON COMPANY (hereinafter referred to as RAYTHEON), a Delaware corporation, having its principal place of business in Waltham, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request the Director of the United States Patent and Trademark Office and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

**PATENT****REEL: 018381 FRAME: 0053**

# Raytheon

## ASSIGNMENT

Attorney Docket No.: PD-05W119

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Title: **A METHOD FOR REALTIME SCALING OF THE VEHICLE ROUTING PROBLEM**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF JOINT INVENTOR <b>Marcos D. CHAVIRA</b>	INVENTOR'S SIGNATURE <i>Marcos D. Chavira</i>	DATE SIGNED <b>8/18/06</b>
RESIDENCE (CITY AND STATE) <b>Playa Del Rey, California</b>		INVENTION AGREEMENT DATE <b>June 5, 1995</b>

STATE OF CALIFORNIA )  
 COUNTY OF LOS ANGELES )

SS:

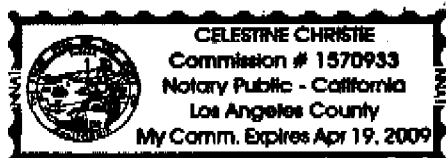
On August 18, 2006, before me, Celestine Christie, a  
 Notary Public in and for said State, personally appeared Marcos D. Chavira

personally known to me or  proved to me on the basis of satisfactory evidence to be the person whose  
 name is subscribed to the within instrument and acknowledged to me that he executed the same in his  
 authorized capacity, and that by his signature on the instrument the person executed the instrument.

WITNESS my hand and official seal.

Notary Public:

*Celestine Christie*  
 Celestine Christie



[Seal]


**Raytheon****ASSIGNMENT**

Attorney Docket No.: PD-05W119

Page 3 of 4

Title: **A METHOD FOR REALTIME SCALING OF THE VEHICLE ROUTING PROBLEM**

IN WITNESS WHEREOF, I have executed this Instrument.

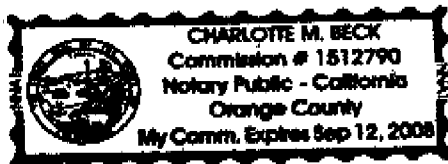
FULL NAME OF JOINT INVENTOR <b>Hamid KARIMI</b>	INVENTOR'S SIGNATURE 	DATE SIGNED <b>08/24/06</b>
RESIDENCE (CITY AND STATE) <b>Fullerton, California</b>		INVENTION AGREEMENT DATE <b>July 7, 2003</b>

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) SS:

On August 24, 2006, before me, Charlotte M. Beck, a  
Notary Public in and for said State, personally appeared Hamid Karimi  
 personally known to me or  proved to me on the basis of satisfactory evidence to be the person whose  
name is subscribed to the within instrument and acknowledged to me that he executed the same in his  
authorized capacity, and that by his signature on the instrument the person, executed the instrument.

WITNESS my hand and official seal.

Notary Public Charlotte M. Beck  
Charlotte M. Beck



[Seal]

# Raytheon

## ASSIGNMENT

Attorney Docket No.: PD-05W119

Page 4 of 4

Title: **A METHOD FOR REALTIME SCALING OF THE VEHICLE ROUTING PROBLEM**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF JOINT INVENTOR <b>Carolyn B. BOETTCHER</b>	INVENTOR'S SIGNATURE <i>Carolyn B Boettcher</i>	DATE SIGNED <i>8/22/2006</i>
RESIDENCE (CITY AND STATE) <b>Redondo Beach, California</b>		INVENTION AGREEMENT DATE <b>February 22, 1977</b>

STATE OF CALIFORNIA )

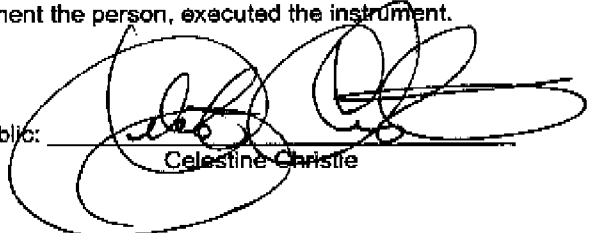
COUNTY OF LOS ANGELES )

SS:

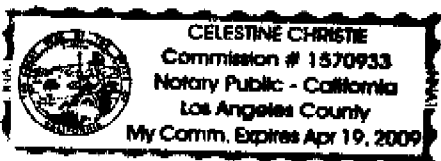
On August 22, 2006, before me, Celestine Christie a  
 Notary Public in and for said State, personally appeared Carolyn B. Boettcher  
 personally known to me or  proved to me on the basis of satisfactory evidence to be the person whose  
 name is subscribed to the within instrument and acknowledged to me that he executed the same in his  
 authorized capacity, and that by his signature on the instrument the person, executed the instrument.

WITNESS my hand and official seal.

Notary Public:



Celestine Christie



[Seal]