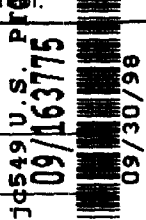


CMB No. 0651-0011 (exp. 4/94) TRW DOCKET NO. 22-0011

PATENT 10-14-1998



Attached original documents or copy thereof



To the Honorable Commissioner of

1. Name of conveying party(ies):

David A. Wright
Stuart T. Linsky
Donald C. Wilcoxson
Eldad Perahia
Additional name(s) of conveying party(ies) attached? Yes No

Name and address of receiving party(ies)

Name: TRW Inc.
Internal Address: Law Dept.
Bldg. E2/6072

Street Address: One Space Park
City: Redondo Beach State: CA ZIP: 90278

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:

- Assignment Merger
Security Agreement Change of Name
Other

Execution Date: September 30, 1998

4. Application number(s) or patent number(s):

09/30/98

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)

Additional numbers attached? Yes No

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

Patent Counsel
Name: TRW Inc.
Internal Address: Law Dept.
Bldg. E2/6072
Street Address: One Space Park
City: Redondo Beach State: CA ZIP: 90278

6. Total number of applications and patents involved: 1

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

8. Deposit account number: 20-1515

(Attach duplicate copy of this page if paying by deposit account)

10/07/1998 JSHAWAZZ 00000116 201515 09163775

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9. Statement and signature.

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.

Michael S. Yatsko

Signature

September 30, 1998

Date

Name of Person Signing

Total number of pages including cover sheet, attachments, and document: 5

ASSIGNMENT

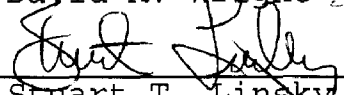
For valuable consideration, the adequacy and receipt of which are hereby acknowledged, we David A. Wright, Stuart T. Linsky, Donald C. Wilcoxson, and Eldad (NMI) Perahia respectively, of Solana Beach, California; San Pedro, California; Redondo Beach, California; and Hermosa Beach, California

do hereby sell and assign to TRW Inc., One Space Park, Redondo Beach, California, an Ohio corporation, its successors and assigns, the entire right, title and interest in and to the improvements in ADAPTIVE CODING SCHEME FOR A PROCESSING COMMUNICATIONS SATELLITE which has been invented by us, as described in the application for United States Patent which we executed respectively, on September 30, 1998, September 30, 1998, September 30, 1998, and September 30, 1998, and any and all applications for patent and patents therefore in any and all countries, including all divisions, reissues, continuations, and extensions thereof, and the right to claim the priority date of the first filed application in the United States, and authorize and request any official whose duty it is to issue patents, to issue any patent on said improvements or resulting therefrom to said TRW Inc., or its successors or assigns, and agree that on request and without further consideration, but at the expense of TRW Inc., we will communicate to TRW Inc. or its representatives or nominees any facts known to us respecting said improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths, and generally do everything possible to aid TRW Inc., its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

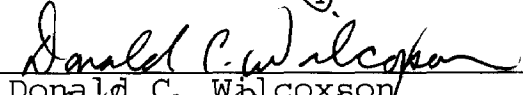
0930, 1998

Inventor:   
David A. Wright

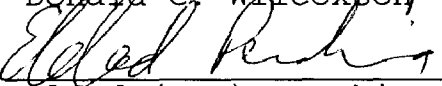
9/30, 1998

Inventor:   
Stuart T. Linsky

9/30, 1998

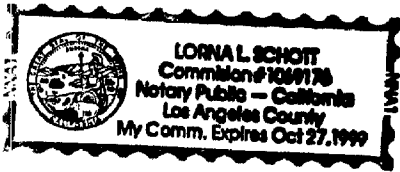
Inventor:   
Donald C. Wilcoxson

9/30, 1998

Inventor:   
Eldad (NMI) Perahia

STATE OF CALIFORNIA )  
 ) ss  
COUNTY OF LOS ANGELES )

On September 30, 1998 before me, Lorna L. Schott  
personally appeared David A. Wright  
~~personally known to me -or-~~ X 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 the he/she executed the same in  
his/her authorized capacity, and that by his/her signature on the  
instrument the person, or the entity upon behalf of which the person acted,  
executed the instrument.



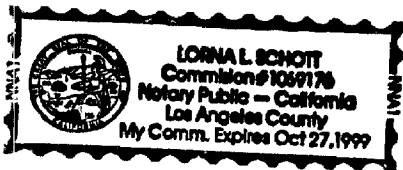
WITNESS my hand and official seal.

Notary Public

(SEAL)

STATE OF CALIFORNIA )  
 ) ss  
COUNTY OF LOS ANGELES )

On September 30, 1998 before me, Lorna L. Schott  
personally appeared Stuart T. Linsky  
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WITNESS my hand and official seal.

Notary Public

(SEAL)

STATE OF CALIFORNIA )  
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COUNTY OF LOS ANGELES )

On September 30, 1998 before me, Lorna L. Schott  
personally appeared Donald C. Wilcoxson

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WITNESS my hand and official seal.

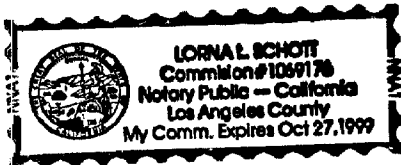
Lorna L. Schott  
Notary Public

(SEAL)

STATE OF CALIFORNIA )  
 ) ss  
COUNTY OF LOS ANGELES )

On September 30, 1998 before me, Lorna L. Schott  
personally appeared Eldad (NMI) Perahia

~~personally known to me~~ -or- X 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 the he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



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Notary Public

(SEAL)