DIY AERIAL PHOTOGRAPHY (FOR $100 OR LESS)

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Library & Technology Services

GIS Day | 11.18.11
MAPPING LIMA, PERU
January 2010
GULF OIL SPILL MAPPING
BALLOON MAPPING FROM START TO FINISH

1. Find Your Subject & Partners
2. Gather Materials
3. Launch!
4. Sort Images
5. Georeference & Mosaic the Best Images
6. Post the Data Online
An Illustrated Guide to Grassroots Mapping with Balloons and Kites

To learn more, visit http://grassrootsmapping.org

Do you want to make maps? Do you need satellite images but can’t afford them? Do you want to see your home from above?

Follow these instructions and you can, for as little as $100!

- 1 meter-wide weather balloon
- 1000m 5kg nylon string for balloons
- 30kg+ strength nylon string for kites
- 2 liter plastic soda bottle
- digital camera with continuous mode + 4 gb or larger memory
- heavy work gloves
- duct tape, gaffe tape is best
- scissors
- rubber bands
- 80 cubic feet or 1.5 cu. meters of helium
- or 2 mylar sleeping bags

a large kite - 1m² or more
LAUNCH 1
OCT 28, 2011

LAUNCH 2: ‘TEST OF CONCEPT’
OCT 31, 2011
GEOREFERENCE & MOSAIC
## COST BREAKDOWN

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing swivel clips (Dick's Sporting Goods)</td>
<td>$3.50</td>
</tr>
<tr>
<td>4 emergency blankets (Walmart)</td>
<td>$11.52</td>
</tr>
<tr>
<td>2 emergency blankets (Kmart)</td>
<td>$9.58</td>
</tr>
<tr>
<td>2 800' mason line spools + reel (Home Depot)</td>
<td>$20.95</td>
</tr>
<tr>
<td>Helium tank regulator (Taylor Rentals)</td>
<td>$10.63</td>
</tr>
<tr>
<td>Leather gardening gloves (Home Depot)</td>
<td>$3.97</td>
</tr>
<tr>
<td>Gaffer tape (Calumet)</td>
<td>$13.80</td>
</tr>
<tr>
<td><strong>Total Cost of New Materials</strong></td>
<td><strong>$73.95</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mylar Balloon Construction: 1.5 hr/balloon * 6 balloons</td>
<td>9</td>
</tr>
<tr>
<td>Research and Preparation</td>
<td>5</td>
</tr>
<tr>
<td>Balloon Launch: 2-3 hr/launch * 2 launches</td>
<td>5</td>
</tr>
<tr>
<td>Image Processing</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total Time Investment</strong></td>
<td><strong>29 hours</strong></td>
</tr>
</tbody>
</table>
WANT TO TRY IT?

- grassrootsmapping.org
- Google Group: grassrootsmapping
- Or contact me!