

CMDL and BSRN Surface-based Irradiances Update

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SARB & S-O WG session

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I CMDL data retrieved by CERES (D. Rutan)

1. Surface Irradiances, 1-min resolution

Barrow, Alaska ^ March – July 2000
Boulder, Colorado^ March – July 2000
Bermuda Jan 98 – Aug 98, March – July 2000
Mauna Loa Jan 98 – Aug 98, March – July 2000
Kwajalein Jan 98 – Aug 98, March – July 2000
American Samoa Jan 98 – Aug 98, March – July 2000
South Pole^ March – July 2000

^ includes upwelling

2. Spectral aerosol optical depths

March – May 2000

Boulder
Bermuda
Mauna Loa
Kwajalein

II Data being collected by CMDL but not yet made available

1. Episodic aerosol optical depth for South Pole and Barrow
2. Digital sky images processed for cloud cover every minute, image saved every 5 minutes (Barrow and Boulder)
3. UVB (Yankee)
4. PAR (Licor)

III BSRN

1. Zurich archive is on hold until after first of year. Personnel, hardware, and software changes. (Has been running continually since 1992 – Langley influence)
2. Standard aerosol optical depth specifications adopted.
3. 6 new stations have submitted data in last year. Total of 23 sites, 1200 station months of data.
4. BSRN assessing extent of diffuse errors

IV Diffuse Measurement

1. Black and White sensors installed at CMDL sites:

Bermuda

Kwajalein

Mauna Loa

Boulder

2. Ongoing comparisons between B&W and corrected black PSP sensors.
3. Bias (daily average) running from 0 to 6 Wm^{-2} , B&W high
4. New B&W instrument being developed at Eppley
5. Pursuant of reference instrument(s)
6. B&W are being added to BSRN

V Misc.

1. BSRN/ARM sponsored Pyrgeometer/Sky-scanning cavity comparison at SGP (+modeling component)
2. International Sunphotometer Intercomparison at IPC2000
3. New direct beam sunphotometers being delivered to CMDL
4. CMDL support to MODTRAN (hosting Gail Anderson for 2+ years)

