

Sky Camera Details

This data set contains images of the sky at 30 minute intervals as seen from the NOAA ship R/V Discoverer during the Aerosol Characterization Experiment -1 (ACE-1) project. Images are included during the transit from Seattle as well as in the main project area around Tasmania. These data are in jpg image format and were provided by NOAA/PMEL.

The Sky Camera pictures were taken with a Canon EOS 603, 35 mm camera equipped with a fish-eye 15 mm lens (Canon EF 15mm 1:2.8). The camera had a Canon Technical Back, which printed the date and time on each image. The film was Kodak Royal Gold 1000 ASA. The camera was mounted, looking up, in a weather-proof enclosure with the lens of the camera about 5mm from the glass of the enclosure. At approximately 0700 local time each day the camera and enclosure, with a new roll of film, was mounted on the top of the aerosol sampling van and the camera was programmed to take one image every 30 minutes. The film was developed in Seattle at the conclusion of ACE-1 and the images were transferred to 14 Kodak Photo-CD ROMs, with images in .pcd format at a resolution of 3072 x 2048 pixels in 24 bit color. These images have been converted to .jpg format.

The images are time stamped in the format DD.MM.YY HH:MM:SS. The time and date were intended to be GMT (or UTC). **Unfortunately there was a 2-hour time error in the camera clock** that was consistent throughout the entire project. To correct the date and time to GMT, please subtract 2 hours from the date and time shown in the picture. Thus, if the image indicates 9.12.95 3:30:06, the correct GMT time (and date) would be: 01:30 on December 9, (Day 343). Likewise, an image with an indicated date and time of 7.12.95 1:00:06 would have a correct GMT time and date of 23:00 on December 6, (Day 340). There are a few images that are not time stamped.

Because the GMT 'midnight' occurred during each 'local' day, and because the image directories are organized by local day, the GMT day increments by one during each local day. Thus, the date stamped on each image corresponds to the date of the local day directory for the last half of each local day. (However, on the transit leg, while the ship was between Seattle and the dateline, the date stamped on each image corresponds to the date of the local day directory for the *first half* of each local day).

The waterproof case containing the camera was taken down each evening and remounted on top of the aerosol sampling van each morning. The orientation of the case was not consistent throughout the project.

Further information about ACE-1 is available here: http://www.eol.ucar.edu/projects/ace_1/

Disk A – 1737 UTC 7 October 1995 to 0402 UTC 16 October 1995

Disk B – 1302 UTC 13 October 1995 to 0432 UTC 18 October 1995

Disk C – 1558 UTC 18 October 1995 to 0429 UTC 23 October 1995

Disk D – 1732 UTC 23 October 1995 to 0428 UTC 27 October 1995

Disk E – 1628 UTC 27 October 1995 to 0532 UTC 31 October 1995

Disk F – 1903 UTC 31 October 1995 to 0500 UTC 4 November 1995

Disk G – 1701 UTC 4 November 1995 to 0700 UTC 8 November 1995

Disk H – 1921 UTC 8 November 1995 to 0802 UTC 17 November 1995

Disk I – MISSING

Disk J – 1959 UTC 21 November 1995 to 0800 UTC 26 November 1995

Disk K – 2000 UTC 26 November 1995 to 0800 UTC 30 November 1995

Disk L – 2003 UTC 30 November 1995 to 0800 UTC 4 December 1995

Disk M – 2001 UTC 4 December 1995 to 0800 UTC 8 December 1995

Disk N – 2000 UTC 8 December 1995 to 0800 UTC 12 December 1995