Jefferson Lab Alignment Group DATA TRANSMITTAL

TO: Mac Mestayer DATE: 13 August 2001

FROM: Kelly Tremblay Checked: #: DT_B692

DETAILS:

Three region 3 drift (sector 3, 4,and 5) chambers on the Hall B CLAS experiment were surveyed prior to removal in May 2001 (27 April 2001) and again after reinstallation (24 May 2001). The purpose of these surveys was to determine if there was any significant movement caused by the re-installation. Five floor control monuments were located and used as reference control. Additionally, various foil targets were located on the time of flights and the space frame. The foils on the time of flights and space frame give a indication of the repeatability of the measurements, as these points should have remained fairly stable for the duration of the two surveys.

Results of the surveys reveal that the sectors 3 and 5 were reinstalled to within a millimeter (rms) of their original location. Sector 4 was reinstalled to just over 3 millimeters (rms) of the original position. The precision of the survey is estimated to be 0.5 millimeters, due to the tight and restricted theodolite observation angles in Hall B. Complete results are shown on page 2.

Sectors are identified by the 1st letter in their description (3T is sector 3), additional foils by the prefix TP and control points have the prefix HHB. All units are millimeters. The coordinate system is right handed with the origin at the target center, looking downstream.