

2020 Spring FPAW Plenary Meeting Chat Log

[4/15 11:05 AM] Tim Miner Programs

David Strand: You can make the display smaller by going to the corner and dragging the screen to a smaller size.

[4/15 11:17 AM] Tom Ryan (AvMet)

Matt, would you please let Justin Hilliard, UPS into the meeting?

[4/15 11:19 AM] Tom Ryan (AvMet)

Justin is in.

[4/15 11:20 AM] Justin Hilliard - UPSFF

Thanks guys

[4/15 11:20 AM] Tom Ryan (AvMet)

You bet, sir!

[4/15 11:36 AM] Rhonda Moore

Matt please let Terry King in the meeting

[4/15 11:37 AM] Paul Heppner

Does 'per copy' mean 'per station'?

[4/15 11:38 AM] Tom Ryan (AvMet)

Yes Paul. That's what is meant.

[4/15 11:38 AM] Paul Heppner

thank you

[4/15 11:39 AM] Fronzak, Matt

Re meeting entry - this meeting has been set up to be open entry. Anyone in a lobby somewhere is probably trying to get into tomorrow's Planning Meeting (smile).

[4/15 11:40 AM] Tom Ryan (AvMet)

Thanks Matt. That is exactly what had happened earlier.

[4/15 11:42 AM] Stone, Rocky

Does VWAS include a pressure sensor?

[4/15 11:44 AM] Scott Samson/SayWeather

Any information/timing of VWOS specifications? Will such systems be permitted to receive FAA AIP funding?

[4/15 11:45 AM] Strand, David

To everyone - when you enter a question, please indicate if there is a specific panel member you are targeting question to. Thanks!

[4/15 11:46 AM] Mark Phaneuf

David: Question for 1st panel. I didn't hear anything about Airborne Observations and any work to expand in that area...or was it meant to only cover surface observations?

[4/15 11:47 AM] Scott Samson/SayWeather

VWOS spec/timing/funding question for Gordy or Scott

[4/15 11:49 AM] rex (Guest)

What is the estimated cost of the new 360 degree weather cameras currently being tested in Alaska?

[4/15 11:56 AM] Jose Garcia (IMSG)

What is the use of Polar Orbiter satellite products for aviation in Alaska? There are products such as Polar Winds, etc. Moreover, EUMETSAT will launch additional satellites what will increase polar coverage on top of what NOAA/JPSS is already doing. Those are planned for launch at 2023-24.

[4/15 11:59 AM] Stone, Rocky

Since VWAS is an order of magnitude cheaper than AWOS, are we sacrificing anything? Is there as robust fault detection for things like erroneous readings?

[4/15 11:59 AM] rex (Guest)

Thank you! The 360 wx cam is a great product. Definitely want to see them in the lower 48 soon.

[4/15 12:00 PM] Jose Garcia (IMSG)

Thanks guys

[4/15 12:01 PM] Tom Ryan (AvMet)

Great job Jose! Thanks to you!

[4/15 12:05 PM] Jose Garcia (IMSG)

Thanks Tom!

[4/15 12:08 PM] Matthias Steiner

Does Weather Camera program provide an archive of images or is feed only for real-time use?

[4/15 12:10 PM] Scott Samson/SayWeather

Erick: Interest or need for existing non-AWOS but NIST-calibrated automated weather systems?

[4/15 12:10 PM] Scott Samson/SayWeather

Don

[4/15 12:13 PM] David Kochevar

I'm dialed in on my phone now

[4/15 12:13 PM] Scott Samson/SayWeather

Thanks Gordy. As shown earlier, CONUS is severely lacking, too.

[4/15 12:18 PM] Michael Splitt

How do you pull in mesonet data?

[4/15 12:18 PM] Michael Splitt

MADAS?

[4/15 12:22 PM] u333557@global.ual.com

How long does it typically take for AWOS outages to be repaired? Is there variation between the time required in AK vs CONUS?

[4/15 12:26 PM] Matthew Tucker

Christian, in Alaska it could be days or more, in the Conus it depended on the sensor but a major outage had a 4 hour call back. times depended on proximity of technicians.

[4/15 12:29 PM] Jack May (AvMet)

Matt -- You can't show Dave's screen?

[4/15 12:30 PM] Matthias Steiner

Jack, we can see the screen. You may have a local problem.

[4/15 12:32 PM] Fronzak, Matt

I have limited the presentation capability. I've just given David that permission and will let him know in a minute.

[4/15 12:34 PM] Donald Berchoff

Where can I get information on VWOS?

[4/15 12:35 PM] Michael Splitt

Geospatial correlation issue too.

[4/15 12:37 PM] Donald Berchoff

Thank you.

[4/15 12:38 PM] u333557@global.ual.com

Thanks!

[4/15 12:43 PM] Fronzak, Matt

Good follow on question, Rocky!

[4/15 12:45 PM] u333557@global.ual.com

What are the elements of actual work that drive up the cost of AWOS cert vs VWOS so substantially?

[4/15 12:50 PM] Justin Hilliard - UPSFF
Sounds good!

[4/15 12:50 PM] Jose Garcia (IMSG)
UTC, please! :)

[4/15 1:12 PM] Matthias Steiner
Who can control pan/tilt/zoom capability? Can a pilot looking at a site control these functions or not?

[4/15 1:12 PM] Cliff Johnson
sorry hit the wrong button on teams, didn't mean to try and take control...
(1 liked)

[4/15 1:12 PM] David Kochevar
With regards to the VWOS system, can you provide any more detail on how you will be able to self validate elements where there is only a single sensor available. such as ceiling/visibility/or present wx?

[4/15 1:15 PM] Eric Dupuis
Is the pan/tilt/zoom capability a hardware one or software one which may have a big impact on bandwidth usage?

[4/15 1:16 PM] Paul Heppner
What sensors are not part of VWOS that makes it come up short of being an ASOS/AWOS

[4/15 1:16 PM] Cliff Johnson
For Gordy/Walter, how do you handle cybersecurity issues with the weather cameras while balancing the need for operators to be able to use them? For instance are they on a loop and only authorized users can pan/zoom/etc.?

[4/15 1:17 PM] Donald Berchoff
How much are the VWOS stations now?

[4/15 1:18 PM] marilyn pearson
Gordy- do you anticipate including UAS operators in the testing phase?

[4/15 1:20 PM] Jose Garcia (IMSG)
Will machine learning technique(s) be employed in the validation process? Wondering also about applying lessons learned from NWP Model Data Assimilation quality control experience for this.

[4/15 1:35 PM] Matthew Tucker
are using the sensor and install expertise of the PFS in OKC, they developed SWS and maintain the JAWS hardware?

[4/15 1:36 PM] John Steventon

I think it takes a snapshot of the cam when accessed and shows the timestamp. So others can access as they need to

[4/15 1:36 PM] Chris Baur

Can you share the API for the Alaska/Hawaii Cameras?

[4/15 1:36 PM] George, Tom

From a quick inspection, many of the Colorado highway cams show little or no sky. Will there be some requirements on how cameras are pointed to be included in the aviation network?

[4/15 1:40 PM] Justin Hilliard - UPSFF

It may be good to clarify that this is a snapshot in time, not a video feed

[4/15 1:40 PM] Michael Splitt

Self cleaning? WX (icing) Bird droppings, etc?

[4/15 1:40 PM] Donald Berchoff

120K--yikes!

[4/15 1:41 PM] Scott Samson/SayWeather

Is there a possibility of validation using ground-based pilot reports (eg. pilots that have just landed?

[4/15 1:41 PM] Donald Berchoff

I am in the wrong business.

[4/15 1:42 PM] Bryce Ford

How often does the image snapshot update, to ensure user is not looking at an old image?

[4/15 1:43 PM] Colleen Reiche

I believe the refresh rate is about 10 mins

[4/15 1:51 PM] Avjian, Bob

Hi Bryce!

[4/15 2:01 PM] David Kochevar

Were all mesonet obs included in the RTMA assessment studies?

[4/15 2:01 PM] Michael Splitt

RTMA uncertainty (product) by variable? With geospatial consideration (terrain)? Focus on C/V?

[4/15 2:01 PM] Donald Berchoff

You may have covered this, but was RTMA validated against METAR ob sites?

[4/15 2:05 PM] Donald Berchoff

Good, important project...

[4/15 2:06 PM] Donald Berchoff

Do mesonet sites have ceiling and vis measurements?

[4/15 2:06 PM] Matthias Steiner

It will be important to stratify validation against environment, like open space (like airports), complex terrain (mountains) or urban environments.

[4/15 2:06 PM] Ken Fenton

The QA PDT has looked the correlation between mesonet cig and vis sites and their nearest METAR location.

[4/15 2:07 PM] Donald Berchoff

My guess many do not

[4/15 2:07 PM] Donald Berchoff

That is why I asked the Metar station question..so the cig/vis validation is pretty limited

[4/15 2:08 PM] Michael Splitt

RTMA error stats for C & V?

[4/15 2:08 PM] Ken Fenton

There are several hundred mesonet visibility sites across the CONUS and on the order of 100 ceiling mesonet sites.

[4/15 2:08 PM] Paul Heppner

State mesonet stations generally do not have ceiling and vis. Many are doing webcams now

[4/15 2:09 PM] Paul Heppner

Many RWIS stations have the limited visibility (capped at a value of a mile or two).

[4/15 2:12 PM] Fronzak, Matt

ken.fenton@noaa.gov

[4/15 2:13 PM] Ken Fenton

ken.fenton@noaa.gov if you're interested in the results from our ceiling and visibility assessment comparing the RTMA, RMTA-RU, GLMP, and NCVA to METAR and mesonet observations
(1 liked)

[4/15 2:13 PM] Michael Splitt

How do users know areas where RTMA is less certain?

[4/15 2:14 PM] Terra Ladwig

The three dimensional RTMA that is under development at EMC and GSL plans to include uncertainty data with the analysis.

[4/15 2:16 PM] Paul Heppner

<https://www.harrisgeospatial.com/Software-Technology/Helios> is a product by Harris Corp that is a camera network for weather intelligence

[4/15 2:16 PM] Paul Heppner

(not plugging it just putting it in this forum domain for awareness)

(1 liked)

[4/15 2:18 PM] Donald Berchoff

Spot on! Smart approaches to using data with risk management

[4/15 2:20 PM] Terra Ladwig

A small connection between GLAMP, which goes into HEMS, and RTMA is that the HRRR provides the background data.

[4/15 2:22 PM] Andy McC

For Gordy Rother: "Smart approaches to using data with risk management" - would human intervention/input be required in almost every instance?

[4/15 2:22 PM] rex (Guest)

Personal opinion here from a HEMS pilot, the key to keeping pilots on the ground when they need to is presenting better and more accurate trends of weather.

[4/15 2:26 PM] Steve Cusick - Florida Tech

Great point Rex - Steve Cusick sends

(1 liked)

[4/15 2:30 PM] Jack May (AvMet)

Just do Zulu time, Matt

[4/15 2:30 PM] Strand, David

back at 1845 UTC

[4/15 2:31 PM] Fronzak, Matt

You know you're old when you call it Zulu time!

[4/15 2:34 PM] Jack May (AvMet)

;o)

[4/15 2:55 PM] Scott Samson/SayWeather

Can you expand on types of R&D that will be explored in FY22 request?

[4/15 2:57 PM] Justin Hilliard - UPSFF

Can you define "test sites"?

[4/15 2:58 PM] Scott Samson/SayWeather

Thanks

[4/15 2:59 PM] Donald Berchoff

Matt--I can talk test sites

[4/15 3:14 PM] David Kochevar

Are UAS pilots able to use VWP or wind profiler data to monitor low level winds?

[4/15 3:14 PM] Michael Splitt

\$'s for Uber-resolution real-time obs/modeling?

[4/15 3:19 PM] Jeff Massey

what are the weather sensing capabilities and accuracy of meteodrone observations?

[4/15 3:20 PM] Justin Hilliard - UPSFF

To help don out, here's a link to meteodrones:

<https://www.meteomatics.com/en/meteodrones-meteobase/>

[4/15 3:29 PM] Gary Pokodner

Listening to all these presentations, everything sounds useful for METs, but it seems like having products with different limitations, different quality, different tolerances, and various strenghts and weaknesses could be really hard for pilots (GA, UAS, helicopter, etc) to use them properly. What is the plan to make this user friendly?

[4/15 3:30 PM] Paul Heppner

To complement what Don is saying, SWIM is gaining traction worldwide and will facilitate greater data exchange, including meteo data

[4/15 3:31 PM] Andy McC

Didn't helicopters have to deal with the same temperature mis-matches operating from Manhattan to JFK? How was that solved?

4/15 3:59 PM] Matthias Steiner

Micronet showed great local variability in winds!

[4/15 3:59 PM] Michael Splitt

There is a tremendous need for station siting data/sensor siting metadata for all the weather stations to properly interpret what the winds. The plots shown can be mixing apples and oranges.

[4/15 4:00 PM] John Kosak - NBAA

You showed personal stations, did you take a look at DOT stations, if present? Was access an issue if not?

[4/15 4:01 PM] Michael Splitt

personal wx stations can be horribly sited

[4/15 4:01 PM] Matthias Steiner

Yes, that is true

[4/15 4:02 PM] Paul Heppner

Justin, does the UPS weather office (Louisville) do TAFS for these drones in the same manner as doing TAFS for aerodromes serviced by UPS? What grounds the drones? Minimums in ceiling and visibility?

[4/15 4:07 PM] Donald Berchoff

Justin--in 10 years, how many UPS drone flights a day in US? Estimate?

[4/15 4:09 PM] Jeff Massey

Do you see a long-term solution that doesn't involve deploying your own stations? At Prime Air, we have very similar challenges. Its very hard to trust the metadata from other mesonets, and latency can also be an issue. 5-minute AWOS data is 10+ minutes delayed

[4/15 4:12 PM] rex (Guest)

Are you considering how to account for vertical turbulence, i.e. updrafts and downdraft? Particularly in urban environments and around buildings.

[4/15 4:12 PM] Robinson, Mike

Is UPSFF considering adding onboard weather sensors to its drone platforms to increased local weather awareness (feeding back eventually to models / decision support), particularly as UPS scales up its commercial drone operations?

[4/15 4:12 PM] Kory Gempler

Do you have backup weather data available if local data (mesonet) is out of service?

[4/15 4:13 PM] John Steventon

From what Justin had mentioned that T/O and Landing is the most critical point of flight, and to Don's comments in his briefing, I think there is a second gap or question that needs to be answered. Are there detailed performance planning tables for these UAS that allows the UAS Pilot to perform a PPC to assess his/her MAX TRQ available and his/her IGE and OGE power available at both departure and arrival locations.

[4/15 4:14 PM] Stone, Rocky

Do you see a need for UAS weather data link standards such as those that exist for manned aircraft? RTCA SC-206 has been considering if there is an industry need for such standards.

[4/15 4:19 PM] Michael Splitt

Have you thought of running wx surveying drones running your routes

[4/15 4:20 PM] Eick Donald

Have you had any drones lost or downed due to weather, and what happens with the lab samples, HAZMAT?

[

[4/15 4:41 PM] Michael Splitt
volume a little low

[4/15 4:55 PM] Fronzak, Matt
What type of equipment is needed to support ADS-Wx AIREP icing status information? Are there many aircraft so equipped?

[4/15 4:57 PM] Fronzak, Matt
You just answered the second of my questions. Here is a new one - can water vapor be inferred from icing status information?

[4/15 4:58 PM] Siegel, Joel [USA]
Would the raw data be available live similar to the MDCRS data today for use by meteorologists and dispatchers? Will this be going to MADIS as well?

[4/15 4:59 PM] Michael Splitt
Bird strikes?

[4/15 4:59 PM] Avjian, Bob
What about providing data fields for aircraft type, position, altitude?

[4/15 5:01 PM] Strand, David
Bob - Items 3,5,6

[4/15 5:05 PM] Matthias Steiner
Would a UAS operator be able to equip and participate contributing weather information via ADS-B Wx?

[4/15 5:12 PM] Justin Hilliard - UPSFF
Matthias - The FAA's stance on UAS under 55lbs is they will NOT be able to use ADSB out [4/15 5:13 PM] Matthias Steiner
Thanks, Justin!

[4/15 5:14 PM] Scott Samson/SayWeather
Will airplane's weather sensors have certification standards and calibration requirements similar to current ground-base (AWOS/ASOS) systems? How will data quality control be handled?

[4/15 5:15 PM] Siegel, Joel [USA]
Thanks Steve!

[4/15 5:15 PM] Scott Samson/SayWeather
On similar question (Gordy Rother?), will VWOS feed to ADS-B V2 weather from ground to aircraft?

[4/15 5:16 PM] Avjian, Bob
Dave - that's not my question....3,5,6 that is

[4/15 5:16 PM] George, Tom

Do you anticipate that the V3 messages would be handled by the spacebased Aerion ADS-B system?

[4/15 5:17 PM] Strand, David

Bob - didn't you ask What about providing data fields for aircraft type, position, altitude?

[4/15 5:18 PM] Avjian, Bob

Matt - let's have an offline discussion with Steve later, ok?

[4/15 5:18 PM] Fronzak, Matt

Roger

[4/15 5:18 PM] Strand, David

okay

[4/15 5:18 PM] George, Tom

Great. Thanks, Steve!

[4/15 5:18 PM] Avjian, Bob

Thanks!

[4/15 5:19 PM] Eric Dupuis

Very informative sessions. Thanks!

[4/15 5:20 PM] Scott Samson/SayWeather

Thanks to everyone who presented and to Matt and Matthias for organizing and setting up the virtual meeting.

[4/15 5:20 PM] Robinson, Mike

Great session - very successful, virtual execution

[4/15 5:21 PM] Steve Darr via App

To David Strand's question- ADS-B provides position surveillance and identification information that can determine type using ground-based processing

[4/15 5:24 PM] Strand, David

Thanks, Steve. Think it was actually Bob Avjian's but he and I are working together these days.

[4/15 5:25 PM] Tom Ryan (AvMet)

Wonderful organization Matt and Matthias! You've done a great job with this! Well done and thank you!

[4/15 5:25 PM] Robinson, Mike

I'm jealous of John's home office white board!! (smile)

[4/15 5:25 PM] Strand, David

Steve - I do have one - is it anticipated that going from ver 2 to ver 3 in a DO-260C box would be software only (not including any required Wx sensors)?

[4/15 5:26 PM] John Kosak - NBAA

It was an inexpensive addition Mike
(1 liked)

[4/15 5:33 PM] Heather Reeves

I'm here

[4/15 5:33 PM] Jose Garcia (IMSG)

Once back to "normal", will you still do this virtual meeting option? I strongly support continuing with this format afterwards, since many of us won't be able to travel. You guys did a GREAT job today! Smoooooth.

[4/15 5:35 PM] Andy McC

Replying to Jose Garcia: I agree! Attendance will probably be higher whenever the on-line option is available. More IS better!

[4/15 5:36 PM] Brody, Frank [USA]

I agree with Jose and Andy. Continue this format indefinitely!

[4/15 5:38 PM] John Kosak - NBAA

<https://fpaw.aero/sites/default/files/events/2020/Spring/Agenda%20for%202020%20FPAW%20Spring%20Meeting%20MF.pdf>

[4/15 5:38 PM] Andy McC

Don't get me wrong... I cherish the opportunity to meet/greet and present (when asked) in person, too. But if it's available on-line, as well, it's even better.

[4/15 5:38 PM] David Chorney (OFCM)

Good jobs guys.

[4/15 5:40 PM] Andy McC

Thanks to all involved in this effort today!

[4/15 5:40 PM] Jose Garcia (IMSG)

Agree with Andy. I know for a fact that I can'

[4/15 5:41 PM] Judith Reif

Well done for the first virtual FPAW meeting! Great job!

[4/15 5:41 PM] Jose Garcia (IMSG)

can't attend any meeting outside the DC region, unfortunately. Even a cellphone stream will do it for some of us!

[4/15 5:41 PM] Austin Cross

Thanks to all the organizers, and glad you were able to put it on virtually!

[4/15 5:41 PM] George, Tom

Excellent job of working in this new frontier!

[4/15 5:41 PM] Pete Clement, Sonalysts

Great Job and Thank You!