

<b>Title</b>	Microtops data collected as part of the NCAVEO 2006 Field Experiment.
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<b>Revision history</b>	23 Feb 2007                      First release.
	24 July 2008                      Conversion to NASA Ames Format.
<b>Purpose</b>	To describe the sunphotometer data collected on 17th June 2006 using three Microtops II instruments
<b>Data files in the set</b>	microtops_nf06_8467_20060617_10.txt microtops_nf06_5366_20060617_10.txt microtops_nf06_8407_20060617_10.txt
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<b>Terms of use</b> <b>(see NEODC website for the full version)</b>	The data may be used for all non-commercial research/project work undertaken by the NCAVEO network, in particular to learn about cal-val issues.  If you wish to use the data set please contact the PI listed above. If you intend to publish a paper or give a presentation based on, or making significant use of these data, please consider including the PI(s) as co-author(s) at an early stage in the process.  In all cases where the data are used in a presentation or publication, an acknowledgement must be given: for example, " <i>Data from the NCAVEO 2006 Field Campaign are provided courtesy of NCAVEO via the NERC Earth Observation Data Centre (NEODC).</i> "

Identical Microtops II sunphotometers were operated at three locations: the roof of the CFARR main building (G.R. 439369, 138516), the Hampshire Golf Club (G.R. 436855, 143030) and Cowdown Farm (G.R. 438598, 144452).

Prior to the field measurements, the three instruments were used together on the roof of the CFARR main building (Figure 1). Results from this intercomparison showed differences between the three instruments, with data from s/n 8407 being closest to that measured by the Cimel sunphotometer at the same location (Figure 2).

Note that the date of s/n 8407 was set incorrectly to 2005, but has been corrected in the NASA Ames formatted file. This should not affect the data collected. The same instrument also did not record the water vapour amount, so this is shown as -999.0 in the data file.



Figure 1. The three Microtops sunphotometers being compared prior to the field measurements.

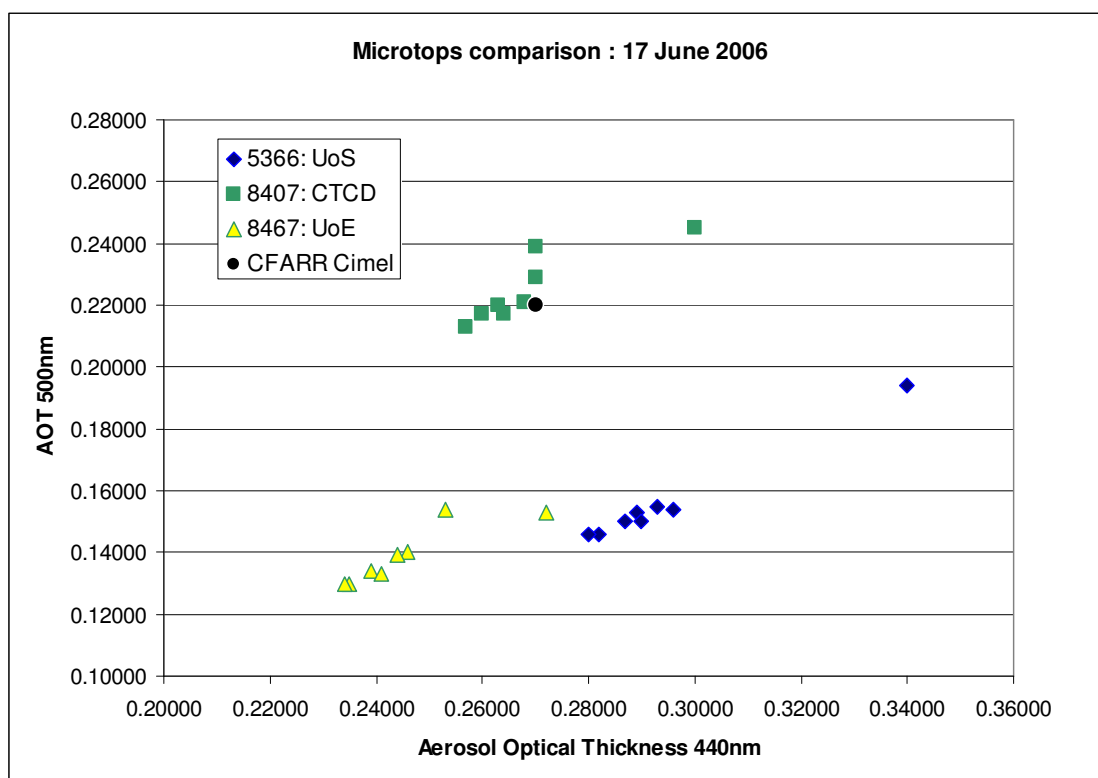


Figure 2. Results of the Microtops comparison.

On the 'golden day', 17<sup>th</sup> June 2006, measurements were made with all three instruments every five minutes between 09:30 and 11:30 GMT. Sporadic measurements were also made at earlier and later times (see table 1). The s/n 8407 did not make a reading at 11.15 as anticipated.

<b>Serial No.</b>	<b>Start time</b>	<b>Stop time</b>
8467	09:05:00 (reliable from 09:20 onwards)	11:35:11
5366	08:59:59	11:59:59
8407	09:15:13	12:20:10

Table 1: Times during which measurements were taken using the three microtops sunphotometers.

A large number of parameters and calibration constants were used to achieve these readings and are included alongside the main data. For further information please refer to the Microtops II User's Guide.

### **References**

Solar Light Company.Inc (2003) User's Guide Microtops II sunphotometer Version 5.5, Document No. MTP06, Philadelphia