

Northrop Grumman Systems Corporation (NGSC)

In support of its application for a 6-month Special Temporary Authority (STA) referenced above, NGSC submits the information below with regard to the equipment it intends to use for the 969-1206 MHz band. As noted, the 1030 MHz and 1090 MHz frequencies are notched out to protect FAA operations on those frequencies. NGSC contact is Ron Werle, 661-266-5024; Ronny.Werle[at]ngc.com.

□ **Link 16 Frequencies**

The 51 frequencies assigned to Link 16 for TDMA transmissions are those between 969 MHz and 1206 MHz, spaced 3 MHz apart. Two notches, which are centered on 1030 MHz and 1090 MHz, are excluded, because these frequencies are used by Identification Friend or Foe (IFF) and Traffic Collision Avoidance System (TCAS) equipment. The fact that Link 16 and TACAN pulse emissions tend to be uncorrelated in time tends to protect TACAN operation.

Link 16 operates in the 960 – 1215 MHz band, with JTIDS/MIDS frequencies occurring every 3 MHz between 969 and 1206 MHz.

Frequency Number	Frequency (MHz)	Frequency Number	Frequency (MHz)	Frequency Number	Frequency (MHz)
0	969	17	1062	34	1158
1	972	18	1065	35	1161
2	975	19	1113	36	1164
3	978	20	1116	37	1167
4	981	21	1119	38	1170
5	984	22	1122	39	1173
6	987	23	1125	40	1176
7	990	24	1128	41	1179
8	993	25	1131	42	1182
9	996	26	1134	43	1185
10	999	27	1137	44	1188
11	1002	28	1140	45	1191
12	1005	29	1143	46	1194
13	1008	30	1146	47	1197
14	1053	31	1149	48	1200
15	1056	32	1152	49	1203
16	1059	33	1155	50	1206

Figure 4-2. For every pulse, the JTIDS/MIDS carrier is changed to one of 51 possible frequencies. The nominal frequency-hopping rate is greater than 33,000 hops per second.