

**August 30-September 6, 2022, Athabasca report  
(Kazuo Shiokawa, Takuma Tsuboi, and Yuto Kato)**

- **NIKON D40 camera (C001) was replaced to a new one. The shutter of the old one was broken after ~3 year operation.**
- **We installed a WATEC camera (W005, OH-band, 1-s exposure), a ZWO camera (Z007, OH-band, 50-s exposure), and a Nikon D610 (C001, visible color) at AUGO-I in the Athabasca University Campus to make triangulation measurement of aurora during the 5-day stay. We have succeeded to observe STEVE and active pulsating auroras on September 3.**
- **We repaired the riometer antenna at AUGO-II (AUGSO). The antenna pole was bent due to animal hit (moose?). The antenna element was not cut. So we re-tied the stay wire of the antenna.**
- **We repaired the two stay wires of the LF antenna of Tohoku University at AUGO-II (AUGSO).**

# Replacement of the Nikon D610 color camera with fish-eye lens (C001)

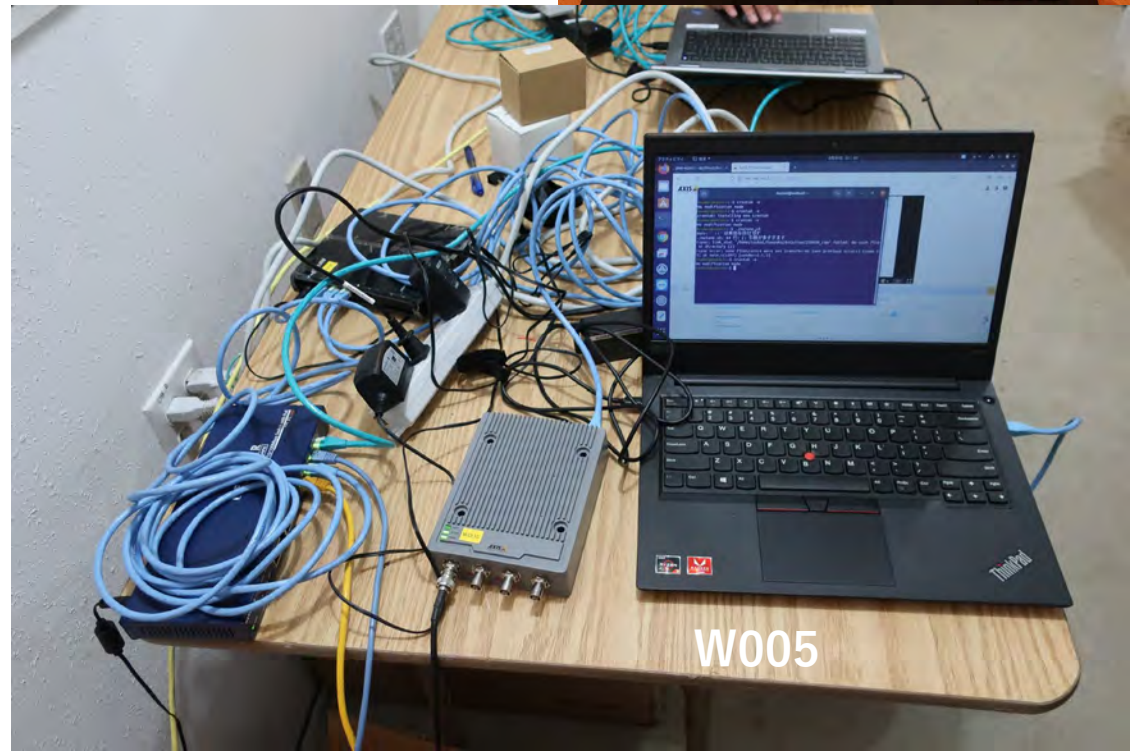
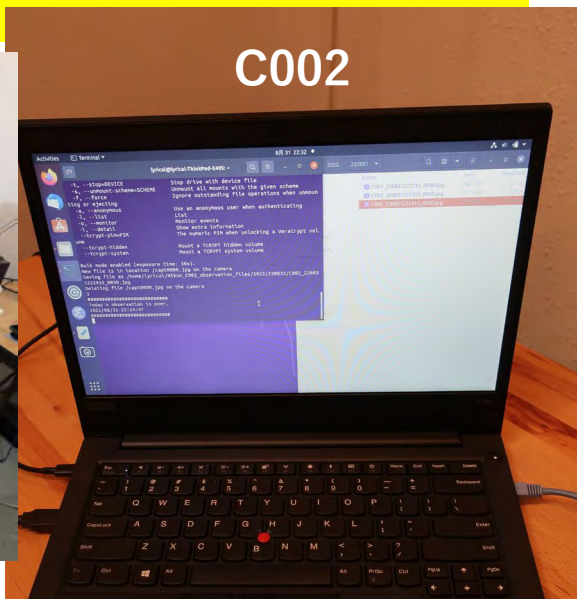


Dirty by flies





W005(OH-band, 1 sec exposure), Z007 (OH-band, 50 sec exposure), Nikon D610 (C002, 30 sec exposure)  
at AUGO-I in Athabasca University Campus during the campaign.





# Repairment of the riometer antenna



Before repairment



Before repairment



During repairment



After repairment



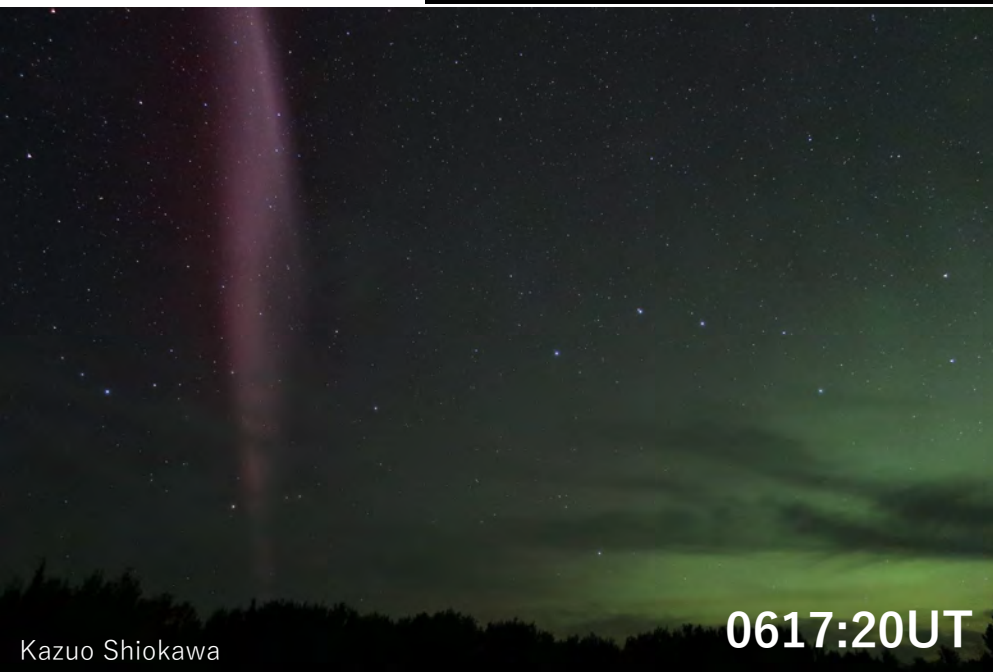
# Repairment of the LF antenna of Tohoku University





**STEVE (Sept. 3,  
0530-0630UT)**

**NIKON D40,  
fish-eye lens  
8mm/F2.8,  
exposure 30s,  
ISO: 1600, size: L**



**Canon G9X, F2.0,  
exposure: 15 sec,  
ISO: 1600, size: M**

**Canon G9X, F2.0,  
exposure: 15 sec,  
ISO: 1600, size: M**





# Active pulsating auroras (Sept. 3, 08:30-10:00UT)



NIKON D40,  
fish-eye lens  
8mm/F2.8,  
exposure 30s,  
ISO: 1600,  
size: L



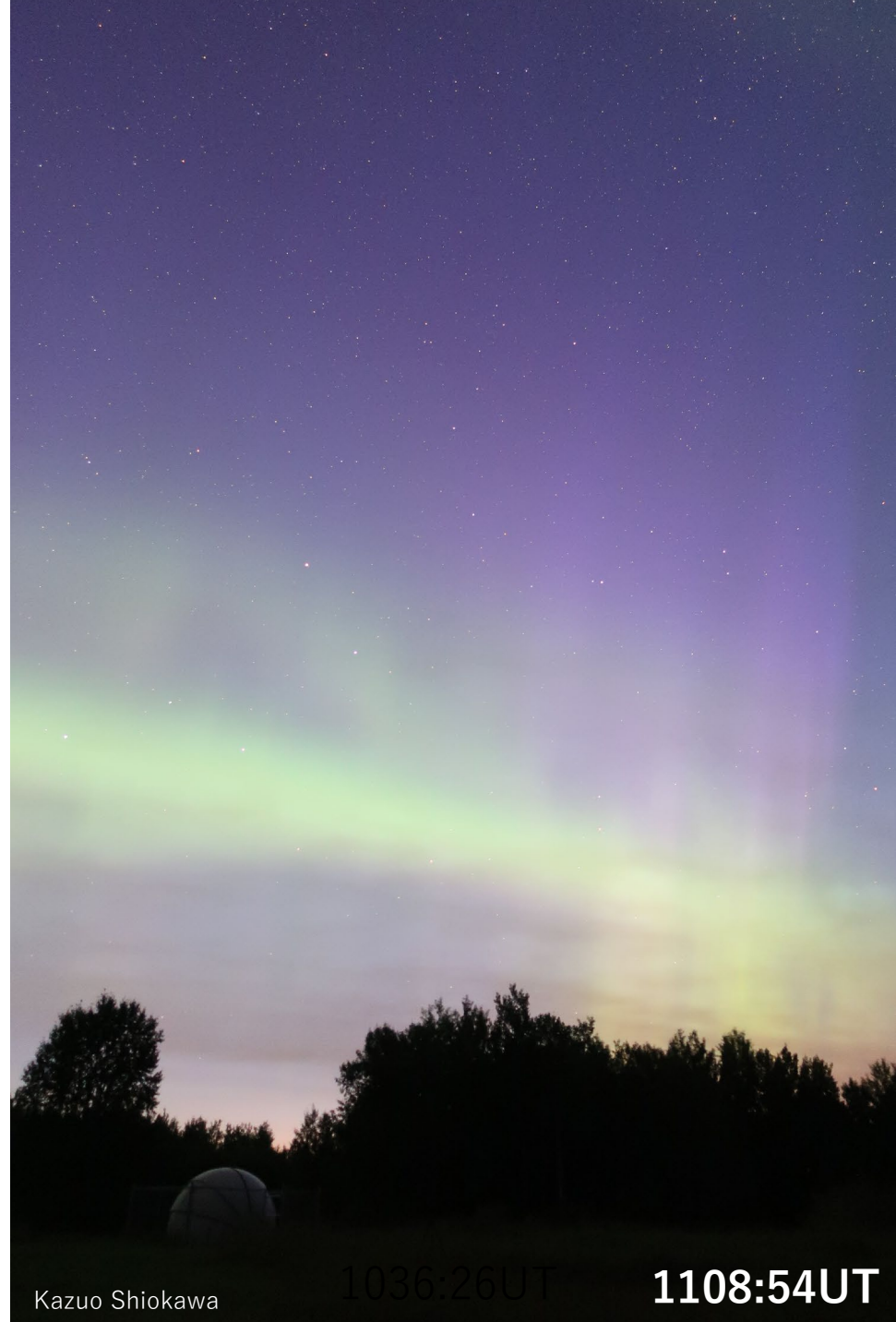
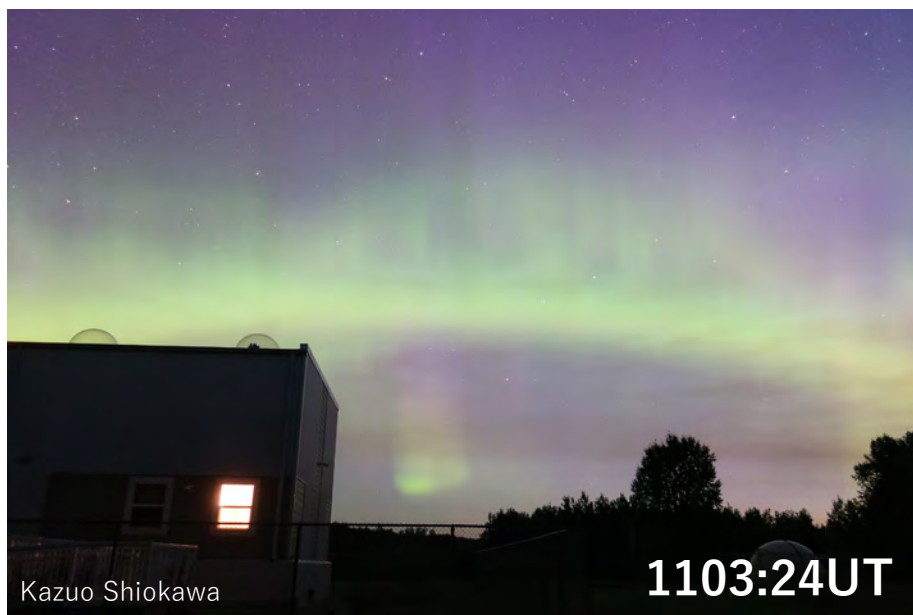
Canon G9X,  
F2.0,  
exposure: 15  
sec, ISO:  
1600, size: M

# Morning purple auroras (Sept. 3, 2022, 10:00-11:20UT)



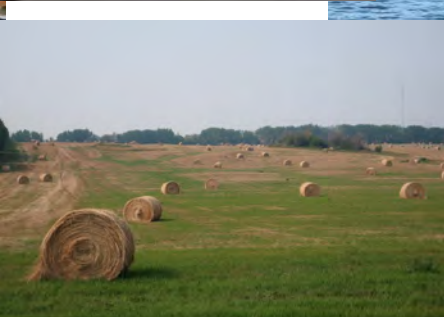
Canon G9X,  
F2.0,  
exposure: 15  
sec, ISO:  
1600, size: M

NIKON D40, fish-  
eye lens 8mm/F2.8,  
exposure 30s, ISO:  
1600, size: L





# Some photos





**Takuma Tsuboi**

**Kazuo Shiokawa**

**Yuto Kato**

