CCD Actinic Flux Spectroradiometers (CAFS)

Upwelling and downwelling spectral actinic flux

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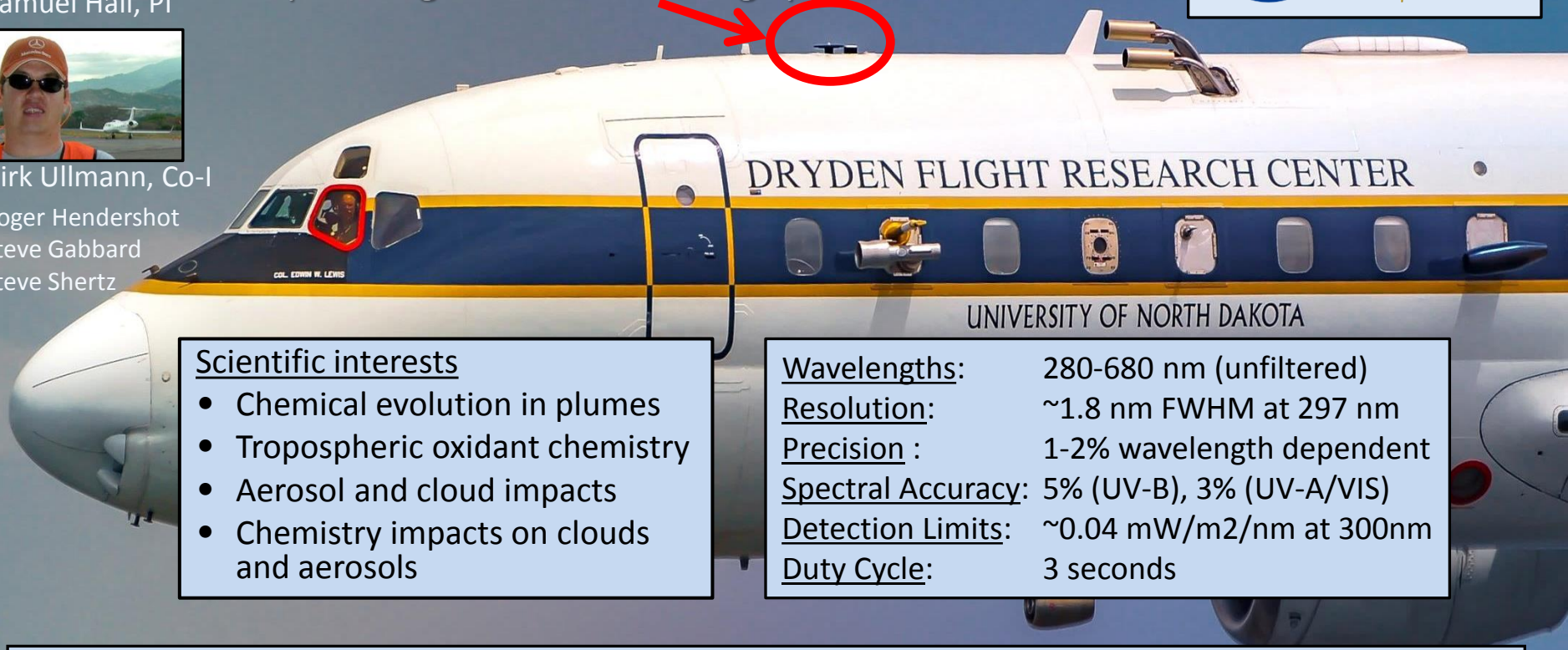

Scientific interests

- Chemical evolution in plumes
- Tropospheric oxidant chemistry
- Aerosol and cloud impacts
- Chemistry impacts on clouds and aerosols

Wavelengths:	280-680 nm (unfiltered)
Resolution:	~1.8 nm FWHM at 297 nm
Precision :	1-2% wavelength dependent
Spectral Accuracy:	5% (UV-B), 3% (UV-A/VIS)
Detection Limits:	~0.04 mW/m2/nm at 300nm
Duty Cycle:	3 seconds

j [O3->O2+O(1D)]
j [NO2->NO+O(3P)]
j [H2O2->2OH]
j [HNO2->OH+NO]
j [HNO3->OH+NO2]
j [CH2O->H+HCO]
j [CH2O->H2+CO]
j [CH3CHO->CH3+HCO]
j [CH3CHO->CH4+CO]
j [C2H5CHO->C2H5+HCO]
j [CHOCHO->products]
j [CHOCHO->HCO+HCO]
j [PAN->products]
j [CH3COCHO->products]
j [CH3COCH3->CH3CO+CH3]
j [CH3OOH->CH3O+OH]
j [CH3ONO2->CH3O+NO2]
j [CH3COCH2CH3->Products]
j [CH3CH2CH2CHO->C3H7+HCO]
j [CH3CH2CH2CHO->C2H4+CH2CHOH]
j [HO2NO2-->HO2+NO2]
j [HO2NO2->OH+NO3]
j [CH3CH2ONO2->Products]
j [Br2->Br+Br]
j [BrO->Br+O]
j [Br2O->products]
j [BrNO3->Br+NO3]
j [BrNO3->BrO+NO2]
j [BrCl->Br+Cl]
j [HOBr->HO+Br]
j [BrONO2->Br+NO3]
j [BrONO2->BrO+NO2]
j [Cl2+hv->Cl+Cl]
j [ClO->Cl+O]
j [ClONO2->Cl+NO3]
j [ClONO2->ClO+NO2]
j [CHBr3->Products]