



UAS-CTI Meeting Review – April 14, 2021

An Unmanned Aircraft Systems Collegiate Training Initiative (UAS-CTI) program meeting occurred on April 14, 2021. The targeted audience were school point of contacts and other representatives from the participating schools.

Opening remarks were given by **Alina George** and **Diana Robinson**. Keynote Speakers were **Catherine Self**, **BNSF Railway UAS** and **John Reinhardt**, **FAA, UAS-Test Site program manager**

Catherine's presentation on BNSF Railway and their UAS operations engaged the audience. During her talk, Catherine had a slide of the railways in the US belonging to BNSF. She shared with the group what BNSF looks for in a drone pilot, although they do much of their training in house. Additionally, BNSF is proving risk reduction and have been using UAS as a risk reduction tool since 2015. BNSF has many departments now using UAS for their daily tasks such as for resource protection, claims, engineering and sourcing (inventory).

John Reinhardt defined FAA UAS test sites and displayed a map of the official test sites. Also, John discussed civil aircraft operations research that is being conducted at the sites in advanced air mobility, agriculture, airworthiness, weather, sensor testing, detect and avoid and much more. John also shared employment opportunity for positions at the sites and are linked below. For more information, contact John at John.reinhardt@faa.gov; 202-267-5380

Wing Cheung, Palomar College updated everyone on the FAA CTI ONET project. This was previously known as the Bureau of Labor Statistics, Specialty Occupational Classification (BLS/SOC) and how a Work Group was created as a result of concerns about the lack of job data for justifying UAS programs. This group divided into subgroups and will be meeting in early May to complete the submittal process to the Department of Labor ONET site for modifying current job classifications related to UAS.

Zack Nicklin went live and demonstrated uses and resources on the new UAS-CTI repository that is being hosted by the National Center for Autonomous Technologies (NCAT). <https://ncatech.org/uas-cti/>

Alina gave an update on the new FAA rules and dates are below and she discussed plans for the upcoming UAS Symposium which includes roundtables for the UAS-CTI Global initiative.

After the presentations, attendees were placed into break out rooms to discuss what Drone flight software; picture processing software, drone hardware and drone accessories they are using. The following were a few that were named (may be incorrect spellings).

<u>Drone Flight Software</u>	<u>Picture Processing</u>	<u>Hardware</u>
RealWorld	Drone2Map	DJI (Phantoms, Mavics)
Agisoft Metashape	Pix4D	Autel
DroneFlight	DroneDeploy	Yuneec
DJIgo	AGIsoft	Tello
Mission Planner		Jerico (Fixed Wing)



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Buildside (Autel)		Build – Skywalker
Picollo (for fixed wing planning)?		Great Shark
Pix4D Capture		Skydio
Drone Deploy		Ebee

ACTION ITEMS:

1. **IMPORTANT** - Make and account on the **UAS-CTI** repository. The link is <https://ncatech.org/uas-cti/> and directions are attached. If your school is not on the drop down menu selection, send a message to the UAS-CTI mailbox or Diana. Newer school participants may not yet be in the system.
2. Consortium Meeting (May or June) – Jay Seidel with Zack Nicklin will lead virtual round robin/roundtable discussions on the future growth of UAV training. As we know, what is good for one school, may not work for another. Topics will include:
 - a. Best Practices on growing and expanding programs
 - b. Student retention
 - c. Student Success Tracking
 - d. Recruitment
3. Webinar (Summer 2021) –A discussion with drone Manufacturers and software designers which will include brief presentations followed by Q&A. The webinar will be hosted and recorded by NCAT.

DISCUSSION NOTES

Donald Laird: May 14th, the California State Academic Senate is holding discipline-specific meetings, and I will be hosting the drone technology session. Visit ASCCC for event info.

Kathy Kanemoto Merced College: I looked on the BNSF job listings and do not see drone operator or pilot as a job? Is there a special keyword that I need to search for to find those jobs? **Catherine stated they typically post on Indeed.**

Eugene Matthews: Is BNSF restricted to using Blue UAS equipment?

Thomas Zajkowski: Do you do a lot of maintenance on the aircraft or do you tend just to replace?

Answer: A little of both.

Mark Bealo: We've also been looking at many options to train our students on "Blue" drones so they are ready to enter industry jobs that are restricted to such.



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Donald Laird: For OOP, how do we determine the class for existing equipment? **Zack Nicklin commented:** Donald, under 250grams you certify. Over 250 grams the manufacturer must show the FAA that they comply

Donald Laird: Since Category 2 required Remote ID, does that mean that it's not possible to fly it right now? **Answer from John Waters (FAA Support Center and Outreach):** You must have a testing methodology that demonstrates your drone is in compliance with the standards of one of the four compliance categories stipulated in the new law (Means of Compliance). Then you make a declaration of compliance to the FAA that you have demonstrated your drone is in one of the categories. The FAA must approve your means and declaration of compliance in order for you to operate under the new rule.

Mark Bealo: John, once one particular drone model gets a declaration of compliance, will that be posted so anyone with that particular drone would know its particular category?

Mark Bealo: I put together a quick Google Spreadsheet of the options I shared in our breakout about "Blue" drones we have been looking into: <https://docs.google.com/spreadsheets/d/1FF7-EgGKICrcuLC0VOWzOWSThytByczoYyDrqOxl1eY/edit?usp=sharing>

Desi Eckstein (referencing UAS-CTI Repository): San Diego DronePro's are going to host an event in July. We can post it here? **Answer: YES!**

WING CHEUNG: @BRIDGET, JOHN, AND OTHERS: ESRI'S NEW DISCOUNTED EDUCATIONAL PRICING FOR ARCGIS DRONE2MAP [HTTPS://COMMUNITY.ESRI.COM/T5/EDUCATION-BLOG/NEW-EDUCATION-PACKAGES-AVAILABLE-FOR-ARCGIS-DRONE2MAP/BA-P/884925](https://community.esri.com/t5/education-blog/new-education-packages-available-for-arcgis-drone2map/ba-p/884925)

LINKS PROVIDED DURING MEETING

AUVSI

<https://faauas.auvsi.net/faa2021/program>

Education Pricing for Pix4D

<https://www.pix4d.com/pricing/education>

<https://cte.ed.gov/legislation/about-perkins-iv>

ArcGIS Drone2Map

<https://community.esri.com/t5/education-blog/new-education-packages-available-for-arcgis-drone2map/ba-p/884925>

<https://ncatech.org/equipment-rental/>

FAA UAS Test Sites

https://www.faa.gov/uas/programs_partnerships/test_sites/



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National Center for Autonomous Technologies

<https://ncatech.org/uas-cti/>

<https://ncatech.org/uas-cti-participant-resources/>

<https://ncatech.org/equipment-rental/>

UAS Safety Reporting (NASA)

<https://asrs.arc.nasa.gov/>

<https://nari.arc.nasa.gov/aam-portal/community/>

UAS- Technician Education Program

<https://uastep.org/>

OpenDroneMap

<https://www.opendronemap.org/webodm/download/>

FAA Rules

https://www.faa.gov/uas/getting_started/remote_id/

https://www.faa.gov/uas/commercial_operators/operations_over_people/

Recurrency test:

<https://www.faasafety.gov/gslac/ALC/CourseLanding.aspx?CID=677/>

<https://vikingnews.delmar.edu/new-artificial-intelligence-level-i-certificate-launching-in-fall-2021-as-part-of-geographical-information-systems-degree-program/>

FAA Aviation and Space Education (AVSED) – STEM (UAS focused reps are Ed Cormier and Jonni Christian); 9-APL-FAAEducation@faa.gov

<https://www.faa.gov/education/about/>

Employment opportunities – Test Sites

- **FAA:** <https://www.usajobs.gov/>
- **Lone Star UAS Center of Excellence & Innovation:** <https://www.tamucc.edu/about/employment.html>
- **Nevada Institute for Autonomous Systems:** <https://nias-uas.com/careers/>
- **New Mexico State University:** <https://jobs.nmsu.edu/>
- **Northeast UAS Airspace Integration Research Alliance:** <https://nuair.org/careers/>
- **Northern Plains UAS Test Site:** <https://www.npuasts.com/careers>
- **University of Alaska Fairbanks:** <https://alaska.edu/jobs/>
- **Virginia Polytechnic Institute and State University:** <https://jobs.vt.edu/>



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Other helpful sites....

- **Becoming a FAA Safety Team Rep – DronePro**
<https://www.faasafety.gov/>
- **FAA Regional Engagement Offices**
https://www.faa.gov/about/office_org/headquarters_offices/arc/

Need UAS assistance? Send a message to the UAS Support Center at UAShelp@faa.gov

Final Rules posted on FAA.gov	December 28, 2020
RID and OOP Final Rules published in Federal Register	January 15, 2021
RID and OOP Final Rules Effective Date	<u>April 21, 2021</u>
Recurrent Training Available/Effective On-line	April 06, 2021 (can't exercise night privilege until effective date of 107.29 rule = 04/21/2021)
107.29 Night Waivers Cancelled	May 17, 2021
RID UAS Mfg/Production Compliance Date	September 16, 2022
RID Operational Compliance Date	September 16, 2023