

**GPS OCCUPATION LOG SHEET: North S. F. Bay (August 2014)**

<p align="center"><b>Site information</b></p> <p>Four-character ID: <u>04LF</u></p> <p>Site name: <u>04LF</u></p> <p>Observer(s): <u>C. JOHNSON/ K. MATERNA</u></p> <p>Agency/ies: <u>UC BERKELEY</u></p> <p>Log written by: <u>K. MATERNA</u></p>	<p align="center"><b>Equipment information</b></p> <p>Receiver model: <u>Trimble 5700</u></p> <p>Receiver P/N: <u>40406-31</u></p> <p>Receiver S/N: <u>02202 81576</u></p> <p>Antenna model: <u>Trimble Zephyr Geodetic</u></p> <p>Antenna P/N: <u>41249-00 DC 4219</u></p> <p>Antenna S/N: <u>1233 7833</u></p>
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TWO BATTERIES INSTALLED

Setup information																									
<p align="center"><b>Start</b></p> <p>Calendar date (YYYY/MM/DD): <u>2014 / 08 / 30</u></p> <p>Local time (24-hour HH:MM): <u>11 : 22</u> TZ: <u>PDT</u></p> <p>Antenna heights: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Slant (select one only)</p> <p>Measured to: <u>BOTTOM OF GROUND PLANE</u></p> <table border="0"> <tr> <td>HI mark</td> <td>Measurement (<input type="checkbox"/>m <input checked="" type="checkbox"/>cm)</td> <td>Measurement (<input checked="" type="checkbox"/>ft <input type="checkbox"/>in)</td> </tr> <tr> <td><u>3</u></td> <td><u>110.25</u></td> <td></td> </tr> <tr> <td><u>1</u></td> <td><u>110.20</u></td> <td></td> </tr> <tr> <td><u>6</u></td> <td><u>110.30</u></td> <td></td> </tr> </table> <p>Tripod or spike mount legs secured and tightened? <input checked="" type="checkbox"/></p> <p>Antenna horizontal? <input checked="" type="checkbox"/></p> <p>Antenna centered when horizontal? <input type="checkbox"/></p> <p>Antenna to true north? (Mag. decl. <u>14</u>° <input checked="" type="checkbox"/>E <input type="checkbox"/>W) <input type="checkbox"/></p> <p>All antenna fixtures tightened? <input checked="" type="checkbox"/></p> <p>Receiver on with adequate power? <input type="checkbox"/></p> <p>Satellites fully acquired? <input type="checkbox"/></p> <p>Receiver logging? <input type="checkbox"/></p> <p>Equipment secured and locked? <input type="checkbox"/></p>	HI mark	Measurement ( <input type="checkbox"/> m <input checked="" type="checkbox"/> cm)	Measurement ( <input checked="" type="checkbox"/> ft <input type="checkbox"/> in)	<u>3</u>	<u>110.25</u>		<u>1</u>	<u>110.20</u>		<u>6</u>	<u>110.30</u>		<p align="center"><b>Finish</b></p> <p>Calendar date (YYYY/MM/DD): <u>2014 / 08 / 03</u></p> <p>Local time (24-hour HH:MM): <u>14 : 37</u> TZ: <u>PDT</u></p> <p>Antenna heights: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Slant (select one only)</p> <p>Measured to: <u>Bottom of GP</u></p> <table border="0"> <tr> <td>HI mark</td> <td>Measurement (<input type="checkbox"/>m <input checked="" type="checkbox"/>cm)</td> <td>Measurement (<input type="checkbox"/>ft <input type="checkbox"/>in)</td> </tr> <tr> <td><u>3</u></td> <td><u>105.45</u></td> <td></td> </tr> <tr> <td><u>1</u></td> <td><del>108</del> <u>107.00</u></td> <td></td> </tr> <tr> <td><u>6</u></td> <td><u>106.85</u></td> <td></td> </tr> </table> <p>Heights measured to: <input type="checkbox"/> Top of ground plane <input checked="" type="checkbox"/> Bottom of ground plane <input type="checkbox"/> Bottom of antenna mount</p> <p>Antenna diagrams</p> <p>Heights measured to:</p> <p>Diagram description: A tripod is shown with an antenna mounted on top. A horizontal line represents the ground plane. A vertical line represents the antenna mount. A compass rose indicates a bearing of 50 degrees East from a north-south line. A distance of 7cm is marked from the ground plane to the antenna mount.</p>	HI mark	Measurement ( <input type="checkbox"/> m <input checked="" type="checkbox"/> cm)	Measurement ( <input type="checkbox"/> ft <input type="checkbox"/> in)	<u>3</u>	<u>105.45</u>		<u>1</u>	<del>108</del> <u>107.00</u>		<u>6</u>	<u>106.85</u>	
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FOR OFFICE USE	
<p>Data file name(s): <u>15762380.tos</u></p> <p>Receiver IGS code: <u>TRIMBLE 5700</u></p> <p>Antenna IGS code: <u>TRM41249.00 NONE</u></p> <p>Data start time (UTC): <u>18 : 21 : 26</u></p> <p>Ordinal date (YYYY DDD): <u>2014 242</u></p> <p>GPS week (WWWW D): <u>1807 6</u></p> <p>Average measurement: <u>1.1025</u> m <input checked="" type="checkbox"/> Slant <input type="checkbox"/> Vertical</p> <p>Mean of average measurements: <u>(1) 1.1025</u> m <input type="checkbox"/> Slant <input type="checkbox"/> Vert. <u>(2) 1.0643</u> m <input checked="" type="checkbox"/> Slant <input type="checkbox"/> Vert.</p>	<p>RINEX file name(s): <u>04Lf2422.140 330° (W)</u></p> <p>Obs.: <input checked="" type="checkbox"/> L1 <input checked="" type="checkbox"/> L2 <input type="checkbox"/> L2<sup>2</sup> <input type="checkbox"/> L5 <input checked="" type="checkbox"/> C1 <input type="checkbox"/> C2 <input type="checkbox"/> P1 <input checked="" type="checkbox"/> P2</p> <p>Logging interval: <u>1</u> s Elevation mask: <u>0</u>°</p> <p>Data finish time (UTC): <u>04 : 39 : 26</u></p> <p>Ordinal date (YYYY DDD): <u>2014 244</u></p> <p>GPS week (WWWW D): <u>1808 1</u></p> <p>Average measurement: <u>1.0643</u> m <input checked="" type="checkbox"/> Slant <input type="checkbox"/> Vertical</p> <p>RINEX conventional height: <u>(1) 1.0450</u> m <input type="checkbox"/> Slant <input type="checkbox"/> Vertical <u>(2) 1.0063</u> m</p>

\* SEE REVERSE SIDE FOR ADDITIONAL INFORMATION !

KINEMATIC PROCESSING BY M. FLOYD (MIT, 2014-09-25)  
SHOWS THAT THE ANTENNA APPEARS TO HAVE BEEN  
DISTURBED TWICE:

1. AFTER 2014-08-31T03:34:00Z, THE TRIPOD APPEARS TO HAVE BEEN COMPLETELY COLLAPSED, AS IF LAID ON THE GROUND A FEW METRES AWAY FROM THE MARK;
2. AFTER 2014-08-31T14:21:30Z, THE TRIPOD THEN APPEARS TO HAVE BEEN REPLACED APPROXIMATELY, MOST LIKELY AT THE POSITION IT WAS SUBSEQUENTLY FOUND AND MEASURED AT ( $\Delta e = 0.0536\text{m}$ ;  $\Delta n = 0.0450\text{m}$ )