Surface RS- AOD

NAME	Contact Point	Description/ comment (n)	Parameters	Location	Time period	Aerosol type	Collaboration/ Colocation
BaPMoN	Rep. N 94 WMO, 1994	sun photometer/un-verifiable (?)	τ	Global	80-91	BG	
GAW	http://www.pmodwrc.ch/worcc/worcc.html	sun photometer/No data (12)	τ, I, chem, Pw	Global	??	BG	
NPS	William Malm	Transmissometer, neph	visibility	USA	'79 to present	rural	
USDA	http://uvb.nrel.colostate.edu/UVB/home_page.html	MFRSR (40), Not calibrated?	I_g, I_d, τ?	USA	95 to present	rural	BSRN, SURFRAD, CMDL, AERONET
Australian Met.	b.forgan@bom.gov.au	sun photometer	τ	Australia	??	Dust, BG, Marine	AERONET
SKYNET	http://atmos.cr.chiba-u.ac.jp/aerosol/skynet/index.html	sun/sky radiometer (12)	τ,ωo, size dist, nr, ni, Pw	Asia	96 to present	Dust, urban	AERONET
CMDL	Els Dutton	AOD	τ	4 background sites	'77 to Present	BG	
PNLASRC	http://hog.asrc.cestm.albany.edu/	MFRSR (11)	I_g, I_d, τ	USA	92 to present	rural	ARM
AERONET	http://aeronet.gsfc.nasa.gov:8080/	sun/sky radiometer (60-80)	τ_a, ωo, L, size dist, nr, ni, Pw	Global	93 to present	Dust, BG, Marine, Urban, BB	AEROCE, BSRN, EOS Val, Ameriflux, CMDL, ARM/DOE, MPL NET, Raman, SKYNET, SIMBIOS

Surface Solar Flux/Sky Radiance Related

NAME	Contact Point	Description/ comment (n)	Parameters	Location	Time period	Aerosol type	Collaboration/ Colocation
BSRN	http://bsrn.ethz.ch/	Hem and Dir N. (10-15)	I_g, I_d,	Global	92 to present	background	AERONET, CMDL
ISIS/ SRFRAD	NOAA	Hem and Dir N. (6-10)	I_g, I_d,	USA	94 to present	rural	AERONET, CMDL
SOLRAD	NOAA	Solar Flux	I_g, I_d ,good QA	USA	to '81	rural & regional	
PNLASRC	http://hog.asrc.cestm.albany.edu/	MFRSR (8), spectral	I_g, I_d, τ	USA	92 to 95	rural	ARM
USDA	http://uvb.nrel.colostate.edu/UVB/home_page.html	MSRFR (40), spectral	I_g, I_d, τ	USA	95 to present	rural	BSRN, SURFRAD, CMDL, AERONET, ARM
GEBA		Hem and Dir N.		Global	79-92		
NREL	Dave René	Solar Flux	Model, I_g, I_d	USA		all	
Beate G. Liepert	liepert@ldeo.columbia.edu	Solar Flux	I_g	USA & Germany	1960 to 1990	Various aerosol types	
AERONET	http://aeronet.gsfc.nasa.gov:8080/	sun/sky radiometer (60-80)	τ, ωo, L, size dist, nr, ni	Global	93 to present	Dust, BG, Marine, Urban, BB	AEROCE, BSRN, EOS Val, Ameriflux, CMDL, ARM/DOE, MPL NET, Raman, SKYNET, SIMBIOS
SKYNET	http://atmos.cr.chiba-u.ac.jp/aerosol/skynet/index.html	sun/sky radiometer (8)	τ, ωo, L, size dist, nr, ni	Asia	96 to present	Dust, urban	AERONET, GEWEX

In Situ Measurements

NAME	Contact Point	Description/ comment (n)	Parameters	Location	Time period	Aerosol type	Collaboration/ Colocation
AEROCE	Joe Prospero Dennis Savoie	Chem/mass (6)	nss-SO4=, NO3-, NH4+, sea-salt components	Global oceanic	78- ‘96	Dust/Marine/BB	AERONET
CMDL	John Ogren	Chem/mass optical(10)	å, g, b, β, αi, ωo, Neph, CN, Met., mass	Global/USA	Varies, 75 to 92 to present	rural, BG, marine	AERONET, GAW, WCRP, BSRN, SRFRAD
USP/Artaxo	Paulo Artaxo	Chem/mass (6)	Species, ωo, mass conc., size dist.	Brazil	?88-present	BB, urban, rural	AERONET, GAW
ISPRA							
Quinn/Bates	http://gacp.giss.nasa.gov/data_sets/	Phis, chem & optical prop.		Globally Dist. Oceanic	‘91-‘97	various	
T.Novakov	T.Novakov	Mass conc.	Organic, total and black carbon		’78 to present	carbonacious	Various field campaigns

Vertical Distribution Measurements

NAME	Contact Point	Description/ comment (n)	Parameters	Location	Time period	Aerosol type	Collaboration/ Colocation
Raman Lidar LASE Airborne Dial	Ferrare http://eosweb.larc.nasa.gov/HPDOCS/index.html	Vertical dist., no net, (8)	b, τ, cld base	??	'88 to present	various	AERONET, ARM, EXP
Lidar/ David Tratt	http://www.jpl.nasa.gov/lidar/longterm.htm	Long term at JPL	Backscatter	At JPL	'84 to present	Tropospheric	
MPLNET		Vertical dist., net planned (8-20)	b, cld base	Global	'94 to present	rural, marine, dust, BB, BG	AERONET, ARM, EXP
NOAA Lidar							
Radiosondes		RH (100's)	RH	Global	20 year record	all aerosol	
Backscatter sondes			B				
Airborne Sun Photometer	Russell & Livingston http://eosweb.larc.nasa.gov/project/tarfox.		τ	Various campaigns	'90 to present	Various	

Comprehensive Surface Sites

NAME	Contact Point	Description/ comment (n)	Parameters	Location	Time period	Aerosol type	Collaboration/ Colocation
ARM							
SGP					??	rural	Exp
TWP					??	marine	Exp
NSA					??	artic	Exp
Egbert, Canada					15 y r	rural	Exp
Brattslake					??	rural	Exp
EOS Val sites						various	Exp, AERONET
Chesapeak Lt. House	http://www-svg.larc.nasa.gov/cgi-bin/cgiwrap/Ceres/mdi_main.pl		τ, I_g, I_d				

Field Campaigns (Include in Situ and RS (Ranging and Column Integrated)

NAME	Contact Point	Description/ comment (n)	Parameters	Location	Time period	Aerosol type	Collaboration/ Colocation
ABLE				Brazil	84, 86	Rural	
ACE-1				Tazmania	’94?	Marine (mid lat)	
ACE-2				Tenerife	97	Dust, aged urban, marine	
ACE-Asia				East Asia	‘01	Dust, Urban	
ASTEX					‘82	clds?	
BALTEX					‘97		
BOREAS			Ig, τ	Central Canada	‘94-’97	rural, bb	
CAMEX			τ, Lidar	Bahamas	‘98	dust, marine, clds	
EUCREX					92, 93, 94	clds	
FIFE			τ	Kansas	87, 89	rural	
FIRE					87, 89, 91	clds	
HAPEX			τ, L	Niger	‘87	Dust	
ICE			Lidar		’87, 89	clds	
INDOEX				N. Indian Ocean	’98, ‘99	Urban, Marine, BB	
Kuait Oil Fires			Airborne	Kuait	‘91	Soot	
LBA-CLARE				Brazil	‘98-03	BB, rural, dust	

SAFARI		S. Africa	’90 ?	??
SAFARI-2000		southern Africa	98-02	BB, soot, urban
SCAR-A		East Coast US	‘94	Urban, Marine
SCAR-B		Brazil	‘96	BB
SCAR-C	Airborne	NW US	‘95	BB,
SHIBA		Arctic	‘97	arctic
SUCCESS			‘96	
TARFOX		East Coast Ocean	‘96	urban, marine, dust?
ZIBBEE	τ, L, Lidar, airborne neph	Zambia	‘97	BB, rural

Science Team Data Base

PI	sensor/program	Data Base/Location		AEROSOL	
Bates:	AVHRR	RITS-93, RITS-94, ACE-1, ACE-2, CSP	Tasmania, Tenerife	Marine, Dust, Urban	
Charlock	analysis	SGP		Rural, dust	
Chou	GMS	GAME-T, SCSMEX		BB	
Christopher	AVHRR, ERBE	SCAR-B, ZIBBEE		BB	
Clarke	Marine aerosol Microphysics Climatology	GLOBE1, GLOBE2, CPACE, ACE1, PEM-Tropics	SAGA1, SAGA2, SAGA3, RITS88, RITS93, RITS94, ACE-1	Marine	http://www.giss.nasa.gov/gacp/science_team/
Coakley	AVHRR, VIRS & Modis	**Science Team?**		Cld microphysics	
Covert	Lidar val.		CMDL, SGP		
Durkee	Sat climatology multisensor		??		
Ferrare	Raman Lidar	SGP, TARFOX, CAMEX			
Fuller	Model	SEAVS, IMPROVE	various	Urban, rural	
Han	AVHRR, GOES	**Science Team**			
Harshvardhan	AVHRR	**Science Team**		Sulfates	
Hegg	Analysis	UW		Various	
Hobbs	Analysis	CARG, ASTEX, MAST,	ARMCAS, SCAR-A, -B, and -C, and TARFOX	in situ, various	
Kahn	MISR	**Science Team**		Various	
Kukla	modeled solar flux climatology	None requested			
Li	AVHRR/ERBE/ ScaRaB, CERES/MODIS, SSM-I, NSCAT,	BOREAS, **Science Team?**		BB	

	CZCS or SeaWiFS			
Liou	AVHRR, MODIS	**Science Team?**		Aerosol, Ci
Lohmann	Model	**Science Team?**		cld-aerosol-radiation
Mishchenko	Model	**Science Team?**		
Novakov	carbonacious aerosol climatology	Various		Carbanacious
Ogren	Model	CMDL, **Science Team**		Various
Penner	Model/TOMS	Precip & Wind		Dust
Pitari	Model	Marine, dust fluxes		Marine, dust, sulfate
Poole	SAGE	Lidar, SAMII		Various
Prospero	AVHRR & TOMS?	AEROCE		Marine, urban, Dust
Randall	SME			Stratospheric volcanic
Reagan	Lidar & sunphotometer	MPLNET? various IFPs, **Science Team?**		Various
Remer	AVHRR, MODIS	SCAR-B, **Science Team?**	Brazil	BB
Russell	analysis	TARFOX, ACE-2		Various
Stackhouse	validation data set	BSRN		Various
Stuhlmann	GERB, SEVIRI	ARTIST		Arctic Haze
Tome	analysis	vicarious cal.		Various
Torres	TOMS, THIR, OCTS, SeaWIFS	Lidar		Absorbing aerosols
Tsay	Model	AERONET, sfc flux	various	Sulfate, dust, BB
Uthe	airborne lidar	Success	various	?
Winkler	TOMS	LITE		Absorbing, clds