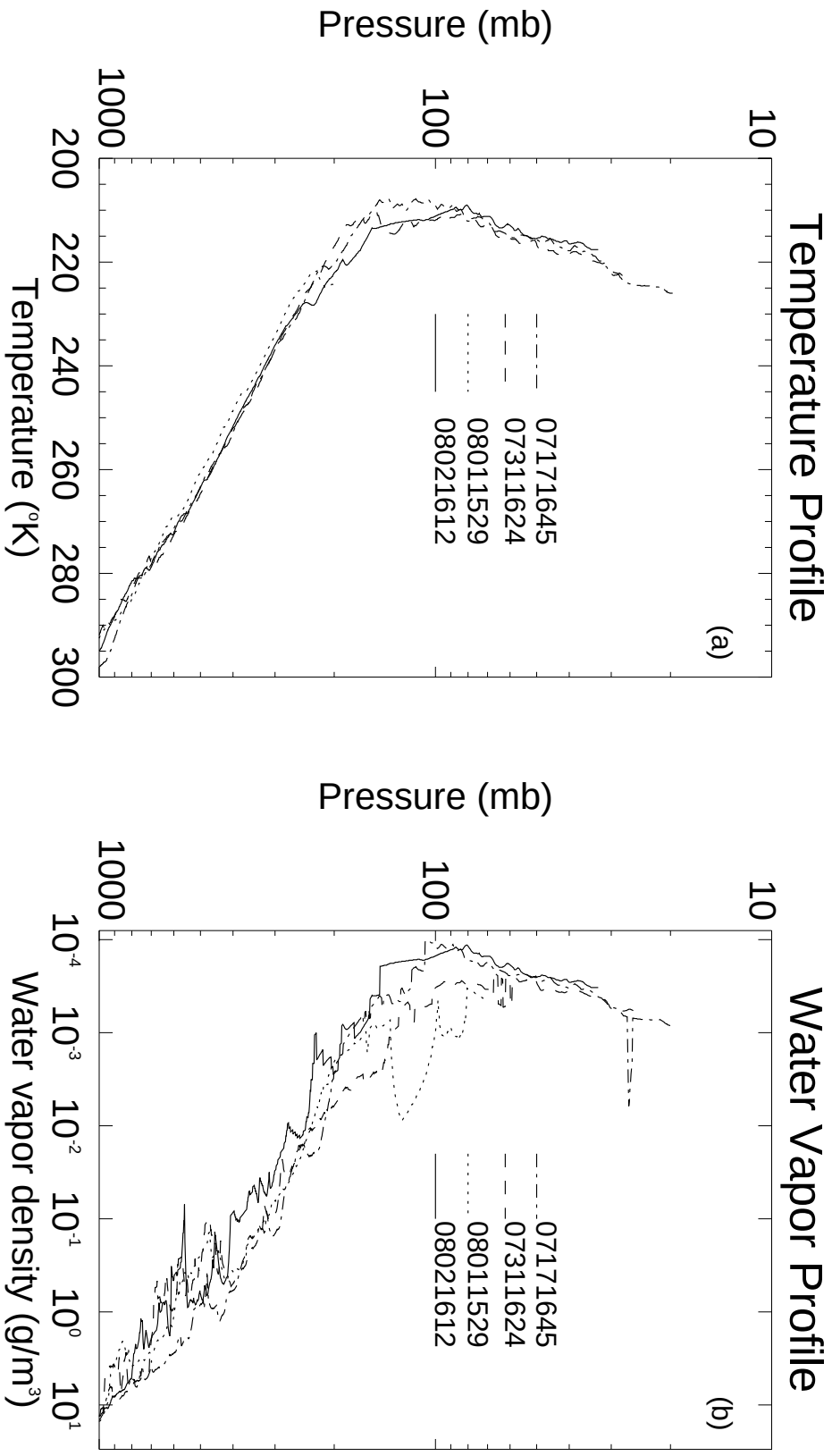


Fig. 1: The temperature and water vapor profiles measured at COVE on the four clear days during CLAMS. The 8 digit numbers represent the sounding time in order of month, day, UTC time and minute.

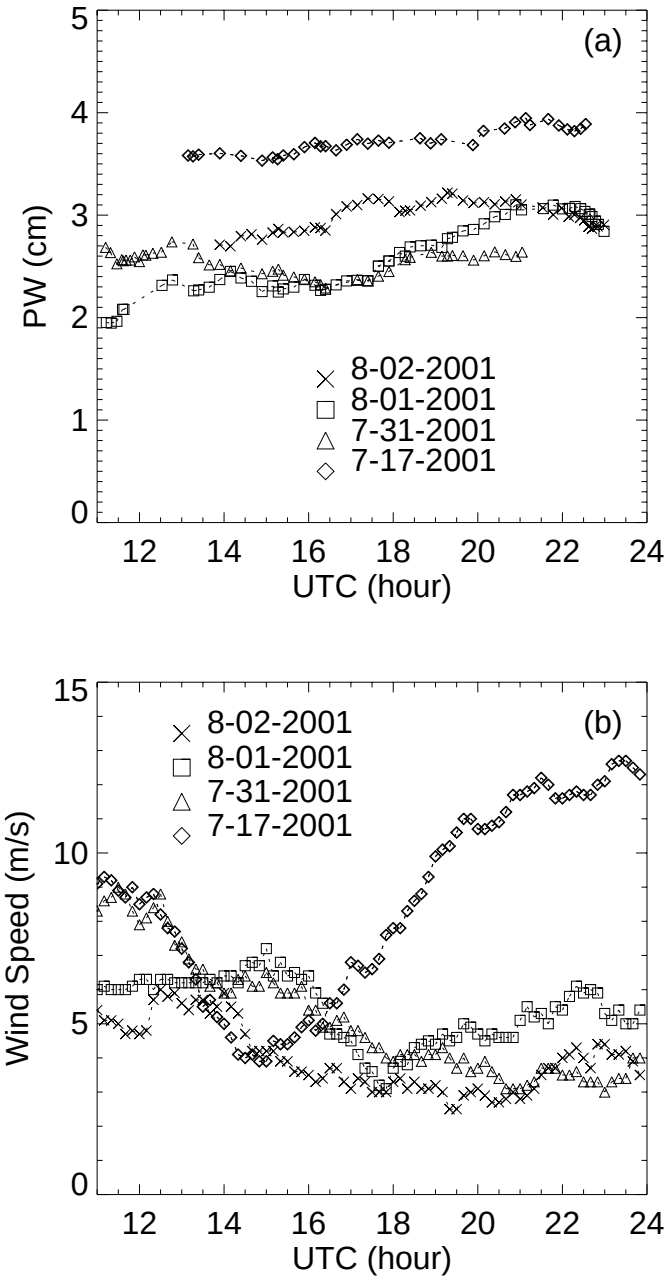


Fig. 2: The total precipitable water and wind speed measured at COVE on the four clear days during CLAMS.

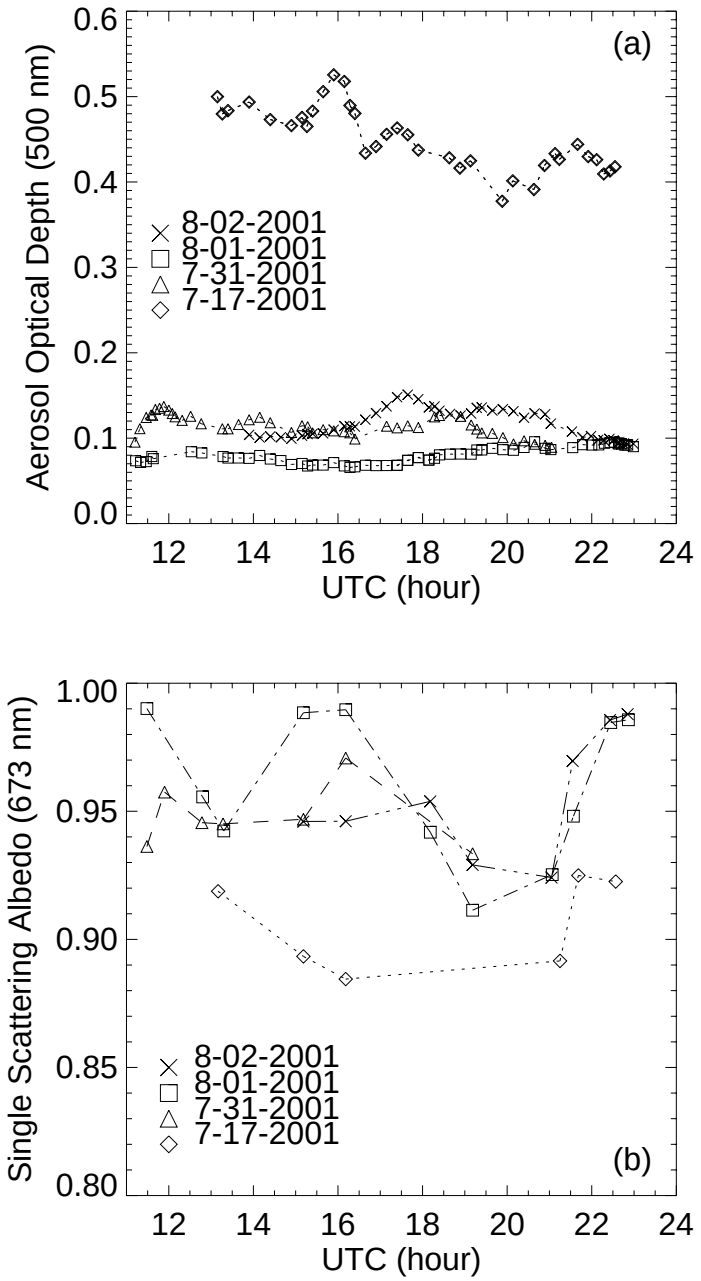


Fig. 3: Cimel measured AOD (500 nm) and SSA (673 nm) of aerosol at COVE on the four clear days during CLAMS.

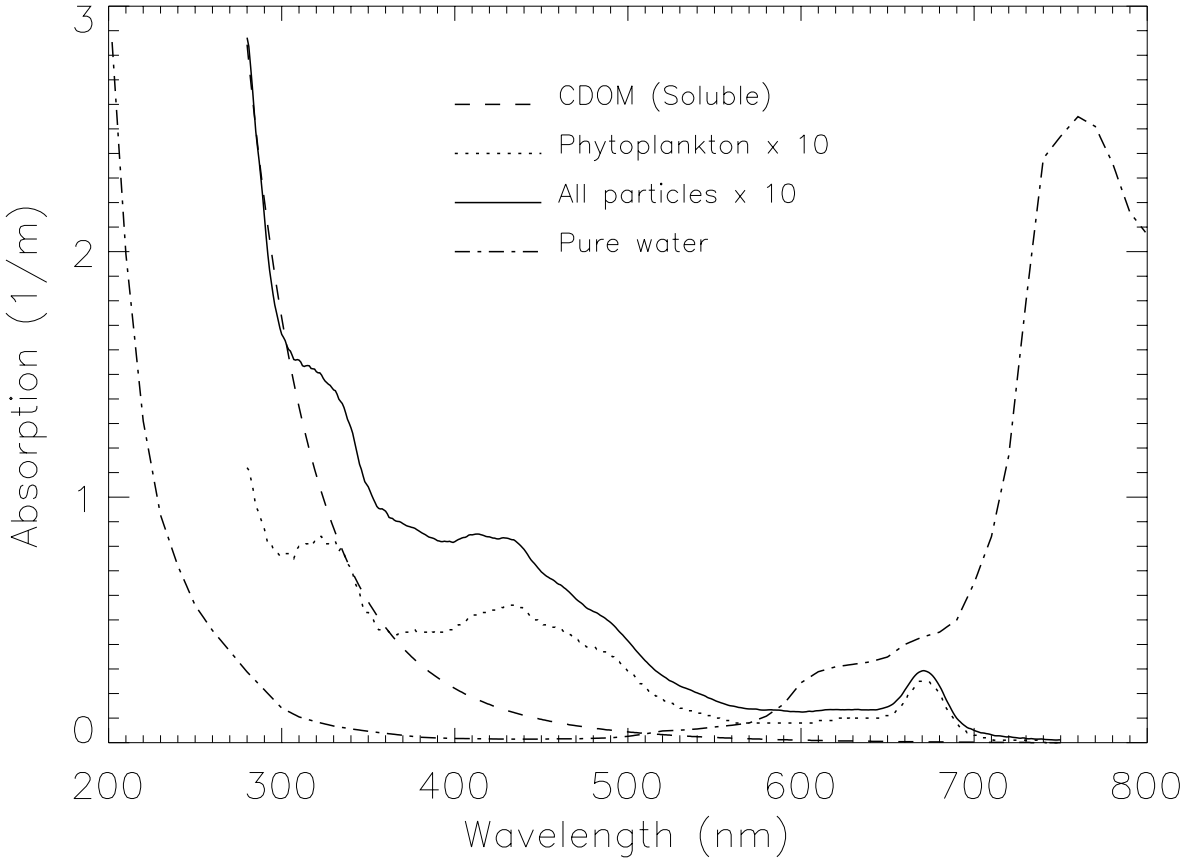


Fig. 4: The average spectral absorption coefficients of ocean materials measured at COVE during CLAMS.

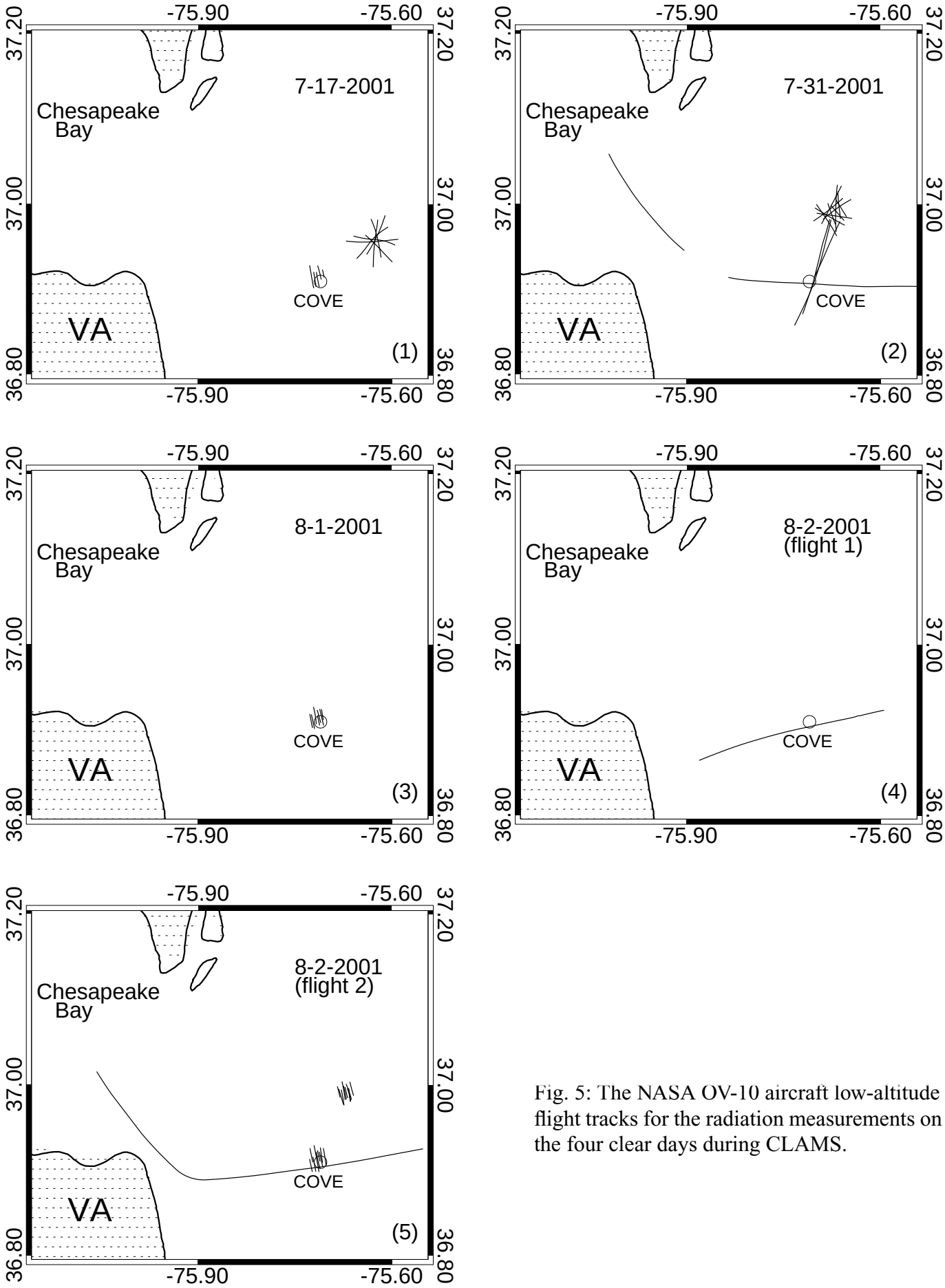


Fig. 5: The NASA OV-10 aircraft low-altitude flight tracks for the radiation measurements on the four clear days during CLAMS.

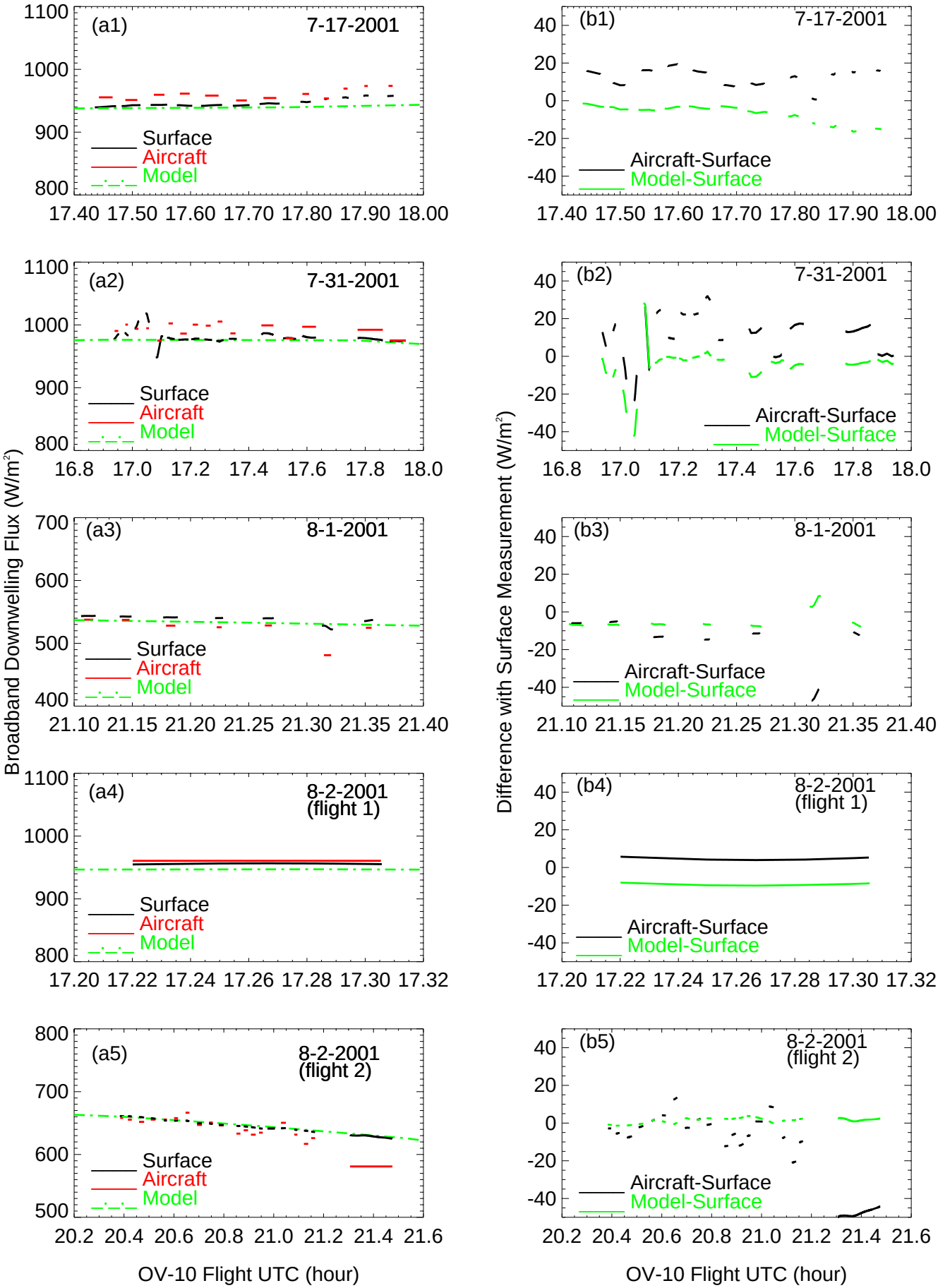


Fig. 6: Comparison of the downwelling shortwave fluxes from surface and aircraft measurements and from model simulations.

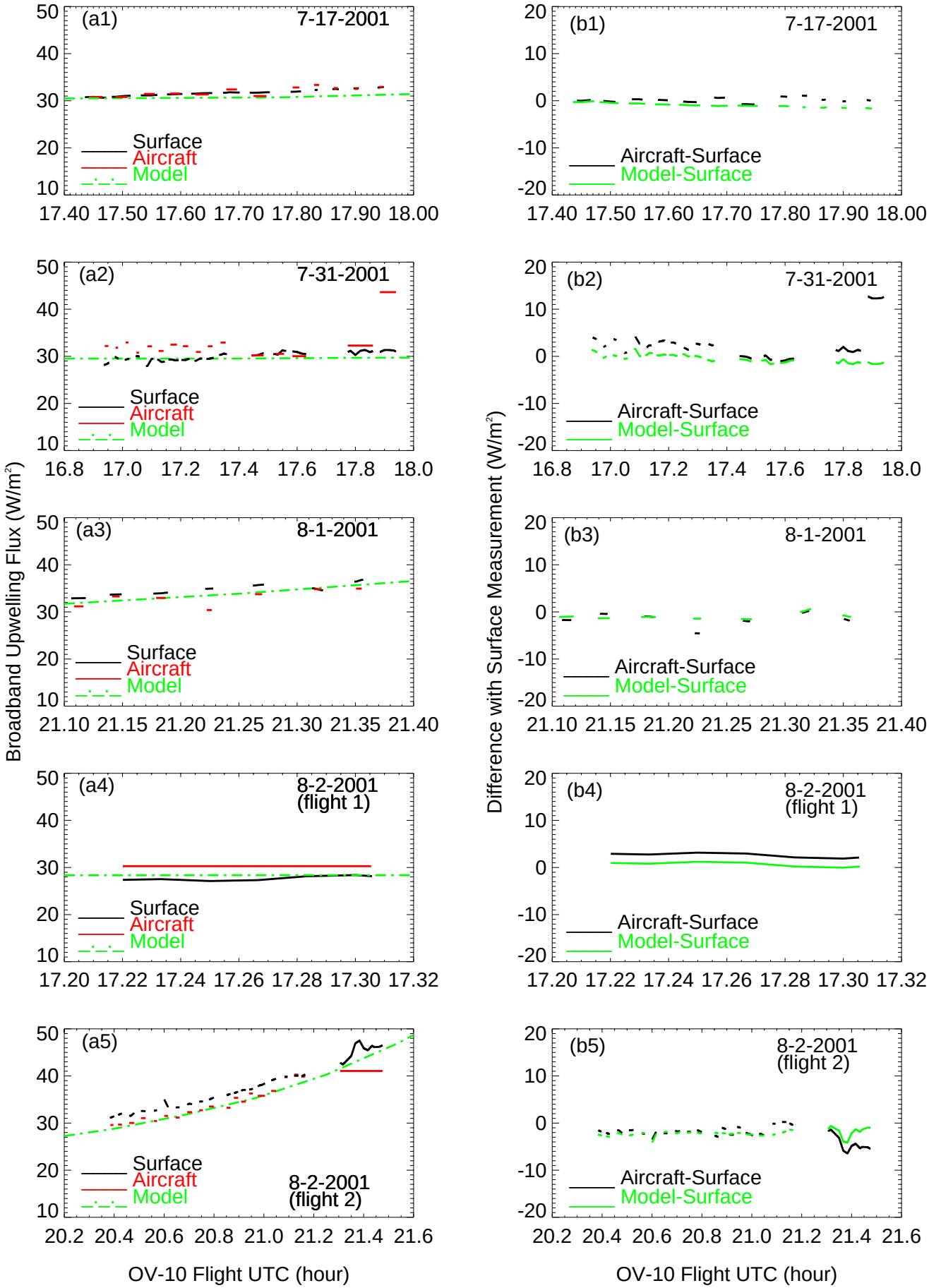


Fig. 7: Similar as Figure 6, but for the upwelling shortwave fluxes.

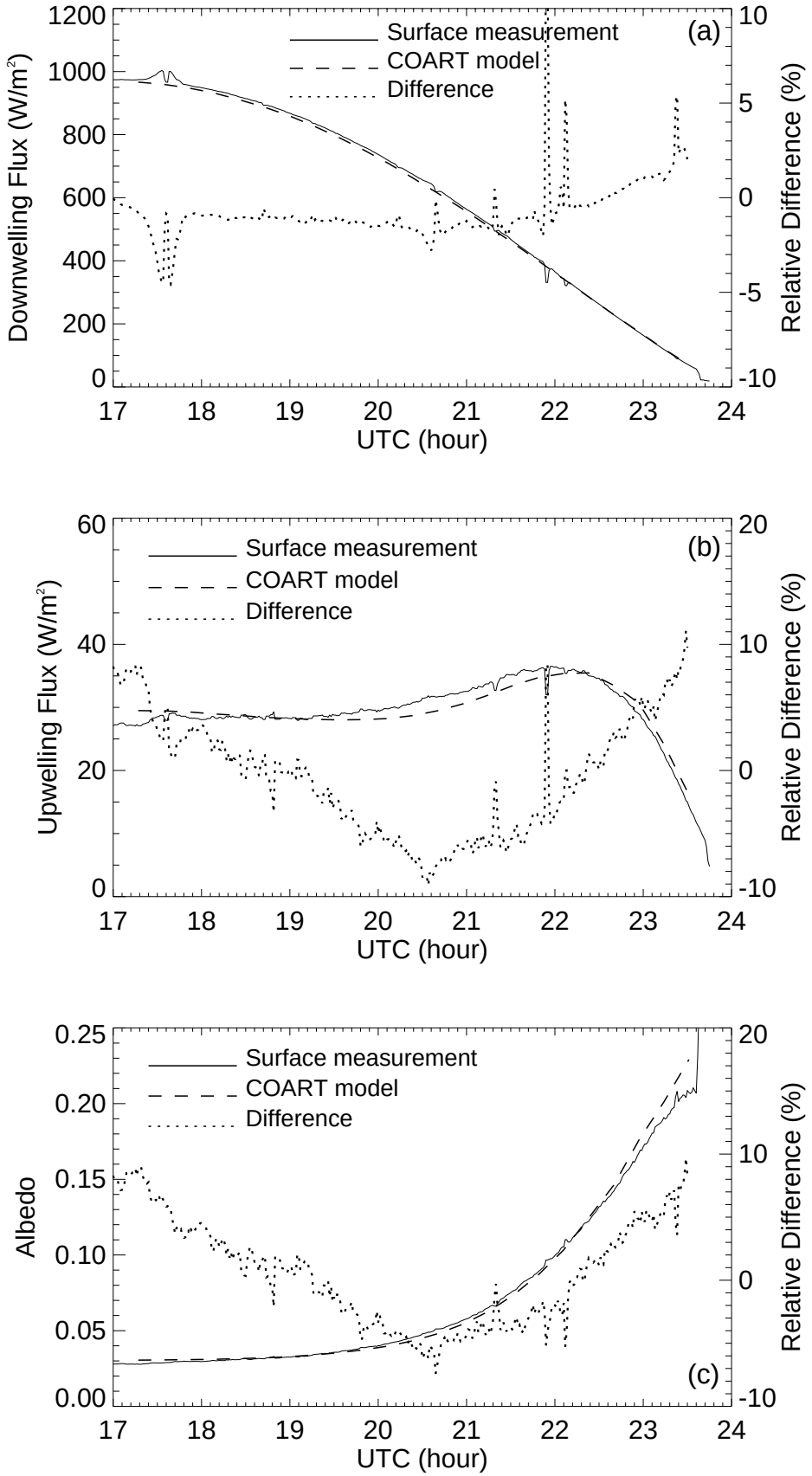


Fig. 8: Comparison of the surface measured and COART modeled downwelling, upwelling shortwave fluxes and ocean surface albedo from local noon to near sunset for the mostly clear afternoon of 8/1.

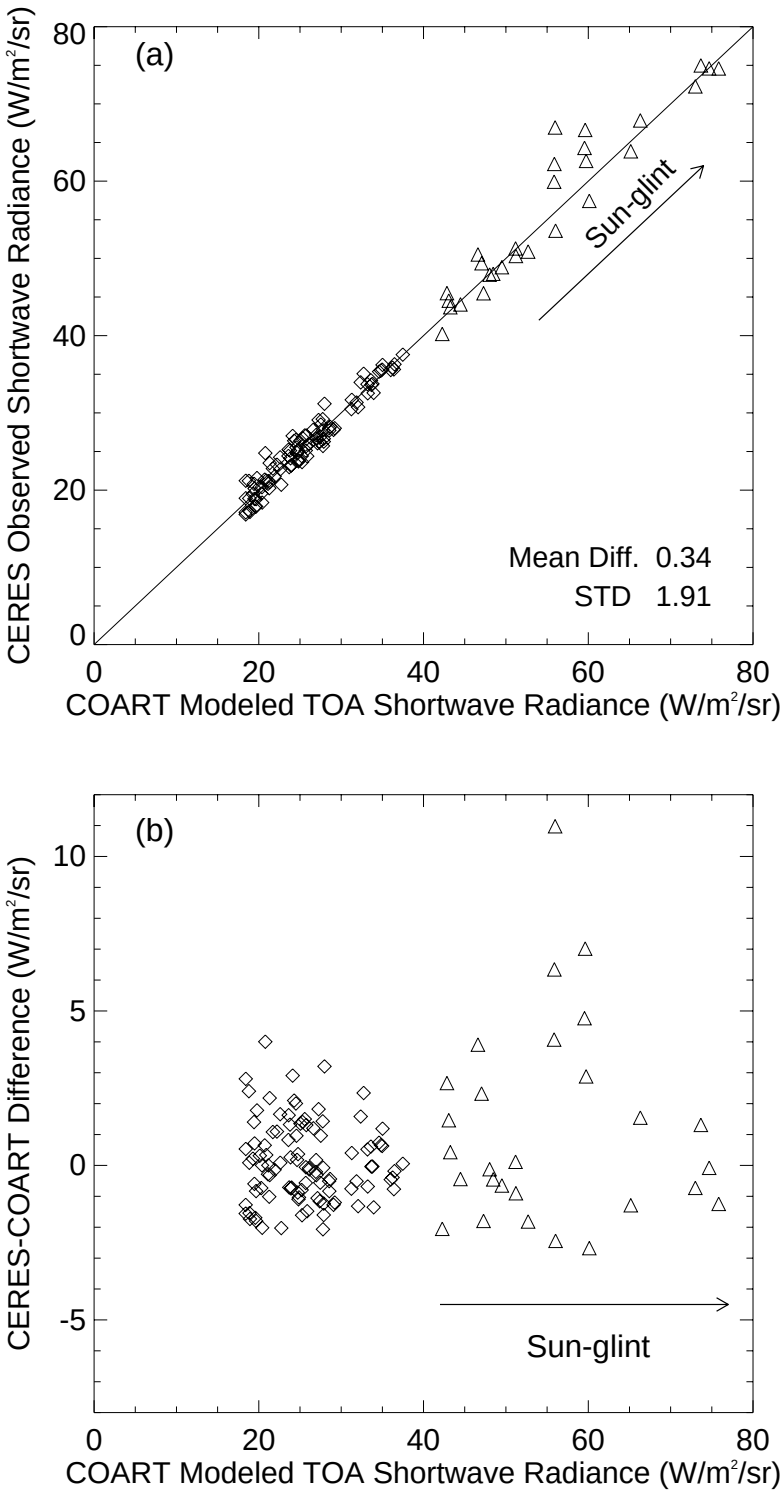


Fig. 9: Comparison of the TOA shortwave solar radiances between the CERES measured and model calculated during the four clear days.

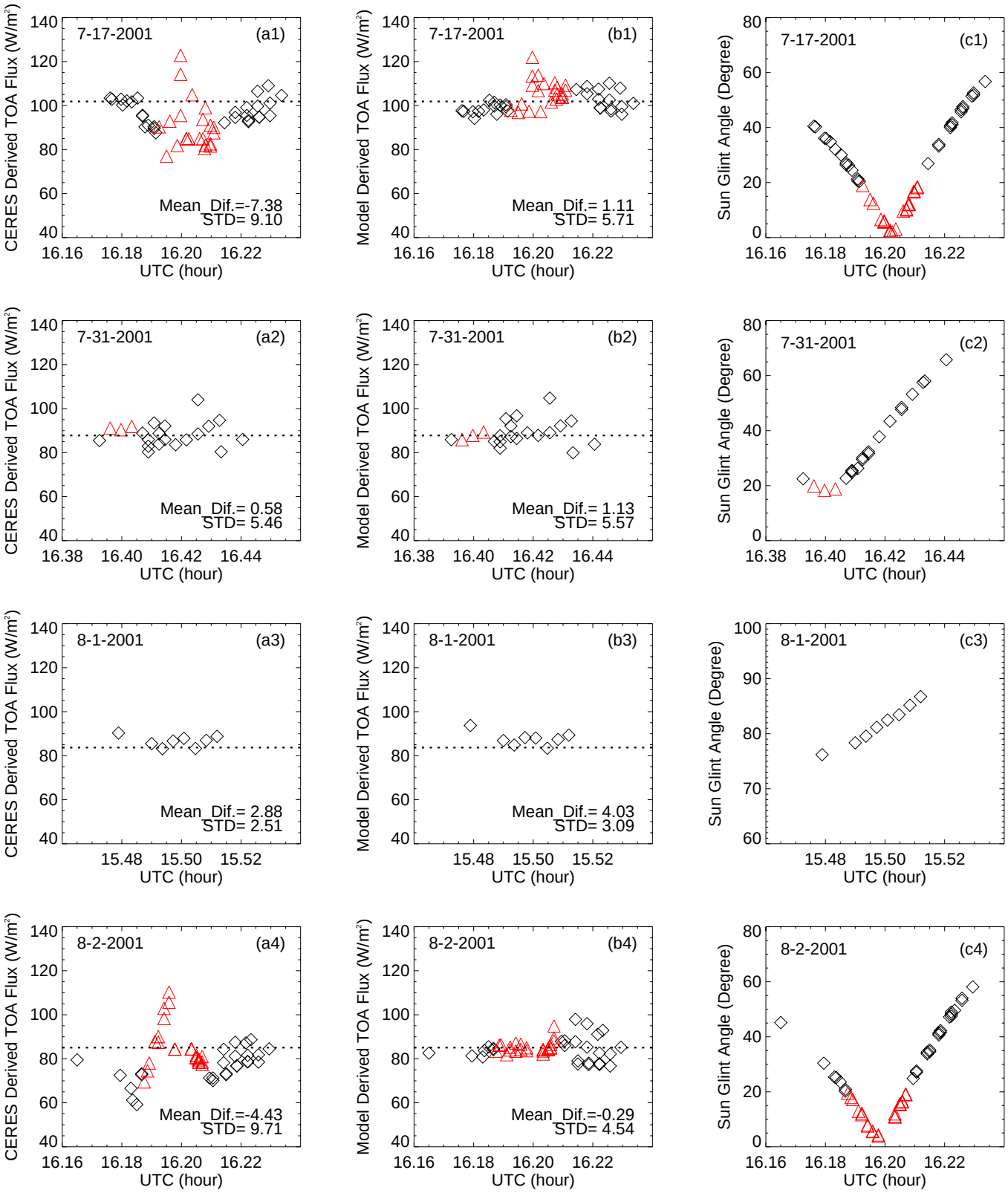


Fig. 10: Comparison of the TOA shortwave upwelling fluxes between CERES and model.

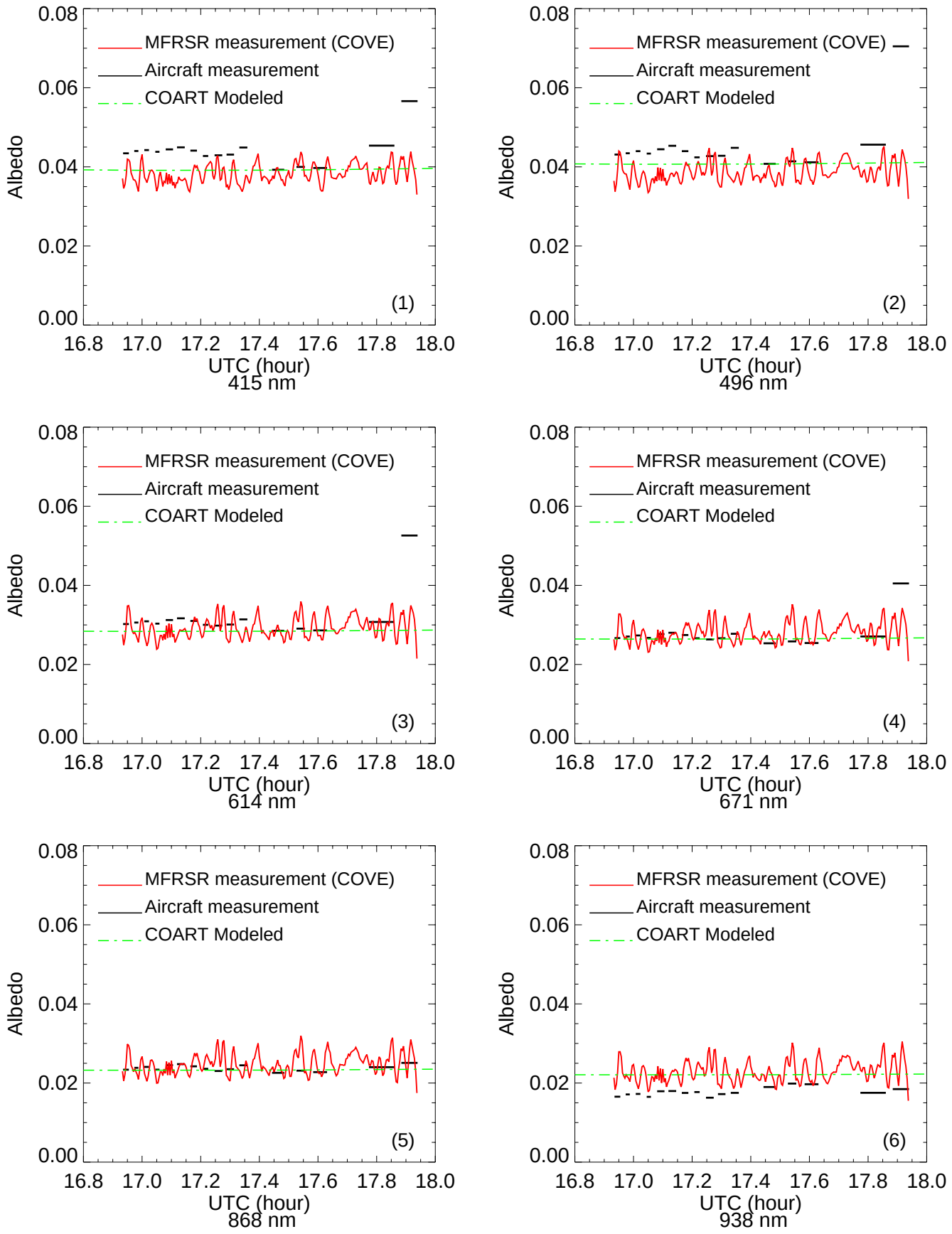
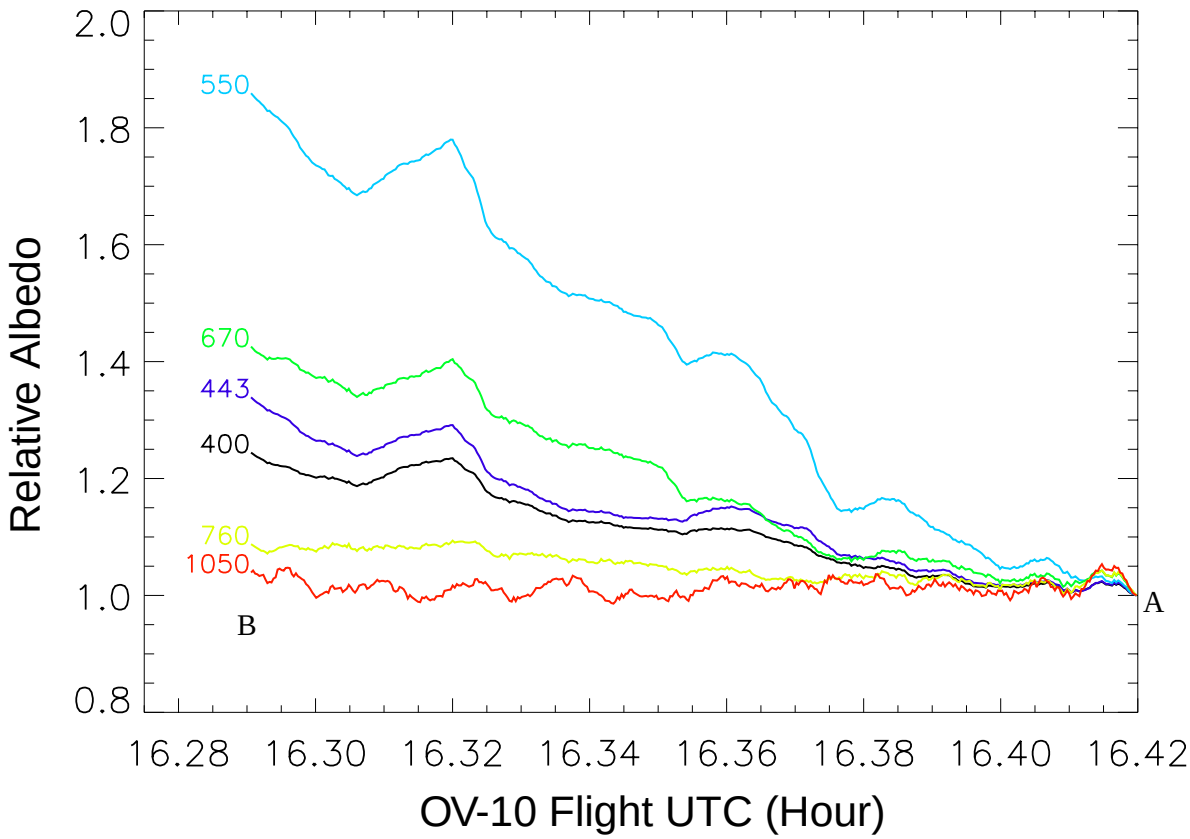


Fig. 11: Comparison of modeled and measured albedo in the six MFRSR channels.



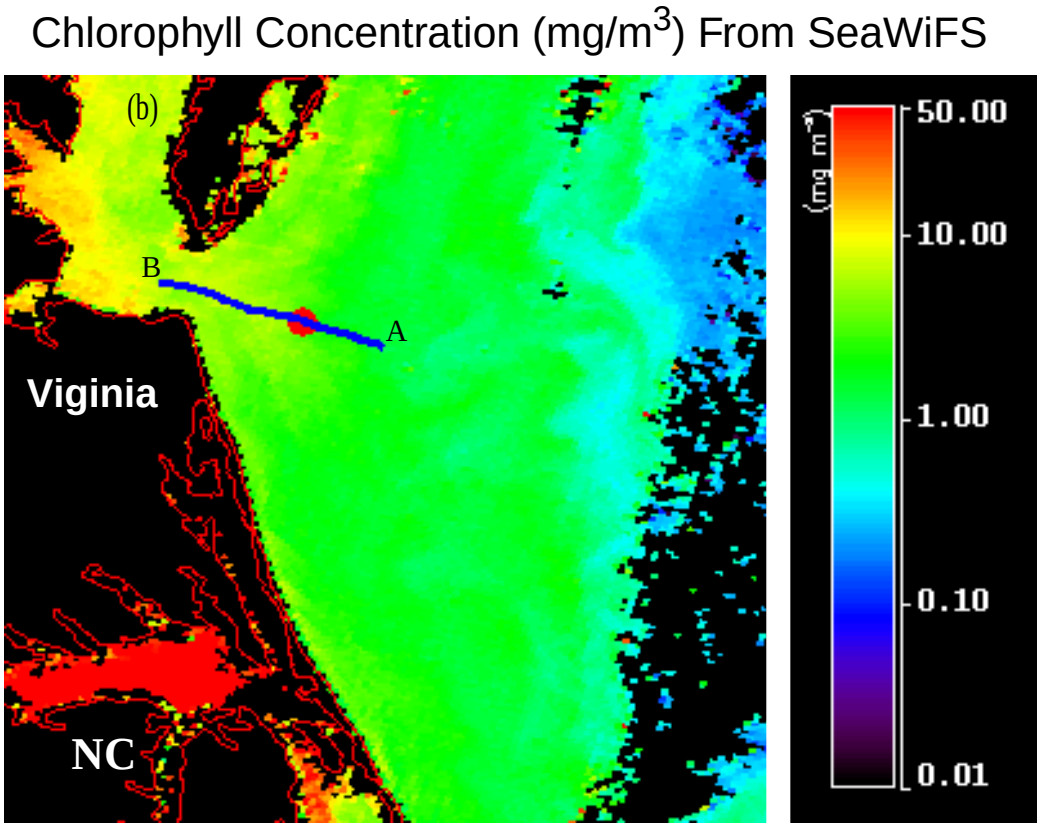


Fig. 12: The aircraft measured albedo at seven wavelengths (Panel a) along a flight track from A to B (Panel b). Panel b is the SeaWiFS chlorophyll image measured one hour after the aircraft flight.

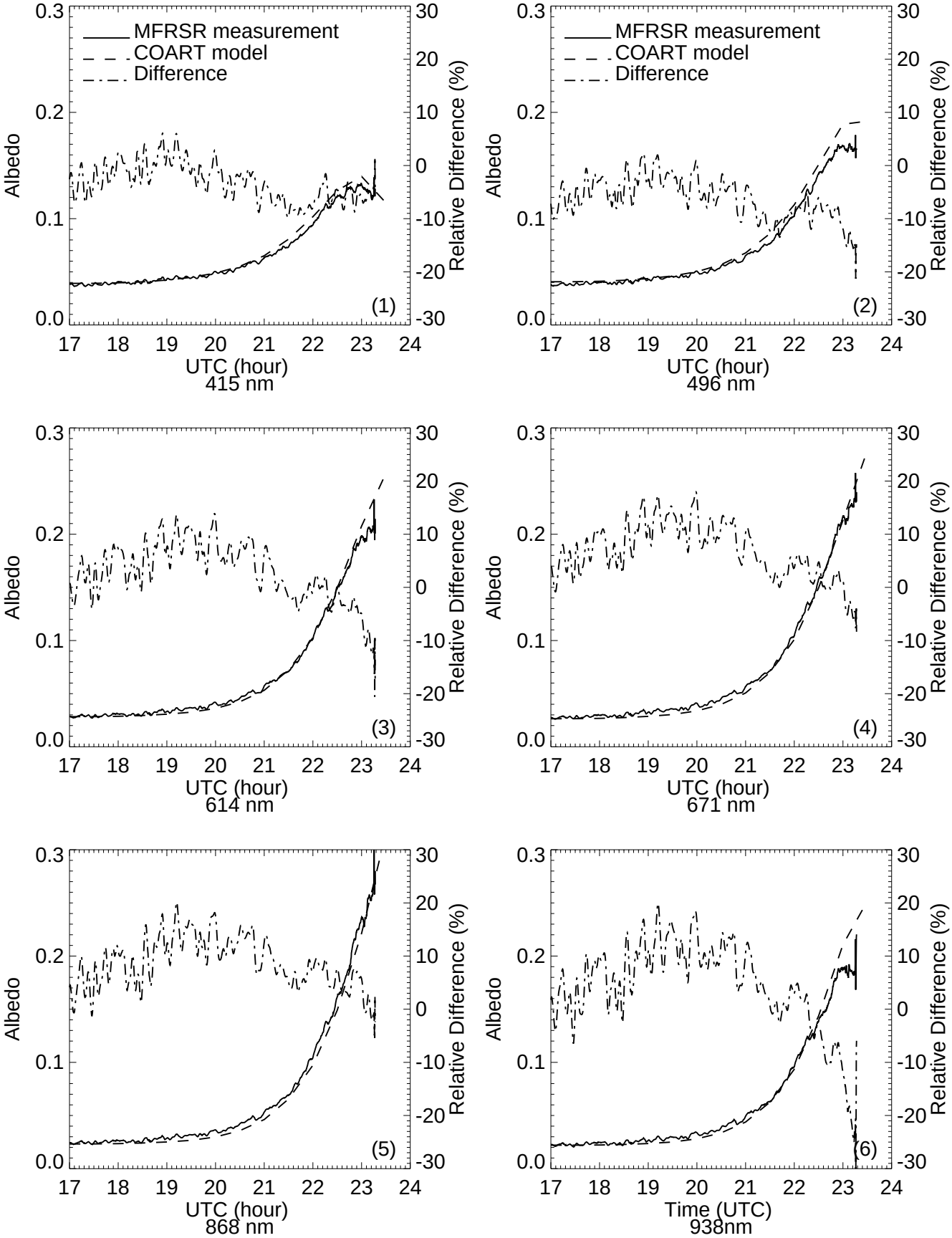


Fig. 13: Comparison of the measured and modeled MFRSR albedo from noon to near sunset on day 7/31, 2001.

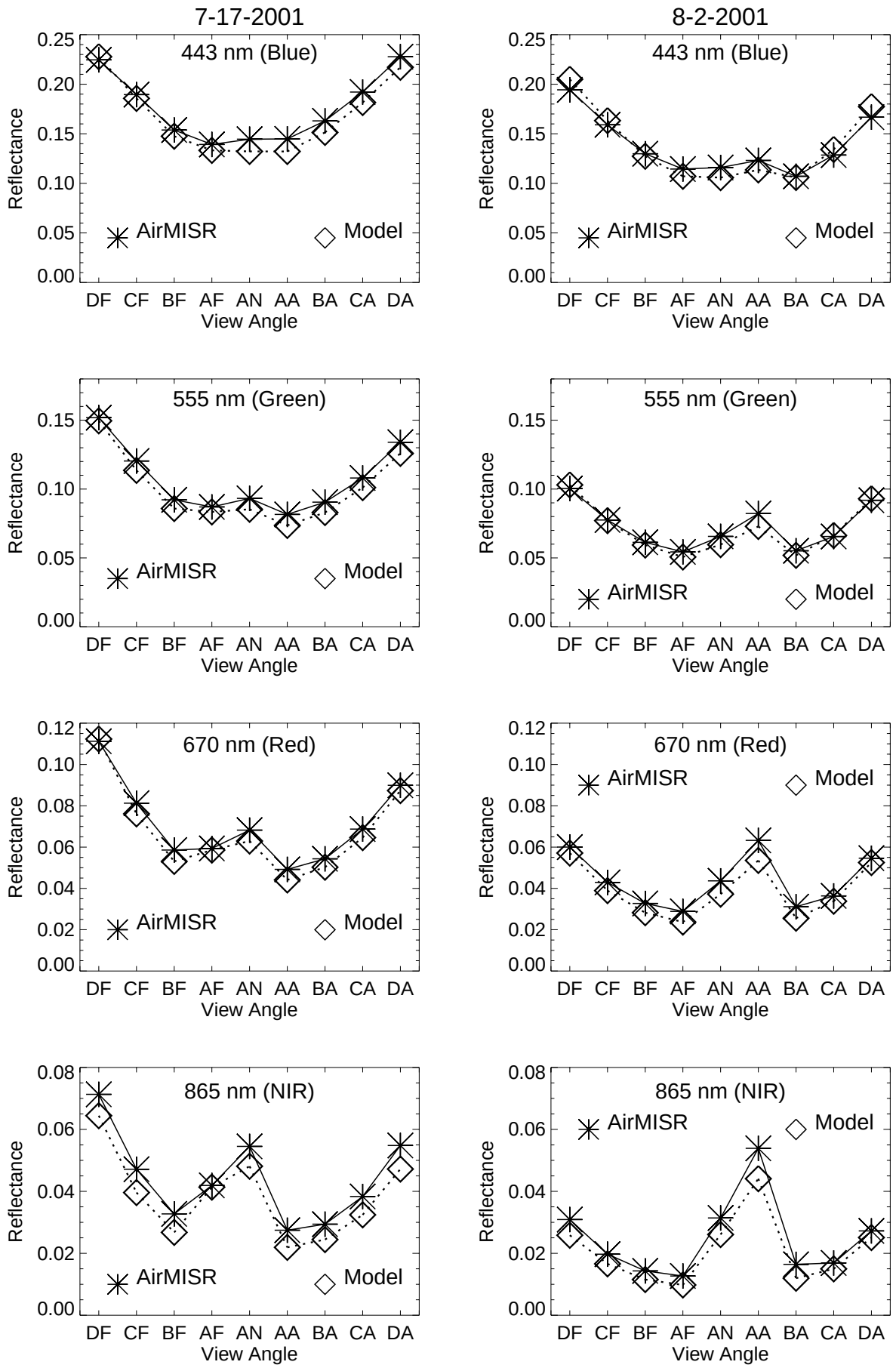


Fig. 14: Comparison of AirMISR measured and model simulated reflectances in the four spectral bands at 20 km above surface on 7/17 during CLAMS.