

Exhibit 1

1. Introduction

By the instant application (“Application”), BAE Systems Information and Electronic Systems Integration Inc. (“BAE Systems”) requests that the Commission grant special temporary authority (“STA”) to permit BAE Systems to operate the facilities (the “Facilities”) specified in the instant application. STA is requested for a period of six (6) months, commencing June 22, 2012.

2. Purpose of the Operation

The testing at the Michael Army Airfield located in and around Dugway, Utah is a critical part of the manufacture and delivery of military systems provided to the Armed Forces in support of Homeland Security as well as war efforts. Specifically, this demonstration will be conducted as part of deliverable requirements of a government contract

The intent is to utilize a fixed position, ground-based emitter, transmitting CW test signals to conduct low level multi-tone stepped CW tests on aircraft-based antenna receiver systems. Routine operations are desired. Test signal transmissions are to be conducted on a frequent and recurring basis, typically eight (8) hours or less per sortie.

The ground-based emitter will be located within the operational area that is specified in the license request, operating on a temporary-fixed basis at ground level only. Applicant will not be transmitting RF from the aircraft.

This request supports calibration of a Quick Reaction RF Sensor payload procured by contract W15P7T-12-C-C009.

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3. Description of Transmit Pulse Description

Test signal frequency sweep lists will be comprised of a subset of frequencies from the requested frequency ranges noted in Paragraph 4. The sweep list transmission will be repeated as the test aircraft executes flight turns. When the aircraft completes the test turn, the sweep list transmission is terminated. Another sweep list is then created with a new subset of frequencies. The transmission and turn processes are then repeated with the new sweep list. The test signal pulse is described below.

The transmit control station generates a 30 MHz software defined wide band waveform that is transmitted for a duration of 25 milliseconds (ms). Each wideband wave form consists of up to 6 signals centered at the discrete frequencies from the authorized frequency list. Each signal is composed of a tone at the discrete frequency and up to two tones, one below and one above the center frequency spaced 25 kHz from the center tone. Each wideband waveform is transmitted once from a vertical linear polarized antenna and repeated from a horizontal polarized antenna for a 50 ms total transmission time for each frequency set. At the conclusion of each transmission set, a new software defined waveform is located at the next high band of frequencies. The period between transmission sets will not be less than 3 seconds. An example of the frequency step plan is shown in Figure 1 below.

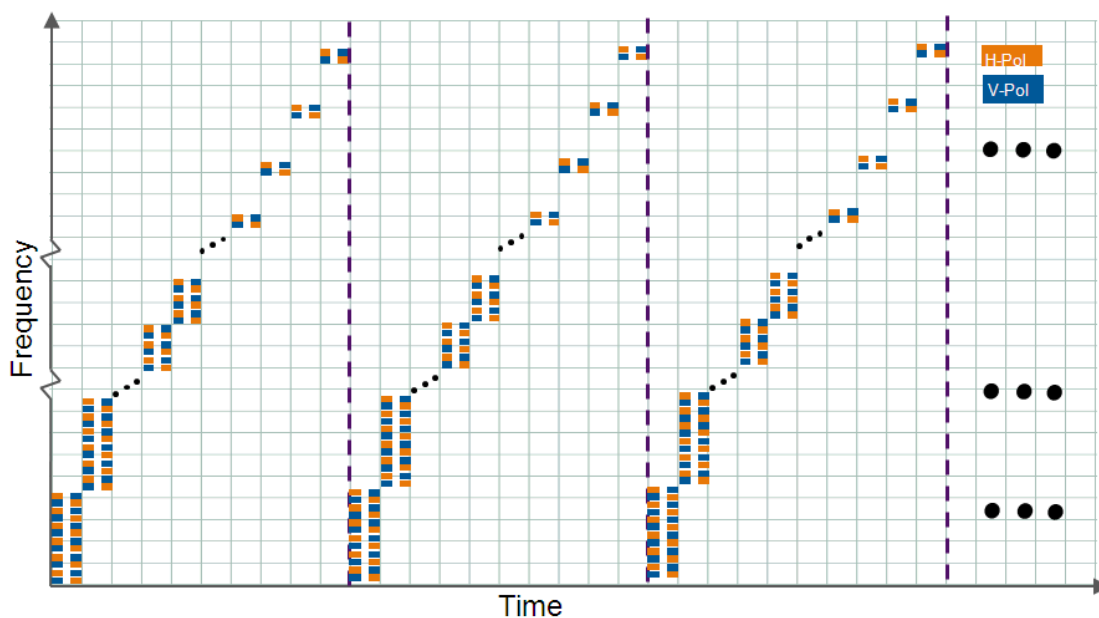


Figure 1 Transmission Signal Frequency Step Plan

4. Frequency Requirements For Ground-Based Transmissions

Test signal frequency sweep lists will be comprised of a subset of frequencies from those listed below. Although the application lists three distinct frequency bands (100-500 MHz, 800-1000 MHz, and 1600-2000MHz), BAE Systems is requesting only the frequencies listed below from within the specified bands contained in the application.

Signal #	Frequency (MHz)	Additional Tones	Maximum Power ERP (Watts)
1	100.00	± 25.0 kHz	120.2
2	101.45	± 25.0 kHz	120.2
3	103.48	± 25.0 kHz	120.2

Signal #	Frequency MHz	Additional Tones	Maximum Power ERP (Watts)
54	281.18	± 25.0 kHz	120.2
55	286.81	± 25.0 kHz	120.2
56	292.54	± 25.0 kHz	120.2

Signal #	Frequency (MHz)	Additional Tones	Maximum Power ERP (Watts)
4	105.55	± 25.0 kHz	120.2
5	107.66	± 25.0 kHz	120.2
6	109.81	± 25.0 kHz	120.2
7	112.01	± 25.0 kHz	120.2
8	114.25	± 25.0 kHz	120.2
9	116.53	± 25.0 kHz	120.2
10	118.86	± 25.0 kHz	120.2
11	120.00	± 25.0 kHz	120.2
12	122.40	± 25.0 kHz	120.2
13	124.85	± 25.0 kHz	120.2
14	127.34	± 25.0 kHz	120.2
15	129.89	± 25.0 kHz	120.2
16	132.49	± 25.0 kHz	120.2
17	135.14	± 25.0 kHz	120.2
18	137.84	± 25.0 kHz	120.2
19	140.60	± 25.0 kHz	120.2
20	143.41	± 25.0 kHz	120.2
21	146.28	± 25.0 kHz	120.2
22	149.20	± 25.0 kHz	120.2
23	152.19	± 25.0 kHz	120.2
24	155.23	± 25.0 kHz	120.2
25	158.34	± 25.0 kHz	120.2
26	161.50	± 25.0 kHz	120.2
27	164.73	± 25.0 kHz	120.2
28	168.03	± 25.0 kHz	120.2
29	171.39	± 25.0 kHz	120.2
30	174.82	± 25.0 kHz	120.2
31	178.31	± 25.0 kHz	120.2
32	181.88	± 25.0 kHz	120.2
33	185.52	± 25.0 kHz	120.2
34	189.23	± 25.0 kHz	120.2
35	193.01	± 25.0 kHz	120.2
36	196.87	± 25.0 kHz	120.2
37	200.81	± 25.0 kHz	120.2
38	204.83	± 25.0 kHz	120.2
39	208.92	± 25.0 kHz	120.2
40	213.10	± 25.0 kHz	120.2
41	217.36	± 25.0 kHz	120.2

Signal #	Frequency MHz	Additional Tones	Maximum Power ERP (Watts)
57	298.39	± 25.0 kHz	120.2
58	304.36	± 25.0 kHz	120.2
59	310.45	± 25.0 kHz	120.2
60	316.66	± 25.0 kHz	120.2
61	322.99	± 25.0 kHz	120.2
62	329.45	± 25.0 kHz	120.2
63	336.04	± 25.0 kHz	120.2
64	342.76	± 25.0 kHz	120.2
65	349.62	± 25.0 kHz	120.2
66	356.61	± 25.0 kHz	120.2
67	363.74	± 25.0 kHz	120.2
68	371.01	± 25.0 kHz	120.2
69	378.43	± 25.0 kHz	120.2
70	386.00	± 25.0 kHz	120.2
71	393.72	± 25.0 kHz	120.2
72	401.60	± 25.0 kHz	120.2
73	409.63	± 25.0 kHz	120.2
74	417.82	± 25.0 kHz	120.2
75	426.18	± 25.0 kHz	120.2
76	434.70	± 25.0 kHz	120.2
77	443.40	± 25.0 kHz	120.2
78	452.26	± 25.0 kHz	120.2
79	461.31	± 25.0 kHz	120.2
80	470.54	± 25.0 kHz	120.2
81	479.95	± 25.0 kHz	120.2
82	489.55	± 25.0 kHz	120.2
83	499.34	± 25.0 kHz	120.2
84	800.00	± 25.0 kHz	182.4
85	816.00	± 25.0 kHz	182.4
86	832.32	± 25.0 kHz	182.4
87	848.97	± 25.0 kHz	182.4
88	865.95	± 25.0 kHz	182.4
89	883.26	± 25.0 kHz	182.4
90	900.93	± 25.0 kHz	182.4
91	918.95	± 25.0 kHz	182.4
92	937.33	± 25.0 kHz	182.4
93	956.07	± 25.0 kHz	182.4
94	975.20	± 25.0 kHz	182.4

Signal #	Frequency (MHz)	Additional Tones	Maximum Power ERP (Watts)
42	221.71	± 25.0 kHz	120.2
43	226.14	± 25.0 kHz	120.2
44	230.67	± 25.0 kHz	120.2
45	235.28	± 25.0 kHz	120.2
46	239.99	± 25.0 kHz	120.2
47	244.79	± 25.0 kHz	120.2
48	249.68	± 25.0 kHz	120.2
49	254.68	± 25.0 kHz	120.2
50	259.77	± 25.0 kHz	120.2
51	264.96	± 25.0 kHz	120.2
52	270.26	± 25.0 kHz	120.2
53	275.67	± 25.0 kHz	120.2

Signal #	Frequency MHz	Additional Tones	Maximum Power ERP (Watts)
95	994.70	± 25.0 kHz	182.4
96	1631.91	± 25.0 kHz	182.4
97	1664.55	± 25.0 kHz	182.4
98	1697.84	± 25.0 kHz	182.4
99	1731.80	± 25.0 kHz	182.4
100	1766.43	± 25.0 kHz	182.4
101	1801.76	± 25.0 kHz	182.4
102	1837.80	± 25.0 kHz	182.4
103	1874.55	± 25.0 kHz	182.4
104	1912.04	± 25.0 kHz	182.4
105	1950.28	± 25.0 kHz	182.4
106	1989.29	± 25.0 kHz	182.4

5. Other Issues

Antenna Data/RF Source and Directionality/Orientation

Antennas to be used in connection with this experiment are directional in nature. Agilent signal generators will be used to generate the RF signal. The output power of the system will be measured and verified to meet the output power requirements set forth in the license.

Frequency Range	Power Amplifier	Transmit Antenna	Ant. Polarization	Ant. Gain	Cable Loss	Beamwidth
100–500 MHz	Ophir 5126 70W@ P1dB	A.R.A. LPD-1011/AK	Linear	6.5 dBi	2 dB	E Plane = 75 degrees H Plane = 120 degrees
100–500 MHz	Ophir 5126 50W Linear	Sci. Atlanta 29-0.1	Dual Linear	6 dBi	2 dB	E Planes = 65 degrees H Planes = 100 degrees
800–1000 MHz 1600–2000 MHz	AR 175S1G4 150W@ P1dB	A.H. Sys. SAS-510-4	Linear	6 dBi	3- 4 dB	E Plane = 65 degrees H Plane = 100 degrees
800–1000 MHz 1600–2000 MHz	AR 175S1G4 100W Linear	ADM LPDA-13/ADP	Dual Linear	7 dBi	3- 4 dB	E Planes = 65 degrees H Planes = 100 degrees

Prevention of Interference

- BAE Systems hereby advises the Commission that the tests to be conducted under the requested Commission authorization are to be conducted on Dugway Proving Grounds, an active sparsely populated government chemical and weapons test range. Such location will result in the separation of the test facilities from other existing transmit or receive facilities. Local coordination with onsite government spectrum management will de-conflict interference with ongoing operations on base. See map

below indicating directionality of the proposed transmissions and the area in which the transmissions will be coordinated with government spectrum management.



Stop Buzzers

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