

### Institute for Design Research and Outreach – GIS Facility

## From Dawn to Dusk: Installation of Two IowaView Phenocams

### Photo Journal from Grand Teton Phenocam Installation



Hole dug in glacial till  
2ft wide, 3ft deep.



Joe and Daniel affixing hardware that will hold solar panel to post. Note: wooden stakes had been used to prop up pole while cement dried.



Camera and solar panel showing cables looped prior to entering conduit to allow for condensation or precipitation to drip outside of conduit. We later used a zip tie to secure them together more tightly.



Solar panel attached.



Audrey and Joe attaching conduit to post and feeding cables from conduit into box.



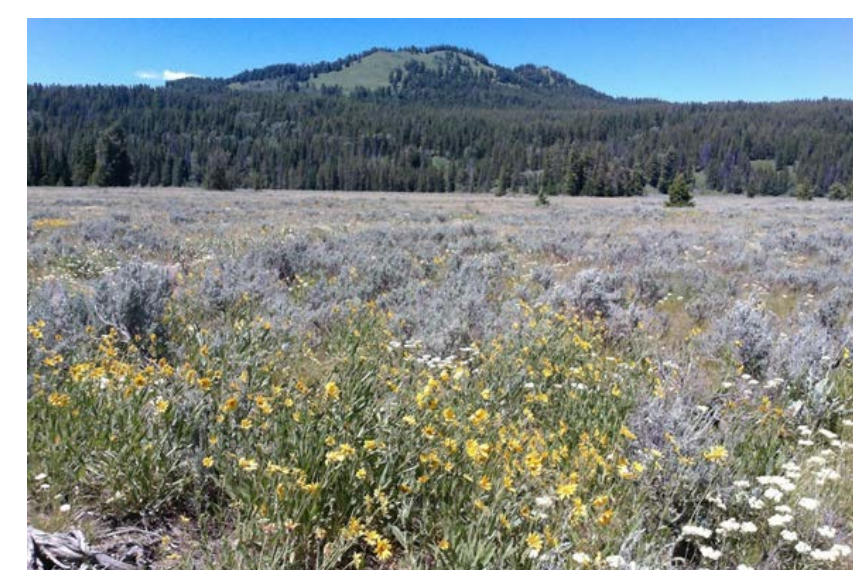
Toni shortening grounding rebar after it was pounded into the ground. Also shown is battery inside Mier box.



Proud installation crew. How many trips was that to the hardware store?



Conduit connection including metal and rubber components of weatherheads, to keep moisture out of conduit.



View from Grand Teton Phenocam.

### Grand Teton Phenocam Installation

A team of Audrey McCombs (ISU), Toni Proescholdt (ISU), Joe Krienert (USGS), Daniel Gurganus (USGS), and Diane Debinski (ISU) installed a phenocam at Pilgrim Creek within Grand Teton National Park, WY on June 30-July 1, 2015. We built upon previous protocol developed by Geneva Chong and crew, but added additional improvements, including a Mier box for a more sturdy housing for battery, controller, modem and electrical controls, a metal conduit for protecting cables from camera and solar panels. Both of these improvements were developed in order to minimize potential of problems with bears or other mammals destroying the materials. We also looped the electrical cables coming out of the solar panel prior to going into the conduit to minimize the potential for condensation or rain going into the battery box. We drilled a hole in the bottom of the Mier Products box to allow for ventilation and covered it with a screen to prevent insect colonization. Finally, we added a grounding wire to protect the electrical system from lightning.

### Grand River Grassland Phenocam Installation

The team including, John Pleasants (USGS), Joe Krienert (USGS), Rhea Waldman (ISU), and Diane Debinski (ISU) installed a phenocam at a site in the Grand River Grassland near Mount Ayr, Iowa on August 7, 2015. We used the knowledge we gained from the Grand Teton Phenocam installation for this project. For this installation we used a ruggedized plastic box to house the equipment.



Grand River Grasslands installation crew.



View of Grand River Grassland Phenocam.

## IowaView Mappgive Events

HEY STUDENTS, FACULTY, STAFF, ALUMNI, AND FRIENDS!

DO YOU HAVE A SERVICE PROJECT FOR MLK DAY 2015?



What: First Annual ISU OSM Mapping Party

Where: ISU Campus, Durham Computing Center

When: January 19, 2015 (Martin Luther King Jr. Day)

Session 1: 10 am to Noon

Session 2: 1 pm to 3 pm

For more information: <http://www.iowaview.org/>

Please RSVP by January 16: [iowamappgive@gmail.com](mailto:iowamappgive@gmail.com)

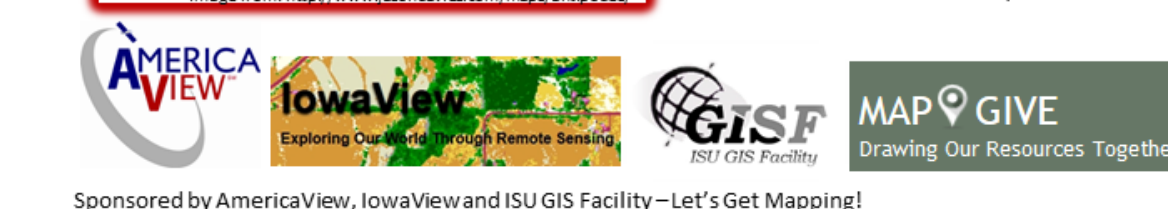
Include Name, Session Preference. If you are bringing laptop, pizza preference

BRING YOUR FRIENDS AND DO SOMETHING OS! (Pronounced "AWESOME")

Would You Like to Help people around the world And LEARN SOME NEW COMPUTER SKILLS and eat free pizza?

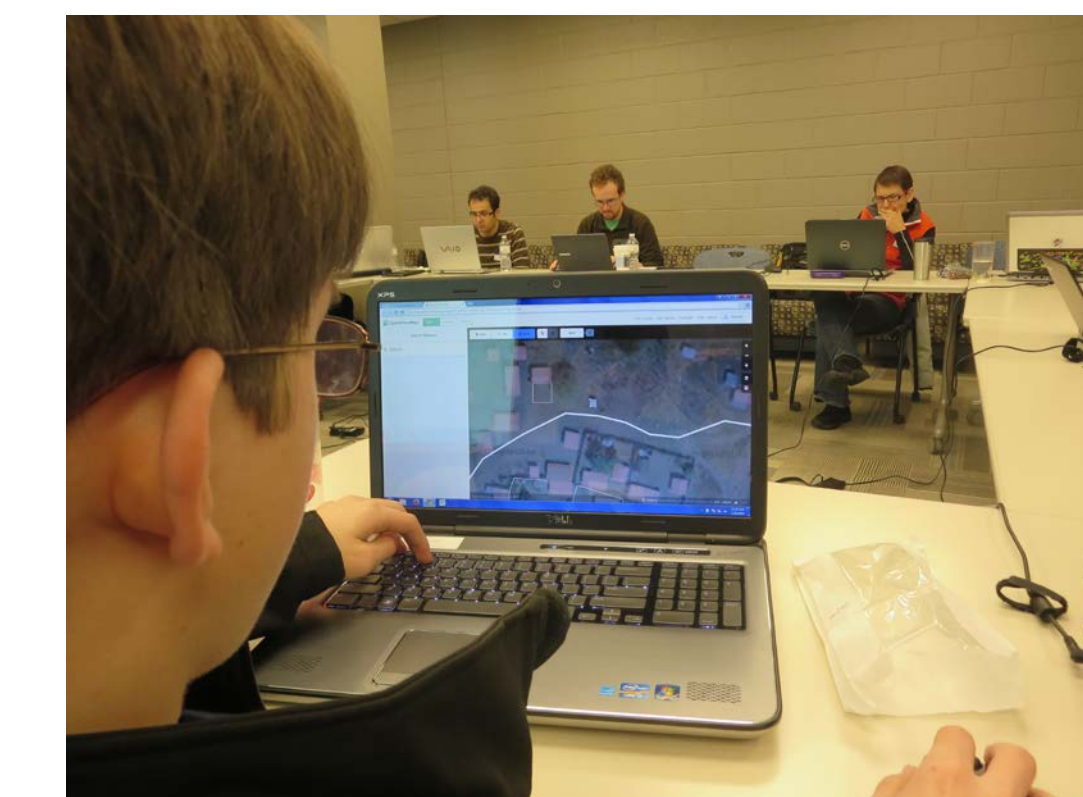
Even in this era of Internet everything, many places do not have up-to-date maps, especially in a digital format for free.

To remedy this situation, there's a worldwide volunteer effort called Open Street Map (aka OSM - [www.openstreetmap.org](http://www.openstreetmap.org)) that is creating a crowd-sourced map of the world that is completely open source, free and available for any use.



Sponsored by AmericaView, IowaView and ISU GIS Facility - Let's Get Mapping!

### Poster advertising our first event



### Recommendations for those hosting an event.

- 1) Create generic OSM accounts to provide to participants to ensure everyone has access to the website when the event begins. This will avoid having to wait while they set up an account during the event.
- 2) TeachOSM website and tasking manager. This website allows administrators to create a tasking manager area for an area of interest as well as monitor progress for those working on the area of interest.

Over the last year, the Iowa State University GIS Facility has hosted several group mapping events to teach participants about using the Humanitarian Open Street Map/MapGive website. As part of our general routine we begin by mapping a small town in Iowa to help new users get acquainted with the in-browser editor and to gain familiarity using aerial imagery to identify and draw what they see. During the second part of the class, participants map a Humanitarian Open Street Map location.

We have hosted three events. Our first event, in January, was focused on Iowa State University students and affiliates. Our second effort, in April, was a social event for GIS professionals. In July 2015, IowaView staff hosted two workshops for high school students as part of a 4-H youth conference. This event introduced Iowa youth to the world of digital mapping and remote humanitarian work.



Picture from our first mapping event