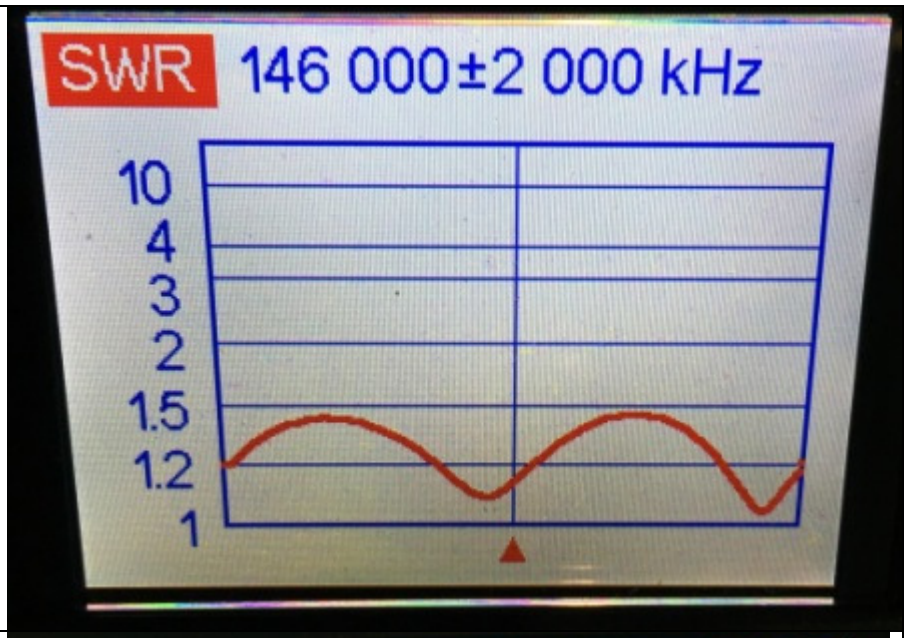
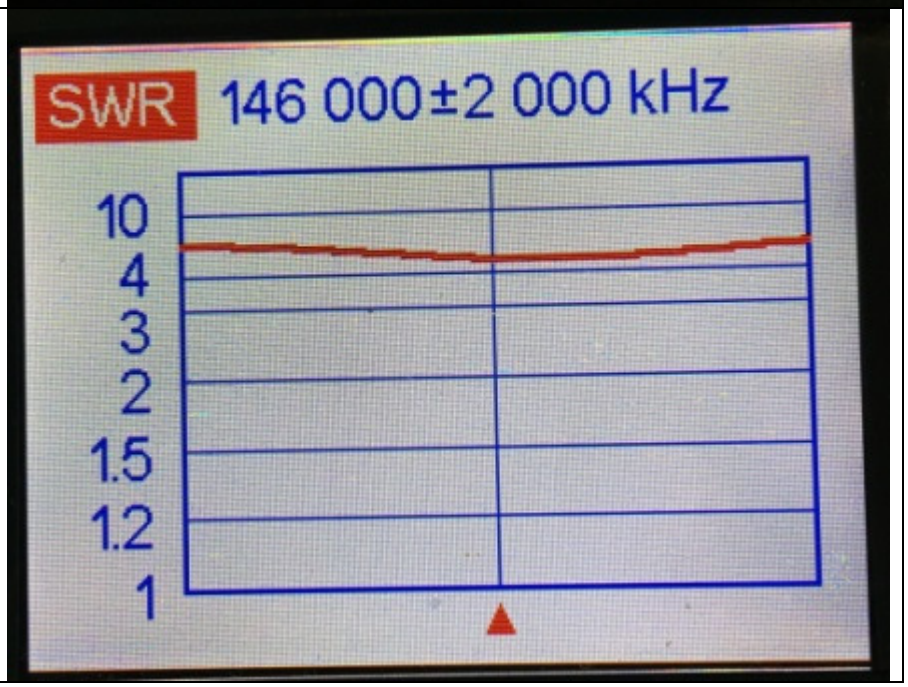
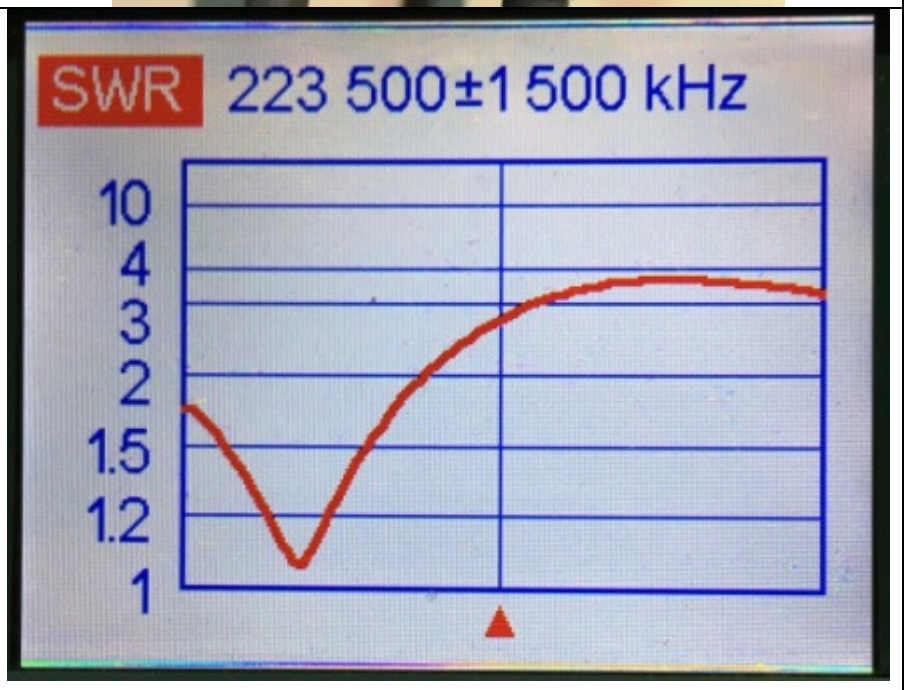
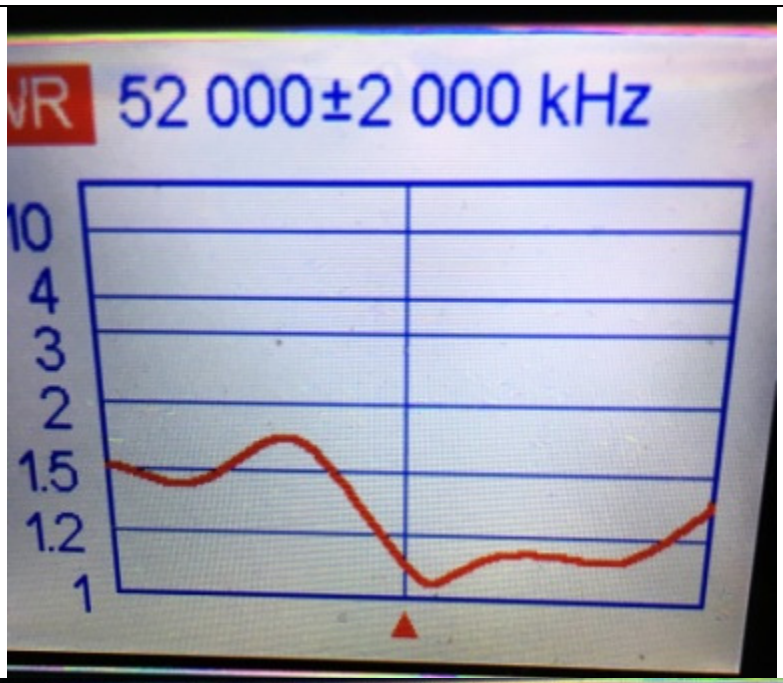
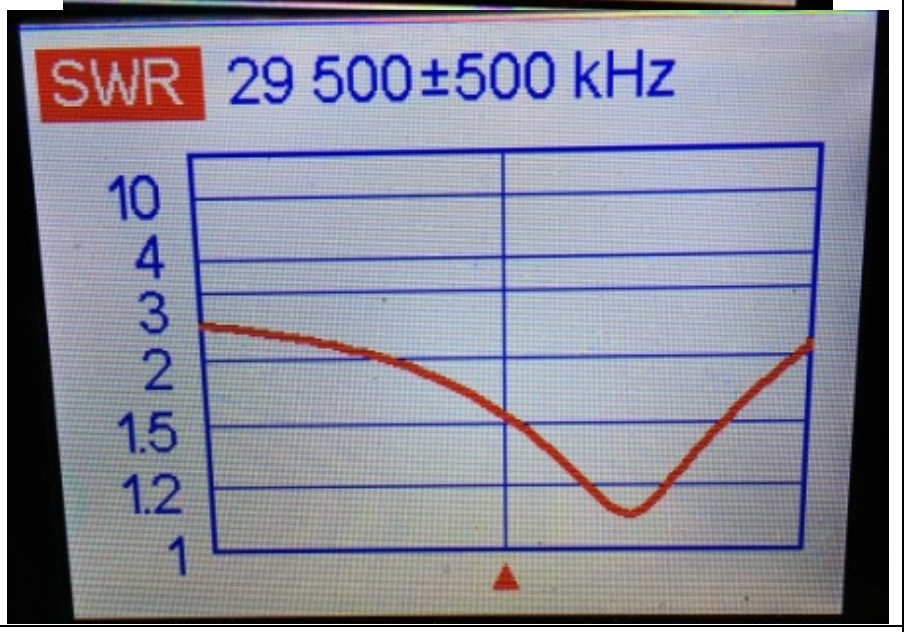
Measurements made on the DCS EOB antennas 10/29/2018
with a RigExpert AA-600 Antenna Analyzer

Position 1 **Motorola CDM 1550 2m VHF single band radio** SWR is under 1.5:1 across the 2m band 144 to 148 MHz. This installation appears to be OK.	
Position 2 **ICOM 2m single band radio** Antenna is not resonant on 2m. The radio used to be connected to a 2m/220 dual band antenna via a Comet CF-142 duplexer. The 2m/220 dual band antenna failed and was replaced with a single band 220 antenna which is not resonant at 2m. Remove the duplexer and install a single band 2m antenna and new feedline,	

Duplexer connected to the feedlines from Position 2 ICOM 2200H 2m single band radio and the Position 3 Alinco DR 235 220 single band radio. Each radio should have its own feedline and single band antenna. This duplexer is now superfluous.	
Position 3 **Alinco 220 single band radio** The antenna has a good match at one point across the 222-225 MHz band. The null is 1.06:1 at 222.500. This measured response includes the Comet CF-142 duplexer. We need the antenna retuned for acceptable performance < 1.5:1 across the band with the duplexer removed. Right now operating direct on the output of our repeater @ 224.300 MHz exhibits 3.7:1 SWR.	

Position 4 FT8900 10m/6m/2m/440 quad band radio The antenna has good performance across the band on 6m. It also has a null on 10m, and a little over 1.5:1 on the operating frequency of 29.500. That would make it acceptable for both 6m and 10m. I suppose it is possible that the antenna is a dual band 10m/6m antenna, but I had thought it was a single band antenna. For this position we need to add another dual band antenna for 2m and 440 with a duplexer and another feedline up to the duplexer.	 
Position 5 FT8900 10m/6m/2m/440 quad band radio	Not installed. Need radio two dual band antennas and two feedlines installed.
Position 6 FT897 HF/2m/440 radio	There are two antenna ports; one for HF (1.8 to 30 MHz) and one for 144/430. One coax is attached to the 144/430 port and it goes to a dummy load on the floor The other coax at that position seems not connected to any antenna. It is not resonant on any frequency. Need two feedlines and antennas installed.

Summary Box Score

Position	Added Radios	Added Antennas	Added Feedlines
1	none	none	none
2	none	1 VHF single band	1
3	none	none	none
4	none	1 dual band; 2m/440 plus duplexer	1
5	1 FT8900	2 dual band; 6m/10m & 2m/440 plus duplexer	2
6	none	3; one HF vertical, one HF horizontal, one HF antenna switch, one 2m/440 dual band	3
Totals	**1**	**7**	**7**

There also seem to be unused coaxes that possibly could be reused.

Use this document in conjunction with the "Standard Configuration" charts to understand what is required.