Webex Agenda, 12 June 2014

1. New or updated information on Colorado logistics and schedule
2. Old information still useful for reference

Foreign National Badging and Access

Foreign national access must be negotiated for visits to NASA Wallops Flight Facility, NCAR RAF, and NOAA field sites. Please contact Mary Kleb ASAP if someone from your group is missing from the list below.

WFF access – all info has been submitted, awaiting approvals
NOAA access – Names submitted, forms being prepared, still awaiting final instructions
RAF access – Follow directions on website (see subsequent slides)

NAME	WFF	RAF	NOAA	NAME	WFF	RAF	NOAA
Balashov, Nikolay (Russia-GC)	No	Yes	Yes	Orozco, Daniel (Columbia)	No	Yes	Yes
Chemyakin, Eduard (Russia)	No	Yes	No	Pahlevan, Nima (Iran-GC)	No	Yes	Yes
Crosbie, Ewan (UK)	No	Yes	No	Paynter, Ian (UK)	No	Yes	Yes
Pan, Da (China)	No	Yes	Yes	Sawamura, Patricia (Brazil)	No	Yes	No
Eichler, Philipp (Germany)	No	Yes	Yes	Sun, Kang (China)	No	Yes	Yes
Huang, Guanyu (China)	No	Yes	Yes	Tao, Lei (China)	No	Yes	Yes
Massoli, Paola (Italy)	No	No	Yes	Wang, Zhousen (China-GC)	Yes	Yes	Yes
Mead, Iq (UK)	No	Yes	Yes	Weibring, Petter (Sweden-GC)	Yes	Yes	No
Mikoviny, Tomas (Slovakia)	Yes	Yes	Yes	Wisthaler, Armin (Italy)	No	Yes	Yes
Mueller, Detlef (Germany)	No	Yes	No	Yacovitch, Tara (Canada)	Yes	Yes	No
Müller, Markus (Austria)	Yes	Yes	Yes	Zardin, Erika (Italy)	No	Yes	No

Photos Submitted for RAF Badging
As of June 12, 2014

Aknan, Ali	Doyle, John	Kleb, Mary	Singer, Mike
Balashov, Nikolay	Duncan, Bryan	Kowalewski, Matt	Stauffer, Ryan
Barrick, John	Eichler, Philipp	Long, Russell	Sullivan, John
Basnett, Michael	Farley, Scott	Loughner, Chris	Terrell, Mike
Beaver, Melinda	Fasnacht, Zachary	Martin, Robert	Thompson, Anne
Berkoff, Tim	Ferrare, Rich	McCullough, Kent	Winstead, Edward
Beyersdorf, Andreas	Finneran, Michael	Mikoviny, Tomas	Wisthaler, Armin
Burton, Sharon	Geiger, Jimmy	Moore, Richard	Xiong, Sam
Buzay, Eric	Good, William	Mueller, Detlef	Yacovitch, Tara
Chandler, Jeff	Hammitt, Ryan	Muller, Markus	Yang, Melissa
Chemaykin, Eduard	Hennigan, Chris	Munchak, Leigh	Yates, Brian
Chen, Gao	Hite, James	Newchurch, Mike	Zardin, Erika
Cook, Melanie	Hoff, Raymond	Orozco, Daniel	Zimmerman, Gary
Crawford, Jim	Izumi, Jessica	Pickering, Ken	Zweers, Deborah
Crittenden, Lucille	Janz, Scott	Rogers, Ray	
Dearing, Munro	Johnson, Jared	Shook, Michael	
Delgado, Ruben	Kagey, Les	Sims, Scott	

All photos must be submitted to Luci Crittenden by Saturday, June 14th. Luci will submit any remaining photos on June 15th in order for processing to begin on June 16th. After June 14th, you will have to go to Boulder on arrival to have a picture taken and a badge made in order to get access to the RAF.

Shipping Documents

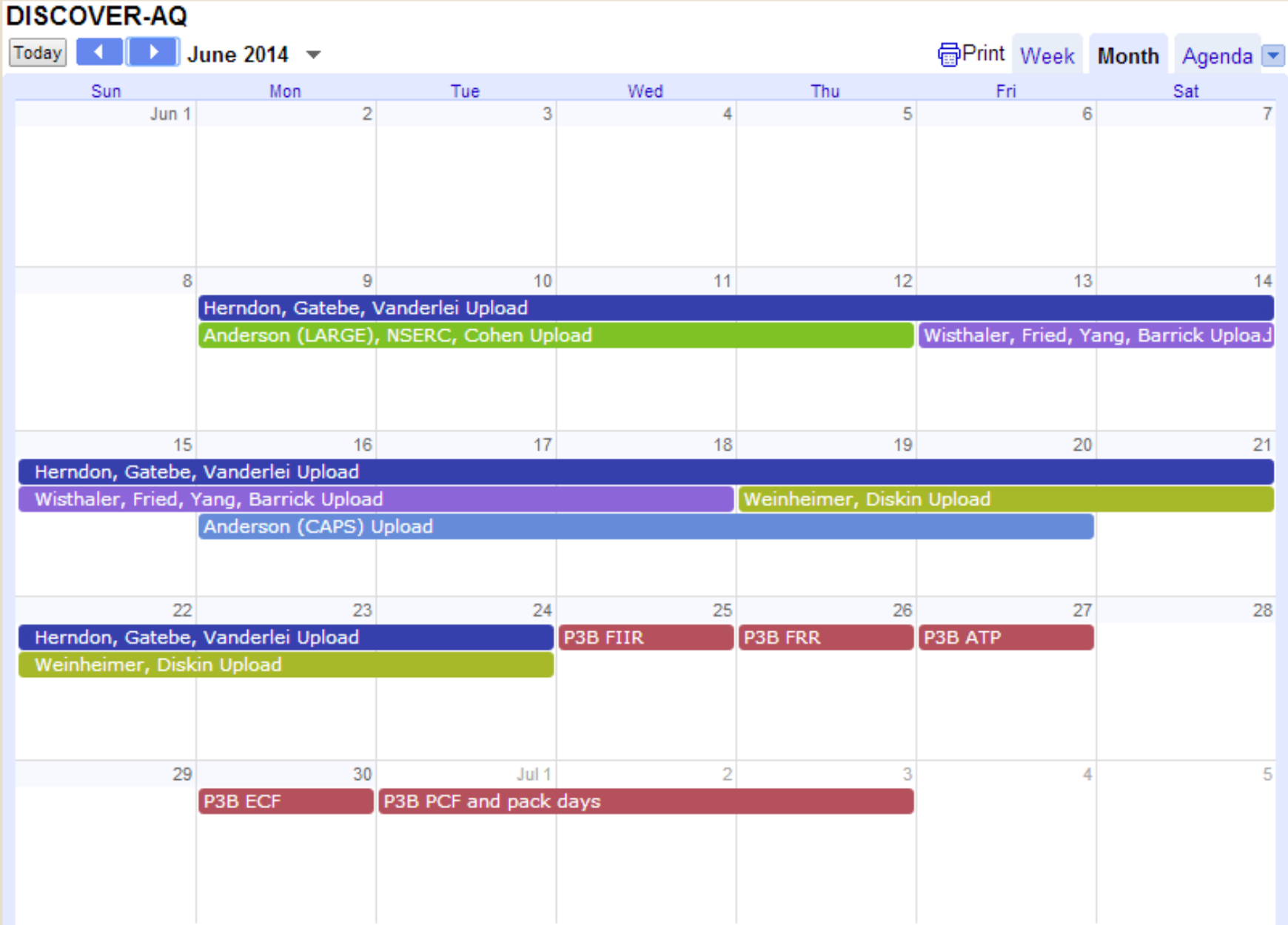
- ***All shipping documents must be sent to Luci Crittenden at (Lucille.H.Crittenden@nasa.gov) before COB on Thursday, June 24th.***

- ***Your shipment must be listed on Wallops Shipping Form GSFC20-4 if shipping from Wallops or on Langley Shipping Form LF52 if shipping from Langley.***

- ***The cargo will be picked up at Wallops in the morning Thursday, July 10th and at Langley early afternoon on Thursday, July 10th***

- ***The truck is due to arrive at the RAF in Bloomfield, CO on Monday, July 14th. Exact time TBD for now. Please have someone from your team ready to help unload at the Hangar.***

Integration Schedule



Operations at Broomfield

Ground Sites for Colorado

Name	Spiral	Over-flight	Pandora	Aeronet	EPA NO2	Missed Approach	Lidars	Balloons	Comment
BAO Tower	X		2	X			NOAA-TOPAZ and HRDL, UW-HSRL, H2O DIAL		CSU, 3 mobile hookups, small sensors on tower
Chatfield Park	X		1	X	X				
Denver-LaCasa Ncore	X		1	X	X				
Fort Collins-West	X		1	X	X	500 feet	GSFC TOLNET-O3 and Doppler Wind, MPL		
NREL-Golden	X		2	X	X		MPL, LaRC TOLNet-O3, and Leosphere	Tethersonde	Millersville also brings sodar, flux tower, nephelometer; Pandoras by EPA here, EPA ceilometer, UMBC trailer, NOAA profiler
Platteville	X		1	X	X			Ozonesondes	NATIVE; NOAA radiation; 3 mobile hookups; Pandora by NATIVE here; extra trailer for PTR-MS
Aurora East/DU-ARTI				X					Nothing extra planned for this site
Boulder		X	1	X					Pandora already at this location
CAMP		X							
I-25 Denver			1		X				near-road NO2 monitor
Niwot Ridge			1	X					
Rocky Flats - N		X	1	X	?				
Squaw Mtn			1	X					
Table Mountain		X	1	X					possible ozone monitor
Welch		X		X					
Weld Co. Tower		X	1	X	?				remote sensors on county building
Greeley-Weld Co. Airport						X			Missed approach along BL run
Parkland Airport						500 feet			Missed approach with BAO spiral

Early installation planned for Aeronet (April) and Pandora (June). Groups are working directly with Gordon Pierce at CDPHE.

Laser and Chemical Safety at NOAA sites

Safety information has been requested from both the DISCOVER-AQ and FRAPPE groups who will have operations at either the NOAA Platteville or BAO site. This includes the mobile labs.

We have contacted all relevant groups, but if you think this applies to you, please provide the information requested ASAP. (Weckwerth?)

Required information includes:

<u>LASERS</u>

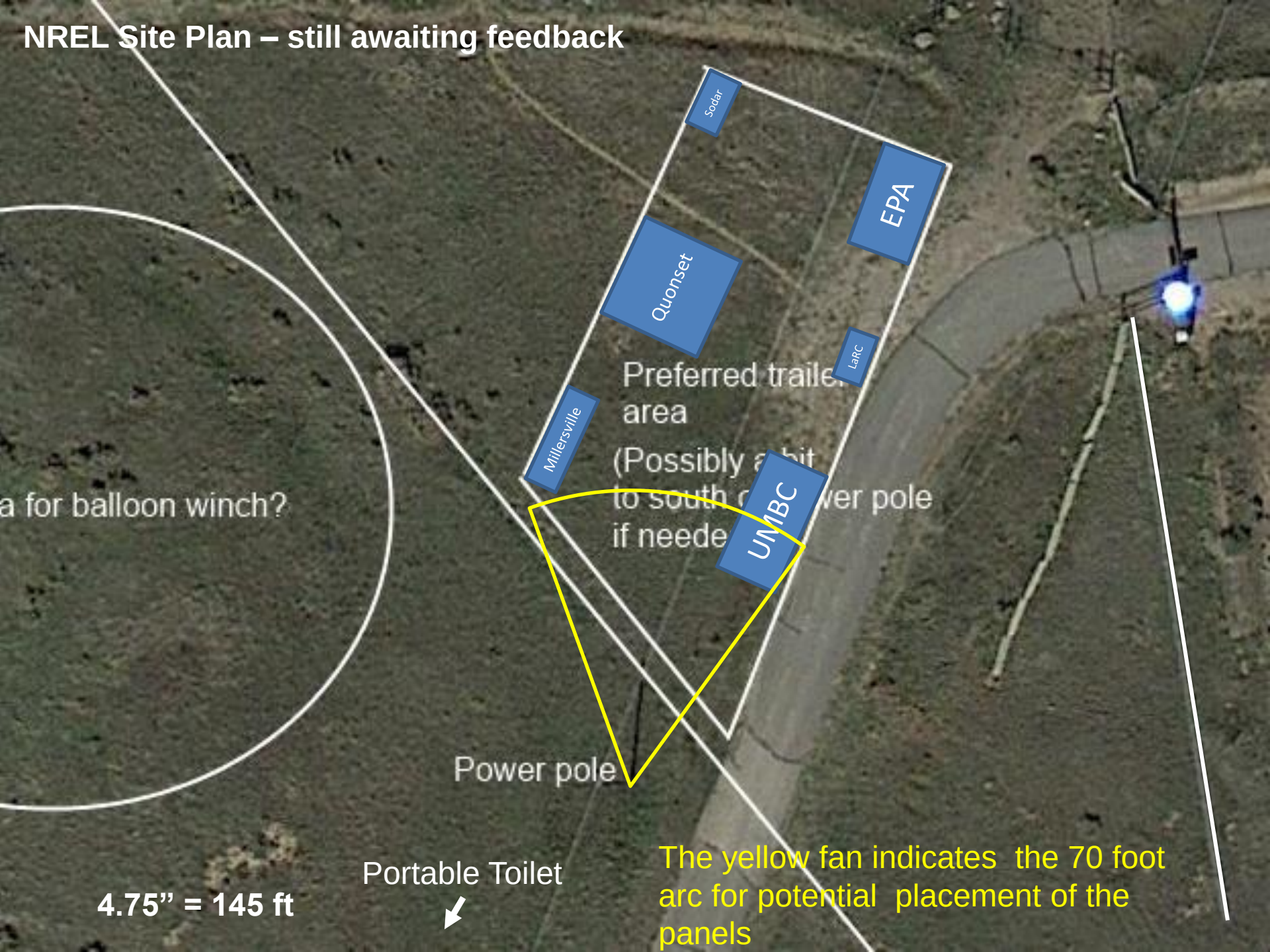
1) Laser safety plan
2) Chemicals being used with lasers, provide SDS (aka MSDS) for each
3) Cyogenic handling procedures if applicable
4) FAA approval, per FAA order JO 7400.2 (outdoor laser operations)

<u>CHEMICALS BEING BROUGHT ON SITE (includes compressed gases)</u>

1) Provide SDS (aka MSDS) for each
2) The safety plan for usage and what to do in the event of a spill
3) Do you have a spill kit for these chemicals?

Because of all the activities at the BAO site there will be NO Open toed footwear allowed (**make sure visitors are also aware of this requirement**).

NREL Site Plan – still awaiting feedback



Platteville and BAO Updates

Platteville

To enable sampling from a common inlet, we need to place the Penn State and NOAA trailers as close together as possible.

NOAA trailer will arrive first.

Penn State will be put in place by a crane. Anne is working details with NOAA.

BAO

Small sensors will be placed on the BAO tower by EPA (CairTubs) and Cambridge (AQMesh)

We anticipate that the actual attachment of the sensors will be done by a NOAA certified person.

We need to arrange the timing and advance information needed to do this smoothly. Earlier is better.

Future Telecons

With the start of integration, we will begin having weekly telecons with reports on integration progress and more frequent updates on logistical details.

12 June

19 June

26 June

TBD for subsequent dates

Old slides

The following slides are carried over from previous telecons. The information is still useful, but there are no associated updates.

Wallops Upload and Download

Badges Needed – US Citizen Badges Needed – Foreign National

Aerodyne:
Scott Herndon June 8-11, June 16
Tara Yacovitch June 8-11, June 16

Anderson:
Charles Hudgins June 2-20, Aug 12-15
Robert Martin June 2-20, Aug 12-15

Barrick:
John Barrick June 8-July 10, Aug 12-15

Cohen:
Paul Joseph Wooldridge June 8-14, June 29-July 3, July 13-14
Tamara Sparks June 8-14, June 29-July 3, July 13-14

Diskin:
Glenn Diskin June 25-July 3, July 7-14
Joshua DiGangi June 18-July 3, July 7-11
Glen Sachse June 16-July 3, July 7-14
Thomas Slate June 16-July 3, July 7-11
Mauro Rana June 22-July 3, July 7-9
Sally Pusede June 16-July 3, July 7-14

Fried:
Alan Fried June 13-July 2
James Gerard Walega June 13-July 2

Gatebe:
Charles Gatebe June 9-13, June 29-July 3,
Kurt Rush June 2-24, Aug 13-15
Bryan James June 2-24, Aug 13-15
Rajesh Poudyal June 29-July 3
Miguel Roman June 29 – July 3
Edward Saenz June 29-July 3
Zhuosen Wang June 29-July3

Weinheimer:
Andrew John Weinheimer June 16-July 2
Denise Dunlap Montzka June 16-July2

Wisthaler:
Tomas Mikoviny June 12-19
Markus Muller June 29-July 4, July 12-14, Aug 12-15

Yang:
Melissa Yang June 25-28, June 30-July2
Yong Hoon Choi June 30-July 2 (maybe-backup)
Jimmy Geiger June 13-18, June 30-July 3, Aug 13-14

Please verify and send any changes to Luci Crittenden. Names must match the photo ID that you will present for badging (i.e., driver's license or passport)

Lodging for Wallops Flight Facility

Tourist season will be in effect during P-3B integration and download, making it difficult to obtain accommodations within the per diem allowance. We encourage team members to stay at Wallops Lodging Facility when feasible. These rooms are available to everyone except foreign nationals.

Reservations for these rooms need to be made quickly. Please contact Debbie Toth at 757-824-1697 to make your reservation and identify yourself with the DISCOVER-AQ project.

If you are unable to get a dorm room and cannot find accommodation in Chincoteague at per diem, then you will need to stay in Pocomoke City, MD. It is much cheaper and only 20 minutes away versus 15 minutes for Chincoteague.)

<u>General Room availability at Wallops is as follows:</u>

Integration (9 June - 3 July) 10 rooms available

Transit (12-14 July) 10 rooms available

Download (12-15 August) 5 rooms

Rooms need to be released…does anyone still need a reservation?

Shipping

Wallops shipment address

NASA Wallops Flight Facility
Attn: AIRTEC Inc. c/o Brian Yates
Bldg. N-159 Room W139
Wallops Island, VA 23337
Phone: 757-824-1919

Note:
If non-NASA property is being shipped please indicate on the package who property belongs to (institution/agency/company/etc.)

RAF (Broomfield) address

NCAR/RAF
c/o Randy Klotz
10802 Airport Ct.
Broomfield, CO 80021
Email: klotz@ucar.edu / cwolff@ucar.edu

Note:
Please notify Randy Klotz and Cory Wolff by email to prepare them. They will set your package aside for when you arrive.

Consolidated Shipment from Wallops and LaRC to Colorado: Please have shipping documents completed and emailed to Luci Crittenden before 24 June. Items will be picked up from both LaRC and WFF.

Badging for RAF at Jeffco

If you will be working at Jeffco, ***and you do not have*** an NCAR badge that allows you to enter the Jeffco facilities please do the following:
(This also applies to work related visitors coming to RAF for more than one day)

1) Watch a security video at this URL: https://cc.readytalk.com/play?id=hqgwpx once you do we will receive a confirmation with your name as you enter it on this URL. The passcode is 1081. (see next slide)

2) Send Luci a photograph of yourself, facing the camera (passport style) in jpeg format, with the file named with your name. She will send these to Lou.

If you have an NCAR badge (active UCAR or expired project participant badge), please watch the video and send Lou Lussier the badge number (located on the front of the ID) so that he can update the system with the proper access clearances.

Once this information is complete, RAF will process ID cards for you to access the facility that will be ready for you when you arrive. On arrival, you will need to go to the Foothills Lab to get your badge.

Please review the video and provide your photographs by ***14 June***.

Security Video website for Badging for RAF at Jeffco

https://cc.readytalk.com/cc/playback/Playback.do?id=hqgwpx

ReadyTalk

Recording Registration

Name		Required
Email		Required
Phone		Required
Company		Required
Are you a US Citizen or US Green Card holder?		Required
Provide UCAR ID card number if you already have a UCAR ID		Required
Passcode:		Required

Submit Help

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ReadyTalk's web conferencing and audio conferencing solutions are intuitive to use, simple to join, and easy on the budget. ReadyTalk offers simple conference pricing with pay-per-use online meeting solutions a for unlimited meetings at predictable flat rates. Easily host and record successful web meetings, webinars and conference calls. Sign up for a free trial today or call +1-800-843-9166 for more information.

If you do not have a UCAR ID, just put any number in this field

Enter 1081 here

Lodging in Colorado

We have reserved a room block at the TownPlace Suites in Broomfield.

The *Discover AQ Group Rate* is available through the following url:

http://cwp.marriott.com/dentb/nasadiscover

This webpage will automatically populate our group code. All you need to do is select your dates, number of rooms, number of guests per room, room type, and click "*FIND*." The next screen will ask you for your Marriott Rewards (optional). Then you can enter all of the guest information and credit card information. Then click "*Continue*" in this screen to book your room. You will then receive a confirmation number.

You can also call the hotel directly at 303.466.2200 and ask for the "*Discover AQ Group Rate*"

Room rates are $89 for a studio, $99 for a 1-bedroom, and $109 for a two bedroom. All rates fall below the per diem of $111. 2-bedroom reservations should be limited to travelers who have identified another team member to share lodging.

Lodging in Colorado (cont.)

If you have not already made your reservation at Towne Place Suites in Broomfield, please do so ASAP.

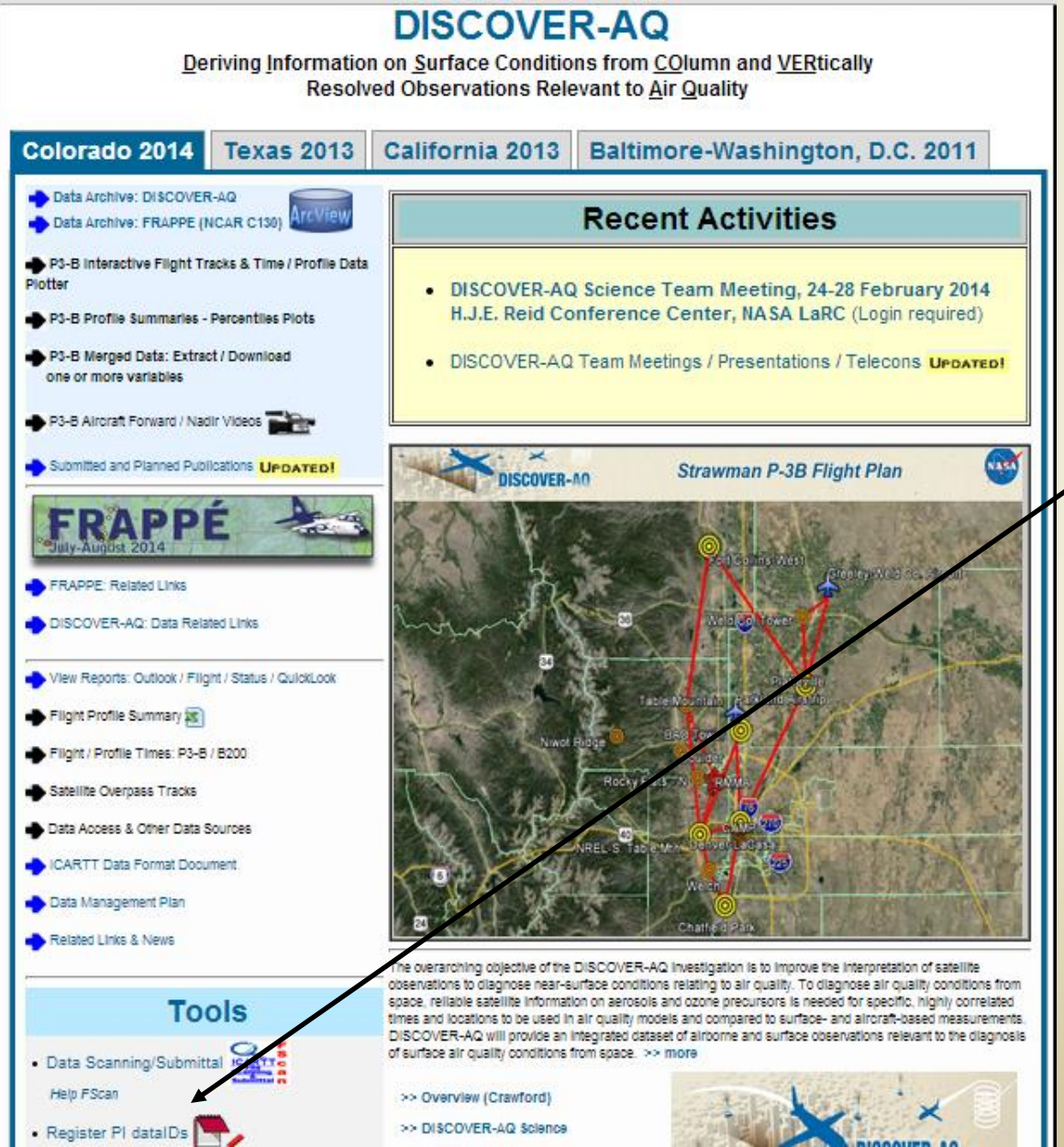
As a courtesy to Towne Place Suites and fellow DISCOVER-AQ participants, please update your reservation with your actual travel dates. This will allow DAQ participants to get a room, the hotel to release unused rooms, and prevent the project from being charged for unused rooms.

If you are being reimbursed through NASA/SSAI/EPA and stay more than 29 consecutive nights within a 50 mile radius, the 30-day rule will reduce your lodging and meal allowance to 65% of the normal allowance. Note: Several people have a reservation from 13 July to 13 August. This is 31 nights!

Reminder that this room block is for DISCOVER-AQ only.

Reminder that 2 Bedroom suites are for DAQ participants to double up – not for visiting families or friends.

DataID Registration



This is required in order to upload data to the archive.

You can go directly to: https://www-air.larc.nasa.gov/cgi-bin/regid
Or access through the link under “Tools” on the data archive site

Normal UserID/Password applies.

Questions should be addressed to Gao Chen and Ali Aknan.

DataID Registration

dataIDs Registration for ICARTT Format Files

A dataID is the first part of an ICARTT [type] data filename (see the Data Format Document for details). Each dataID (per platform) must be unique.

DISCOVERAQ / FRAPPE Colorado 2014

IMPORTANT (PLEASE READ)

This registration is ONLY valid for the Platforms listed in the "Platform Box". Do NOT register if your platform is not listed. YOUR "PLATFORM DATA MANAGER" IS RESPONSIBLE FOR YOUR DATA ARCHIVING NEEDS.

The archive directory will be created from LastName.FirstName. Please enter PI name correctly. Also, if you have registered dataIDs before, they WILL BE OVERWRITTEN with the new registration. So, make sure you (re)enter ALL dataIDs. Each dataID represents a separate group of files in the PI data directory.

PI Last Name* : PI First Name* :

Platform* : P3B (NASA Aircraft), B200 (NASA Aircraft), C130 (NCAR Aircraft), MERGE, MODEL, ANALYSIS

Press Ctrl+Click to select multiple items

dataID(s)* : discoveraq- ; frappe- ;

*Prepend dataIDs with "discoveraq-" OR "frappe-" *separate dataIDs with semicolons*

Link to PI webpage, instrument, or experiment description document:
http:// *Optional: to display on LaRC Archive webpage*

Text describing PI instrument or experiment (e.g., NASA LaRC DIAL - Troposphere O3, Aerosols, and Clouds Profiles):
Optional: to display on LaRC Archive webpage

Submit **Required (spaces will be removed)*

Current Registered dataIDs on the Server for DISCOVERAQ / FRAPPE Colorado 2014

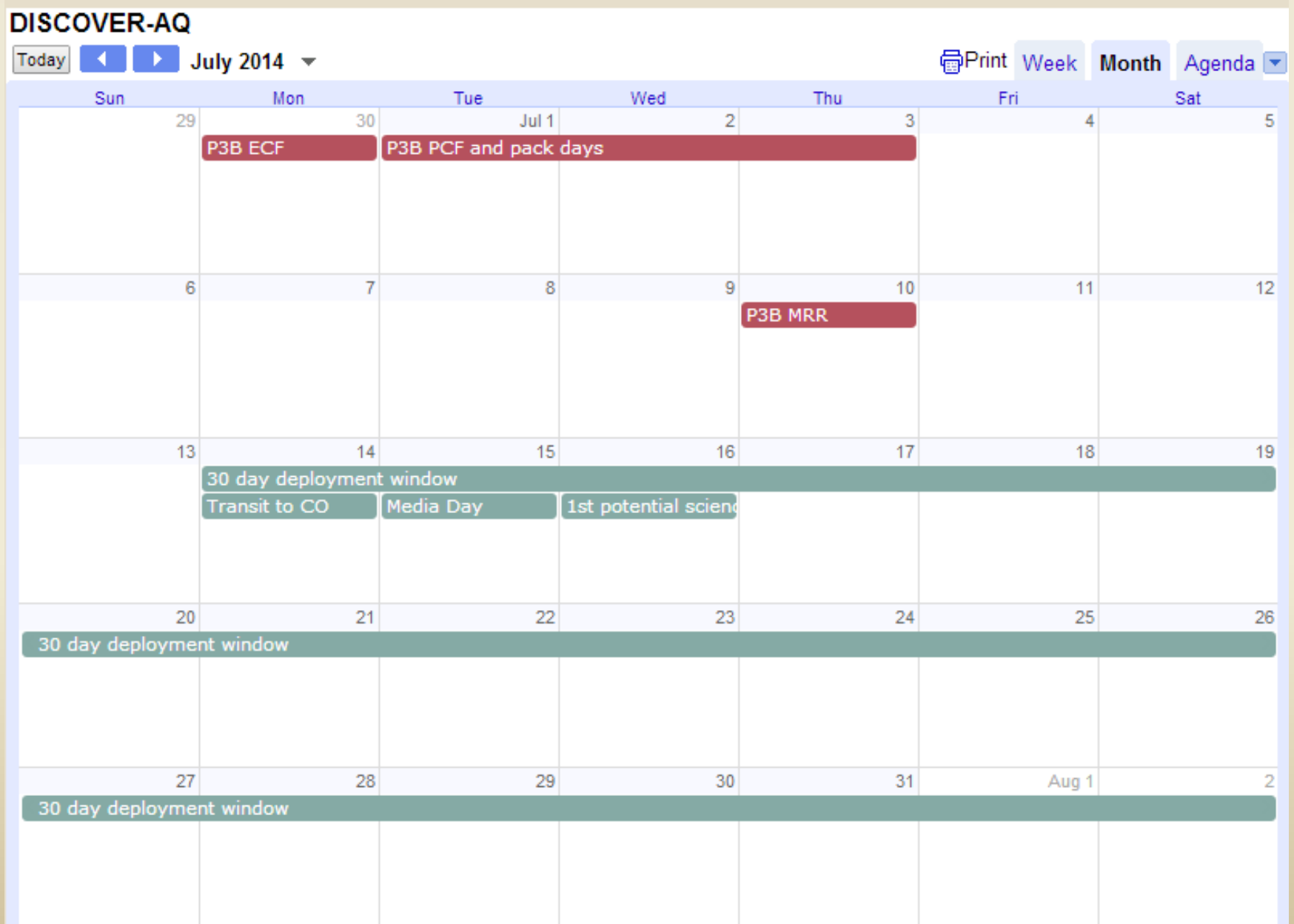
PI Name: Last.First	LocationID	Registered dataIDs
BARRICK.JOHN (PI Link)	P3B	discoveraq-pds
YANG.MELISSA (PI Link)	P3B	discoveraq-co2
ANDERSON.BRUCE (PI Link)	P3B	DISCOVERAQ-LARGE-APS;DISCOVERAQ-LARGE-CAS;DISCOVERAQ-LARGE-CIP;DISCOVERAQ-LARGE-CNC;DISCOVERAQ-LARGE-LAS;DISCOVERAQ-LARGE-OPTICAL;DISCOVERAQ-LARGE-SMPS;DISCOVERAQ-LARGE-SP2;DISCOVERAQ-LARGE-

For those new to the process, a link to the Data Format document is provided.

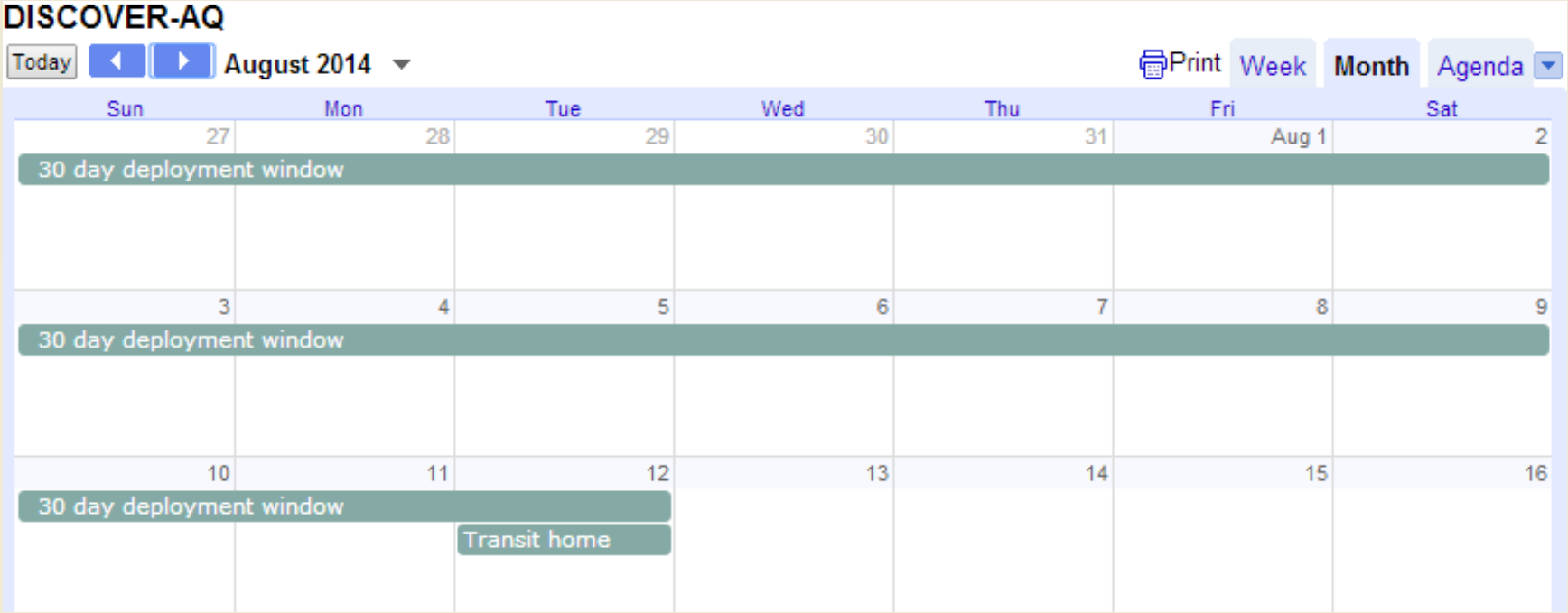
New DataIDs will be needed for those working at ground sites since filenames are site specific.

Others can check the current registered IDs to make sure that they still apply.

Deployment Schedule



Deployment Schedule (cont.)



P-3B Integration

New information: Integration will be in a **different hangar** than previous uploads. The **D-1 hangar** is being prepared for us with 6 lab benches on the hangar floor for the experimenters to use. Two rooms on the upstairs north side of D-1 (S210 and S212) will be available for a small conference room and office space. For larger group meetings, the airport conference room (D-1, S115) will be made available.

Old information:

The schedule reflects when racks will be uploaded (i.e. aircrew support). You are more than welcome to come early and work on your rack in the lab or stay and work on your rack once it is uploaded.

All windows will be installed in the first few days (before the racks block the windows). **All windows should be at WFF 1 week prior to the start of integration.**

If we get ahead of schedule, racks may be uploaded earlier than scheduled. If you want to be present for the upload of your rack, plan to arrive a few days early or make special arrangements with Martin (i.e. rack brought on plane but not bolted down).

P-3B Download

Current status of download

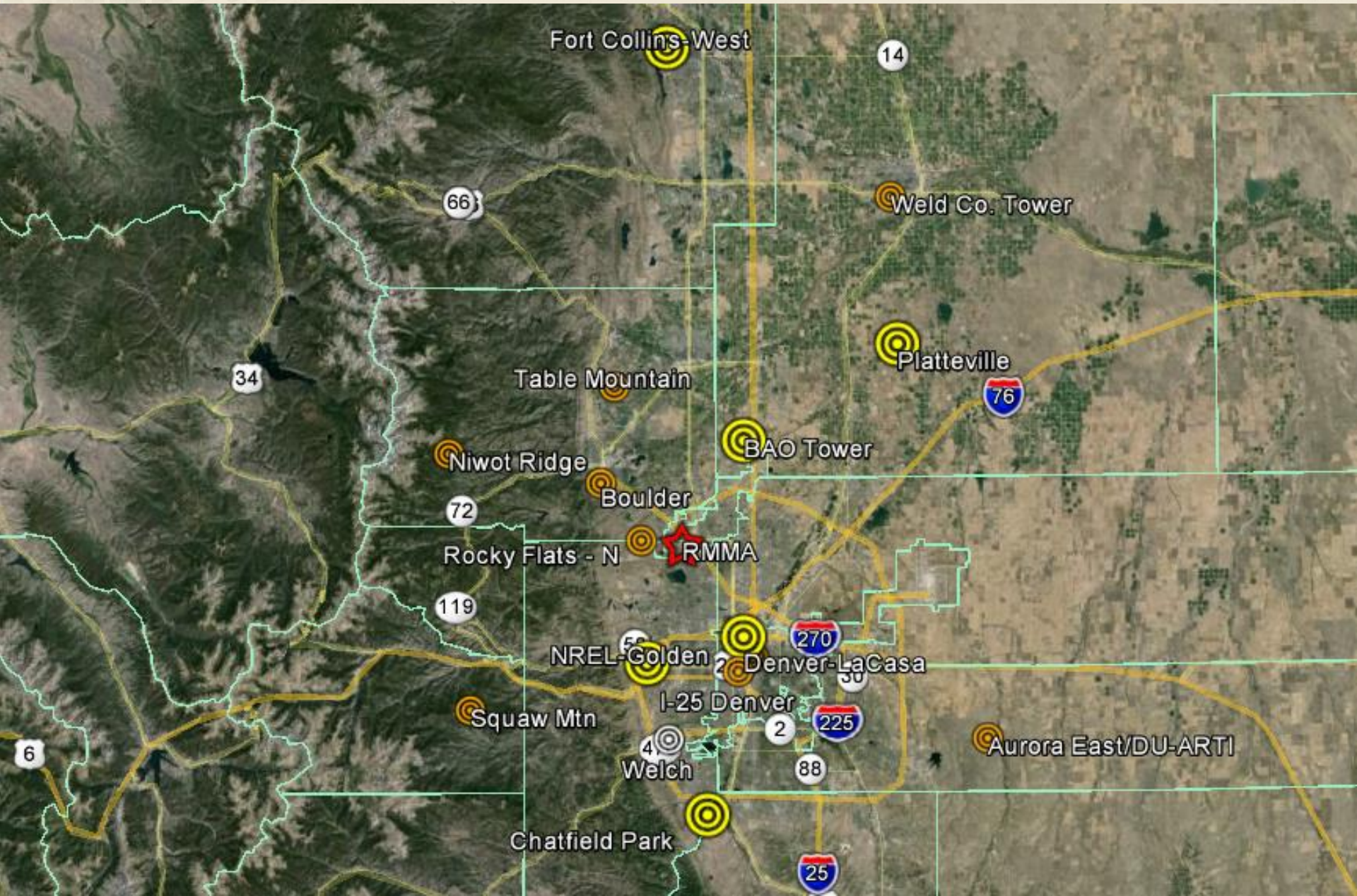
By recommendation from the recent Configuration Review for the P-3B, download in Colorado will require use of a hangar. This would tentatively be scheduled for Monday, 11 August using the hangar space housing the LaRC King Air. RAF would prefer that this not be done on a weekend, so it I unlikely that we could schedule it any sooner.

Groups downloading in Colorado include **Weinheimer, Fried, Cohen, and Yacovitch.**

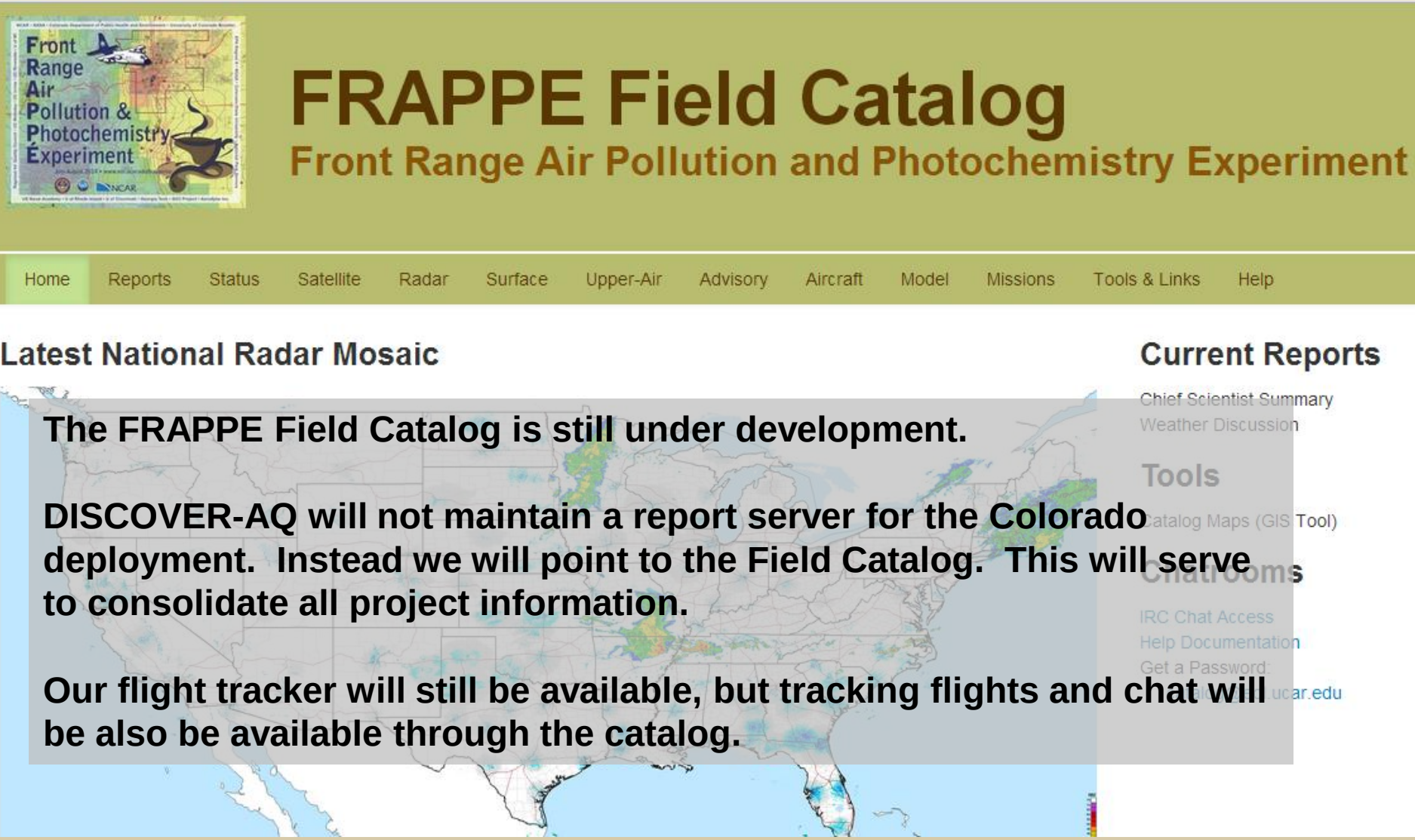
The CAR and NSERC racks will have to be unbolted to facilitate removal of racks for Cohen and Fried.

Inlets will remain with the aircraft and will also need to be plugged.

Ground Sites for Colorado



Field Catalog



The FRAPPE Field Catalog is still under development.

DISCOVER-AQ will not maintain a report server for the Colorado deployment. Instead we will point to the Field Catalog. This will serve to consolidate all project information.

Our flight tracker will still be available, but tracking flights and chat will be also be available through the catalog.

Collaboration Opportunity on Livestock Emissions

Jay Ham (CSU) is available to collaborate with those having specific interest in livestock emissions.

Projects include: CAFO (east of Greeley near Wiggins, CO) where he has a long open path measurement of ammonia with a long record. He often operates a Picarro NH3 monitor at this site as well (and has a second lab instrument which could possibly be coordinated with one of the mobile labs during part of the study).

He has a second CAFO that he also works regularly with and also 2 different dairies (north of Ft. Collins, near Wellington, CO).

Jay has also volunteered to coordinate possible access to these sites for operators with mobile labs who wish to characterize methane, ammonia, etc. emissions from CAFOs and dairies. This is not a guarantee that the operators will wish to cooperate, but Jay thinks it seems likely that they will.

Jay also has offered to provide local livestock emission factors for ammonia that are typical to the area during the study. These are largely unpublished, though they represent something more specific to Colorado than the national factors used for example in CMU model.

Interested parties should notify Daniel Bon at CDPHE (daniel.bon@state.co.us)

Education and Outreach
(Project Info Card, POC: Alison Rockwell)

FRAPPÉ
Front Range Air Pollution & Photochemistry Experiment

DISCOVER-AQ

Air Quality Study :: 16 July - 16 August 2014

Two major field campaigns - FRAPPÉ and DISCOVER-AQ - will merge to study air quality this summer in the Colorado Northern Front Range Metropolitan Area (NFRMA).

The Front Range frequently experiences elevated summertime ozone levels which exceed the national health standards and can have adverse effects on human health and the environment. The two campaigns will characterize the diverse pollution sources in this area, including emissions from transportation, power generation, oil and gas extraction, agriculture, natural vegetation, and wildfires, as well as characterize the regional inflow and outflow of pollution, and how air circulation patterns over the complex mountain terrain move pollutants around.

Collaborative Research

FRAPPÉ and DISCOVER-AQ will work closely through a series of collaborated research flights.

DISCOVER-AQ flights will entail repetitive profiling of pollution above air quality monitoring sites across the NFRMA. This will lead to better information for satellites that face challenges in distinguishing between pollution in the atmosphere and surface-level pollution sources.

FRAPPÉ flights will fly more broadly to sample specific emission sources across the NFRMA, characterize mountain-driven recirculation effects, as well as fly upwind and downwind to distinguish local pollutants versus those transported from regions outside of Colorado. All flights will be tightly coordinated with ground observations integrated into the air quality monitoring network operated by the State of Colorado to provide more continuous monitoring of air quality and its controlling factors.

Learn more about FRAPPÉ: www.eol.ucar.edu/frappe/eo
Learn more about DISCOVER AQ: http://discover-aq.larc.nasa.gov/

Education and Outreach
(Project Info Card, reverse side)

Research Aircraft

The NSF/NCAR C-130 and NASA's P-3B and King Air are flying laboratories fully-equipped with scientists, inlets, air sampling instrumentation, and remote sensors. These research platforms will be flying at altitudes from about 1000-28,000 feet.

NSF/NCAR C-130

NASA P-3B

NASA King Air

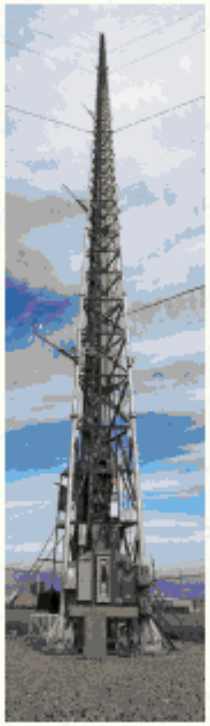
Front Range Ground Sites

Many instruments at the ground sites will operate 24/7 and provide data during the flights as well as when the aircraft are on the ground. In addition to sampling at ground level, soundings will be taken from the BAO research tower, a tethered balloon, upward-looking lidars, and other remote sensors distributed across the NFRMA. Several mobile labs will add flexibility to the ground observations providing information when and where it is most valuable.

Mobile Lab

Tethered Balloon

Research Tower in Erie



Community Benefits

The multi-perspective sampling will provide the most comprehensive characterization of air quality ever conducted in our region. The resulting data will be used to test and improve computer model predictions of current and future air quality as well as contribute to improving current and next-generation satellite capabilities for the interpretation of surface air quality. These tools will further enhance our capabilities to determine the factors controlling air quality and develop effective and informed mitigation strategies.

Education and Outreach (cont.)

POC: Alison Rockwell

Planned for Saturday, 2 August

This is not the same as the Media Day on 15 July

This will not disrupt our flight schedule, but we will participate if this is a no-fly day.

If we are flying on that day, visitors will be allowed to see operations through ground tracking and chat.

Education and Outreach (cont.)

www.eventbrite.com/e/know-your-aq-discover-air-quality-professional-development-workshop-registration-10997374443

Eventbrite | Create an event | Find events | Email | Share | Tweet | Like 0 | Questions? Contact the organizer

Know Your AQ: Discover Air Quality Professional Development Workshop

CIRES Education Outreach
Wednesday, August 6, 2014 at 8:30 AM - Thursday, August 7, 2014 at 4:30 PM (MDT)
Boulder, CO

Registration Information

TYPE	REMAINING	END		QUANTITY
Registration	19 Registrations	Aug 6, 2014	Free	1

Register

Save This Event

Share Know Your AQ: Discover Air Quality Professional Development Workshop

Email | Share | Tweet | Like Be the first of your friends to like this.

When & Where

Event Details

Education and Outreach (cont.)

www.eventbrite.com/e/know-your-aq-discover-air-quality-professional-development-workshop-registration-10997374443

Eventbrite | Create an event | Find events | Email | Share | Tweet | Like 0 | Questions? Contact the organizer

Know Your AQ: Discover Air Quality Professional Development Workshop

CIRES Education Outreach
Wednesday, August 6, 2014 at 8:30 AM - Thursday, August 7, 2014 at 4:30 PM (MDT)
Boulder, CO

POC: Jennifer Taylor

We will ship 3 Cairclip O3+NO2 monitors (and instructions) next week for use during the workshop and other public outreach hikes during the campaign.

Best use would be give units to different members of a hiking group and compare results between the units after returning.

Registration Information

Save This Event

When & Where

Register

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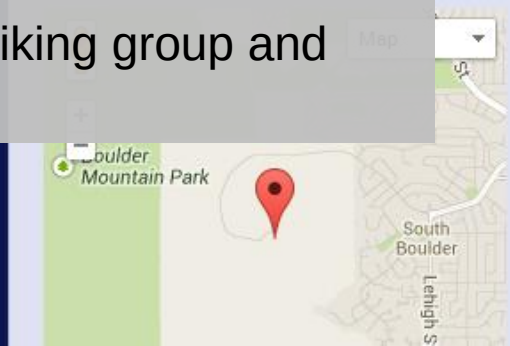
Event Details



Nominal Flight Day Schedule

Local Time	Time from Takeoff	Cumulative Time	Event
P-3B			
0500	-3:00	0:00	RAF Opens
0530	-2:30	0:30	P-3B Doors Open
0730	-0:30	2:30	P-3B Doors Close
0800	0:00	3:00	P-3B Takeoff
1600	+8:00	11:00	P-3B Landing
1700	+9:00	12:00	P-3B Doors Close
King Air			
0600	-1:30	0:00	King Air Doors Open
0715	-0:15	1:15	King Air Doors Close
0730	0:00	1:30	King Air Takeoff (Sortie 1)
1130	+4:00	5:30	King Air landing (Sortie 1)
1230	+5:00	6:30	King Air Takeoff (Sortie 2)
1630	+9:00	10:30	King Air Landing (Sortie 2)
1700	+9:30	11:00	King Air Doors Close

Note: P-3B investigators will have only 2.5 hours of pre-flight. In cases of a later take-off a full 3 hours will be provided. King Air pre-flight access is a little longer.

NREL-Golden Update

The site was revisited by Greg Harshfield and Mike Charnick on 29 May to meet an electrician and reassess the space requirements.

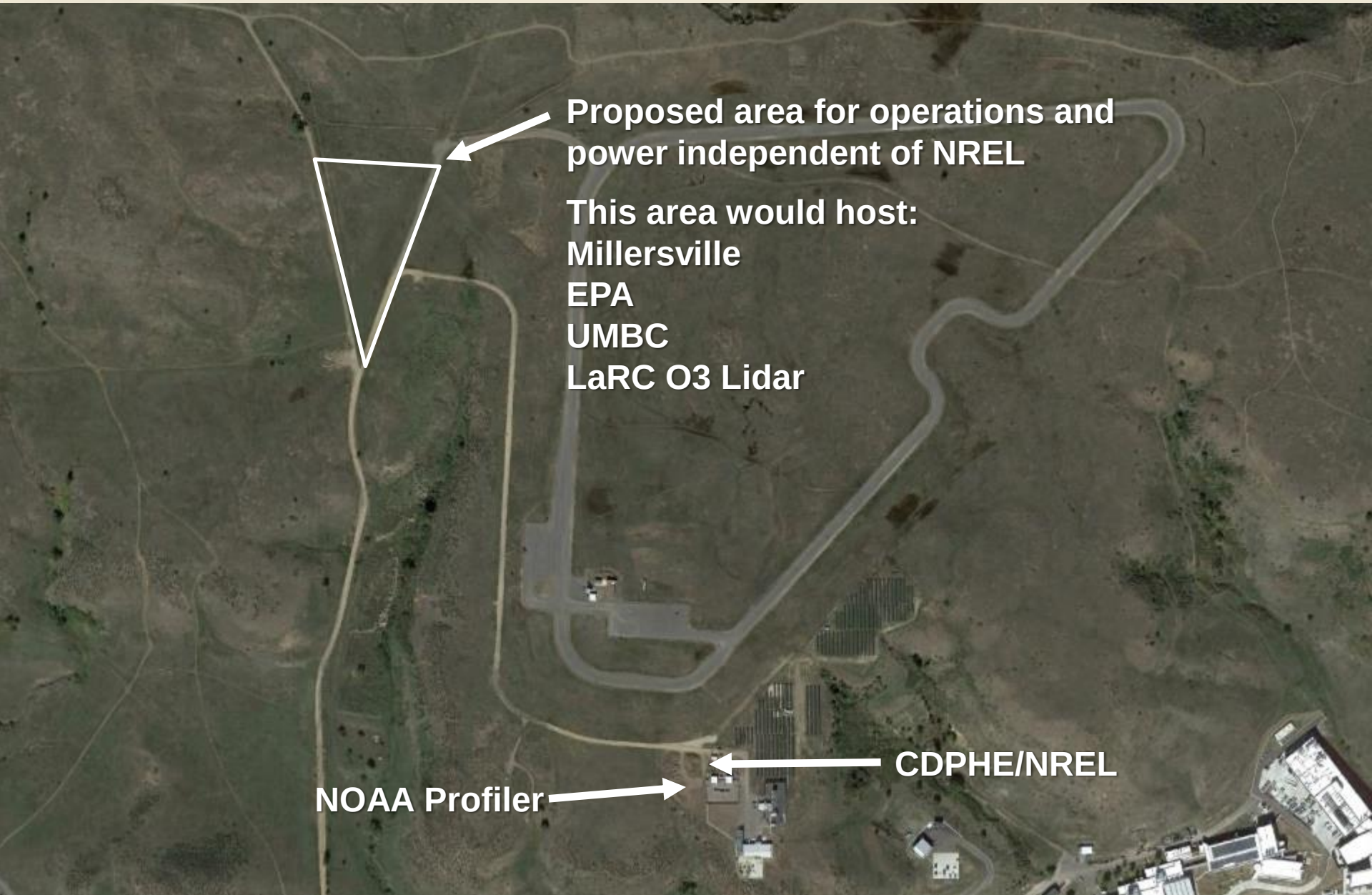
Engineering plans for the installation of a transformer to support 300A service on the far side of the mesa is complete. Scheduling will be announced shortly.

Millersville plans to ship their own power distribution panel. Panels would be installed for EPA (100A), UMBC (50A), and LaRC (50A)

For measurements remaining near NREL (CDPHE and NOAA Profiler), two power outages will occur during the study, each lasting 2 days (19-20 July and 2-3 August).

Use of the site is also contingent on final permission from Jefferson County. Upon closer inspection, clearing of the ground will not be possible as we are not to disturb small cacti and yucca plants in the area.

NREL-Golden Site Update



This updated arrangement addresses Jefferson County concerns to minimize disturbance to vegetation.
A specific plan for trailer placement will be circulated.

NREL-Golden Space and Power Requirements

Group	Power	Space	Comment	Arrive Date	Depart Date	POCs
Millersville	100A @ 120V		**Electric connections:** 2 trailers each need a NEMA 14-50 receptacle **Instrumentation includes:** Tethersonde, sodar, flux tower, MPL			Rich Clark; Richard.Clark@millersville.edu
EPA Trailer	100A @ 240V	25' x 15'	**Electric connection:** Plug to be provided **Instrumentation includes:** NO2 FRM, CRDS NO2, UVF SO2, 48i CO, T700U Calibrator, 701H ZAG, Ceilometer, Pandoras (2), 42IY NOy			Russell Long; Long.Russell@epa.gov Jim Szykman; James.J.Szykman@nasa.gov
UMBC Trailer	40 A @ 240V	30' x 15'	**Electric connection:** Bare wire for connecting to breaker box; **Instrumentation includes:** Sigma Space 527 nm MPL, Leosphere ALS 450 355 nm lidar, Leosphere Windcube lidar, Vaisala MAWS201 weather station, TSI 3563 nephelometer, Metone EBAM 1020, Thermoelectron TEOM, Microtops II portable sunphotometer, Particle-Into-Liquid-Sampler, Sunset Labs OC-EC Analyzer			Ray Hoff; hoff@umbc.edu Chris Hennigan; hennigan@umbc.edu
LaRC O3 Lidar	50A @ 220V	12' x 7'	**Electric connection:** Can be connected directly but prefer to use a L14-50R receptacle			Russell Deyoung; Russell.J.Deyoung@nasa.gov
NOAA Profiler	30A @ 120V	25' x 25'	Place on CDPHE/NREL side			Allen White; Allen.B.White@noaa.gov; Clark King; Clark.W.King@noaa.gov