



# RAPID



Intensive Training on RAPID  
Reconnaissance Equipment

AGENDA & LIST OF ATTENDEES

July 23 - July 27 2019  
University of Washington  
Seattle, WA



# RAPID



## Natural Hazards Reconnaissance Facility Equipment Training Workshop

Tuesday, July 23 through Friday, July, 26, 2019  
University of Washington, Seattle, WA

| Schedule at a Glance                 |   |  |   |  |
|--------------------------------------|---|--|---|--|
| **                                   | Tuesday   | Wednesday  | Thurs A/Fri B   | Thurs B/Fri A  |
| 8:30                                 | <b>Intro/Facility Updates</b><br>(J. Wartman, J. Berman)<br>HUB 334 | <b>Coastal</b><br>Z-boat/Pressure Sensors<br>(M. Grilliot, J. Irish)<br>MOR 110<br><b>OR</b><br><b>Seismic Site Charact. I</b><br>Seismometer/ATOM<br>(J. Dafni, C. Wood)<br>MEU 153 | <b>Terrestrial Lidar Scanning</b><br>Site planning<br>Targets + control<br>Hands-on: BLK, TS, Long Range<br>(M. Olsen, M. Grilliot, A. Lyda)<br>MEU 153 | <b>Structure from Motion</b><br>Intro, Flight Planning, Control<br>(J. Wartman)<br>MOR 110       |
| 9:00                                 |   |  |   |  |
| 9:30                                 |   |  |   |  |
| 10:00                                | 15-min Break  |  |   |  |
| 10:30                                | <b>RApp</b><br>(T. Tanner)<br>HUB 334                               |  |   |  |
| 11:00                                |   |  |   |  |
| 11:30                                |   |  |   |  |
| 12:00                                |   |  |   |  |
| 12:30                                | Lunch Break 12:30-1:30 PM   |  |   |  |
| 13:00                                |   |  |   |  |
| 13:30                                | <b>DesignSafe</b><br>(T. Cockerill) HUB 334                         | <b>Streetview</b><br>(J. Berman)<br>MOR 110<br><b>OR</b><br><b>Seismic Site Characterization II</b><br>Seismometer/ATOM<br>(J. Dafni, C. Wood)<br>MOR 230                            | <b>Terrestrial Lidar Scanning</b><br>Hands-on: BLK, TS, Long Range Registration Lite<br>(M. Olsen, M. Grilliot, A. Lyda)<br>MOR 1A                      | <b>Structure from Motion</b><br>Data Collection, Workflow, Pix4D Lite<br>(J. Wartman)<br>MOR 110 |
| 14:00                                |   |  |   |  |
| 14:30                                | <b>MiniRanger</b><br>(J. Dafni, M. Grilliot)<br>HUB 334             |  |   |  |
| 15:00                                |   |  |   |  |
| 15:30                                |   |  |   |  |
| 16:00                                |   |  |   |  |
| ** Reference top line for start time |   |  |   |  |
| 16:30                                | Sessions end @ 4:30PM each day                                      |  |   |  |

**Tuesday 7/23** - Social Hour & Dinner:

Mountaineering Club @ Graduate Hotel, 5-7 PM @ 4507 Brooklyn Avenue NE

**Wednesday 7/24** - Complementary Social Hour & Dinner:

UW Waterfront Activities Center, 5-8 PM @ 3710 Montlake Blvd NE

**Thursday 7/25** - Office Hours with Joe, Jeff and Others:

Discuss Potential Proposals and Questions, 5-8 PM @ 116 More Hall



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## Agenda

**Tuesday 7/23 Morning: Husky Union Building (The HUB), Room 334**  
*Complimentary coffee & tea, bagels and fruit will be served in Room 334*

8:30 to 10:15 - Intro & Facility Updates [Joe Wartman, Jeff Berman]

- Science Plan
- How to use the RAPID
- Overview of RAPID Portfolio
- New Equipment Coming Soon

10:15 to 10:30 - Break

10:30 to 12:30 - RApp Hands-On [Troy Tanner]

- Introduction to RApp
- General Structure of RApp and Interaction with DesignSafe
- Using Mission Control to Configure a RApp Pre-Deployment
- Hands-on use of RApp for the Week

**Tuesday 7/23 Afternoon: Husky Union Building (The HUB), Room 334**

1:30 to 2:30 - DesignSafe [Tim Cockerill]

- Overview of DesignSafe
- Overview of Reconnaissance Specific Tools: Including Hazmapper and Potree

2:30 to 4:30 - MiniRanger [Jake Dafni, Michael Grilliot]

- Example Use Cases and Example Datasets Collected with the Phoenix MiniRanger (UAV with lidar)
- Flight Demonstration of the Phoenix Mini-Ranger at the IMA Field 4

**Wednesday Morning (7/24)**

**Location: Classroom MOR 110 (More Hall)**

8:30 to 12:30 – Coastal [Michael Grilliot, Jen Irish]

- Z-Boat
- Pressure Sensors
- Field work at UW Paddle Club



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**OR**

**Location: Classroom MUE 153 (Mueller Hall)**

8:30 to 12:30 – Seismic Site Characterization Part I [Koichi Hayashi, Clint Wood and Jake Dafni]

- Background on Surface Wave Testing
- Introduction to the RAPID's ATOM Surface Wave Data Collection System: Setup and Data Collection
- Field work in Rainier Vista

**Wednesday Afternoon (7/24)**

**Location: Classroom MOR 110 (More Hall)**

1:30 to 4:30 – Applied Streetview [Jeff Berman]

- Use Cases and Example Data Sets for the Applied Streetview
- Introduction to Deploying the Applied Streetview
- Introduction to Processing Collected Applied Streetview Data
- Field work in Wilson Ceramics Parking Lot

**OR**

**Location: Classroom MOR 230 (More Hall)**

1:30 to 4:30 – Seismic Site Characterization Part II [Koichi Hayashi, Clint Wood and Jake Dafni]

- Background on horizontal to vertical (H/V) spectral ratio for site characterization
- Introduction to the RAPID's Seismometers: Setup and Data Collection
- Basics of Processing Surface Wave and Seismometer Data for Site Characterization
- Field work in Rainier Vista

**Thursday / Friday: Training A**

**Morning: Classroom MUE 153 (Mueller Hall)**

8:30 to 12:30 – Terrestrial Lidar Surveying [Mike Olsen, Michael Grilliot, Andrew Lyda]

- Site Planning
- Targets & Control
- BLK360
- Total Station
- Long Range Scanners
- Field work in Red Square

**Thursday / Friday: Training A**

**Afternoon: Classroom MOR 1A (More Hall)**



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1:30 to 4:30 – Terrestrial Lidar Surveying [Mike Olsen, Michael Grilliot, Andrew Lyda]

- BLK, TS, Long Range
- Lidar Data Registration “Lite”
- Field work in Red Square

**Thursday / Friday: Training B**

**Morning: Classroom MOR 110 (More Hall)**

8:30 to 12:30 – Structure from Motion [Joe]

- Introduction
- Flight Planning
- Control
- Field work in Mueller Courtyard

**Thursday or Friday: Training B**

**Afternoon: Classroom MOR 110 (More Hall)**

1:30 to 4:30 – Structure from Motion [Joe]

- Data Collection
- Workflow
- Pix4D “Lite”
- Field work in Mueller Courtyard