**Product Overview**

- **Illuminated signaling balloon**
- **Deploys from small, lightweight canister**
- **Persist**s for 1-3 days
- **Cheaper, safer, and easier to use** than conventional flares
## Technical

<table>
<thead>
<tr>
<th></th>
<th>1ft</th>
<th>3ft</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Height</strong></td>
<td>2-10m</td>
<td>25-100m</td>
</tr>
<tr>
<td><strong>Lift</strong></td>
<td>15.2g</td>
<td>113.4g</td>
</tr>
<tr>
<td><strong>Endurance</strong></td>
<td>28 Hours</td>
<td>68 Hours</td>
</tr>
<tr>
<td><strong>Visibility</strong></td>
<td>10 lumens</td>
<td>200 lumens</td>
</tr>
<tr>
<td><strong>Volume</strong></td>
<td>0.1L</td>
<td>0.4L</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>32.5g</td>
<td>181.5g</td>
</tr>
</tbody>
</table>
Visibility Tests

<table>
<thead>
<tr>
<th>Field</th>
<th>Kresge</th>
<th>Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ft</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2 Ft</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3 Ft</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Tang

Soccer Field

Kresge

Harvard Bridge
• **Traditional Flare Guns**
  – Only lasts 30 seconds
  – Fire hazard in woods
  – Difficult to use
  – Dangerous to user

• **Current Flare Gun Alternatives**
  – Rescue Laser
  – Mirrors
  – Radar beacons
  – Road flares

Potential Consumers:
• Boaters
  – Over 4000 rescues by the Coast Guard per year
• Hikers
  – 245 Rescue missions in Yosemite National Park in 2010
• Search and Rescue
  – Salvation Army searched for 18,400 people in 2009
• Snow Sports
  – 51 million visitors to ski resorts in the 2011-2012 season

Potential Vendors:
• Vail Corporation, NEMO, West Marine

Next Steps

• Developing light-weight LEDs and blinker circuitry
• Acquiring and experimenting with He\(_2\) cartridges
• Streamlining design to help distressed and panicking users