SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,
CENTRAL AMERICA, 15 JULY 1975

K. J. Hill, et al
Teledyne Geotech

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Air Force Technical Applications Center

13 January 1976
SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Central America, 15 July 1975

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January 1976

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**DD FORM 1473 EDITION OF 1 JAN 65 IS OBSOLETE**
This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

<table>
<thead>
<tr>
<th>Station</th>
<th>P Arrival</th>
<th>Origin Time</th>
<th>Lat.</th>
<th>Long.</th>
<th>mb</th>
<th>Ms</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORSAR</td>
<td>16:06:29.4</td>
<td>15:53:44</td>
<td>05 N</td>
<td>083 W</td>
<td>5.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Hagfors</td>
<td>16:06:36.2</td>
<td>15:53:53</td>
<td>06 N</td>
<td>079 W</td>
<td>5.2</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

15:53:51.5 07.7N 083.4W 5.1 5.1

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at CPSO, HN-ME, RK-ON, FN-WV, NORSAR and LASA. WH2YK short-period data were not recoverable because the station tape recorder was inoperative. Horizontal SP channels at CPSO, HN-ME, RK-ON, and FN-WV were rotated.

Long-period signals were recorded at CPSO, RK-ON, FN-WV, and LASA. WH2YK long-period data were not recoverable because the station tape recorder was inoperative. Horizontal LP channels at CPSO, RK-ON and FN-WV were rotated. ALPA and NORSAR long-period array data were not recoverable. LASA long-period array data are recoverable in segment lengths of 6 minutes 40 seconds; three segments are included in this report.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.
<table>
<thead>
<tr>
<th>SITE CODE</th>
<th>LOCATION</th>
<th>SITE COORDINATES DEG MN SECS</th>
<th>ELEVATION METERS</th>
<th>INSTRUMENTATION SHORT-PERIOD</th>
<th>INSTRUMENTATION LONG-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALPA</td>
<td>Alaska</td>
<td>65 14 00.0 N 147 44 36.0 W</td>
<td>626</td>
<td>None</td>
<td>31300</td>
</tr>
<tr>
<td>CPSO</td>
<td>McMinnville, Tennessee</td>
<td>35 35 41.4 N 085 34 13.5 W</td>
<td>574</td>
<td>6480 V</td>
<td>SL210 V</td>
</tr>
<tr>
<td>FN-WV</td>
<td>Franklin, West Virginia</td>
<td>38 32 58.0 N 079 30 47.0 W</td>
<td>910</td>
<td>KS36000</td>
<td>KS36000</td>
</tr>
<tr>
<td>LASA</td>
<td>Billings, Montana</td>
<td>46 41 19.0 N 106 13 20.0 W</td>
<td>744</td>
<td>HS10</td>
<td>7505A V 8700C H</td>
</tr>
<tr>
<td>HN-ME</td>
<td>Houlton, Maine</td>
<td>46 09 43.0 N 067 59 09.0 W</td>
<td>213</td>
<td>18300</td>
<td>SL210 V 8700C H</td>
</tr>
<tr>
<td>NORSAR</td>
<td>Kjeller, Norway</td>
<td>60 49 25.4 N 010 49 56.5 E</td>
<td>379</td>
<td>HS10</td>
<td>7505A V 8700C H</td>
</tr>
<tr>
<td>RK-ON</td>
<td>Red Lake, Ontario</td>
<td>50 50 20.0 N 093 40 20.0 W</td>
<td>366</td>
<td>18300</td>
<td>SL210 V 8700C H</td>
</tr>
<tr>
<td>WH2YK</td>
<td>White Horse, Yukon</td>
<td>60 41 41.0 N 134 58 02.0 W</td>
<td>853</td>
<td>18300</td>
<td>SL210 V 8700C H</td>
</tr>
</tbody>
</table>

Note: The orientation of the radial instruments at FN-WV is assumed to be 316° ± 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.
HYPOCENTER DETERMINATION

Input for Event: 15 Jul 75
15:54:30.0  7.000W  84.000W  0km.

<table>
<thead>
<tr>
<th>STA.</th>
<th>ARRIVAL</th>
<th>RESIDUALS</th>
<th>DIST.</th>
<th>AZ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPC</td>
<td>16 00 40.0</td>
<td>-3.7</td>
<td>27.8</td>
<td>356.2</td>
</tr>
<tr>
<td>FN-WV</td>
<td>16 00 09.9</td>
<td>-1.1</td>
<td>30.9</td>
<td>5.9</td>
</tr>
<tr>
<td>NM-NE</td>
<td>16 01 33.1</td>
<td>-0.4</td>
<td>40.6</td>
<td>16.5</td>
</tr>
<tr>
<td>LAC</td>
<td>16 01 57.1</td>
<td>-0.6</td>
<td>43.5</td>
<td>337.2</td>
</tr>
<tr>
<td>HK-ON</td>
<td>16 01 58.9</td>
<td>-1.4</td>
<td>43.8</td>
<td>350.6</td>
</tr>
<tr>
<td>MAC</td>
<td>16 06 29.4</td>
<td>-1.8</td>
<td>85.4</td>
<td>29.4</td>
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</tbody>
</table>

67 Herrin Travel Time Tables

<table>
<thead>
<tr>
<th>ORIGIN</th>
<th>LAT.</th>
<th>LNG.</th>
<th>DEPTH (km)</th>
<th>SDV</th>
<th>IT</th>
<th>STA</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC CONVERGENCE CN CALC RUN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:54:12.4</td>
<td>8.166N</td>
<td>83.376W</td>
<td>132. CAIC</td>
<td>1.2 16 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:53:51.5</td>
<td>7.696N</td>
<td>83.369W</td>
<td>0. REST</td>
<td>1.2 3 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{CALC} & : 3.3 \\
\text{REST} & : 3.3
\end{align*}
\]

\[
\begin{array}{ccc}
0 & 0 & 0 \\
0 & 0 & 0 \\
0 & 0 & 0 \\
0 & 0 & 0 \\
0 & 0 & 0
\end{array}
\]

Chi2 Coverage Ellipse: 95 PER CENT CONF. LEVEL, SDV = 1.18
MAJOR 97.5km, MINOR 61.0km, AZ = 27 AREA = 18655 SQ.KM. REST
### DATA SUMMARY

**INPUT FOR EVENT**

<table>
<thead>
<tr>
<th>Time</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:54:30.0</td>
<td>7.000W</td>
<td>84.000W</td>
</tr>
<tr>
<td>15 JUL 75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ARRIVAL**

<table>
<thead>
<tr>
<th>STA</th>
<th>PHASE</th>
<th>TIME</th>
<th>INST</th>
<th>PER</th>
<th>A/T</th>
<th>MB</th>
<th>NS</th>
<th>DIR</th>
<th>DIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFC</td>
<td>EP</td>
<td>15 59 40.0</td>
<td>SFZ</td>
<td>1.9</td>
<td>150</td>
<td>5.46</td>
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<tr>
<td>CFC</td>
<td>LQ</td>
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<td>510</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CFC</td>
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<td>5.08</td>
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<tr>
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<td>EP</td>
<td>16 00 09.9</td>
<td>SFZ</td>
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<td>32</td>
<td>4.90</td>
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<tr>
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<td>LQ</td>
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<td>LPT</td>
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<tr>
<td>FN-HV</td>
<td>LR</td>
<td>16 14 53.0</td>
<td>LFZ</td>
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<td>463</td>
<td>5.28</td>
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<tr>
<td>NN-ME</td>
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<tr>
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<tr>
<td>LAC</td>
<td>LR</td>
<td>16 22 55.0</td>
<td>LFZ</td>
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<td>5.16</td>
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<td></td>
<td>43.5</td>
</tr>
<tr>
<td>BK-CN</td>
<td>EP</td>
<td>16 01 58.9</td>
<td>SPF</td>
<td>1.0</td>
<td>83</td>
<td>5.12</td>
<td></td>
<td></td>
<td>43.8</td>
</tr>
<tr>
<td>BK-CN</td>
<td>LQ</td>
<td>16 19 00.0</td>
<td>LPZ</td>
<td>20.0</td>
<td>260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BK-CN</td>
<td>LR</td>
<td>16 21 59.0</td>
<td>LPZ</td>
<td>20.0</td>
<td>154</td>
<td>4.95</td>
<td></td>
<td></td>
<td>43.8</td>
</tr>
<tr>
<td>NAC</td>
<td>EP</td>
<td>16 06 29.4</td>
<td>AB</td>
<td>1.2</td>
<td>57</td>
<td>5.42</td>
<td></td>
<td></td>
<td>85.4</td>
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</tbody>
</table>

**ORIGIN**

<table>
<thead>
<tr>
<th>TIME</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DEPTH (KM)</th>
<th>MAG</th>
<th>SDV</th>
<th>STA</th>
<th>LPMAG</th>
<th>LPSTD</th>
<th>LSTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:53:51.5</td>
<td>7.696W</td>
<td>83.369W</td>
<td>0.0 RET</td>
<td>5.06</td>
<td>0.41</td>
<td>6</td>
<td>5.12</td>
<td>0.1</td>
<td>4</td>
</tr>
</tbody>
</table>
NORSAR EVENT FILE  1975 JUL 15

EPX NO. 28860  ARR. 16.6.30.0  9.1N  83.7W  5.0MB  33KM
DIST = 88.6  AZI = 275.9  AMP = 13.0  PER = 1.2

---

ARRIVAL TIME

---

= 5 SECONDS

---

SAB

1A

3C

7C

13C

---

10<