

**FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPECIAL TEMPORARY AUTHORITY**

This request for Special Temporary Authority is for a NEW STA.

1. NAME OF APPLICANT:

Raytheon Company

2. MAILING ADDRESS:

Attention: J. Weckback FCC/EEEC (Fort Wayne)
Raytheon Company
528 Boston Post Road
Sudbury, MA 01776

3. GIVE THE FOLLOWING INFORMATION OF PERSON WHO CAN BEST HANDLE INQUIRIES PERTAINING TO THIS APPLICATION:

NAME: James Buschur
TITLE: Program Manager
PHONE NUMBER: (219) 429-5204
E-MAIL ADDRESS: jabusc@ftw.rsc.raytheon.com

4. PLEASE EXPLAIN BELOW WHY AN STA IS NECESSARY:

An STA is required to allow Raytheon to fulfill requirements of a government contract with an agency of the United States Government. Raytheon must conduct field tests and demonstrations of a wideband spread-spectrum waveform within the next couple of months in order to meet the military customer's timeline.

The Advanced Signal Processing and Networking (ASPEN) program is part of the DARPA Global Mobile Information Systems program, under Federal contract # F30602-97-C-0314 and I.O.T. # EHC7-EA1

5. PLEASE EXPLAIN THE PURPOSE OF THE OPERATION:

Raytheon will test a new wideband Direct Sequence Spread Spectrum waveform intended to be used as a tactical battlefield internet for U.S. Military forces. The field test will help investigate effects of variable transmitted power levels and processing gain of the waveform in both urban and rural settings in order to achieve maximum data rates and distances across typical terrain.

6. GIVE AN ESTIMATE OF THE LENGTH OF TIME THAT WILL BE REQUIRED TO COMPLETE THE PROGRAM OF EXPERIMENTATION PROPOSED IN THIS STA:

OPERATION START DATE: 04/15/2000
OPERATION END DATE: 05/31/2000

7. CLASS OF STATION: NATURE OF SERVICE:

Fixed transmitter and Mobile receiver. EXPERIMENTAL No previous Call Sign

8. PARTICULARS OF OPERATION: (similar to Part 15.245 except lower frequency band)

Frequency (MHz)	EIRP (Watts)	Emission Designation	Modulation Type/description	Necessary Bandwidth
420-440 MHz Nominal center freq. of 430 MHz	4 Watts	14M0W9W	Quasi-Band Limited BPSK Direct Sequence Spread Spectrum at 20Mchip/s	3db BW of 14MHz

9. PROPOSED LOCATION OF FIXED TRANSMITTERS					
SITE #	STATE	COUNTY	CITY	N. LATITUDE	W. LONGITUDE
1. (rural): ZULU	IN	ALLEN	MONROEVILLE	41-02-31	84-50-01
2. (urban): HEADWATERS PARK	IN	ALLEN	FORT WAYNE	41-05-08	85-06-28

10. ANTENNA TYPE AND HEIGHT ABOVE GROUND LEVEL

 Vertical Dipole, Omni-Azimuthal Pattern, maximum height 2 meters AGL.

11. LIST BELOW TRANSMITTING EQUIPMENT TO BE INSTALLED

MANUFACTURER	MODEL	NO. OF UNITS	EXPERIMENTAL?
Raytheon	ASPEN prototype	2	Yes

12. CERTIFICATION

- Neither the applicant nor any other party to the application is 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. Section 862, because of a conviction for possession or distribution of a controlled substance.
- The applicant hereby waives any claim to the use of any particular frequency or electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).
- 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 to preclude harmful interference to any authorized station.
- Applicant certifies that the construction of the station would NOT be an action which is likely to have a significant environmental effect. See Commission's Rules, 47 CFR 1.1301-1.1319.
- The applicant acknowledges that all statements made in this application and attached exhibits are considered material representations, and that all the exhibits are part hereof and are incorporated herein as if set out in full in this application. The undersigned certifies that all statements in this application are true, complete, and correct to the best of his/her knowledge and belief and are made in good faith.

13. SIGNATURE OF APPLICANT (Authorized person filing form):

Blaine Heinfeld

Date: 3/13/00

PRINTED NAME OF APPLICANT ↑
Director, Info. Tech.

TITLE OF PERSON SIGNING APPLICATION: ↑

CHECK APPROPRIATE CLASSIFICATION:

☐ Individual Applicant
☒ Authorized employee

☐ Member of applicant partnership
☐ Officer of applicant corporation or association