2020 Oregon UAS Summit Questions

1. What is a preferred IR sensor for a UAS? What risks do you consider when purchasing an aftermarket sensor (nullify the warranty on a UAS) or an integrated UAS?

   From Kory Kellum:

   We have integrated a variety of different IR imagers, including Thermal and Near-IR. I would say that the main consideration, aside from wavelength, is the field of view. Many current multi-spectral cameras available today have very limited FOV that can necessitate tight flightline spacing, limiting the lidar productivity. As for warranty, Phoenix LiDAR Systems offers a 1 year protection against defects for every integrated system built. Unfortunately, I can't speak to other aftermarket sensor warranties.

2. For Dave Hurwitz: What flying altitudes were used for your experiments? & Was there a specific detraction from using a vehicle and channeling?

   From David Hurwitz:

   The flying heights for the experiments were between 20 and ~50ft off the ground depending on the flight pattern used. We kept them low to the ground to demonstrate a worst-case scenario.

   As far as using a vehicle and channeling, it caused drivers to brake more abruptly which was considered less safe, and would put a larger burden on DOT's to implement that type of temporary traffic control while not ensuring an obvious safety advantage related to driver performance.

3. Suggestions of your favorite terrain following mission-planning software?

   From Kory Kellum:

   Phoenix Flight Planner for UAV-based LiDAR/Imagery terrain following applications

4. Do you think that it is indicative of gender barriers in this industry that there were no women presenting in this two-day event?

   From Chris Glantz:

   The surveying/mapping and UAS industry is just like most engineering industries, as most folks in the industry are white educated males. It is hard to deny that. During planning our event I used my professional network to find presenters and, as you can see on our webpage, we ended up with mostly white males. I didn't even realize that we didn't have anyone who identifies as other than male until the last minute as I was looking through our list of speakers. This was a stark lesson for me because I have committed to work on matters regarding equity. This shows me

how much work needs to happen and how ingrained our systems and programming are. I commit to start looking through the equity lens when planning an event like this.

From Kory Kellum

As my wife and I both work in the UAV remote sensing space, the conversation about gender barriers comes up a lot. While many companies are doing a great job of actively welcoming women in STEM, I think the community as whole has been male dominated for many years. We need to make it a priority to collectively become more inclusive not only from a hiring standpoint, but also focus on creating a culture where women feel welcome and that their voice is heard.