

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL
 (Nature of Service)

W A 2 X I H
 (Call Sign)

XD FX
 (Class of station)

S-2819-EX-97
 (File number)

NAME Harris Canada, Inc.
Wireless '97 Show; Moscone Convention Center; San Francisco, CA
 (Location of station)
NL 37-47-04; WL 122-24-02

Special Temporary Authority is hereby granted to operate the radio transmitting apparatus described below:

Frequency (MHz)	Authorized Power (watts)	Emission Designator	Class of Station
878.79	1 mW (ERP)	40K0F8W	FX
889.53	1 mW (ERP)	40K0F8W	FX
890.55	1 mW (ERP)	40K0F8W	FX
893.10	1 mW (ERP)	40K0F8W	FX
893.52	1 mW (ERP)	40K0F8W	FX
893.70	1 mW (ERP)	40K0F8W	FX

Purpose of Operation: Demonstration of a new cellular base station system at a trade show.

Special Conditions:

- (1) Operation in the 869 - 894 MHz band requires consent of (a) cellular licensee(s) to avoid interference.

This special temporary authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This special temporary authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control by the Government of the United States conferred by Section 706 of the Communications Act of 1934.

This authorization effective March 1, 1997 and
 will expire 3:00 A.M. EST. March 6, 1997



S-2819-EX-97



Consultants:

Norwood J. Patterson, President

1416 Hollister Lane Los Osos, Ca. 93402
Ph. (805) 528-1996 Fax: (805) 528-1982

February 10, 1997

Federal Communications Commission
Attn: Carl Huie, Room 230
2000 M Street N. W.
Washington, DC 20554

Re: STA Request for Radio Show (Wireless '97)
in San Francisco, CA March 1-5, 1997

Applicant: Harris Canada, Inc.
c/o Norwood J. Patterson
1416 Hollister Lane
Los Osos, CA 93402

Fee Attached: \$45.00 Harris Check #1885, and Drug Statement

Dear Mr. Huie:

On or about February 11, 1997 an FCC Form 442 for an experimental license was filed with the FCC including the appropriate fee for Harris Canada, Inc. (Harris). Since time is of the essence, this STA is being filed.

STA Requirements:

Harris is a major manufacturer of cellular base stations. They are continually improving and upgrading their FCC type acceptance approved base stations. During the research and development (R&D) portion of their production, it is essential to get input from the public, telephone systems, and distributors as to features and operating compatibility. There is an industry wide radio show being presented in San Francisco at the Moscone Convention Center. It is very important for Harris to get input from the public, telephone operators, and distributors of the features of their new base station system "Radio Local Loop" (ROLL). It is not expected that the permanent FCC Experimental License can be processed within the time constraints of about two (2) weeks. Therefore, this request.

STA Location, ERP, etc.

Wireless '97 Show (CTIA) location is the Moscone Convention Center, San Francisco, CA.

Co-ordinates (NAD 27):

37° 46' 39" N. Lat.

122° 24' 40" W. Long.

37-47-04

122-24-02

see amendment

Transmitter Power: 1 mW

Antenna: Vertical 1/4 wave length

Gain: Numerical 1 (0 dB)

Frequencies: As assigned by Cellular Provider GTE (see letter attached)

Antenna Location: Within Booth Area 10-12 ft. above floor level

Emission: 40KOF8W (F1D) for all channels. It is expected to operate one (1) non-standard control channel and three (3) amps voice channels.

Conclusion:

Should you have any further questions I'll be prompt to respond via phone or Fax. Upon issuance of the STA please FAX a copy to me at 805-528-1982.

The original of this FAX and FCC Form 442 are being sent today by UPS Next Day Service (track #N576 240 347 9) to Mellon Bank and a copy to you.

Thanks for your prompt services.

Sincerely yours,

Radio & Tv Engineering Co.



Norwood J. Patterson
President

NJP:gdp
encl.

cc: Harris Canada, Inc.
Mr. John Yam

HUIE-FCC.LTR

Additional frags
Ch# 293 685

Exhibit _____ Page _____

Client HARRIS CANADA, INC.

Date 2/10/97

FCC form _____ Sec. _____ Pg. _____

LETTER STA REQUEST

By checking yes, the applicant certifies that, in case of an individual applicant, he or she is not subject to a denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862, or in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits, that includes FCC benefits, pursuant to that section. For a definition of a "party" for these purposes see 47 C.F.R 1.2002(b).

☒ Yes

☐ No

HARRIS CANADA, INC.

APPLICANT NAME (PRINT)

BY:

APPLICANT (SIGNATURE)

NORWOOD J. PATTERSON

AGENT

TITLE

2/10/97

DATE



	Model 832	Model 932	Model 864	Model 964
Maximum subscriber lines per Controller	1024	1024	5000*	5000*
2-Wire interface	✓	✓	optional	optional
Digital trunk interface	optional	optional	✓	✓
Analog trunk interface	optional	optional	optional	optional
EAMPS	✓		✓	
ETACS		✓		✓
Radio channels per Controller	32	32	64	64
Max. Roll systems per site	4	4	2	2
Erlangs per Controller (2% blocking)	22.8	22.8	52.5	52.5

*Limited by grade of service

System Specifications

Physical

Multiplexer (MuX), Wireless Access Unit (WAU) and RF frames

213.4 x 58.4 x 76.2 cm
84 x 23 x 30 in.

MuX Voltage

-42 to -56 Vdc (from Local Exchange)

WAU Voltage

+27 ± 10% Vdc

Environmental (Operating)

Temperature

0°C to +55°C

Humidity

5% to 95% (non condensing)

Altitude

3000 meters

Electrical

RF output per channel at antenna port

18 watts (nominal)

Receive sensitivity at antenna port

-119 dBm EAMPS (nominal)

-115 dBm ETACS (nominal)

Radio Frequencies

RF frequency range

EAMPS: Rx 824-849 MHz

Tx 869-894 MHz

ETACS: Rx 872-905 MHz

Tx 917-950 MHz

Product descriptions available on request.

Harris has made every effort to ensure the accuracy of this information, but makes no representations or warranty that the material is free from

HEAD OFFICE:

WIRELESS ACCESS DIVISION

HARRIS CANADA, INC.
6732 - 8TH STREET N.E.
CALGARY, ALBERTA
CANADA T2E 8M4

TEL: (403) 295-5000



12077 Alcosta Blvd- Dept #493
P.O.Box 5011
San Ramon, CA 94583-0811

Mar 1-5

ROLL digital
884
Mux

FAX COVER SHEET

DATE: January 29, 1997 TIME: 7:12 PM
TO: Pete Varasse PHONE: 817-849-2216
Harris Corp. Wireless Access FAX: 817-849-2110
FROM: S. Cathy Chang PHONE: 510-904-3541
RF Engineer FAX: 510-904-3529
RE: CTIA - Frequency Request
CC:

Number of pages including cover sheet: 3

Message

Pete,

I am sending you the forms that will be sent out to all the CTIA vendors shortly. Could you please fill out the information and send it back to me?

The control channel you requested will have to be a non-standard control channel. Also, you will have to have your power set to about 1 mW or less. Your equipment should ONLY cover YOUR booth area. Any coverage that extends past your booth may cause interference. You should have your phones/handset units to be transmitting at the lowest power possible (i.e. VMAC 7).

To verify again, you are requesting 1 non-standard AMPS control channel and 3 AMPS voice channels. Please state this on your form back to me.

I will probably not be able to give you the exact frequencies until closer to the show since we are having difficulty finding frequencies at this time.

If you have any questions, please just give me a call.

Thanks, Cathy



Consultants:
Norwood J. Patterson, President

1416 Hollister Lane Los Osos, Ca. 93402
Ph. (805) 528-1996 Fax: (805) 528-1982

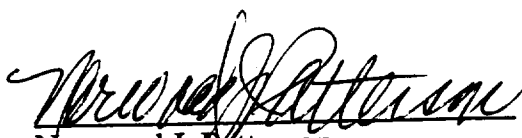
TELECOPIER COVER SHEET

Date: Thursday, February 13, 1997 # Pgs. w/cover: 3
Client: Harris Canada, Inc.
To: Mr. Carl Huie, Room 230
2000 M St. N.W., Washington, DC
From: Norwood J. Patterson
Re: Experimental License and STA for Harris Canada, Inc. (Harris)

In line with our telephone conversation on February 12th, per your request attached is a newly signed signature page for FCC Form 442, signed by a Vice President of Harris.

Also attached is a copy of the letter from GTE authorizing the frequencies to be used by Harris at the Wireless '97 exposition in the Moscone Exhibit Center, San Francisco.

Should you have any further question, I will respond promptly.


Norwood J. Patterson

No. Receiving FAX: 1-202-418-1918

Fax-Form.FCC

TRANSACTION REPORT						FEB-14-97 FRI 14:52
DATE	START	RECEIVER	TX TIME	PAGES	NOTE	
FEB-14	14:50	12024181918	2'30"	3	OK	



Consultants:

Norwood J. Patterson, President

1416 Hollister Lane Los Osos, Ca. 93402
Ph. (805) 528-1996 Fax: (805) 528-1982

February 14, 1997

Federal Communications Commission
Attention: Mr. Carl Huie, Room 230
2000 M Street, N. W.
Washington, DC 20554

Re: Experimental License & STA for Harris Canada, Inc.

Dear Mr. Huie:

Confirming our telephone conversation, enclosed is the original signature page 5 of FCC form 442 which you requested. Also enclosed is the memo from GTE assigning the frequencies.

We have just FAXed this information to you, but are mailing this original signature today so you will have it for your files.

If you have any further questions please contact me. I am looking forward to these approvals arriving soon so the needs for the Wireless '97 trade show are met.

Thanks for your consideration.

Sincerely yours,

Radio & Tv Engineering Co.

Norwood J. Patterson
President

NJP:gdp
encl.



12677 Alcosta Blvd.
San Ramon, CA 94583
(510) 904-3541 office
(510) 904-3529 fax

February 14, 1997

Pete Varasse (817-949-2216) via Fax at 817-949-2110
Norwood Patterson (805-528-1996) via Fax at 805-528-1982
Harris Wireless Access Division

RE: COORDINATION OF FREQUENCIES

Below is a list of the 30kHz Channels that have been coordinated for your use inside the Moscone Center for CTIA which is from March 3 to March 5. Under no circumstances are you to emit RF outside of these frequencies. Otherwise, you WILL cause interference to our cellular customers and/or other vendors at the show. We request that you do not transmit higher than 1 mW ERP and that your subscriber units have a VMAC of 7 or greater, i.e. the phones are transmitting at the lowest power possible. The coverage of your RF should not extend past your booth area. The below frequencies were given with this assumption. If you are unable to do this, you WILL cause interference.

As required by the FCC, should any interference occur, you will need to cease transmission until it is solved. Please note that this is just a letter to coordinate frequencies for CTIA 1997. The user is responsible in obtaining all necessary permits and authorizations for these frequencies.

These frequencies were selected because they provide minimal interference for your use and for our cellular customers. In no way can we guarantee non-interference. If these frequencies are found to be a problem for you, please contact me.

You requested 4 30kHz channels.

The following 30kHz channels are available for your use, assuming you will be in Booth #445 in the North Hall:

651 (889.53MHz Cell TX/844.530MHz Mobile TX center freq),
770 (893.10/848.1), 784 (893.52/848.52), and 790 (893.7/848.7).

If the number of channels or the terms of transmission are unsatisfactory for your needs, you are welcome to contact Young Suh of CellularOne at 415-837-5467 (fax 415-827-5552).

Thank you,
S. Cathy Chang, RF Engineer

**Consultants:**

Norwood J. Patterson, President

1416 Hollister Lane Los Osos, Ca. 93402
Ph. (805) 528-1996 Fax: (805) 528-1982**TELECOPIER COVER SHEET**

Date: Monday, February 24, 1997 # Pgs. w/cover: 4

Client: Harris Canada, and Aval Communications

To: Doug Young, FCC Experimental Department
2000 M Street, Room 271A
Telephone (202) 418-2440

From: Norwood J. Patterson

Re: Frequencies assigned for STA authorizations

*Please
call Doug
Young
418-2440*

Thanks for your help in getting the two above referenced clients their STA for the San Francisco Wireless '97 Trade Show. I appreciate your telephone calls and am enclosing herewith the list of frequencies, and confirmation from Cellular One just received, and the formula you requested.

I believe this covers everything necessary for a grant of these STA's. If you have any further questions please call.

Norwood Patterson
Norwood J. Patterson 2-24-97

No. Receiving FAX: 1-202-418-1918

Fax-Form.FCC

Re-run
1 PG Missed
Before



Consultants:
Norwood J. Patterson, President

1416 Hollister Lane Los Osos, Ca. 93402
Ph. (805) 528-1996 Fax: (805) 528-1982

TELECOPIER COVER SHEET

Date: Saturday, February 22, 1997 # Pgs. w/cover: 1
Client: Cellular One
To: Mr. Young Suh
From: Norwood J. Patterson
Re: Frequencies for Wireless '97 March 1-5, 1997
Moscone Convention Center, San Francisco

I have prepared this FAX form to save your time in confirming Cellular frequencies for:
Harris Canada, Inc. (Harris)
6732 - 8th Street N. E.
Calgary, Alberta, Canada T2E 8M4

The following channels are assigned by Cellular One for Harris at the Wireless '97 Trade Show, with power limited to 1 m.W.

North HALL
#1 Calling Non-Standard Channel 293 (878.790 MHz)
#2 Three Working Channels:
1. 685 2. --- 3. --- (890.550 MHz)

Please insert the assigned numbers, sign below, and FAX to me at 805-528-1982.

Norwood J. Patterson 2-22-97
Norwood J. Patterson

CELLULAR ONE

Young Suh
Young Suh
Date 2/24/97

SUBJECT TO NO INTERFERENCE
* TO BE USED BACK UP TO GTE
* No more than 1mW ERP, power level
7 on mobile

TRANSACTION REPORT

FEB-22-97 SAT 10:55

P.01

DATE	START	RECEIVER	TX TIME	PAGES	NOTE
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FEB-22 10:54 14158275552

44*

1

OK

Table 2-7: Channel Designation and Frequency Assignments

SYSTEM	CHANNEL	RECEIVE FREQUENCY	TRANSMIT FREQUENCY
Not Used	990	824.010 MHz	869.010 MHz
A'	991 to 1023	824.040 to 825.000 MHz	869.040 to 870.000 MHz
A	1 to 333	825.030 to 834.990 MHz	870.030 to 879.990 MHz
B	334 to 666	835.020 to 844.980 MHz	880.020 to 889.980 MHz
A'	667 to 716	845.010 to 846.480 MHz	890.010 to 891.480 MHz
B'	717 to 799	846.510 to 848.970 MHz	891.510 to 893.970 MHz

Channel frequency calculation (in the following, N = channel number):

When the channel is between 1 and 799:

- Receive Frequency (MHz) = $0.03N + 825.000$
- Transmit Frequency (MHz) = $0.03N + 870.000$

When the channel is between 990 and 1023:

- Receive Frequency (MHz) = $0.03 (N - 1023) + 825.000$
- Transmit Frequency (MHz) = $0.03 (N - 1023) + 870.000$

R Radio & Tv
E Engineering
C Company

Norwood J. Patterson, Pres.
1416 Hollister Lane
Los Osos, Ca. 93402

Ph: (805)528-1996
Fax: (805)528-1982

Exhibit _____ Page _____
Client _____
Date _____

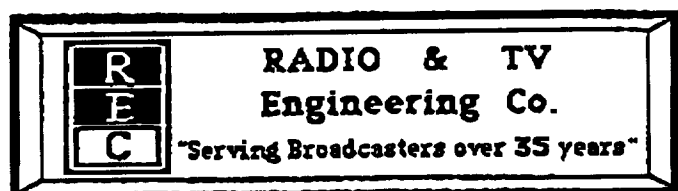
**ASSIGNED FREQUENCIES FOR
WIRELESS '97 TRADE SHOW
San Francisco, CA March 1-5, 1997**

AVAL COMMUNICATIONS, INC.:

<u>Ch. No.</u>	<u>Frequency (mHz)</u>
194	875.820
173	875.190
152	874.560

HARRIS CANADA, INC.

293	878.790
685	890.550

**Consultants:**

Norwood J. Patterson, President

 1416 Hollister Lane Los Osos, Ca. 93402
 Ph. (805) 528-1996 Fax: (805) 528-1982
TELECOPIER COVER SHEET

Date: Tuesday, February 25, 1997 # Pgs. w/cover: 2
 Client: Harris Canada, and Aval Communications
 To: Doug Young, FCC Experimental Department
 2000 M Street, Room 271A
 Telephone (202) 418-2440
 From: Norwood J. Patterson
 Re: Co-Ordinates for Wireless '97 Trade Show

*Please
send to
Doug Young
immediately!*

I apologize for the confusion on co-ordinates of the Moscone Convention Center. Attached is a map prepared from my Rand McNally map program from which the co-ordinates have been calculated. The co-ordinates obtained from this map are to an accuracy of 1-minute latitude and longitude, which determine them to be:

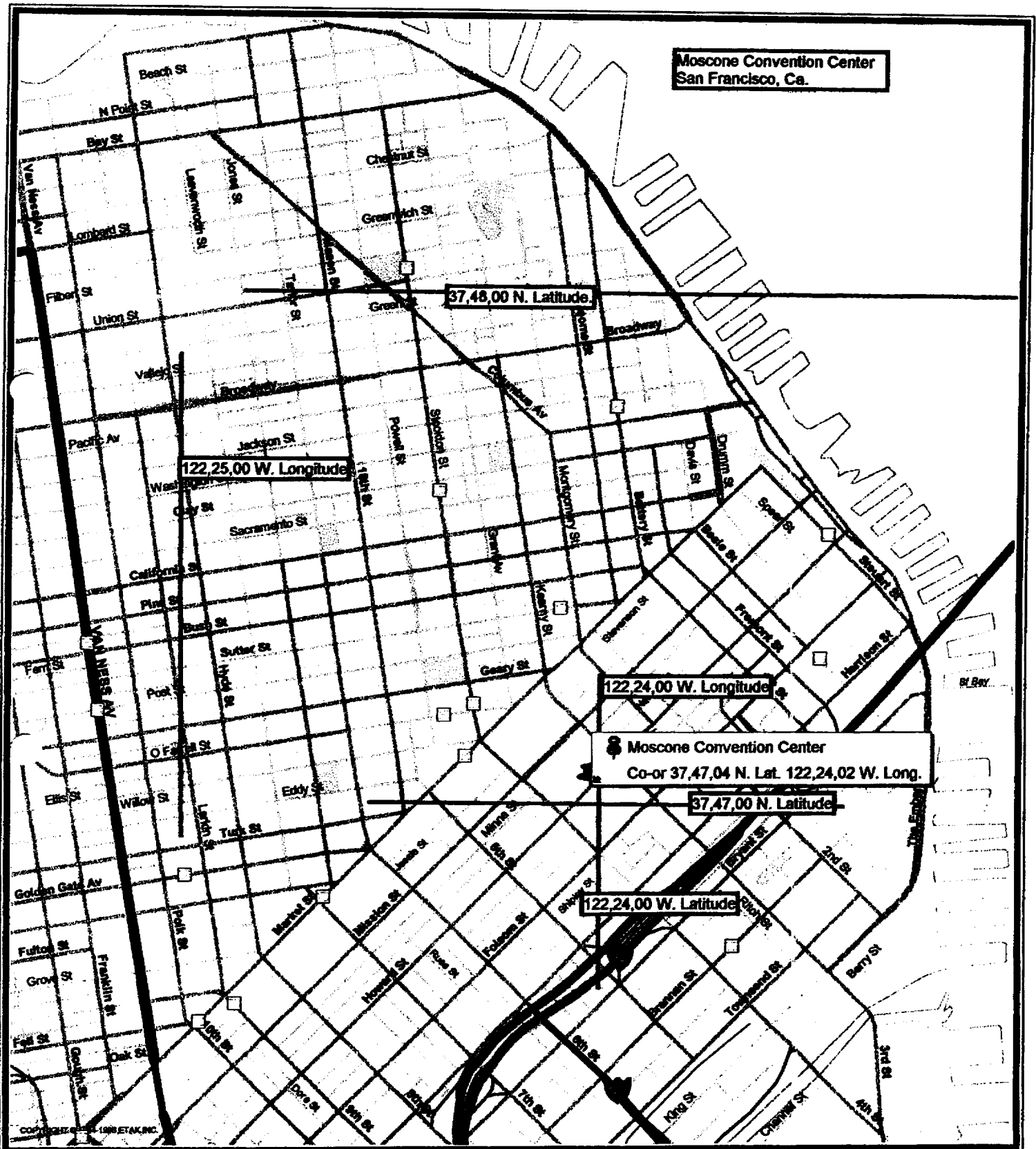
37° 47' 04" N. Lat.
122° 24' 02" W. Long.

Norwood J. Patterson
Norwood J. Patterson

No. Receiving FAX: 1-202-418-1918

Fax-Form.FCC

Moscone Convention Center Co-Ordintes



27 CERTIFICATION:

Attention: Read this certification carefully before signing this application.

THE APPLICANT CERTIFIES THAT:

- (a) Copies of FCC Rule Parts 2 and 5 are on hand; and
- (b) Adequate financial appropriations have been made to carry on the program of experimentation which will be conducted by qualified personnel; and
- (c) All operations will be on an experimental basis in accordance with Part 5 and other applicable rules, and will be conducted in such a manner and at such a time as to preclude harmful interference to any authorized station; and
- (d) Grant of the authorization requested herein will not be construed as a finding on the part of the Commission:
 - (1) that the frequencies and other technical parameters specified in the authorization are the best suited for the proposed program of experimentation, and
 - (2) that the applicant will be authorized to operate on any basis other than experimental, and
 - (3) that the Commission is obligated by the results of the experimental program to make provision in its rules including its table of frequency allocations for applicant's type of operation on a regularly licensed basis.

APPLICANT CERTIFIES FURTHER THAT:

- (e) All the statements in the application and attached exhibits are true, complete and correct to the best of the applicant's knowledge; and
- (f) The applicant is willing to finance and conduct the experimental program with full knowledge and understanding of the above limitations; and
- (g) The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the USA.

Signed and dated this 11 TH day of FEBRUARY, 19 97

Name of Applicant HARRIS CANADA, INC.

(must correspond with name given on page 1)

By JAMES H. CHINNICK

(print)

James H. Chinnick
(signature)

Title VICE PRESIDENT & GENERAL MANAGER

Check appropriate classification:

- ☐ Individual applicant
- ☐ Member of applicant partnership
- ☐ Authorized employee
- ☒ Office of applicant corporation or association

*orig sig filed
computationally w/*
565D-EX-PL-97
dy

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

NOTIFICATION TO INDIVIDUALS UNDER PRIVACY ACT OF 1974
AND THE PAPERWORK REDUCTION ACT OF 1980

Information requested through this form is authorized by the Communications Act of 1934, as amended, and specified by Section 808 therein. The information will be used by Federal Communications Commission staff to determine eligibility for issuing authorizations in the use of the frequency spectrum and to effect the provisions of regulatory responsibilities rendered by the Commission by the Act. Information requested by this form will be available to the public unless otherwise requested pursuant to 47 CFR 0.459 of the FCC Rules and Regulations. Your response is required to obtain this authorization.

Public reporting burden for this collection of information is estimated to average four (4) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0085), Washington, DC 20554. DO NOT send completed applications to this address. Individuals are not required to respond to this collection unless it displays a currently valid OMB control number.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.



FAX COVER SHEET

Page 1 of 7 pages

DATE: February 25, 1997

FROM: Douglas A. Young 1300 - C1
FEDERAL COMMUNICATIONS COMMISSION
Experimental Licensing Branch
2000 M Street, Suite 230
Washington, DC 20554

PHONE: (202) 418-2440

FAX: (202) 418-1918

TO: Mr. Norwood J. Patterson
NAME

Radio & TV Engineering Co.
COMPANY

(805) 528 - 1996
PHONE

(805) 528 - 1982
FAX

Mr. Patterson:

Here are copies of Harris Canada, Inc.'s STA and experimental license for station WA2XIH, File Numbers S-2819-EX-97 and 5650-EX-PL-97, respectively; and Aval Communications, Inc. STA and experimental license for station WA2XII, File Numbers S-2822-EX-97 and 5657-EX-PL-97, respectively. The original licenses will be mailed to the licensees this week.

Doug Young