

The gain and phase data of the individual elements of some GAS-1 CRPA units have been measured at NAVAIR's Patuxent River test facility. The data will be used in an antenna electronics (AE) box for beam forming. In this report a brief description of the test facility is given and some of its shortcomings are identified. The effect of the shortcomings on the measured data is also shown. Next, how these errors in the antenna data manifest in the carrier phase and code phase biases of GPS signals is discussed using a 7-tap STAP based AE. It is shown that in the absence of errors in the antenna data, the AE can correct for antenna induced biases. The errors in the antenna data will lead to increased biases. The increase in code phase bias may not be within JPALS specifications. One can limit the increase in code phase bias by making sure that the errors in the antenna data do not vary from one frequency to the next.