Testing: I tested all aspects of the VOR to see if every scenario would work.

Using 45degrees as the base I ran test to make sure that it would return GOOD, BAD, ABEAM signals as well as TO, FROM indicators and to make sure that the VOR needle would swing in the proper direction. Here are the tests and results.

Test 1: TO, GOOD

X: 0 Y: -45

Heading: 45

Test 2: FROM, GOOD

X: 45 Y: 0

Heading: 45

Test 3: ABEAM, BAD

X: -45 Y: -45

Heading: 45

Test 4: ABEAM, BAD

X: -45 Y: 45

Heading: 45

Conclusion: All tests worked as intended and returned the correct result. All tests also had the needle inflect in the right direction except for those tests that were going away from the station. The VOR returned the correct inflection but did not swing in the correct direction.