

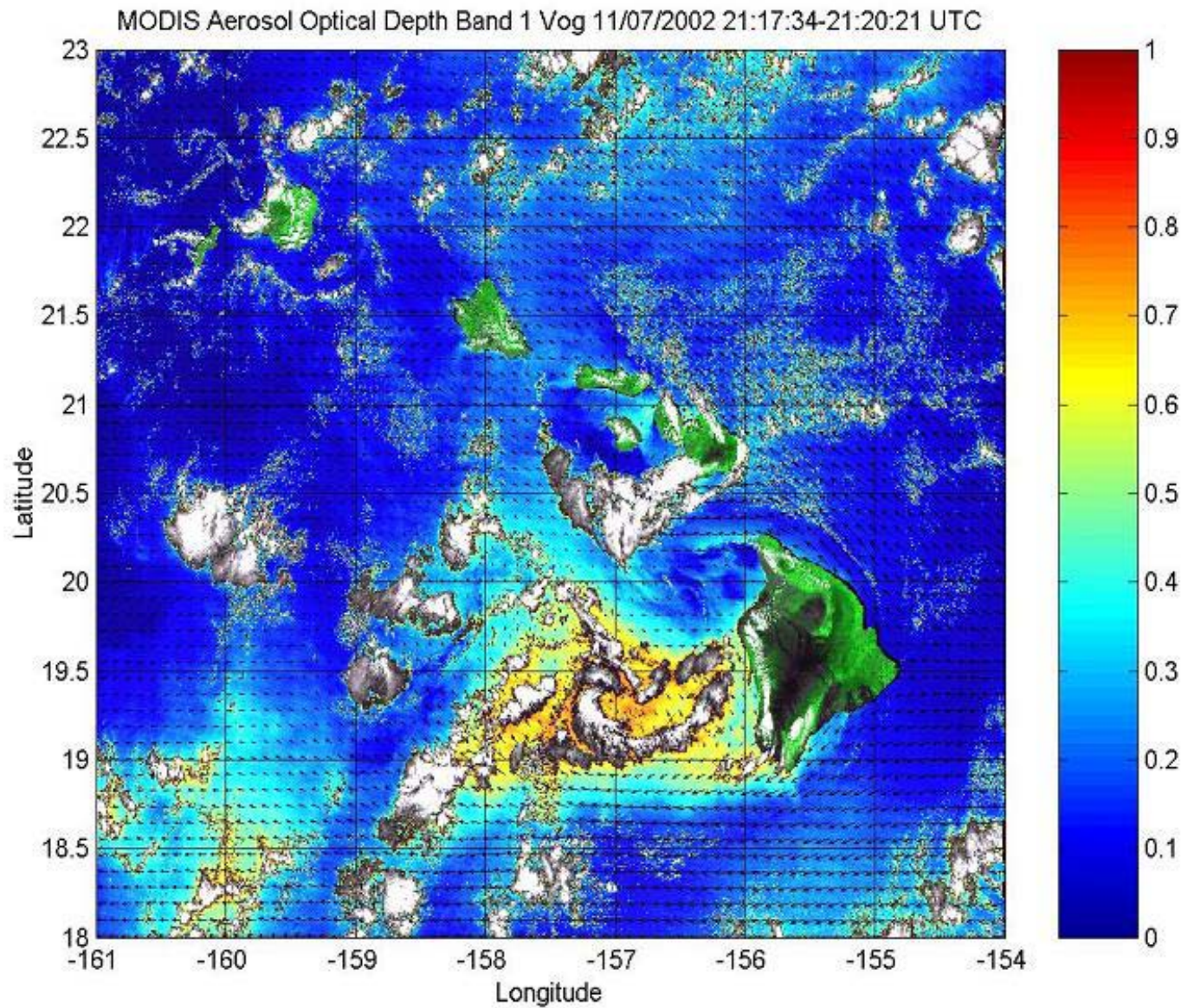
# Spectral Sun Photometer and Sky Radiometer Measurements From Moving Platforms

Sun Photometer Measurements On Aircraft

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# Aerosol Optical Depths Near Hawaii (Porter Algorithm)



(250 m resolution)



# Use Commercial Aircraft And Insert Instrumented Doors



# Handheld Sun Photometer Measurements From Ships and Planes

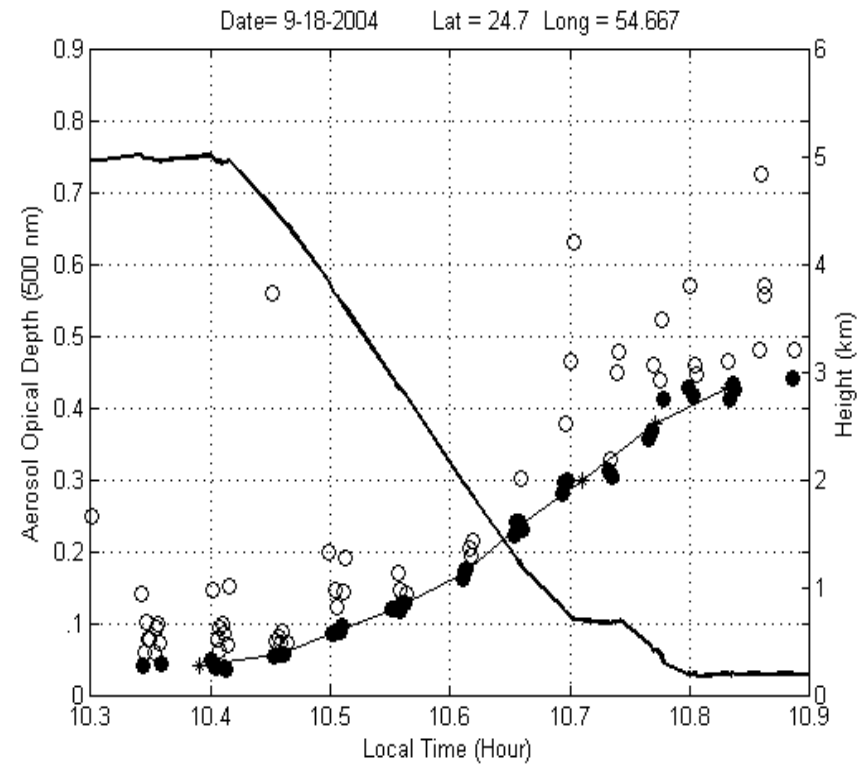
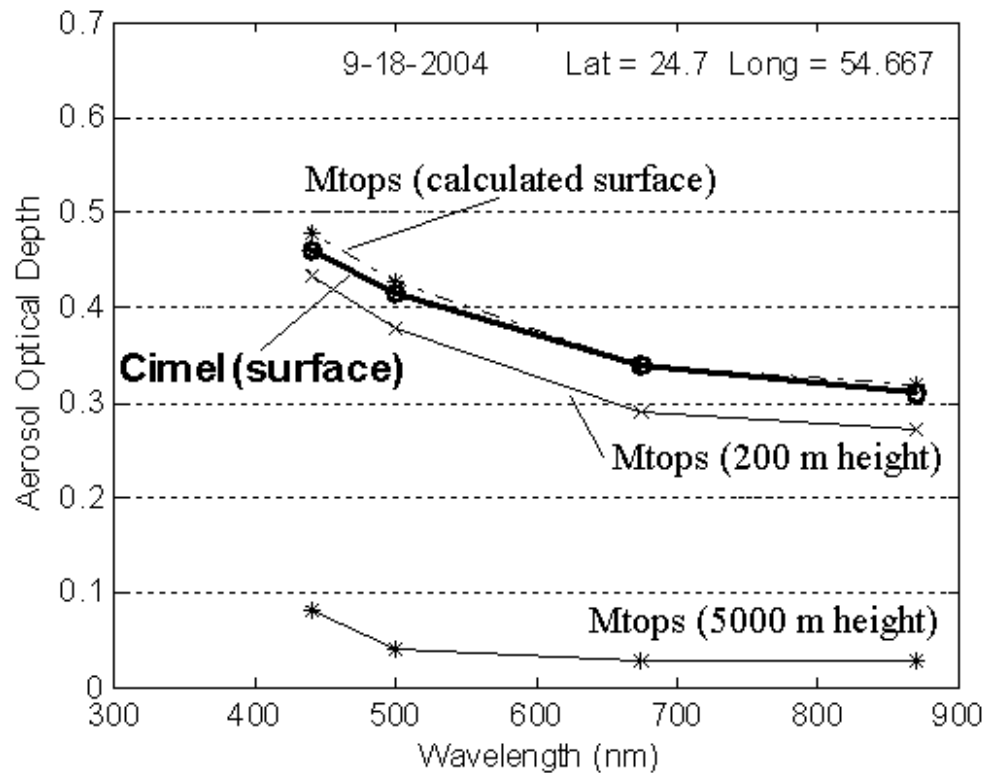


## Basic Approach:

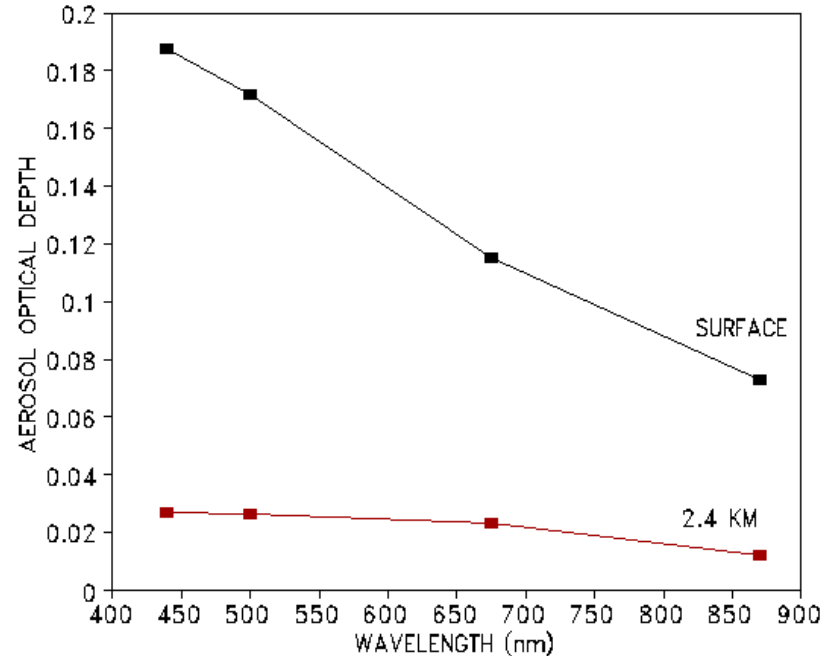
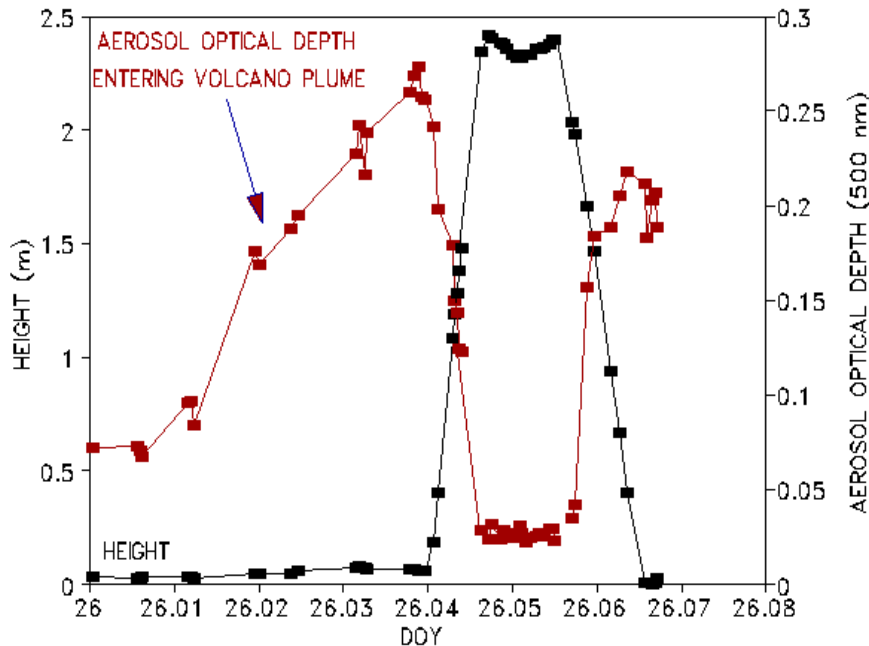
Collect many measurements and reject more than 90% (Porter et al., 2001). This approach now used by NASA for ship based sun photometer measurements for ocean color satellite cal-val.

# Example Of Aircraft Handheld Sun Photometer Measurements

United Arab Emirates  
Dust Experiment, 2004  
Porter et al., 2007



# Example: Handheld Sun Photometer Measurements In The Hawaii Volcano Plume

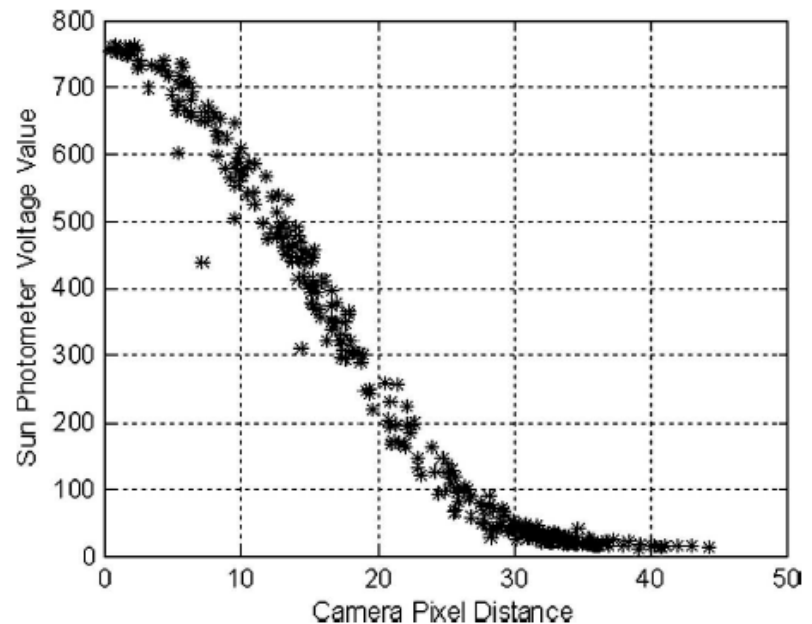
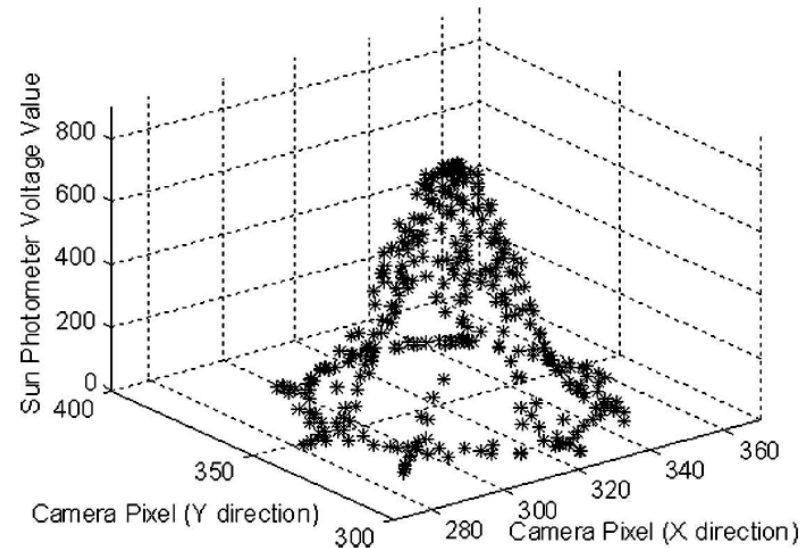




# Add Cheap WebCam To MicroTops Sun Photometer



Problem: Microtops takes ~1.1 sec  
To scan over all wavelengths



# New Automatic Aircraft Sun Photometer





# Automated Langley Plot With New Sun Photometer System (MLO, Hawaii, 2007)

