Atty Docket No.:
FORM PTO-1595
1-31-92



09-24-2002

102231828



3. DEPARTMENT OF COMMERCE Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please	se record the attached original decuments or copy thereof.		
1. Name of conveying party(ies):	2. Name and address of receiv ng party(ies):		
Masato TAKAHASHI 9.18102	Name: 1) Communicatio is Research Laboratory, Independent Administrative Institution (90% Share) 2) Masato TAK/ HASHI (10% Share)		
Additional name(s) of conveying party(ies) attached? □Yes ■No	Address: 1) 4-2-1 Nukui-Ilitamachi, Koganei-shi Tokyo, JAPA I		
Assignment Deger Security Agreement Define of Name Other Record to Correct Nature of Conveyance to agh saidassign ection a document of the Correct of the Conveyance of the	2) c/o Communications Research Laboratory, Independent Administrative Institution 4-2-1 Nukui-Kitamachi, Koganei-shi Tokyo, JAPAN men f Additional name(s) and address(es) attached? □Yes ■No		
4. Application number(s) or patent number(s):			
If this document is being filed together with a new application, the	execution date of the application is:		
A. Patent Application No.(s) 10/103,881	B. Patent No.(s)		
Additional numbers atta	ched? □Yes ■No		
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total applications and patents involved: 1		
22850	7. Total fee (37 CFR 3.41): \$40.00 ■ Enclosed □ Authorized to be charged to deposit account		
79/23/2002 ANNED1 00000047 10103881	8. Deposit account number: 15-0030 (Attach duplicate copy of this page i paying by deposit account)		
DO NOT USE TH	HIS SPACE		
9. Statement and signature			
To the best of my knowledge and belief, the foregoing information of the original document. Marvin J. Spivak	on is true and correct and any attached copy is a true copy		
	ignature 7/18/U		
Paul A. S	Paul A. Sacher Registration No. 43,418		
Total number of pages including this co			
Do not detach thi	is portion		
Mail documents to be recorded with required cover sheet information			

Commissioner of Patents and Trademarks
Box Assignments
Washington, D.C. 20231

Atty Docket No.: (2) 143UE/
FORM PTO-1595
1-31-92



U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

JUN 2 4 2002 X	Patent and Trademark		
To the Honorable commissioner of Jatents and Trademarks. I	Please record the attached original documents or copy thereof.		
1. Name of conveying partition:	2. Name and address of receiving party(ies):		
Masato TAKAHASHI 06/24/0 2	Name: 1. Communications Research Laboratory, Independent Administrative Institution		
04/0//	2. Masato Takahashi		
Additional name(s) of conveying party(ies) attached? □Yes ■	Address: 1. 4-2-1 Nukui-kitamachi, Koganei-shi, Tokyo, JAPAN		
3. Nature of Conveyance:	2. c/o Communications Research Laborator		
■ Assignment □ Merger □ Security Agreement □ Change of Name □ Other	Independent Administrative Institution 4-2-1 Nukui-kitamachi, Koganei-shi, Tokyo, JAPAN		
Execution Date: March 18, 2002	Additional name(s) and address(es) attached? □Yes ■N		
4. Application number(s) or patent number(s):			
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)		
10/103,881			
Additional numbers	attached? □Yes ■No		
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total applications and patents involved: 1		
	7. Total fee (37 CFR 3.41): \$40.00		
	■ Enclosed		
1	☐ Authorized to be charged to deposit account		
22850	8. Deposit account number: 15-0030 (Attach duplicate copy of this page if paying by deposit account)		
	(Attach depricate copy of this page if paying by deposit account)		
DO NOT USE	E THIS SPACE		
9. Statement and signature			
To the best of my knowledge and belief, the foregoing inform	nation is true and correct and any attached copy is a true co		
of the original document.			
Marvin J. Spivak	12. Souhu/ 6/24/02		
Name of Person Signing Paul Aig Sacher Date			
	ation No. 43,418		
Total number of pages including the	•		
Do not date:	ch this portion		
	•		
Mail documents to be recorded with required cover sheet inform			
· · · · · · · · · · · · · · · · · · ·	tents and Trademarks		
ANUS MARCITURE DESCRIPTOR AND	ignments		

Assignment of Application

Page 1 of 2

WHEREAS, I (WE)	Masato TAKAHASHI		
	Independent Administrative Insti	tution	
	4-2-1 Nukui-kitamachi, Koganei	shi, Tokyo, JAPAN	
			-
			, respectively,
have invented certain ne	ew and useful improvements in:		, i
	R ACQUIRING AZIMUTH I	NFORMATION	
for which an application	for Letters Patent was executed on	March 18, 200	2
(Application No1	0/103,881 , filed	March 25, 2002), and
	Please refer to the attached sheet		
(hereinafter referred to	as "ASSIGNEE") having a place of b	isiness at:	
	Please refer to the attached sheet		
			1 D

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

10/01

WHEREAS,

1. Communications Research Laboratory,
Independent Administrative Institution

(90% share)

2. Masato TAKAHASHI

(10% share)

(hereinafter referred to as "ASSIGNEE") having places of business at:

- 1. 4-2-1 Nukui-kitamachi, Koganei-shi, Tokyo, JAPAN
- 2. c/o Communications Research Laboratory, Independent Administrative Institution 4-2-1 Nukui-kitamachi, Koganei-shi, Tokyo, JAPAN

are desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries; provided that assignee 1. Communications Research Laboratory, Independent Administrative Institution should have a 90% share and 2. Masato TAKAHASHI should have a 10% share.

Page 2 of 2

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date:	March 18, 2002	Masate Jakahashi (Signature of Inventor) Masato TAKAHASHI
		(Signature of Inventor) Masato TAKAHASHI
Date:		(Signature of Inventor)
		(Signature of inventor)
Date:		(Signature of Inventor)
Date:		
Data		(Signature of Inventor)
Date:		(Signature of Inventor)
Date:		
		(Signature of Inventor)
Date:		(Signature of Inventor)
		(signature of fiveritar)
Date:		(Signature of Inventor)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

ATTORNEYS AT LAW FOURTH FLOOR 1755 JEFFERSON DAVIS HIGHWAY ARLINGTON, VIRGINIA 22202

10/01

RECORDED: 09/18/2002