NRSC-R52

Report of the Field Test Task Group; Field Test Data Presentation

*Working Group B “Testing” of the CEMA-DAR Subcommittee*

December 1996

Part II – Test Route Data
NRSC-R52

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FOREWORD

NRSC-R52, Report of the Field Test Task Group; Field Test Data Presentation Working Group B “Testing” of the CEMA-DAR Subcommittee, documents the results of the digital radio field test program conducted in the 1995-96 time frame by the Digital Audio Radio (DAR) Subcommittee of the Electronic Industries Association (EIA) Consumer Electronics Manufacturers Association (CEMA, precursor to the Consumer Electronics Association).

The NRSC is jointly sponsored by the Consumer Electronics Association and the National Association of Broadcasters. It serves as an industry-wide standards-setting body for technical aspects of terrestrial over-the-air radio broadcasting systems in the United States.
NOTE AND COMMENTS
EIA-DAR FIELD TEST ROUTE SEGMENT GRAPHS

NOTE #1  Distance Anomaly - Landmark(s) incremented at the wrong location on a route, too early or too late by a significant distance, more than a few percent of the segment length. The graph will be marked, reconstructed or both.

NOTE #2  Landmark Anomaly - Extraneous or missing Landmark(s). Where possible and significant the graph will be reconstructed to the proper landmark position(s).

NOTE #3  Data Corrupted - The data file, or portion of the file, is missing and/or the data is corrupted. Valid data from adjoining files will be substituted where possible.

NOTE #4  Velocity Anomaly - A velocity spike is created in its calculation, probably due to intermittent time code errors.

NOTE #5  Graph Detail - See Zoom graphs(s) in Appendix G (to be added with future reports). A detail is presented which helps in the understanding of the data or collection method.

NOTE #6  Graph Reconstruction - A graph or series of graphs have been reconstructed from proceeding and/or following Landmarks and/or files. Such graphs will be Labelled "Reconstructed Graph Landmark N-N"
NRSC-R52

Report of the Field Test Task Group;
Field Test Data Presentation
Working Group B “Testing” of the
CEMA-DAR Subcommittee
December 1996

Part II – Test Route Data
## EIA-DAR Field Test Route Data

**Path "D" - Downtown**

<table>
<thead>
<tr>
<th>NO.</th>
<th>ENV.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FDL</td>
<td>Left turn on Market from Stuart (center of intersection)</td>
</tr>
<tr>
<td>2</td>
<td>FDL</td>
<td>'American Savings Bank' blue and white sign on building</td>
</tr>
<tr>
<td>3</td>
<td>FDL</td>
<td>Red and White Levi's 'House of Blue Jeans' sign on building past 5th</td>
</tr>
<tr>
<td>4</td>
<td>HDL</td>
<td>Central Skyway (Hwy 101) overpass</td>
</tr>
<tr>
<td>5</td>
<td>HUM</td>
<td>Intersection of Castro, 17th and Market</td>
</tr>
<tr>
<td>6</td>
<td>HUM</td>
<td>Pedestrian overpass after Argent and Market</td>
</tr>
<tr>
<td>7</td>
<td>HUD</td>
<td>Right turn on Woodside Avenue</td>
</tr>
<tr>
<td>8</td>
<td>HSD</td>
<td>Blank yellow diamond sign at right turn on Clarendon</td>
</tr>
<tr>
<td>9</td>
<td>HUM</td>
<td>Mailbox past intersection of Clarendon and Twin Peaks</td>
</tr>
<tr>
<td>10</td>
<td>HUM</td>
<td>'15 MPH' Turn Sign at corner of Clifford Terrace and Ashbury</td>
</tr>
<tr>
<td>11</td>
<td>HUM</td>
<td>'No Left Turn 4-7pm Everyday' sign at Fell and Masonic</td>
</tr>
<tr>
<td>12</td>
<td>FUL</td>
<td>'Recycling Center' sign at Anza/O'Farrell and Masonic</td>
</tr>
<tr>
<td>13</td>
<td>HUL</td>
<td>Stop light at intersection of Scott and California</td>
</tr>
<tr>
<td>14</td>
<td>HUL</td>
<td>'Trucks use Van Ness Avenue' sign at California and Gough</td>
</tr>
<tr>
<td>15</td>
<td>HDL</td>
<td>Blue and White 'Parking' sign marking garage at California and Taylor</td>
</tr>
<tr>
<td>16</td>
<td>FDL</td>
<td>Federal Reserve Bank of SF after Sacramento and Sansome (statue) (1st)</td>
</tr>
<tr>
<td>17</td>
<td>FDL</td>
<td>Pedestrian walkway over Battery Street before Sacramento (1st)</td>
</tr>
<tr>
<td>18</td>
<td>FDL</td>
<td>Federal Reserve Bank of SF after Sacramento and Sansome (statue) (2nd)</td>
</tr>
<tr>
<td>19</td>
<td>FDL</td>
<td>Pedestrian walkway over Battery Street before Sacramento (2nd)</td>
</tr>
<tr>
<td>20</td>
<td>END</td>
<td>Entrance to intersection of Market and Battery</td>
</tr>
</tbody>
</table>

### Environment Three Letter Codes

**Terrain:** Flat, Hilly, Mountainous, Valley

**Area:** Downtown, Urban, Suburban, Rural, Bridge, Expressway, Tunnel

**Foliage:** None, Light, Moderate, Heavy

## Path Observation Summaries - Number (%)

<table>
<thead>
<tr>
<th>System</th>
<th>Total</th>
<th>Clear</th>
<th>Impaired</th>
<th>Muted</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-147</td>
<td>70,054</td>
<td>69,751(99.6)</td>
<td>164 (0.2)</td>
<td>139 (0.2)</td>
</tr>
<tr>
<td>SEU-147</td>
<td>64,070</td>
<td>63,759(99.5)</td>
<td>97 (0.2)</td>
<td>214 (0.3)</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>68,770</td>
<td>63,740(92.7)</td>
<td>779 (1.1)</td>
<td>4294 (6.2)</td>
</tr>
<tr>
<td>VOA-JPL</td>
<td>44,275</td>
<td>17,927(40.5)</td>
<td>928 (2.1)</td>
<td>25,420(57.4)</td>
</tr>
</tbody>
</table>
Electronic Industries Association • Consumer Electronics Manufacturers Association

"Long Path" Test Routes
Routes D & P • San Francisco

Numbers denote route landmarks in Figure 3
Event Summary: Total 3829; Clear 3828 (100.0%); Impaired 0 (0.0%); Muted 1 (0.0%).

Event Summary: Total 3801; Clear 3801 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3225; Clear 3143 (97.6%); Impaired 45 (1.4%); Muted 37 (1.1%).

Event Summary: Total 3418; Clear 137 (4.0%); Impaired 99 (2.9%); Muted 3182 (93.8%).
Event Summary: Total 3397; Clear 3397 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 4261; Clear 4261 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3131; Clear 3059 (97.8%); Impaired 36 (1.2%); Muted 36 (1.2%).

Event Summary: Total 3281; Clear 1662 (51.7%); Impaired 116 (3.6%); Muted 1503 (46.8%).
EUREKA-147 -- Downtown Route -- Landmarks 3-4

Event Summary: Total 4611; Clear 4611 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (Single) -- Downtown Route -- Landmarks 3-4

Event Summary: Total 6601; Clear 6601 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 7307; Clear 7173 (98.2%); Impaired 44 (0.6%); Muted 90 (1.2%).

Event Summary: Total 6472; Clear 4788 (74.0%); Impaired 151 (2.3%); Muted 1533 (23.7%).
Event Summary: Total 4177; Clear 4177 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3591; Clear 3591 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 5878; Clear 4789 (83.7%); Impaired 370 (6.5%); Muted 719 (12.6%).

NOTE #1

Event Summary: Total 4127; Clear 3722 (90.2%); Impaired 48 (1.2%); Muted 357 (8.7%).
Event Summary: Total 4750: Clear 4538 (95.8%); Impaired 49 (1.0%); Muted 163 (3.4%).

NOTE §2

Event Summary: Total 4149: Clear 4065 (98.1%); Impaired 46 (1.1%); Muted 38 (0.9%).
Event Summary: Total 4327; Clear 2350 (54.6%); Impaired 82 (1.9%); Muted 1895 (44.0%).

Event Summary: Total 4114; Clear 2436 (59.4%); Impaired 171 (4.2%); Muted 1507 (36.7%).
Event Summary: Total 2362; Clear 2292 (97.2%); Impaired 27 (1.1%); Muted 43 (1.8%).

Event Summary: Total 2456; Clear 2241 (91.3%); Impaired 118 (4.8%); Muted 97 (4.0%).
Event Summary: Total 2014: Clear 665 (33.6%); Impaired 76 (3.8%); Muted 1273 (64.4%).

Event Summary: Total 2734: Clear 1885 (69.3%); Impaired 20 (0.7%); Muted 829 (30.5%).
EUREKA-147 -- Downtown Route -- Landmarks 7-8

Event Summary: Total 2396; Clear 2396 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (Single) -- Downtown Route -- Landmarks 7-8

Event Summary: Total 3007; Clear 3007 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2917; Clear 2838 (97.5%); Impaired 64 (2.2%); Muted 15 (0.5%).

Event Summary: Total 3052; Clear 2664 (87.8%); Impaired 66 (2.8%); Muted 302 (10.0%).
Event Summary: Total 3092; Clear 3092 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3069; Clear 3069 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3210; Clear 3105 (96.8%); Impaired 31 (1.0%); Muted 74 (2.3%).

Event Summary: Total 912; Clear 177 (23.8%); Impaired 199 (26.7%); Muted 536 (72.0%).

NOTE #3
Event Summary: Total 2204; Clear 2204 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 1877; Clear 1877 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2028: Clear 1869 (92.8%); Impaired 19 (0.9%); Muted 140 (7.0%).
EUREKA-147 -- Downtown Route -- Landmarks 10-11

Event Summary: Total 3831; Clear 3803 (99.4%); Impaired 21 (0.5%); Muted 7 (0.2%).

EUREKA-147 (Single) -- Downtown Route -- Landmarks 10-11

Event Summary: Total 3722; Clear 3722 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3828; Clear 3828 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2327; Clear 2327 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2585; Clear 2585 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2984; Clear 2984 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #1 & #4

NOTE #3
Event Summary: Total 4601; Clear 4601 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 4715; Clear 4715 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 4910; Clear 4890 (99.6%); Impaired 12 (0.2%); Muted 8 (0.2%).
EUREKA-147 -- Downtown Route -- Landmarks 13-14

Event Summary: Total 2563; Clear 2563 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

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EUREKA-147 (Single) -- Downtown Route -- Landmarks 13-14

Event Summary: Total 3097; Clear 3097 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3488; Clear 3488 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
EUREKA-147 – Downtown Route – Landmarks 14-15

Event Summary: Total 4151; Clear 4151 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (Single) – Downtown Route – Landmarks 14-15

Event Summary: Total 3549; Clear 3545 (99.9%); Impaired 0 (0.0%); Muted 4 (0.1%).
Event Summary: Total 4358; Clear 4358 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 5578; Clear 5578 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 6304; Clear 6304 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 5902; Clear 5902 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 5773; Clear 108 (1.9%); Impaired 18 (0.3%); Muted 5647 (97.9%).
Event Summary: Total 1874; Clear 1874 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2802; Clear 2802 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2236; Clear 2236 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 1808; Clear 348 (19.2%); Impaired 20 (1.1%); Muted 1440 (79.6%).
Event Summary: Total 3787: Clear 3787 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 4126: Clear 4126 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3057; Clear 3050 (99.8%); Impaired 0 (0.0%); Muted 7 (0.2%).

Event Summary: Total 3858; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3858 (100.0%).
EUREKA-147 -- Downtown Route -- Landmarks 18-19

Event Summary: Total 2118; Clear 2118 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (Single) -- Downtown Route -- Landmarks 18-19

Event Summary: Total 2063; Clear 2063 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2621; Clear 2621 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
EUREKA-147 – Downtown Route – Landmarks 19-20

Event Summary: Total 10583; Clear 10583 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #2 & #6

EUREKA-147 (Single) – Downtown Route – Landmarks 19-20

Event Summary: Total 5564; Clear 5563 (100.0%); Impaired 0 (0.0%); Muted 1 (0.0%).

NOTE #2 & #6
AT&T Lucent IBAC -- Downtown Route -- Landmarks 19-20

Event Summary: Total 1356; Clear 1356 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

VOAIJPL -- Downtown Route -- Landmarks 19-20

Event Summary: Total 2409; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 2409 (100.0%).
Event Summary: Total 2422; Clear 2422 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

"RESTORED GRAPH LANDMARK 19-20"

Event Summary: Total 4279; Clear 4279 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

"RESTORED GRAPH LANDMARK 19-20"
NOTE AND COMMENTS
EIA-DAR FIELD TEST ROUTE SEGMENT GRAPHS

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NOTE #4 Velocity Anomaly - A velocity spike is created in its calculation, probably due to intermittent time code errors.

NOTE #5 Graph Detail - See Zoom graphs(s) in Appendix G (to be added with future reports). A detail is presented which helps in the understanding of the data or collection method.

NOTE #6 Graph Reconstruction - A graph or series of graphs have been reconstructed from proceeding and/or following Landmarks and/or files. Such graphs will be Labelled "Reconstructed Graph Landmark N-N"
# EIA-DAR FIELD TEST ROUTE DATA
## PATH "P" - PERIMETER

<table>
<thead>
<tr>
<th>NO.</th>
<th>ENV.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FSD</td>
<td>Call Box on 19th before Tunnel</td>
</tr>
<tr>
<td>2</td>
<td>HSD</td>
<td>19th &amp; RIHd Intersection of Fulton at Light</td>
</tr>
<tr>
<td>3</td>
<td>HSL</td>
<td>Intersection of 19th &amp; Noriega</td>
</tr>
<tr>
<td>4</td>
<td>HSL</td>
<td>Intersection of 19th &amp; Vincente</td>
</tr>
<tr>
<td>5</td>
<td>FUM</td>
<td>Holloway &amp; 19th Intersection (take Alemany east)</td>
</tr>
<tr>
<td>6</td>
<td>FUM</td>
<td>Arch Stop Light (through Stop )</td>
</tr>
<tr>
<td>7</td>
<td>FUL</td>
<td>Stop Light Under Bart Track before 280 on ramp</td>
</tr>
<tr>
<td>8</td>
<td>HUL</td>
<td>I-280 Downtown Sign by Alamany Exit Take 101 North</td>
</tr>
<tr>
<td>9</td>
<td>FUL</td>
<td>I-80 Bay Bridge Downtown Sign on overpass</td>
</tr>
<tr>
<td>10</td>
<td>HUL</td>
<td>2nd St Stop Light through to Embarcadero turn Left</td>
</tr>
<tr>
<td>11</td>
<td>FUL</td>
<td>Clock Tower World Trade Center Sign</td>
</tr>
<tr>
<td>12</td>
<td>FUM</td>
<td>Stop Light at Battery (take left @ Bay &amp; Pier 31)</td>
</tr>
<tr>
<td>13</td>
<td>HUL</td>
<td>Stop Light @ Columbus &amp; Bay</td>
</tr>
<tr>
<td>14</td>
<td>END</td>
<td>19th Avenue Exit sign</td>
</tr>
</tbody>
</table>

**ENVIRONMENT THREE LETTER CODES**

**TERRAIN:** Flat, Hilly, Mountainous, Valley

**AREA:** Downtown, Urban, Suburban, Rural, Bridge, Expressway, Tunnel

**FOLIAGE:** None, Light, Moderate, Heavy

## PATH OBSERVATION SUMMARIES - Number (%)

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>TOTAL</th>
<th>CLEAR</th>
<th>IMPAIRED</th>
<th>MUTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-147</td>
<td>59,134</td>
<td>58,652(99.2)</td>
<td>89(0.2)</td>
<td>393(0.7)</td>
</tr>
<tr>
<td>SEU-147</td>
<td>62,344</td>
<td>59,272(95.1)</td>
<td>1,453(2.3)</td>
<td>1,619(2.6)</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>56,489</td>
<td>50,196(88.9)</td>
<td>112(0.2)</td>
<td>6,181(10.9)</td>
</tr>
<tr>
<td>VOA-JPL</td>
<td>61,156</td>
<td>43,687(71.4)</td>
<td>391(0.6)</td>
<td>17,078(27.9)</td>
</tr>
</tbody>
</table>
Long Path Test Routes
Routes D & P - San Francisco

Numbers denote route landmarks in Figure 3
Event Summary: Total 7083; Clear 6984 (98.6%); Impaired 89 (1.3%); Muted 10 (0.1%).

NOTE #1

Event Summary: Total 5314; Clear 5230 (97.8%); Impaired 35 (0.7%); Muted 49 (0.9%).
Event Summary: Total 4809; Clear 4488 (93.3%); Impaired 0 (0.0%); Muted 321 (6.7%).

Event Summary: Total 4951; Clear 1167 (23.6%); Impaired 5 (0.1%); Muted 3779 (76.3%).
EUREKA-147 – Perimeter Route – Landmarks 2-3

Event Summary: Total 4383; Clear 4383 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #1

EUREKA-147 (single) – Perimeter Route – Landmarks 2-3

Event Summary: Total 5601; Clear 5593 (99.8%); Impaired 8 (0.1%); Muted 0 (0.0%).
Event Summary: Total 5262; Clear 5256 (99.9%); Impaired 6 (0.1%); Muted 0 (0.0%).
Event Summary: Total 3935; Clear 3935 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 5280; Clear 5273 (99.9%); Impaired 0 (0.0%); Muted 7 (0.1%).
Event Summary: Total 3559; Clear 3549 (99.7%); Impaired 10 (0.3%); Muted 0 (0.0%).

Event Summary: Total 4235; Clear 3476 (82.1%); Impaired 9 (0.2%); Muted 750 (17.7%).
Event Summary: Total 3266; Clear 2905 (88.9%); Impaired 0 (0.0%); Muted 361 (11.1%).

Event Summary: Total 5555; Clear 5484 (98.7%); Impaired 71 (1.3%); Muted 0 (0.0%).
Event Summary: Total 4020; Clear 4020 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 5475; Clear 2630 (48.0%); Impaired 16 (0.3%); Muted 2829 (51.7%).
Event Summary: Total 2593; Clear 2593 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3544; Clear 2942 (83.8%); Impaired 324 (9.2%); Muted 278 (7.9%).
Event Summary: Total 2896; Clear 2802 (96.8%); Impaired 6 (0.2%); Muted 88 (3.0%).

Event Summary: Total 3062; Clear 2245 (73.3%); Impaired 5 (0.2%); Muted 812 (26.5%).
Event Summary: Total 2191; Clear 2191 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2391; Clear 2111 (88.8%); Impaired 211 (8.9%); Muted 69 (2.9%).
Event Summary: Total 1846; Clear 1794 (97.2%); Impaired 0 (0.0%); Muted 52 (2.8%).

Event Summary: Total 1928; Clear 1335 (69.2%); Impaired 0 (0.0%); Muted 593 (30.6%).
EUREKA-147 – Perimeter Route -- Landmarks 7-8

Event Summary: Total 3624; Clear 3624 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (single) – Perimeter Route -- Landmarks 7-8

Event Summary: Total 3706; Clear 2741 (74.7%); Impaired 291 (7.9%); Muted 674 (18.4%).
AT&T Lucent IBAC -- Perimeter Route -- Landmarks 7-8

Event Summary: Total 3666; Clear 1501 (39.0%); Impaired 23 (0.6%); Muted 2342 (60.8%).

VOAJPL -- Perimeter Route -- Landmarks 7-8

Event Summary: Total 3643; Clear 3287 (90.2%); Impaired 27 (0.7%); Muted 329 (9.0%).
Event Summary: Total 2713; Clear 2713 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3057; Clear 2963 (97.1%); Impaired 45 (1.5%); Muted 49 (1.6%).
Event Summary: Total 2923; Clear 2242 (76.8%); Impaired 18 (0.6%); Muted 663 (22.7%).

Event Summary: Total 3277; Clear 3061 (94.1%); Impaired 35 (1.1%); Muted 181 (5.6%).
EUREKA-147 -- Perimeter Route -- Landmarks 9-10

Event Summary: Total 2199; Clear 2199 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #1

EUREKA-147 (single) -- Perimeter Route -- Landmarks 9-10

Event Summary: Total 4960; Clear 4956 (99.9%); Impaired 4 (0.1%); Muted 0 (0.0%).
Event Summary: Total 5201; Clear 5040 (96.9%); Impaired 21 (0.4%); Muted 140 (2.7%).

Event Summary: Total 6791; Clear 6499 (96.0%); Impaired 81 (1.2%); Muted 211 (3.1%).
Event Summary: Total 6470; Clear 6448 (99.7%); Impaired 0 (0.0%); Muted 22 (0.3%).

Event Summary: Total 5934; Clear 4996 (84.9%); Impaired 445 (7.6%); Muted 493 (8.4%).
AT&T Lucent IBAC -- Perimeter Route -- Landmarks 10-11

Event Summary: Total 5543; Clear 2940 (53.2%); Impaired 28 (0.5%); Muted 2575 (46.6%).

VOA/JPL -- Perimeter Route -- Landmarks 10-11

Event Summary: Total 5725; Clear 3025 (53.0%); Impaired 56 (1.0%); Muted 2644 (46.4%).
Event Summary: Total 4731; Clear 4731 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2382; Clear 2382 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 5051; Clear 3526 (70.0%); Impaired 26 (0.5%); Muted 1499 (29.7%).
EUREKA-147 -- Perimeter Route -- Landmarks 12-13

Event Summary: Total 4885; Clear 4885 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

---

EUREKA-147 (single) -- Perimeter Route -- Landmarks 12-13

Event Summary: Total 4123; Clear 4123 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 4202; Clear 4202 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 4098; Clear 4039 (98.6%); Impaired 23 (0.6%); Muted 36 (0.9%).
Event Summary: Total 11061; Clear 11061 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #2

Event Summary: Total 10382; Clear 10363 (99.8%); Impaired 19 (0.2%); Muted 0 (0.0%).

NOTE #2
Event Summary: Total 9980; Clear 9980 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 8217; Clear 7284 (89.2%); Impaired 75 (0.9%); Muted 858 (10.5%).
NOTE AND COMMENTS
EIA-DAR FIELD TEST ROUTE SEGMENT GRAPHS

NOTE #1 Distance Anomaly - Landmark(s) incremented at the wrong location on a route, too early or too late by a significant distance, more than a few percent of the segment length. The graph will be marked, reconstructed or both.

NOTE #2 Landmark Anomaly - Extraneous or missing Landmark(s). Where possible and significant the graph will be reconstructed to the proper landmark position(s).

NOTE #3 Data Corrupted - The data file, or portion of the file, is missing and/or the data is corrupted. Valid data from adjoining files will be substituted where possible.

NOTE #4 Velocity Anomaly - A velocity spike is created in its calculation, probably due to intermittent time code errors.

NOTE #5 Graph Detail - See Zoom graphs(s) in Appendix G (to be added with future reports). A detail is presented which helps in the understanding of the data or collection method.

NOTE #6 Graph Reconstruction - A graph or series of graphs have been reconstructed from proceeding and/or following Landmarks and/or files. Such graphs will be Labelled "Reconstructed Graph Landmark N-N"
## EIA-DAR FIELD TEST ROUTE DATA
### PATH "N" - NORTH

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<thead>
<tr>
<th>NO.</th>
<th>ENV.</th>
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<tbody>
<tr>
<td>1</td>
<td>HUM</td>
<td>Central San Rafael Exit Sign (North end of exit lane)</td>
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<tr>
<td>2</td>
<td>HSM</td>
<td>Frank Loyd Wright Building at Marin Center Sign</td>
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<td>3</td>
<td>HSM</td>
<td>Alameda del Prado OverPass</td>
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<td>4</td>
<td>FRM</td>
<td>Highway 101 and Highway 37 Take Highway 37 East Double Arrows</td>
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<tr>
<td>5</td>
<td>FRL</td>
<td>Marin Sonoma County Line on Bridge</td>
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<tr>
<td>6</td>
<td>FRL</td>
<td>Lakeville Highway Stop Light</td>
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<td>7</td>
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<td>8</td>
<td>FRL</td>
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<td>9</td>
<td>FSL</td>
<td>Welcome to Vallejo Sign</td>
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<td>10</td>
<td>HUM</td>
<td>Highway 37 and Highway 29 Take Highway 29 South (T-Sign)</td>
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<td>11</td>
<td>HSM</td>
<td>Veer Left AT Curtola Pkwy</td>
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<td>12</td>
<td>HSM</td>
<td>Highway 29 and I-80 take I-80 in Vallejo South (Freeway Entrance Sign)</td>
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<tr>
<td>13</td>
<td>HEM</td>
<td>Hercules Next Two Exits</td>
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<td>15</td>
<td>HSM</td>
<td>San Pablo City Limit Sign</td>
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<td>16</td>
<td>HSM</td>
<td>Freeway Entrance sign at on ramp to 580 North from Central Avenue</td>
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<td>17</td>
<td>FBL</td>
<td>Toll Crossing Entrance Sign 1/4 Mile</td>
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<td>18</td>
<td>HSM</td>
<td>Marin County Line Sign On Bridge</td>
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<tr>
<td>19</td>
<td>END</td>
<td>I-580 and Highway 101 / Exit sign for Sir Francis Drake</td>
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### ENVIRONMENT THREE LETTER CODES

**TERRAIN:** Flat, Hilly, Mountainous, Valley

**AREA:** Downtown, Urban, Suburban, Rural, Bridge, Expressway, Tunnel

**FOLIAGE:** None, Light, Moderate, Heavy

### PATH OBSERVATION SUMMARIES - Number (%)

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<th>SYSTEM</th>
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<th>IMPAIRED (%)</th>
<th>MUTED (%)</th>
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<td>VOA-JPL</td>
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<td>83,065(93.7)</td>
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"Long Path" Test Routes
Route N • North Bay

Numbers denote route landmarks in Figure 3
EUREKA-147 -- North Bay Route -- Landmarks 1-2

Event Summary: Total 2875; Clear 848 (31.2%); Impaired 1039 (36.3%); Muted 988 (36.4%).

EUREKA-147 (single) -- North Bay Route -- Landmarks 1-2

Event Summary: Total 3592; Clear 3083 (86.7%); Impaired 363 (10.2%); Muted 146 (4.1%).
Event Summary: Total 2816; Clear 1672 (59.4%); Impaired 0 (0.0%); Muted 1144 (40.6%).

Event Summary: Total 3913; Clear 3708 (95.0%); Impaired 180 (4.6%); Muted 25 (0.6%).

NOTE #1
EUREKA-147 -- North Bay Route -- Landmarks 2-3

Event Summary: Total 4753; Clear 95 (2.0%); Impaired 145 (3.1%); Muted 4513 (95.7%).

---

EUREKA-147 (single) -- North Bay Route -- Landmarks 2-3

Event Summary: Total 4847; Clear 918 (19.7%); Impaired 669 (14.4%); Muted 3260 (70.1%).
Event Summary: Total 4456: Clear 1253 (28.3%); Impaired 64 (1.4%); Muted 3139 (70.9%).

Event Summary: Total 3526: Clear 3456 (98.4%); Impaired 38 (1.1%); Muted 32 (0.9%).
Event Summary: Total 2551; Clear 0 (0.0%); Impaired 2 (0.1%); Muted 2549 (100.0%).

Event Summary: Total 3057; Clear 24 (0.8%); Impaired 27 (0.9%); Muted 3006 (98.9%).

NOTE #1
Event Summary: Total 2661; Clear 2 (0.1%); Impaired 0 (0.0%); Muted 2679 (99.9%).

NOTE #1

Event Summary: Total 2465; Clear 2395 (97.5%); Impaired 43 (1.8%); Muted 27 (1.1%).
Event Summary: Total 4261; Clear 544 (13.0%); Impaired 263 (6.3%); Muted 3454 (82.5%).

Event Summary: Total 3701; Clear 1268 (34.8%); Impaired 281 (7.7%); Muted 2152 (59.1%).
**AT&T Lucent IBAC -- North Bay Route -- Landmarks 4-5**

Event Summary: Total 4170; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 4170 (100.0%).

**VOAIJPL -- North Bay Route -- Landmarks 4-5**

Event Summary: Total 4198; Clear 4150 (98.9%); Impaired 29 (0.7%); Muted 19 (0.5%).
Event Summary: Total 2856; Clear 1061 (37.3%); Impaired 293 (10.3%); Muted 1502

Event Summary: Total 3034; Clear 2261 (74.6%); Impaired 144 (4.8%); Muted 629 (20.8%).
**AT&T Lucent IBAC -- North Bay Route -- Landmarks 5-6**

Event Summary: Total 2276; Clear 1080 (47.5%); Impaired 0 (0.0%); Muted 1196 (52.5%).

**VOA/JPL -- North Bay Route -- Landmarks 5-6**

Event Summary: Total 3268; Clear 3268 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2529; Clear 1954 (78.3%); Impaired 232 (9.3%); Muted 343 (13.8%).

Event Summary: Total 2865; Clear 2665 (93.4%); Impaired 150 (5.3%); Muted 50 (1.8%).

110
**AT&T Lucent IBAC -- North Bay Route -- Landmarks 6-7**

Event Summary: Total 2153; Clear 1456 (67.6%); Impaired 0 (0.0%); Muted 697 (32.4%)

**VOA/JPL -- North Bay Route -- Landmarks 6-7**

Event Summary: Total 1814; Clear 1798 (99.1%); Impaired 13 (0.7%); Muted 3 (0.2%)
EUREKA-147 – North Bay Route – Landmarks 7-8

Event Summary: Total 4173; Clear 3669 (88.3%); Impaired 157 (3.8%); Muted 347 (8.4%).

EUREKA-147 (single) – North Bay Route – Landmarks 7-8

Event Summary: Total 3647; Clear 3473 (95.4%); Impaired 114 (3.1%); Muted 60 (1.6%).
AT&T Lucent IBAC -- North Bay Route -- Landmarks 7-8

Event Summary: Total 3706; Clear 3303 (89.1%); Impaired 0 (0.0%); Muted 403 (10.9%).

VOA/JPL -- North Bay Route -- Landmarks 7-8

Event Summary: Total 3164; Clear 3164 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 10608; Clear 10078 (95.0%); Impaired 0 (0.0%); Muted 530 (5.0%).

Event Summary: Total 9917; Clear 9911 (99.9%); Impaired 6 (0.1%); Muted 0 (0.0%).
AT&T Lucent iBAC -- North Bay Route -- Landmarks 8-9

Event Summary: Total 10548; Clear 6438 (61.2%); Impaired 100 (1.0%); Muted 4010

VOAIJPL -- North Bay Route -- Landmarks 8-9

Event Summary: Total 9280; Clear 9280 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%)
Event Summary: Total 3281; Clear 3266 (99.5%); Impaired 0 (0.0%); Muted 15 (0.5%).

Event Summary: Total 5018; Clear 5001 (99.7%); Impaired 0 (0.0%); Muted 17 (0.3%).
AT&T Lucent IBAC -- North Bay Route -- Landmarks 9-10

Event Summary: Total 4592; Clear 2642 (57.7%); Impaired 39 (0.9%); Muted 1911 (41.8%).

VOA/JPL -- North Bay Route -- Landmarks 9-10

Event Summary: Total 7544; Clear 7516 (99.7%); Impaired 17 (0.2%); Muted 11 (0.1%).
Event Summary: Total 8699; Clear 8530 (98.1%); Impaired 168 (1.9%); Muted 1 (0.0%).

Event Summary: Total 9639; Clear 9251 (96.0%); Impaired 348 (3.6%); Muted 40 (0.4%).
**AT&T Lucent IBAC -- North Bay Route -- Landmarks 10-11**

Event Summary: Total 10580; Clear 7334 (69.4%); Impaired 25 (0.2%); Muted 3221 (30.5%).

**VOA/JPL -- North Bay Route -- Landmarks 10-11**

Event Summary: Total 12745; Clear 11806 (92.7%); Impaired 228 (1.8%); Muted 711 (5.6%).
Event Summary: Total 4588; Clear 4557 (99.3%); Impaired 31 (0.7%); Muted 0 (0.0%).

Event Summary: Total 4414; Clear 4166 (94.6%); Impaired 191 (4.3%); Muted 57 (1.3%).
Event Summary: Total 4025: Clear 2318 (57.6%); Impaired 2 (0.0%); Muted 1705 (42.4%).

Event Summary: Total 3811: Clear 3412 (89.7%); Impaired 340 (8.9%); Muted 59 (1.6%).
Event Summary: Total 4768; Clear 4711 (98.9%); Impaired 54 (1.1%); Muted 3 (0.1%).

Event Summary: Total 5133; Clear 5044 (98.3%); Impaired 73 (1.4%); Muted 16 (0.3%).
Event Summary: Total 4991; Clear 3152 (63.2%); Impaired 88 (1.8%); Muted 1751 (35.1%).

Event Summary: Total 4499; Clear 3511 (78.4%); Impaired 453 (10.1%); Muted 535 (11.9%).
EUREKA-147 -- North Bay Route -- Landmarks 13-14

Event Summary: Total 4781; Clear 2631 (56.3%); Impaired 983 (21.0%); Muted 1167

EUREKA-147 (single) -- North Bay Route -- Landmarks 13-14

Event Summary: Total 5162; Clear 3499 (68.6%); Impaired 761 (14.9%); Muted 902 (17.7%).
AT&T Lucent IBAC — North Bay Route — Landmarks 13-14

Event Summary: Total 4355; Clear 2442 (56.2%); Impaired 25 (0.6%); Muted 1888 (43.4%).

VOAJPL — North Bay Route — Landmarks 13-14

Event Summary: Total 4816; Clear 4690 (97.4%); Impaired 126 (2.6%); Muted 0 (0.0%).
Event Summary: Total 3934; Clear 3893 (99.0%); Impaired 41 (1.0%); Muted 0 (0.0%).

Event Summary: Total 5118; Clear 5055 (98.8%); Impaired 36 (0.7%); Muted 27 (0.5%).
Event Summary: Total 3349; Clear 2814 (84.1%); Impaired 11 (0.3%); Muted 524 (15.7%).

Event Summary: Total 3621; Clear 3257 (90.6%); Impaired 256 (7.1%); Muted 108 (3.0%).
Event Summary: Total 7140; Clear 6681 (93.7%); Impaired 17 (0.2%); Muted 442 (6.2%).

Event Summary: Total 7308; Clear 7277 (99.6%); Impaired 9 (0.1%); Muted 22 (0.3%).
Event Summary: Total 7133; Clear 7091 (99.4%); Impaired 10 (0.1%); Muted 32 (0.4%).

Event Summary: Total 6699; Clear 5517 (82.7%); Impaired 490 (7.3%); Muted 692 (10.4%).
Event Summary: Total 6609; Clear 6010 (91.1%); Impaired 274 (4.2%); Muted 325 (4.9%).

Event Summary: Total 6168; Clear 6168 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 6491; Clear 5956 (91.8%); Impaired 12 (0.2%); Muted 523 (8.1%).

Event Summary: Total 6061; Clear 5766 (95.5%); Impaired 113 (1.9%); Muted 182 (3.0%).
Event Summary: Total 3999; Clear 3571 (89.4%); Impaired 64 (1.6%); Muted 364 (9.1%).

Event Summary: Total 3444; Clear 3444 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
AT&T Lucent IBAC -- North Bay Route -- Landmarks 17-18

Event Summary: Total 3480; Clear 3341 (96.0%); Impaired 0 (0.0%); Muted 139 (4.0%).

VOAIJPL -- North Bay Route -- Landmarks 17-18

Event Summary: Total 3370; Clear 2948 (87.5%); Impaired 91 (2.7%); Muted 331 (9.8%).
Event Summary: Total 5592; Clear 5151 (92.8%); Impaired 209 (3.8%); Muted 232 (4.2%).

Event Summary: Total 3950; Clear 3627 (90.0%); Impaired 95 (2.4%); Muted 228 (5.7%).
Event Summary: Total 3867; Clear 3565 (92.3%); Impaired 7 (0.2%); Muted 295 (7.6%).

Event Summary: Total 3829; Clear 3423 (89.4%); Impaired 111 (2.9%); Muted 295 (7.7%).
NOTE AND COMMENTS
EIA-DAR FIELD TEST ROUTE SEGMENT GRAPHS

NOTE #1  **Distance Anomaly** - Landmark(s) incremented at the wrong location on a route, too early or too late by a significant distance, more than a few percent of the segment length. The graph will be marked, reconstructed or both.

NOTE #2  **Landmark Anomaly** - Extraneous or missing Landmark(s). Where possible and significant the graph will be reconstructed to the proper landmark position(s).

NOTE #3  **Data Corrupted** - The data file, or portion of the file, is missing and/or the data is corrupted. Valid data from adjoining files will be substituted where possible.

NOTE #4  **Velocity Anomaly** - A velocity spike is created in its calculation, probably due to intermittent time code errors.

NOTE #5  **Graph Detail** - See Zoom graphs(s) in Appendix G (to be added with future reports). A detail is presented which helps in the understanding of the data or collection method.

NOTE #6  **Graph Reconstruction** - A graph or series of graphs have been reconstructed from proceeding and/or following Landmarks and/or files. Such graphs will be Labelled "Reconstructed Graph Landmark N-N"
EIA-DAR FIELD TEST ROUTE DATA
PATH "E" - EAST

NO.  ENV.  DESCRIPTION
1  FBN  '50 MPH' sign immediately after last SF entrance to I-80 (Battery)
2  FBN  '15 MPH' sign with U-shaped arrow at entrance to tunnel
3  FUL  Hwy 80/580/680 direction sign immediately after bridge
4  FUL  'Berkeley/Walnut Creek East 24' sign at entrance to Hwy 24
5  HSM  'Tunnel Road 1-1/2 mi' sign
6  FTN  Entrance to Caldecott Tunnel
7  HRM  End of Caldecott Tunnel
8  HRD  'St. Stephens Road/Hidden Valley Road Next Exit' sign
9  HRM  'Pleasant Hill Rd 1 mi/Jct 680 2 1/4 mi' sign
10 HRM  'So Main Street Next Exit' sign
11 HRM  'Stone Valley Road East/West' sign
12 FRM  Overpass after Sycamore Valley Road exit
13 FRM  Overpass with 'Bollinger Canyon Road Next Exit' sign
14 HRM  'Oakland/Stockton 580' sign above beginning of on ramp to 580
15 HRM  'Eden Canyon Road/Palomares Road 3/4 mi' sign
16 HSM  'Castro Valley Next Right' sign
17 HSM  'Oakland Zoo-Park/Oakland Airport Next Right' sign
18 HSD  Large Green Water Tank on hill immediately past Keller avenue exit
19 FSM  Overpass with 'Coolidge/Fruitvale Avenue' and 'Bay Bridge' signs
20 FUM  Overpass with 'Lakeshore/Grant Avenue/Harrison Street' sign
21 FBN  'Toll Crossing 1/2 mi Auto Toll $1.00' sign
22 END  Railing over West end of Bay Bridge

ENVIRONMENT THREE LETTER CODES

TERRAIN: Flat, Hilly, Mountainous, Valley

AREA: Downtown, Urban, Suburban, Rural, Bridge, Expressway, Tunnel

FOLIAGE: None, Light, Moderate, Heavy

PATH OBSERVATION SUMMARIES - Number (%)

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<th>SYSTEM</th>
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Electronic Industries Association • Consumer Electronics Manufacturers Association

"Long Path" Test Routes

©1995 Hammett & Edison, Inc.
"Long Path" Test Routes
Route E • East Bay

Numbers denote route landmarks in Figure 3
Event Summary: Total 3680; Clear 3680 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2987; Clear 2979 (99.7%); Impaired 8 (0.3%); Muted 0 (0.0%).
Event Summary: Total 4708; Clear 3855 (81.9%); Impaired 46 (1.0%); Muted 807 (17.1%).

Event Summary: Total 2929; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 2929 (100.0%).
Event Summary: Total 3949; Clear 3949 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 4085; Clear 4085 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 4051; Clear 3681 (90.9%); Impaired 14 (0.3%); Muted 356 (8.8%).

Event Summary: Total 3547; Clear 511 (14.4%); Impaired 16 (0.5%); Muted 3020 (85.2%).
EUREKA-147 -- East Bay Route -- Landmarks 3-4

Event Summary: Total 5122; Clear 5122 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (single) -- East Bay Route -- Landmarks 3-4

Event Summary: Total 4734; Clear 4734 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
AT&T Lucent IBAC -- East Bay Route -- Landmarks 3-4

Event Summary: Total 16484; Clear 16182 (98.2%); Impaired 23 (0.1%); Muted 279 (1.7%).

NOTE #1 & #6
SEE SUPPLEMENTAL GRAPH AT END

VOA/JPL -- East Bay Route -- Landmarks 3-4

Event Summary: Total 6690; Clear 6368 (96.0%); Impaired 110 (1.7%); Muted 212 (3.2%).
Event Summary: Total 2291; Clear 2291 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2171; Clear 2171 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
AT&T Lucent IBAC -- East Bay Route -- Landmarks 4-5

Event Summary: Total 2085; Clear 2057 (98.7%); Impaired 0 (0.0%); Muted 28 (1.3%).

VOA/JPL -- East Bay Route -- Landmarks 4-5

Event Summary: Total 2220; Clear 2220 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2427; Clear 2427 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2616; Clear 2033 (77.8%); Impaired 92 (3.5%); Muted 491 (18.8%).
Event Summary: Total 2298; Clear 2271 (98.8%); Impaired 0 (0.0%); Muted 27 (1.2%).

Event Summary: Total 6952; Clear 6821 (98.3%); Impaired 25 (0.4%); Muted 106 (1.5%).
Event Summary: Total 1080; Clear 40 (3.7%); Impaired 0 (0.0%); Muted 1040 (96.3%).

Event Summary: Total 1490; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 1490 (100.0%).
Event Summary: Total 1053; Clear 76 (7.2%); Impaired 1 (0.1%); Muted 976 (92.8%).

Event Summary: Total 1538; Clear 33 (2.2%); Impaired 6 (0.4%); Muted 1499 (97.8%).
EUREKA-147 -- East Bay Route -- Records 1911682-2245274

Event Summary: Total 3090; Clear 262 (8.6%); Impaired 344 (11.4%); Muted 2484 (82.0%).

NOTE #1 & #6
RECONSTRUCTED GRAPH LANDMARKS 7-8

EUREKA-147 (single) -- East Bay Route -- Records 1805964-2139556

Event Summary: Total 3007; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3007 (100.0%).

NOTE #1 & #6
RECONSTRUCTED GRAPH LANDMARKS 7-8
Event Summary: Total 3318; Clear 96 (2.9%); Impaired 4 (0.1%); Muted 3218 (97.1%).

NOTE #1

Event Summary: Total 2838; Clear 2723 (96.8%); Impaired 44 (1.6%); Muted 71 (2.5%).
Event Summary: Total 4586; Clear 3555 (79.7%); Impaired 504 (11.3%); Muted 527 (11.8%).

NOTE #1 & #6

RECONSTRUCTED GRAPH LANDMARKS 8-9

Event Summary: Total 4418; Clear 51 (1.2%); Impaired 20 (0.5%); Muted 4347 (98.7%).

NOTE #1 & #6

RECONSTRUCTED GRAPH LANDMARKS 8-9
Event Summary: Total 4006; Clear 154 (3.8%); Impaired 19 (0.5%); Muted 3833 (95.8%).

NOTE #1
EUREKA-147 -- East Bay Route -- Records 2755031-3205057

Event Summary: Total 4113; Clear 2893 (71.5%); Impaired 505 (12.5%); Muted 715 (17.7%).

NOTE #1 & #6

RECONSTRUCTED GRAPH LANDMARKS 9-10

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EUREKA-147 (single) -- East Bay Route -- Records 2644152-3094178

Event Summary: Total 3673; Clear 474 (12.3%); Impaired 20 (0.5%); Muted 3379 (87.4%).

NOTE #1 & #6

RECONSTRUCTED GRAPH LANDMARKS 9-10
Event Summary: Total 3678; Clear 371 (10.1%); Impaired 22 (0.6%); Muted 3285 (89.5%).

NOTE #1

Event Summary: Total 4182; Clear 4062 (97.8%); Impaired 53 (1.3%); Muted 67 (1.6%).
EUREKA-147 -- East Bay Route -- Landmarks 10-11

Event Summary: Total 3404; Clear 27 (0.8%); Impaired 5 (0.1%); Muted 3372 (99.2%).

NOTE #1

EUREKA-147 (single) -- East Bay Route -- Landmarks 10-11

Event Summary: Total 3389; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3389 (100.0%).
Event Summary: Total 3439; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3439 (100.0%).

Event Summary: Total 3173; Clear 2853 (91.5%); Impaired 120 (3.8%); Muted 200 (6.4%).
Event Summary: Total 4173; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 4173 (100.0%).

NOTE #1

Event Summary: Total 4465; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 4465 (100.0%).
Event Summary: Total 4664; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 4664 (100.0%).

Event Summary: Total 4497; Clear 4142 (92.6%); Impaired 241 (5.4%); Muted 114 (2.5%).
Event Summary: Total 3497; Clear 0 (0.0%); Impaired 31 (0.9%); Muted 3466 (100.0%).

Event Summary: Total 3462; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3462 (100.0%).
Event Summary: Total 3756: Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3756 (100.0%).

Event Summary: Total 3503: Clear 2159 (64.1%); Impaired 562 (16.7%); Muted 782 (23.2%).
Event Summary: Total 6678; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 6678 (100.0%).
Event Summary: Total 5803; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 5803 (100.0%).

Event Summary: Total 6073; Clear 4634 (77.9%); Impaired 310 (5.2%); Muted 1129 (19.0%).
Event Summary: Total 6024: Clear 1382 (23.0%); Impaired 419 (7.0%); Muted 4223 (70.2%).

Event Summary: Total 5783: Clear 1529 (26.5%); Impaired 287 (5.0%); Muted 3967 (68.7%).
AT&T Lucent IBAC -- East Bay Route -- Landmarks 14-15

Event Summary: Total 5769; Clear 940 (16.3%); Impaired 23 (0.4%); Muted 4806 (83.4%).

VOA/JPL -- East Bay Route -- Landmarks 14-15

Event Summary: Total 6416; Clear 5491 (85.9%); Impaired 59 (0.9%); Muted 866 (13.5%).
Event Summary: Total 2565; Clear 1348 (54.4%); Impaired 399 (16.1%); Muted 818 (33.0%).

Event Summary: Total 2608; Clear 193 (7.4%); Impaired 37 (1.4%); Muted 2378 (91.2%).
Event Summary: Total 2431; Clear 700 (28.9%); Impaired 11 (0.5%); Muted 1720 (71.0%).
EUREKA-147 -- East Bay Route -- Landmarks 16-17

Event Summary: Total 9157; Clear 8742 (95.6%); Impaired 202 (2.2%); Muted 213 (2.3%).

EUREKA-147 (single) -- East Bay Route -- Landmarks 16-17

Event Summary: Total 9035; Clear 6713 (74.5%); Impaired 482 (5.3%); Muted 1840 (20.4%).
Event Summary: Total 8795; Clear 7812 (89.0%); Impaired 108 (1.2%); Muted 875 (10.0%).

Event Summary: Total 8703; Clear 8463 (97.7%); Impaired 82 (0.9%); Muted 158 (1.8%).
Event Summary: Total 3032; Clear 1949 (66.2%); Impaired 299 (10.2%); Muted 784 (26.6%).

NOTE #1

Event Summary: Total 2805; Clear 1903 (67.8%); Impaired 135 (4.8%); Muted 767 (27.3%).
Event Summary: Total 2574; Clear 1850 (72.8%); Impaired 143 (5.6%); Muted 581 (22.9%).

Event Summary: Total 2494; Clear 2070 (84.1%); Impaired 72 (2.9%); Muted 352 (14.3%).
EUREKA-147 – East Bay Route – Landmarks 18-19

Event Summary: Total 3424; Clear 3419 (99.9%); Impaired 4 (0.1%); Muted 1 (0.0%).

NOTE #1

EUREKA-147 (single) – East Bay Route – Landmarks 18-19

Event Summary: Total 3265; Clear 3265 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2764; Clear 2626 (95.0%); Impaired 24 (0.9%); Muted 114 (4.1%).

Event Summary: Total 2842; Clear 2806 (98.9%); Impaired 16 (0.6%); Muted 20 (0.7%).
EUREKA-147 -- East Bay Route -- Landmarks 19-20

Event Summary: Total 2632; Clear 2632 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (single) -- East Bay Route -- Landmarks 19-20

Event Summary: Total 2349; Clear 2343 (99.7%); Impaired 0 (0.0%); Muted 6 (0.3%).
Event Summary: Total 2556; Clear 2377 (93.0%); Impaired 36 (1.4%); Muted 143 (5.6%).

Event Summary: Total 2253; Clear 2123 (95.1%); Impaired 34 (1.5%); Muted 96 (4.3%).
Event Summary: Total 23008; Clear 22993 (99.9%); Impaired 5 (0.0%); Muted 10 (0.0%).

NOTE #2

Event Summary: Total 4098; Clear 3960 (97.9%); Impaired 59 (1.5%); Muted 79 (2.0%).

NOTE #2
AT&T Lucent IBAC -- East Bay Route -- Landmarks 20-21

Event Summary: Total 3930; Clear 3769 (95.9%); Impaired 101 (2.6%); Muted 60 (1.5%).

VOA/JPL -- East Bay Route -- Landmarks 20-21

Event Summary: Total 3678; Clear 3426 (94.1%); Impaired 66 (1.8%); Muted 186 (5.1%).
Event Summary: Total 10474; Clear 9964 (95.3%); Impaired 53 (0.5%); Muted 457 (4.4%).

Event Summary: Total 9488; Clear 5384 (56.9%); Impaired 182 (1.9%); Muted 3922 (41.5%).
RECONSTRUCTED GRAPH LANDMARKS 7-10

Event Summary: Total 11789; Clear 6710 (56.2%); Impaired 1353 (11.7%); Muted 3726

NOTE #6

RECONSTRUCTED GRAPH LANDMARKS 7-10

Event Summary: Total 11298; Clear 525 (4.7%); Impaired 40 (0.4%); Muted 10733 (95.2%)

NOTE #6
Event Summary: Total 6839; Clear 6734 (98.5%); Impaired 0 (0.0%); Muted 105 (1.5%).
NOTE AND COMMENTS
EIA-DAR FIELD TEST ROUTE SEGMENT GRAPHS

NOTE #1 Distance Anomaly - Landmark(s) incremented at the wrong location on a route, too early or too late by a significant distance, more than a few percent of the segment length. The graph will be marked, reconstructed or both.

NOTE #2 Landmark Anomaly - Extraneous or missing Landmark(s). Where possible and significant the graph will be reconstructed to the proper landmark position(s).

NOTE #3 Data Corrupted - The data file, or portion of the file, is missing and/or the data is corrupted. Valid data from adjoining files will be substituted where possible.

NOTE #4 Velocity Anomaly - A velocity spike is created in its calculation, probably due to intermittent time code errors.

NOTE #5 Graph Detail - See Zoom graphs(s) in Appendix G (to be added with future reports). A detail is presented which helps in the understanding of the data or collection method.

NOTE #6 Graph Reconstruction - A graph or series of graphs have been reconstructed from proceeding and/or following Landmarks and/or files. Such graphs will be Labelled "Reconstructed Graph Landmark N-N"
EIA-DAR FIELD TEST ROUTE DATA
PATH "S" - SOUTH

NO.  ENV.  DESCRIPTION
1  FSM  Sun Microsystems sign at intersection of 84 and Willow
2  FBN  Dumbarton Bridge entrance
3  FRL  South KGO tower (closest to 84)
4  FSM  Overpass with 'Newark Blvd/Ardenwood Blvd Next Right' sign
5  FSM  Railroad over crossing past Thornton Avenue exit
6  FSL  Overpass after Auto Mall Parkway exit
7  FSL  Overpass with 'Dixon Landing Road 1 3/4 mi' sign
8  FSL  Overpass with 'McCarthy Blvd/Ranch Dr' sign past McCarthy Ranch mall
9  FSL  Overpass past North First Street Exit
10  FSM  Hwy 237/Milpitas Freeway Entrance' sign on Lawrence Expwy (overpass)
11  FSM  'Fry's Electronics' sign on Lawrence
12  FSM  'El Camino Real Right Lane' sign on Lawrence
13  FSM  'North 280 Freeway Entrance' sign
14  FSM  Overpass with 'Fremont Ave/Los Altos 3/4 mi' sign on 85
15  FSM  'Mountain View City Limit' sign on 85
16  FSM  North 101 San Francisco' sign at Moffett Blvd exit
17  FSM  Overpass after San Antonio Road exit/Palo Alto City Limit
18  FSM  'East Palo Alto City Limit/San Mateo County Line' signs
19  END  'Willow Rd/Fremont East 84' sign

ENVIRONMENT THREE LETTER CODES

TERRAIN:  Flat, Hilly, Mountainous, Valley

AREA:  Downtown, Urban, Suburban, Rural, Bridge, Expressway, Tunnel

FOLIAGE:  None, Light, Moderate, Heavy

PATH OBSERVATION SUMMARIES - Number (%)

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<th>SYSTEM</th>
<th>TOTAL</th>
<th>CLEAR</th>
<th>IMPAIRED</th>
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<td>VOA-JPL</td>
<td>68,704</td>
<td>64,955(94.5)</td>
<td>1,074(1.6)</td>
<td>2,675(3.9)</td>
</tr>
</tbody>
</table>
Electronic Industries Association • Consumer Electronics Manufacturers Association

"Long Path" Test Routes
Route S • South Bay

Numbers denote route landmarks in Figure 3

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

961210
Figure 2F
Event Summary: Total 1982; Clear 1982 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2233; Clear 2228 (99.8%); Impaired 5 (0.2%); Muted 0 (0.0%).
AT&T Lucent IBAC -- South Bay Route -- Landmarks 1-2

Event Summary: Total 2631; Clear 72 (2.7%); Impaired 4 (0.2%); Muted 2555 (97.3%).

VOA/JPL -- South Bay Route -- Landmarks 1-2

Event Summary: Total 2786; Clear 2786 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3093; Clear 3093 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3517; Clear 3512 (99.9%); Impaired 5 (0.1%); Muted 0 (0.0%).
AT&T Lucent IBAC -- South Bay Route -- Landmarks 2-3

Event Summary: Total 3436; Clear 841 (25.3%); Impaired 632 (19.0%); Muted 1963 (59.2%).

VOA/JPL -- South Bay Route -- Landmarks 2-3

Event Summary: Total 2975; Clear 2965 (99.7%); Impaired 7 (0.2%); Muted 3 (0.1%).
Event Summary: Total 2350; Clear 2332 (99.2%); Impaired 0 (0.0%); Muted 18 (0.8%).

Event Summary: Total 2555; Clear 2275 (90.1%); Impaired 213 (8.4%); Muted 67 (2.7%).
AT&T Lucent IBAC -- South Bay Route -- Landmarks 3-4

Event Summary: Total 2560; Clear 1774 (70.0%); Impaired 146 (5.8%); Muted 640 (25.2%).

VOA/JPL -- South Bay Route -- Landmarks 3-4

Event Summary: Total 2383; Clear 2374 (99.6%); Impaired 5 (0.2%); Muted 4 (0.2%).
AT&T Lucent IBAC -- South Bay Route -- Landmarks 4-5

Event Summary: Total 5477; Clear 4486 (82.7%); Impaired 233 (4.3%); Muted 758 (14.0%).

VOA/JPL -- South Bay Route -- Landmarks 4-5

Event Summary: Total 4461; Clear 4281 (96.5%); Impaired 70 (1.6%); Muted 110 (2.5%).
Event Summary: Total 4571; Clear 4036 (88.5%); Impaired 253 (5.5%); Muted 280 (6.1%).

Event Summary: Total 4536; Clear 3888 (86.4%); Impaired 266 (5.9%); Muted 382 (8.5%).
Event Summary: Total 5516; Clear 2649 (49.0%); Impaired 240 (4.4%); Muted 2627 (48.6%).

Event Summary: Total 5397; Clear 5026 (93.6%); Impaired 185 (3.4%); Muted 186 (3.5%).

NOTE #1
Event Summary: Total 2725; Clear 2504 (92.0%); Impaired 135 (5.0%); Muted 86 (3.2%).

Event Summary: Total 3135; Clear 3063 (97.7%); Impaired 72 (2.3%); Muted 0 (0.0%).
Event Summary: Total 3677; Clear 1057 (29.5%); Impaired 337 (9.4%); Muted 2283 (63.8%).

Event Summary: Total 3646; Clear 3356 (92.1%); Impaired 122 (3.3%); Muted 168 (4.6%).
Event Summary: Total 5244; Clear 4803 (91.6%); Impaired 352 (6.7%); Muted 89 (1.7%).

Event Summary: Total 6908; Clear 6908 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
AT&T Lucent IBAC -- South Bay Route -- Landmarks 7-8

Event Summary: Total 6295; Clear 1724 (28.1%); Impaired 608 (9.9%); Muted 3963 (64.6%).

VOA/JPL -- South Bay Route -- Landmarks 7-8

Event Summary: Total 4837; Clear 4736 (98.3%); Impaired 38 (0.8%); Muted 63 (1.3%).

NOTE #1
Event Summary: Total 2486; Clear 2486 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2607; Clear 2607 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3222; Clear 443 (13.8%); Impaired 17 (0.5%); Muted 2762 (86.2%).

Event Summary: Total 2493; Clear 2442 (98.2%); Impaired 17 (0.7%); Muted 34 (1.4%).
EUREKA-147 -- South Bay Route -- Landmarks 9-10

Event Summary: Total 3526; Clear 3482 (98.8%); Impaired 29 (0.8%); Muted 15 (0.4%).

EUREKA-147 (single) -- South Bay Route -- Landmarks 9-10

Event Summary: Total 3755; Clear 3748 (99.8%); Impaired 0 (0.0%); Muted 7 (0.2%).
Event Summary: Total 3934; Clear 940 (24.1%); Impaired 177 (4.5%); Muted 2817 (72.1%).

Event Summary: Total 3836; Clear 3588 (94.1%); Impaired 42 (1.1%); Muted 206 (5.4%).
Event Summary: Total 5328; Clear 5090 (95.7%); Impaired 170 (3.2%); Muted 60 (1.1%).

Event Summary: Total 4516; Clear 4389 (97.3%); Impaired 101 (2.2%); Muted 26 (0.6%).
Event Summary: Total 4947; Clear 305 (6.2%); Impaired 132 (2.7%); Muted 4510 (92.0%).

Event Summary: Total 5163; Clear 4936 (95.9%); Impaired 29 (0.6%); Muted 198 (3.8%).
Event Summary: Total 2948; Clear 2803 (95.2%); Impaired 69 (2.3%); Muted 76 (2.6%).

Event Summary: Total 4489; Clear 4276 (95.6%); Impaired 100 (2.2%); Muted 113 (2.5%).
Event Summary: Total 4291; Clear 183 (4.3%); Impaired 113 (2.7%); Muted 3995 (94.2%).

Event Summary: Total 5137; Clear 4714 (92.4%); Impaired 78 (1.5%); Muted 345 (6.8%).
Event Summary: Total 9024; Clear 7118 (79.5%); Impaired 1373 (15.3%); Muted 533 (6.0%).

NOTE #1 & #2
Event Summary: Total 5860; Clear 104 (1.8%); Impaired 5 (0.1%); Muted 5751 (98.2%).

Event Summary: Total 6388; Clear 5414 (85.3%); Impaired 251 (4.0%); Muted 723 (11.4%).
Event Summary: Total 4894; Clear 4404 (90.0%); Impaired 484 (9.9%); Muted 6 (0.1%).

Event Summary: Total 4649; Clear 2954 (64.9%); Impaired 1272 (27.9%); Muted 423 (9.3%).
Event Summary: Total 4916; Clear 740 (15.2%); Impaired 200 (4.1%); Muted 3976 (81.8%).

Event Summary: Total 4986; Clear 4794 (96.5%); Impaired 60 (1.2%); Muted 132 (2.7%).
Event Summary: Total 2001; Clear 2001 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2079; Clear 763 (37.3%); Impaired 246 (12.0%); Muted 1070 (52.2%).

Event Summary: Total 1927; Clear 1833 (95.5%); Impaired 57 (3.0%); Muted 37 (1.9%).
Event Summary: Total 3337; Clear 3337 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3301; Clear 3259 (97.9%); Impaired 19 (0.6%); Muted 23 (0.7%).
Event Summary: Total 3515; Clear 1227 (36.6%); Impaired 420 (12.5%); Muted 1868

Event Summary: Total 3389; Clear 3241 (96.1%); Impaired 43 (1.3%); Muted 105 (3.1%).
Event Summary: Total 3491; Clear 3491 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 3503; Clear 3477 (99.3%); Impaired 11 (0.3%); Muted 15 (0.4%).
AT&T Lucent IBAC -- South Bay Route -- Landmarks 16-17

Event Summary: Total 3988; Clear 1522 (41.2%); Impaired 695 (18.8%); Muted 1771

VOA JPL -- South Bay Route -- Landmarks 16-17

Event Summary: Total 3489; Clear 3218 (93.6%); Impaired 66 (1.9%); Muted 205 (6.0%).
Event Summary: Total 2534; Clear 1917 (75.7%); Impaired 5 (0.2%); Muted 612 (24.2%).

INTERRUPTED TRANSMITTER NOTED IN FILE LOGS

Event Summary: Total 2597; Clear 2597 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 3159; Clear 529 (18.0%); Impaired 423 (14.4%); Muted 2207 (75.1%).

Event Summary: Total 2919; Clear 2805 (96.1%); Impaired 0 (0.0%); Muted 114 (3.9%).
EUREKA-147 -- South Bay Route -- Landmarks 18-19

Event Summary: Total 2565; Clear 2426 (94.6%); Impaired 0 (0.0%); Muted 139 (5.4%).

NOTE #2

EUREKA-147 (single) -- South Bay Route -- Landmarks 18-19

Event Summary: Total 2429; Clear 2429 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #2
Event Summary: Total 2292; Clear 367 (16.8%); Impaired 266 (12.2%); Muted 1659 (76.0%).

Event Summary: Total 2492; Clear 2446 (98.2%); Impaired 4 (0.2%); Muted 42 (1.7%).
NOTE AND COMMENTS
EIA-DAR FIELD TEST ROUTE SEGMENT GRAPHS

NOTE #1  Distance Anomaly - Landmark(s) incremented at the wrong location on a route, too early or too late by a significant distance, more than a few percent of the segment length. The graph will be marked, reconstructed or both.

NOTE #2  Landmark Anomaly - Extraneous or missing Landmark(s). Where possible and significant the graph will be reconstructed to the proper landmark position(s).

NOTE #3  Data Corrupted - The data file, or portion of the file, is missing and/or the data is corrupted. Valid data from adjoining files will be substituted where possible.

NOTE #4  Velocity Anomaly - A velocity spike is created in its calculation, probably due to intermittent time code errors.

NOTE #5  Graph Detail - See Zoom graphs(s) in Appendix G (to be added with future reports). A detail is presented which helps in the understanding of the data or collection method.

NOTE #6  Graph Reconstruction - A graph or series of graphs have been reconstructed from proceeding and/or following Landmarks and/or files. Such graphs will be Labelled "Reconstructed Graph Landmark N-N"
# EIA-DAR FIELD TEST ROUTE DATA

## PATH "W" - PENINSULA

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<td>MRD</td>
<td>Linda Mar Drive Stop light</td>
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<td>19</td>
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### ENVIRONMENT THREE LETTER CODES

**TERRAIN:** Flat, Hilly, Mountainous, Valley

**AREA:** Downtown, Urban, Suburban, Rural, Bridge, Expressway, Tunnel

**FOLIAGE:** None, Light, Moderate, Heavy

## PATH OBSERVATION SUMMARIES - Number (%)

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<th>SYSTEM</th>
<th>TOTAL</th>
<th>CLEAR</th>
<th>IMPAIRED</th>
<th>MUTED</th>
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Electronic Industries Association • Consumer Electronics Manufacturers Association

"Long Path" Test Routes

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HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

961210
Figure 2A
“Long Path” Test Routes
Route W • San Francisco Peninsula

Numbers denote route landmarks in Figure 3
EUREKA-147 -- Peninsula Route -- Landmarks 1-2

Event Summary: Total 5628; Clear 2524 (45.1%); Impaired 601 (10.7%); Muted 2503

EUREKA-147 (single) -- Peninsula Route -- Landmarks 1-2

Event Summary: Total 5433; Clear 2541 (47.2%); Impaired 711 (13.2%); Muted 2181
Event Summary: Total 5914; Clear 3882 (65.7%); Impaired 128 (2.2%); Muted 1904 (32.2%).

Event Summary: Total 5586; Clear 4313 (78.6%); Impaired 208 (3.8%); Muted 1065 (19.4%).
EUREKA-147 -- Peninsula Route -- Landmarks 2-3

Event Summary: Total 5163; Clear 3058 (59.5%); Impaired 904 (17.6%); Muted 1201

EUREKA-147 (single) -- Peninsula Route -- Landmarks 2-3

Event Summary: Total 4904; Clear 2859 (58.7%); Impaired 740 (15.2%); Muted 1305
Event Summary: Total 4035; Clear 2821 (70.1%); Impaired 46 (1.1%); Muted 1168 (29.0%).

Event Summary: Total 3812; Clear 2746 (72.6%); Impaired 42 (1.1%); Muted 1024 (27.1%).
EUREKA-147 -- Peninsula Route -- Landmarks 3-4

Event Summary: Total 3178; Clear 2708 (85.2%); Impaired 74 (2.3%); Muted 396 (12.5%).

EUREKA-147 (single) -- Peninsula Route -- Landmarks 3-4

Event Summary: Total 3162; Clear 2437 (77.2%); Impaired 46 (1.5%); Muted 679 (21.5%).
Event Summary: Total 3278; Clear 2391 (73.4%); Impaired 56 (1.7%); Muted 831 (25.5%).

Event Summary: Total 3095; Clear 1846 (60.3%); Impaired 48 (1.6%); Muted 1201 (39.2%).
Event Summary: Total 5453; Clear 274 (5.0%); Impaired 51 (0.9%); Muted 5128 (94.1%).

NOTE #1 & #6

Event Summary: Total 5043; Clear 85 (1.7%); Impaired 46 (0.9%); Muted 4912 (97.6%).
AT&T Lucent IBAC -- Peninsula Route -- Landmarks 4-5

Event Summary: Total 5492; Clear 1717 (31.4%); Impaired 18 (0.3%); Muted 3757 (68.6%).

VOA/JPL -- Peninsula Route -- Landmarks 4-5

Event Summary: Total 5205; Clear 4216 (81.4%); Impaired 37 (0.7%); Muted 952 (18.4%).
Event Summary: Total 4824; Clear 201 (4.2%); Impaired 31 (0.6%); Muted 4592 (95.2%).

NOTE #1 & #6

Event Summary: Total 4045; Clear 15 (0.4%); Impaired 0 (0.0%); Muted 4030 (99.6%).
AT&T Lucent IBAC -- Peninsula Route -- Landmarks 5-6

Event Summary: Total 4026; Clear 630 (20.6%); Impaired 4 (0.1%); Muted 3192 (79.3%).

VOAJPL -- Peninsula Route -- Landmarks 5-6

Event Summary: Total 4325; Clear 3470 (81.6%); Impaired 163 (3.8%); Muted 692 (16.3%).
Event Summary: Total 4885; Clear 9 (0.2%); Impaired 0 (0.0%); Muted 4876 (99.8%).

NOTE #1, #2 & #6

Event Summary: Total 5178; Clear 3 (0.1%); Impaired 0 (0.0%); Muted 5175 (99.9%).
Event Summary: Total 5111; Clear 0 (0.0%); Impaired 5 (0.1%); Muted 5106 (100.0%).

Event Summary: Total 4955; Clear 4716 (95.8%); Impaired 69 (1.4%); Muted 170 (3.5%).
Event Summary: Total 4162; Clear 854 (20.6%); Impaired 252 (6.1%); Muted 3056 (73.6%).

Event Summary: Total 3546; Clear 0 (0.0%); Impaired 8 (0.2%); Muted 3538 (100.0%).
Event Summary: Total 4832; Clear 570 (11.9%); Impaired 85 (1.8%); Muted 4177 (87.4%).

NOTE #1

Event Summary: Total 3476; Clear 3123 (90.6%); Impaired 57 (1.7%); Muted 296 (8.6%).
EUREKA-147 -- Peninsula Route -- Landmarks 8-9

Event Summary: Total 4123; Clear 181 (4.4%); Impaired 142 (3.5%); Muted 3800 (92.8%).

NOTE #2 & #6

EUREKA-147 (single) -- Peninsula Route -- Landmarks 8-9

Event Summary: Total 4035; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 4035 (100.0%).
Event Summary: Total 3699; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3699 (100.0%).

NOTE #1

Event Summary: Total 4274; Clear 3348 (80.4%); Impaired 162 (3.9%); Muted 764 (18.3%).
EUREKA-147 -- Peninsula Route -- Landmarks 9-10

Event Summary: Total 4243; Clear 63 (1.5%); Impaired 4 (0.1%); Muted 4176 (98.5%).

EUREKA-147 (single) -- Peninsula Route -- Landmarks 9-10

Event Summary: Total 3551; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 3551 (100.0%).
Event Summary: Total 4254; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 4254 (100.0%).

Event Summary: Total 3827; Clear 2513 (66.1%); Impaired 42 (1.1%); Muted 1272 (33.5%).
Event Summary: Total 2905; Clear 1044 (36.0%); Impaired 324 (11.2%); Muted 1537

Event Summary: Total 2437; Clear 0 (0.0%); Impaired 0 (0.0%); Muted 2437 (100.0%).
Event Summary: Total 3802; Clear 210 (5.5%); Impaired 5 (0.1%); Muted 3587 (94.3%).

Event Summary: Total 2501; Clear 1750 (70.1%); Impaired 19 (0.8%); Muted 732 (29.3%).
Event Summary: Total 5943; Clear 5205 (87.7%); Impaired 254 (4.3%); Muted 484 (8.2%).

Event Summary: Total 5591; Clear 24 (0.4%); Impaired 89 (1.6%); Muted 5478 (98.0%).
Event Summary: Total 7367; Clear 304 (4.1%); Impaired 52 (0.7%); Muted 7011 (95.2%).

Event Summary: Total 5534; Clear 3892 (70.9%); Impaired 109 (2.0%); Muted 1533 (27.9%).
Event Summary: Total 4753; Clear 4671 (98.3%); Impaired 58 (1.2%); Muted 24 (0.5%).

Event Summary: Total 4999; Clear 328 (6.6%); Impaired 1754 (36.3%); Muted 2917 (60.4%).
Event Summary: Total 4733; Clear 750 (15.8%); Impaired 18 (0.4%); Muted 3965 (83.8%).
EUREKA-147 -- Peninsula Route -- Landmarks 13-14

Event Summary: Total 3977; Clear 3977 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

EUREKA-147 (single) -- Peninsula Route -- Landmarks 13-14

Event Summary: Total 8152; Clear 7955 (97.5%); Impaired 197 (2.4%); Muted 0 (0.0%).
AT&T Lucent IBAC -- Peninsula Route -- Landmarks 13-14

Event Summary: Total 3575; Clear 3033 (84.8%); Impaired 77 (2.2%); Muted 465 (13.0%).

VOAIJPL -- Peninsula Route -- Landmarks 13-14

Event Summary: Total 3577; Clear 3281 (91.9%); Impaired 38 (1.1%); Muted 258 (7.2%).
Event Summary: Total 2484; Clear 2484 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

Event Summary: Total 2638; Clear 2638 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).
Event Summary: Total 2426; Clear 2345 (96.8%); Impaired 17 (0.7%); Muted 64 (2.6%).

Event Summary: Total 2291; Clear 2251 (98.5%); Impaired 14 (0.6%); Muted 26 (1.1%).
Event Summary: Total 4055; Clear 4055 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%).

NOTE #1 & #6

Event Summary: Total 4309; Clear 1922 (44.4%); Impaired 1138 (26.1%); Muted 1249
Event Summary: Total 3946; Clear 2763 (71.0%); Impaired 134 (3.4%); Muted 1049 (26.9%).

NOTE #2 & #6

Event Summary: Total 4076; Clear 4035 (99.2%); Impaired 16 (0.4%); Muted 25 (0.6%).

NOTE #2 & #6
Event Summary: Total 4024; Clear 4024 (100.0%); Impaired 0 (0.0%); Muted 0 (0.0%)

NOTE # 2 & #6

Event Summary: Total 4617; Clear 514 (12.0%); Impaired 1562 (36.3%); Muted 2541
Event Summary: Total 4159: Clear 2266 (55.2%); Impaired 94 (2.3%); Muted 1799 (43.8%).

NOTE #6

Event Summary: Total 3990: Clear 3831 (96.9%); Impaired 83 (2.1%); Muted 76 (1.9%).

NOTE #6
Event Summary: Total 3506; Clear 3497 (99.7%); Impaired 9 (0.3%); Muted 0 (0.0%).

Event Summary: Total 3658; Clear 1288 (38.1%); Impaired 754 (22.3%); Muted 1616
Event Summary: Total 3552; Clear 2133 (60.5%); Impaired 40 (1.1%); Muted 1379 (39.1%).

Event Summary: Total 3530; Clear 3430 (97.5%); Impaired 46 (1.3%); Muted 54 (1.5%).
EUREKA-147 -- Peninsula Route -- Landmarks 18-19

Event Summary: Total 2875; Clear 2817 (98.0%); Impaired 27 (0.9%); Muted 31 (1.1%).

NOTE #2

EUREKA-147 (single) -- Peninsula Route -- Landmarks 18-19

Event Summary: Total 3001; Clear 2835 (94.5%); Impaired 134 (4.5%); Muted 32 (1.1%).

NOTE #2
AT&T Lucent IBAC – Peninsula Route – Landmarks 18-19

Event Summary: Total 2767; Clear 2716 (98.2%); Impaired 0 (0.0%); Muted 51 (1.8%).

VOA/JPL – Peninsula Route – Landmarks 18-19

Event Summary: Total 2702; Clear 2658 (98.6%); Impaired 18 (0.7%); Muted 26 (1.0%).
SUPPLEMENTAL LANDMARK 15-17 GRAPH
NRSC Document Improvement Proposal

If in the review or use of this document a potential change appears needed for safety, health or technical reasons, please fill in the appropriate information below and email, mail or fax to:

National Radio Systems Committee  
c/o Consumer Electronics Association  
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