PASSCAL

Program for Array Seismic Studies of the Continental Lithosphere

Report for FDSN WKV Meeting
Perugia, Italy
July 2 - 12, 2007
What does PASSCAL support?

• PASSCAL core program
  – PI driven science projects

• PASSCAL core program Polar Science
  – Special equipment for cold regions

• USArray Flexible Array (FA)
  – PI driven science associated with USArray

• USArray Transportable Array (TA)
  – Logistics support of field operations
# PASSCAL Inventory

<table>
<thead>
<tr>
<th>Item</th>
<th>PASSCAL</th>
<th>FlexArray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reftek 130</td>
<td>470</td>
<td>355</td>
</tr>
<tr>
<td>Quanterra Q330</td>
<td>377</td>
<td>-</td>
</tr>
<tr>
<td>Multi-Channel</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Texan</td>
<td>1000*</td>
<td>1200</td>
</tr>
<tr>
<td>Broadband Sensor</td>
<td>450</td>
<td>235</td>
</tr>
<tr>
<td>Mid-Band Sensor</td>
<td>100</td>
<td>-</td>
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<tr>
<td>Short-Period Sensor</td>
<td>190</td>
<td>120</td>
</tr>
</tbody>
</table>

*Includes 427 UTEP Texans
PASSCAL Virtual Network
Experiments for 2006

<table>
<thead>
<tr>
<th>Experiment</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Broadband</td>
<td>28</td>
</tr>
<tr>
<td>Short Period</td>
<td>22</td>
</tr>
<tr>
<td>RT125 (Texan)</td>
<td>7</td>
</tr>
<tr>
<td>Multi-Channel</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>
PASSCAL Polar Support

• Over 30 experiments since 1989
• Acquisition of specialty equipment
  – Solid state disks
  – Cold chamber
  – Snow streamer
• Special developments
  – “Cold rated” power and communications systems (with UNAVCO)
  – Acquire 35 “Cold rated” broadband stations in support of IPY
PASSCAL Support

- Planning and training
- Shipping support
- In-field support and training
- Maintenance
- Software tools
- SEED generation support
USArray Flexible Array

• Additional field support
  – Vaults and Enclosures

• Archiving
  – PASSCAL staff archive Data with DMC PI support