

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

WE2XYG

(Call Sign)

XT MO

(Class of Station)

0112-EX-CR-2019

(File Number)

NAME BAE Systems Information and Electronic Systems Integration Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(i) of the Commission's Rules

Station Locations

- (1) MOBILE: Temporary Fixed Locations, Merrimack, NH, within 0.2 km, centered around
NL 42-48-30; WL 71-29-15

Frequency Information

MOBILE: Temporary Fixed Locations, Merrimack, NH, within 0.2 km, centered around NL 42-48-30; WL 71-29-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1.5 MHz	MO	NON	0.061 W (ERP)	
2-5 MHz	MO	NON	0.1 W (ERP)	
2.9 MHz	MO	NON	0.1 W (ERP)	
3 MHz	MO	NON	0.1 W (ERP)	

This authorization effective May 01, 2019 and
will expire 3:00 A.M. EST May 01, 2021

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.4 MHz	MO	N0N	0.1 W (ERP)	
3.5 MHz	MO	N0N	0.1 W (ERP)	
4.7 MHz	MO	N0N	0.1 W (ERP)	
5-74.8 MHz	MO	N0N	0.1 W (ERP)	
5.6 MHz	MO	N0N	0.1 W (ERP)	
6.6 MHz	MO	N0N	0.1 W (ERP)	
11.4 MHz	MO	N0N	0.1 W (ERP)	
75.4-107.9 MHz	MO	N0N	0.1 W (ERP)	
110.25 MHz	MO	N0N	0.1 W (ERP)	
112.25 MHz	MO	N0N	0.1 W (ERP)	

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
117.75 MHz	MO	N0N	0.1 W (ERP)	
121.95 MHz	MO	N0N	0.1 W (ERP)	
122.025 MHz	MO	N0N	0.1 W (ERP)	
123.25 MHz	MO	N0N	0.1 W (ERP)	
123.575 MHz	MO	N0N	0.1 W (ERP)	
126.2 MHz	MO	N0N	0.1 W (ERP)	
128.825 MHz	MO	N0N	0.1 W (ERP)	
129.55 MHz	MO	N0N	0.1 W (ERP)	
130 MHz	MO	N0N	0.1 W (ERP)	
130.825 MHz	MO	N0N	0.1 W (ERP)	

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
132 MHz	MO	N0N	0.1 W (ERP)	
136.15 MHz	MO	N0N	0.1 W (ERP)	
137.1-152.885 MHz	MO	N0N	0.1 W (ERP)	
153.4 MHz	MO	N0N	0.1 W (ERP)	
154-156.515 MHz	MO	N0N	0.1 W (ERP)	
156.81-161.625 MHz	MO	N0N	0.1 W (ERP)	
161.775-162 MHz	MO	N0N	0.00316 W (ERP)	
164-173.6 MHz	MO	N0N	0.1 W (ERP)	
174-185 MHz	MO	N0N	0.1 W (ERP)	
193-197 MHz	MO	N0N	0.1 W (ERP)	

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
205-209 MHz	MO	N0N	0.1 W (ERP)	
217-224 MHz	MO	N0N	0.1 W (ERP)	
400-406 MHz	MO	N0N	0.1 W (ERP)	
420-454 MHz	MO	N0N	0.1 W (ERP)	
456-462.94 MHz	MO	N0N	0.1 W (ERP)	
463.176-470 MHz	MO	N0N	0.1 W (ERP)	
472.225 MHz	MO	N0N	0.1 W (ERP)	
476.95 MHz	MO	N0N	0.1 W (ERP)	
481.725 MHz	MO	N0N	0.1 W (ERP)	
486.525 MHz	MO	N0N	0.1 W (ERP)	

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491.4 MHz	MO	N0N	0.1 W (ERP)	
496.3 MHz	MO	N0N	0.1 W (ERP)	
500-589 MHz	MO	N0N	0.1 W (ERP)	
597-607 MHz	MO	N0N	0.1 W (ERP)	
615-745 MHz	MO	N0N	0.1 W (ERP)	
806-823 MHz	MO	N0N	0.1 W (ERP)	
849-868 MHz	MO	N0N	5 W (ERP)	
895-932 MHz	MO	N0N	0.1 W (ERP)	
933-959 MHz	MO	N0N	0.1 W (ERP)	
1215 MHz	MO	N0N	0.1 W (ERP)	

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1356 MHz	MO	N0N	0.1 W (ERP)	
1991-1994 MHz	MO	N0N	0.1 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (3) Restrictions still apply from previous FAA coordination for 0293-EX-PL-2007 as specified in the FAA/Arent Fox LLP correspondence dated February 7, 2008.
- (4) Operation is subject to prior coordination with local Society of Broadcast Engineers (SBE) in the following frequency bands: 450-454 MHz; 455-456 MHz; 472.225 MHz; 476.95 MHz; 481.725 MHz; 486.525 MHz; 491.4 MHz; 496.3 MHz; 500-932 MHz; 932-935 MHz; 1215-2700 MHz; 1.5 MHz; 25-27 MHz; 54-72 MHz; 75.4-107.9 MHz; 152.855-154 MHz; 156.81-161.625 MHz; 162.85 MHz; 164-173.6 MHz and 174-216 MHz.
- (5) Operation in the following frequencies requires pre-coordination with the FAA ESA Frequency Management Officer/Boston (Dave Harris): 110.25 MHz, 112.25 MHz, 117.275 MHz, 117.75 MHz, 122.025 MHz, 123.25 MHz, 126.2 MHz, 129.55 MHz, 135.075 MHz, 136.150 MHz.
- (6) Operation is subject to prior coordination with ARINC for using the following frequencies: 130 MHz, 130.825 MHz and 132 MHz.
- (7) The following frequencies are to be NOTCHED OUT +/- 12.5 KHz: 163.2375 MHz, 163.3625 MHz, 165.5375 MHz, 166.0125 MHz, 166.7125 MHz, 167.8625 MHz, 167.8875 MHz, 168.5250 MHz, 168.6625 MHz, 169.1875 MHz, 170.5875 MHz, 172.6875 MHz, 164.1250 MHz, 164.1500 MHz, 164.3750 MHz, 164.5750 MHz, 165.2875 MHz, 165.8750 MHz, 165.9250 MHz, 166.4625 MHz, 166.5375 MHz, 167.2125 MHz, 167.2375 MHz, 167.2625 MHz, 167.3625 MHz, 167.3875 MHz, 167.4375 MHz, 167.4875 MHz, 167.5375 MHz, 167.5625 MHz, 167.6375 MHz, 167.7125 MHz, 167.7625 MHz, 167.7875 MHz, 167.8250 MHz, 168.4250 MHz, 169.5750 MHz, 169.6250 MHz, 169.7250 MHz, 170.8750 MHz, 171.6250 MHz, 172.0750 MHz, 173.1500 MHz, 173.6875 MHz, 173.8875 MHz, 40.23 MHz, 41.97 MHz, 41.99 MHz, 45.86 MHz, 45.90 MHz, 46.65 MHz and 49.75 MHz.
- (8) The following frequencies are to be NOTCHED OUT +/- 3 KHz: 2332 kHz, 12140 kHz, 27065 kHz, 27185 kHz, 27575 kHz and 27585 kHz.

Special Conditions:

- (9) Operation the frequency 345 MHz is NOT PERMITTED to protect Coast Guard operations in the area.
- (10) BAE acknowledge that the 462.95-463.175 MHz frequencies are being used for medical radio communications and shall avoid harmful interference to medical devices.
- (11) Restrictions still apply from previous FCC licenses: 0221-EX-ST-2005, 0060-EX-ST-2006, and 0168-EX-ST-2006.
- (12) No operation is allowed to use the frequency 162.85 MHz due to potential harmful interference to government operations.
- (13) Operation is subject to prior coordination with FAA Eastern JFK International Airport, New York, ATTN: Frequency Management Office, phone 718-712-8343.
- (14) Operation is NOT permitted on these frequency bands:
M00608.000000 - M00614.000000
M00756.000000 - M00775.000000
M00788.000000 - M00805.000000
- (15) ERP is NOT exceed 0.1W in the frequency band 118 -137 MHz with exceptions no vertical transmission +/- 50 kHz of M121.5 and no vertical transmissions +/- 25 kHz of M118.25, M121.8, M124.4, M125.05, M125.10, M125.825, M127.35, M133.2, M134.25, and M134.75.
- (16) The frequency band 118 - 137 MHz is used only in an emergency jeopardizing life, public safety, or important property under conditions calling for immediate communications where other means of communication do not exist or are temporarily disrupted or inadequate.
- (17) The band 118-137 MHz is authorized only for air/ground frequency assign in the Aeronautical Assignment and Military Assignment Group and is for "back-up" use only when regular channels are either temporarily disrupted or inadequate.
- (18) Operation the frequency 1215 MHz and 1356 MHz is subject to prior coordination with FAA New England Regional Office: 12 New England Executive Park, Burlington, Massachusetts 01803, phone (617) 273-7177.
- (19) The designated point-of-contact to terminate transmissions if interference occurs is George Moynihan (603) 689-8630 and BAE Systems Emergency Services Center (603) 885-3842.
- (20) The use of public safety frequencies list under rule CFR 90.20 is prohibited.
- (21) Operation is NOT PERMITTED on the following frequency bands:
2495-2505 kHz
2850-3155 kHz
3400-3500 kHz
4650-4750 kHz
4995-5000 kHz
9995-10005 kHz
14990-15010 kHz
19990-20010 kHz
24990-25010 kHz
73-74.6 MHz
- (22) Operation the frequency 1356 MHz, blanking is required from 120-130, 200-210, 245-260 and 325-335 degrees.

Special Conditions:

- (23) The frequency 125.725 MHz is NOT PERMITTED but the licensee can use 126.2 MHz for this experiment.
- (24) The frequency 134.8 MHz is NOT PERMITTED but the licensee can use 135.075 MHz for this experiment.
- (25) Experimental use is secondary to, and must not interfere with, Flight Test operations. Licensee must coordinate with other user as necessary to minimize interference. Renewal of this License is subject to prior coordination with AFTRCC Frequency Advisory Committee, www.aftrcc.org;
- (26) Operation is NOT PERMITTED using the frequency 112 MHz, 120 MHz, 120.825 MHz, 121.725 MHz, 124 MHz, 124.475 MHz, 125.725 MHz, 126.975 MHz, 128 MHz, 134 MHz, 134.1 MHz, 134.8 MHz, 1080 MHz.
- (27) Operation is permitted using the frequency 1215 MHz and 1356 MHz only in the band 1215-1390 MHz .
- (28) Operation any frequencies in the band 128.8125-132.0125 MHz and 136-137 MHz is subject to prior coordination with Aviation Spectrum Resources, Inc. (ASRI).
- (29) Operation the frequency 123.575 MHz is subject to prior coordination with AFTRCC.
- (30) Operation the frequency 1215 MHz, blanking is required between 0-270 degrees reference to True North.
- (31) The FAA frequencies shall be coordinated prior to authorization with FAA Headquarters, 800 Independence Avenue, S.W., Washington, D.C. 20591. Phone: 202-267-8699.