FINAL POST Twin Otter Output Parameter List (10/25/08)

Archive Abbreviation	Originator's Parameter Name	Description

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1. DROP SIZE SPECTRA (No./bin; diameters in um at edges of bins)

1-hz data

UTC	mm:dd:hh:mm:ss	universal time
FSSP		1 - 50 um diameter (CIRPAS)
PCASP		.1 - 3 um (CIRPAS)

10-hz data

UTC	mm:dd:hh:mm:ss.x	universal time
CAS		1 - 50 um (CIRPAS)
CIP		50 - 1550 um (CIRPAS)
PDI		4 - 200 um (UCSC)

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2. CIRPAS

1-hz data

UTC	mm:dd:hh:mm:ss	universal time
GLAT	Lat (deg)	GPS latitude (CIRPAS)
GLON	Long (deg)	GPS longitude (CIRPAS)
GALT	Nov Atel (m)	GPS altitude (CIRPAS)
GWIE	East Vel (m/s)	GPS East aircraft velocity (CIRPAS)
GWIN	North Vel (m/s)	GPS North aircraft velocity (CIRPAS)
GWIU	Up Vel (m/s)	GPS up aircraft velicity (CIRPAS)
ROLL	Roll (deg)	roll of aircraft
PITCH	Pitch (deg)	pitch of aircraft
THDG	Heading (deg)	aircraft heading
AT	T amb (C)	static ambient temperature
DT	Td amb (C)	ambient dew-point temeprature
RHUM	RH amb (%)	ambient relative humidity
PS	Ps (mb)	static atmospheric pressure
WSC	Wind Speed (m/s)	horizontal wind speed
WDC	Wind Dir (deg)	wind direction
WVC	Vert. Wind (m/s)	vertical wind velocity
SST	SST (C)	sea-surface temperature
PALT	P Alt (m)	pressure altitude
RADALT	Rad Alt (m)	radar altitude
TAS	TAS (m/s)	true air speed
THETA	Theta (K)	potential temperature

THETAE	Thetae (K)	equivalent potential temperature
MRLA1	MR-H_2O (g/Kg)	mixing ratio (from dew point, CIRPAS)
SPHUM	SP Hum (g/Kg)	specific humidity (from dew point)
RHO	Rho-dry (Kg/m^3)	ambient density of dry air
LWC1	LWC-wire (g/m^3)	liquid water content (CIRPAS)
CONC_CAS	CASFWD (#/cc)	CAS concentration, 1 - 50 um diameter
CONC_CIP	CIP (#/cc)	CIP concentration, 50 - 1550 um diameter
VOL_CAS	CASFWD (Vol/cc)	CAS volume
VOL_CIP	CIP (Vol/cc)	CIP volume
CONC_PCASP	PCASP (#/cc)	PCASP concentration
CONC_FSSP	FSSP (#/cc)	FSSP concentration
VOL_PCASP	PCASP (Vol/cc)	PCASP volume
VOL_FSSP	FSSP (Vol/cc)	FSSP volume
CONC_CPCI	CPCI (#/cc)	CN concentration > 10 nm
CONC_UFCPC	UFCPC (#/cc)	CN concentration > 3 nm
CONC_CCN1	?	CCN concentration (CIRPAS)
SS1	?	CCN supersaturation (CIRPAS)
SWU	Short Wave Irrad. Up (w/m^2)	SW up (NRL)
SWD	Short Wave Irrad. Down (w/m^2)	SW down (NRL)
IRU	Long Wave Irrad. Up (w/m^2)	LW up (NRL)
IRD	Long Wave Irrad. Down (w/m^2)	LW down (NRL)

<u>10-hz data</u>

UTC	mm:dd:hh:mm:ss.x	universal time
GLAT	Lat (deg)	GPS latitude (CIRPAS)
GLON	Long (deg)	GPS longitude (CIRPAS)
GGALT	Nov Atel (m)	GPS altitude (CIRPAS)
GWIE	East Vel (m/s)	GPS East aircraft velocity (CIRPAS)
GWIN	North Vel (m/s)	GPS North aircraft velocity (CIRPAS)
GWIU	Up Vel (m/s)	GPS up aircraft velocity (CIRPAS)
ROLL	Roll (deg)	roll of aircraft
PITCH	Pitch (deg)	pitch of aircraft
THDG	Heading (deg)	aircraft heading
AT	T amb (C)	static ambient temperature
DT	Td amb (C)	ambient dew-point temperature
RHUM	RH amb (%)	ambient relative humidity
PS	Ps (mb)	static atmospheric pressure
WSC	Wind Speed (m/s)	wind speed
WDC	Wind Dir (deg)	wind direction
WVC	Vertical Wind (m/s)	vertical wind velocity
SST	SST (C)	sea-surface temperature
PALT	P alt (m)	pressure altitude
RADALT	Rad Alt (m)	radar altitude
TAS	TAS (m/s)	true air speed
THETA	Theta (K)	potential temperature
THETAE	Thetae (K)	equivalent potential temperature
MRLA1	MR-h_2O (g/kg)	mixing ratio (from dew point; CIRPAS)
SPHUM	SP Hum (g/kg)	specific humidity (from dew point)
RHO	Rho - dry (kg/m^3)	ambient density of dry air

LWC1	LWC-wire (g/m^3)	liquid water content (CIRPAS)
CONC_CAS	CASFWD (#/cc)	CAS concentration, 1 - 50 um diameter
CONC_CIP	CIP (#/cc)	CIP concentration, 50 - 1550 um diameter
VOL_CAS	CASFWD (Vol/cc)	CAS volume
VOL_CIP	CIP (Vol/cc)	CIP volume
SWU	Short Wave Irrad. Up (w/m^2)	SW up (NRL)
SWD	Short Wave Irrad. Down (w/m^2)	SW down (NRL)
IRU	Long Wave Irrad. Up (w/m^2)	LW up (NRL)
IRD	Long Wave Irrad. Down (w/m^2)	LW down (NRL)
SYNCH	?	½ hz GPS synch signal

100-hz data

UTC	mm:dd:hh:mm:ss.xx	universal time
AT	T amb (C)	static ambient temperature
PS	Ps (mb)	static atmospheric pressure
SST	SST (C)	Sea-surface temperature
RADALT	Rad Alt (m)	radar altitude
PALT	P alt (m)	pressure altitude
THETA	Theta (K)	potential temperature
THETAE	Thetae (K)	equivalent potential temperature
RHO	Rho - dry (kg/m^3)	density of dry air
LWC1	LWC - wire (g/m^3)	hot-wire liquid water content
SYNCH	?	½ hz GPS synch signal

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3. UC Irvine

40-hz data

UTC	mm:dd:hh:mm:ss.xx	universal time
RADALT	hr (m)	aircraft altitude
GLAT	lat (deg N)	GPS latitude (using UCI Nov Atel)
GLON	lon (deg E)	GPS longitude (“)
GTRK	trk (deg)	GPS aircraft track angle (“)
WX	wx (m/s)	East gust component .
WY	wy (m/s)	North gust component
WZ	wz (m/s)	vertical gust component
ABSHUM	ah (g/m^3)	absolute humidity
AT	ta (C)	static ambient temperature
DT	td (C)	ambient dew point temperature
SST	ts (C)	downlooking ir temperature
TVIR	tvir (C)	uplooking ir temoerature
PS	ps (hPa)	static atmospheric pressure
TAS	tas (m/s)	true air speed
RHO	rhoa (kg/m^3)	air density (dry?)
MRLA2	mr (g/kg)	Lyman-Alpha, LI-COR 7500, Krypton hygrometer

THETA	theta	potential temperature
TVIR	tvir	virtual potential temperature
THETAE	thetae	equivalent potential temperature
QH	Qh (W/m^2)	eddy correlation surface heat flux
QE	Qe (W/m^2)	eddy correlation surface sensible heat flux
TAUX	taux (Pa)	surface stress along-wind direction
TAUY	tauy (Pa)	surface stress cross-wind direction
TAU	tau (Pa)	rms surface stress
SYNCH	?	½ hz GPS synch signal

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4. Desert Research Institute

1-hz data

UTC	mm:dd:hh:mm:ss	universal time
CONC_CCN2	nuclei concentration (#/cc)	condensation nuclei concentration (DRI)
SS2	supersaturation (%)	chamber supersaturation (DRI)

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5. UC Santa Cruz

10-hz data

UTC	mm:dd:hh:mm:ss.xx	universal time
CONC_PDI	Nd (#/cc)	PDI concentration
LWC2	LWC (g/m^3)	liquid water content (UCSC)
SYNCH	?	½ hz synch signal

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6. U. Of Warsaw

10-hz data

UTC	mm:dd:hh:mm:ss.x	universal time
UFT1	temperature1 (C)	fast hot-wire temperature
UFT2	temperature2 (C)	fast hot-wire temperature
SYNCH	?	½ hz synch signal

100-hz data

UTC	mm:dd:hh:mm:ss.xx	universal time
UFT1	temperature1 (C)	fast hot-wire temperature
UFT2	temperature2 (C)	fast hot-wire temperature

SYNCH	?	½ hz GPS synch signal

1000-hz data

UTC	mm:dd:hh:mm:ss.xxx	universal time
UFT1	temperature1 (C)	fast hot-wire temperature
UFT2	temperature1 (C)	fast hot-wire temperature
SYNCH	?	½ hz GPS synch signal

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7. Gerber Scientific

10-hz data

UTC	mm:dd:hh:m:ss.x	universal time
LWC3	LWC (volts)	liquid water content (GSI)
PSA	PSA (volts)	particle surface area
SYNCH	synch	½ hz synch signal

100-hz data

UTC	mm:dd:hh:mm:ss.xx	universal time
LWC3	LWC (volts)	Liquid water contet (GSI)
PSA	PSA (volts)	particle surface arrea
SYNCH	synch	½ hz GPS synch signal

1000-hz data

UTC	mm:d:hh:mm:ss.xxx	universal time
LWC3	LWC (volts)	liquid water content (GSI)
PSA	PSA (volts)	particle surface area
SYNCH	synch	1/2-hz GPS synch signal