

# **3YØX**

## **Antenna Plan**

**OUR SINCERE THANKS TO  
SteppIR, Force 12 and DX Engineering for their assistance and kind generosity!**

**Antenna Team: K4UEE, N2WB, UA3AB, LA6VM, K0IR, W8MV, K3VN**

### **Assumptions:**

1. There will be two operating sites, one will be located in the Main camp and referred to as OP A. It will be housed in a 12' X 24" shelter. It will have 5 complete HF stations, 3 EME stations and a complete complement of antennas. It will be configured for all modes, but primarily will be used for CW operations.
2. The second operating site will be separated from the main camp by a minimum of 500 feet and housed in an 8' X 16' shelter. It will be referred to as Op B, house 4 stations, and a complete set of antennas. It will be configured for all modes, but primarily will be used for SSB and Digital operations.
3. No antennas will be at further 150 feet from their respective operating tent
4. We want the capability of CW, SSB and Digital operations at the same time/band if possible.
5. We will use primarily horizontally polarized antennas for SSB/Digital operations at Op. B
6. We will use vertically polarized antennas for CW operations at OP. A

### **The Plan:**

#### **Op. A antenna complement: (5 HF stations)**

10m SVDA  
12m SVDA  
15m SVDA  
17m SVDA  
20m SVDA  
30m ¼ wave vertical  
40m ½ wave (Force 12- Sigma 40)  
80m 1/2 wave (Force 12-Sigma 80)  
160m BCS (Battle Creek Special, 160, 80, 40)

#### **Op A. antennas (3 EME stations)**

6m 7el M2 Yagi 42ft boom  
2m four M2 9el yagis  
70cm four 19el K1FO yagis

Note: Each SVDA will have parasitic element available for 6-7 db gain, we may or not use it)

**Op. B antenna complement: (4 stations)**

10m...  
12m...  
15m... Four-SteppIR 2el Yagis  
17m...  
20m...  
30m ¼ wave vertical  
40m ¼ wave vertical  
75m ¼ wave (DX Engineering)

**Extra or backup antennas:**

2- A3WS duo-banders (12 and 17m)  
2-A3S tribanders (10,15,20m)  
1-15m 3el. yagi monobander  
1-20m 3el yagi monobander  
1-30m dipole  
1-40m ¼ vertical  
1-80/75m top loaded ¼ wave vertical (k4uee special)  
1-80/75m ground mounted 3 el wire beam  
1-160m ground mounted 3 el wire beam

**Antennas for use on the vessel:**

1-4 BTV 4 band vertical (10,15,20,40m)  
1-Buckmaster 6 band No-Tune antenna (off center fed-Windom)

**Coaxial cables:**

We will be using two types of coaxial cable. For frequencies of 10MHZ (30meters) and below, use RG8X. It is White in color and is precut to various lengths. For frequencies above 10 MHZ, use RG 213. It is Black in color and a precut to various lengths.

**Radials:**

Vertical antennas will be using either 2 elevated radials or a minimum of 16 ground radials.

**Guys:**

Guy rope will be Dacron 3/16" rope for SVDA's and 1/4" rope for Yagis.  
Guy anchors will be garden fence stakes in a 4-5 foot lengths.