

ENS Kyle Moller
JRCOSTEP Summer 2015
Tulane University
Nation Institute for Occupational Safety and Health
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Hello, prospective JRCOSTEPs. My name is Kyle Moller, I am a doctoral candidate studying environmental health at Tulane University and I hope to graduate in May of 2016. This summer I have been working at the National Institute for Occupational Safety and Health (NIOSH) in Anchorage, Alaska. The work in this office is focused on addressing occupational hazards of Alaskan workers, the two biggest being commercial fishing and commercial aviation. My position was focused on research topics primarily within commercial aviation. I first heard that I had been selected for a JRCOSTEP



position in Anchorage while I was working in the lab at Tulane. An email popped up and I glance over, realizing what I was reading I immediately ripped off my gloves and sprinted down the hall to my advisor's office and told him the news. I was so excited because I knew how great of an opportunity it was. Not only has it lived up to my expectation, but the experience has far surpassed anything I could have expected.

I arrived in Anchorage around 2:30 AM after a long flight from New Orleans. Less than five hours later I was at work and thrust into the action. I began by meeting all of my coworkers and sitting down with them individually to discuss their projects and roles at NIOSH. It was great to speak with all of them early on so that I was able to break the ice and feel comfortable in the office. Everyone made me feel like I belonged from our first introductions. I then sat down with my preceptor, Captain Mary O'Connor, and we spoke about what projects I would be working on during the summer. She explained the difficulties facing aviation in Alaska and gave me books to get me up to speed (the only background in aviation that I previously had was that I have ridden on airplanes).

I immediately immersed myself in the literature about aviation in Alaska to become familiar with the unique and extreme conditions that airmen and ground crews must deal with. NIOSH also sent me to private pilot ground school so that I would be more familiar with the field that I was working in and be able to communicate effectively with our stakeholders. This was a 5-week intensive course that I attended twice a week after work. During this time I began the research portions of my projects. I have been working on projects involving pilot fatigue, midair collisions in Alaska, and fatal or serious accidents involving helicopters that support oil and gas operations in the Gulf of Mexico.

Each project, while obviously on different topics, has been different with regards to the actual work being done. The research for the fatigue project had been completed before I arrived, therefore I worked on development of the student guide where I had to tailor the message to pilots and crew who are extremely susceptible to fatigue due to the long duty hours, poor weather conditions, and long periods of daylight or nighttime. I have also been developing content for a Twitter account to promote fatigue awareness and the fatigue prevention training DVD. My midair collision project required searching the NTSB accident database using keywords, filtering the results based on a case definition, analyzing the results, and now I am working on an article to publish. Due to the thorough reporting of the NTSB, we were able to analyze the rate of midair collisions, experience levels of pilots, why they were flying, and the common causes of the accidents. We found that despite the commonly held belief that midair collisions in Alaska are increasing, they have in fact been decreasing over the last 30 years. There have also been numerous smaller side projects in order to allow me to work with and see what other people in the office do on a daily basis. The oil and gas helicopter project has primarily been the development of a database to then use for future research projects. This work also involved the NTSB accident database but we will get much more in depth in the cases by looking at other reports, such as from the medical examiners, to determine factors that influenced survivability.

Although a lot of my work involved being in the office, we still managed to do a lot of work out in the field. We travelled to Kotzebue, Fairbanks, Stevens Village, Beaver, and Bethel to understand how aviation companies operate outside of large airports where sometimes the only way to lift something is with manpower. These were eye opening experiences. While in Kotzebue I saw home appliances, pallets of soda, and even four-wheelers being loaded onto the planes to deliver these items to the villages. After travelling out to the villages and landing on the gravel strip, I realized that there are no forklifts to move these items. Everything that the aviation companies have to deal with is complicated by the vast remoteness of Alaska. We would also attend industry meetings in and around Anchorage. These meetings were attended by other federal agencies, state groups, and private organizations associated with aviation. I was not only involved in meeting with these various stakeholders (many of whom were very high up in the aviation world, especially compared to this JRCOSTEP) but I was expected to contribute my thoughts and ideas while I was there.





My experience this summer, in addition to the great career guidance Captain O'Connor has given me, has convinced me to apply to the Commissioned Corps once I graduate. I could not have asked for better projects, experiences, coworkers, or a better mentor. If anyone out there is on the fence about applying to the JRCOSTEP you should get off of the fence immediately and apply; I cannot recommend this program enough! Even if your ultimate career goals do not involve being in the Commissioned Corps, this program introduces you to how public health is practiced at the federal level, an invaluable experience for your future endeavors.