

## SCALAR FUNCTIONS of TIME

AIMP: Avg A of impurity ()  
 ALPC: MAG:ALPHA, CALCULATED ()  
 ASHAF: SHAFRANOV AXIS SHIFT (CM)  
 ASHAFDA: SHAFRANOV AXIS SHIFT (MHD DATA) (CM)  
 BBNTS: BEAM-BEAM NEUTRONS (N/SEC)  
 BBNTS\_DD: DD BEAM-BEAM NEUTRONS (N/SEC)  
 BBPAR: BEAM BETA(POLOIDAL) PLL ()  
 BBPER: BEAM BETA(POLOIDAL) PERP ()  
 BDNDT: D/DT(FAST ION POPULATION) (N/SEC)  
 BDNDTX: D/DT(FAST IONS OUTSIDE PLASMA) (N/SEC)  
 BDNDTX\_D: D/DT(D BEAM IONS OUTSIDE PLASMA) (N/SEC)  
 BDNDT\_D: D/DT(D BEAM ION POPULATION) (N/SEC)  
 BETAE: ELECTRON BETA (POLOIDAL) ()  
 BETAI: THERMAL ION BETA POLOIDAL ()  
 BETAR: ROTATION BETA (POLOIDAL) ()  
 BETAT: TOTAL BETA(POLOIDAL) ()  
 BPBAL: FAST ION POWER BALANCE (WATTS)  
 BPBAL\_D: D BEAM POWER BALANCE (WATTS)  
 BPCAP: BEAM POWER CAPTURED (WATTS)  
 BPCIO: FAST ION CX SCE POWER (INT) (WATTS)  
 BPCIO\_D: D BEAM CX SCE POWER (INT) (WATTS)  
 BPCOL: NB PWR: COLLISIONAL TORQUE (WATTS)  
 BPCOL\_D: D BEAM PWR: COLLISIONAL TORQUE (WATTS)  
 BPCPR: POWER: COMPRESSION OF FAST IONS (WATTS)  
 BPCPR\_D: POWER: COMPRESSION OF D BEAM (WATTS)  
 BPCRI: FAST ION CX RECAPTURE (INT) (WATTS)  
 BPCRI\_D: D BEAM CX RECAPTURE (INT) (WATTS)  
 BPCRX: FAST ION CX RECAPTURE (EXT) (WATTS)  
 BPCRX\_D: D BEAM CX RECAPTURE (EXT) (WATTS)  
 BPCX0: FAST ION CX SCE POWER (EXT) (WATTS)  
 BPCX0\_D: D BEAM CX SCE POWER (EXT) (WATTS)  
 BPCXE: FAST ION CX TRACKER ERROR (WATTS)  
 BPCXE\_D: D BEAM CX TRACKER ERROR (WATTS)  
 BPCXI: FAST ION POWER TO CX (INT) (WATTS)  
 BPCXI\_D: D BEAM POWER TO CX (INT) (WATTS)  
 BPCXX: FAST ION POWER TO CX (EXT) (WATTS)  
 BPCXX\_D: D BEAM POWER TO CX (EXT) (WATTS)  
 BPDA1: 1D DIAMAGNETIC BETA(POLOIDAL) ()  
 BPDC: KINETIC BETA(DIA) ()  
 BPDIA: DIAMAGNETIC BETA(POLOIDAL) ()  
 BPDM: MAGNETICS EST. BETA(DIA) ()  
 BPEPHI: Electrostatic field -> fast ions (WATTS)  
 BPEPHI\_D: ELECTROSTATIC ACCEL.: D BEAM (WATTS)  
 BPEQ: EQUILIBRIUM BETA(POLOIDAL) ()  
 BPEQ1: 1D EQUILIBRIUM BETA(POLOIDAL) ()  
 BPERR: FAST ION ORBIT POWER ERROR (WATTS)  
 BPERR\_D: D BEAM ORBIT POWER ERROR (WATTS)  
 BPFASPTA: TOTAL FAST ION BETA(POL) PLL ()  
 BPFASPPP: TOTAL FAST ION BETA(POL) PERP ()

BPHCK: FI ROT. BALANCE CHECK (NT-M)  
 BPHCK\_D: D BEAM: BALANCE CHECK (NT-M)  
 BPHCL: FI ROT. COLLISIONAL TORQUE (NT-M)  
 BPHCL\_D: D BEAM: COLLISIONAL TORQUE (NT-M)  
 BPHCX: FI ROT. CX LOSS (NT-M)  
 BPHCX\_D: D BEAM: CX LOSS (NT-M)  
 BPHDEP0\_D: DBEAM DEPOSITED MOMENTUM, ION point (NT-M)  
 BPHDEPGC\_D: DBEAM DEPOSITED MOMENTUM, at GC (NT-M)  
 BPHDFB\_D: D BEAM: ANOM.DIFF. TORQUE (NT-M)  
 BPHDP: FI ROT. DEPOSITION (NT-M)  
 BPHDPBA\_D: DBEAM MOMENTUM, BALANCE CHECK (NT-M)  
 BPHDP\_D: D BEAM: DEPOSITION, ION point (NT-M)  
 BPHER: FI ORBIT TORQUE ERROR (NT-M)  
 BPHER\_D: D BEAM ORBIT TORQUE ERROR (NT-M)  
 BPHI: FAST ION ANGULAR MOMENTUM (NT-M-SEC)  
 BPHINJS\_D: DBEAM MOMENTUM INJECTED (NT-M)  
 BPHI\_D: D BEAM ION ANGULAR MOMENTUM (NT-M-SEC)  
 BPHOH: FI ROT. FROM OH (NT-M)  
 BPHOH\_D: D BEAM: FROM OH (NT-M)  
 BPHOR: FI ROT. ORBIT LOSS (NT-M)  
 BPHOR\_D: D BEAM: ORBIT LOSS (NT-M)  
 BPHRC: FI ROT. CX RECAPTURE (NT-M)  
 BPHRC\_D: D BEAM: CX RECAPTURE (NT-M)  
 BPHSHIN\_D: DBEAM SH\_THRU MOMENTUM (NT-M)  
 BPHST: FI ROT. ANGULAR MOMENTUM GAIN (NT-M)  
 BPHST\_D: D BEAM: ANGULAR MOMENTUM GAIN (NT-M)  
 BPTH: FI ROT. THERMALIZATION (NT-M)  
 BPTH\_D: D BEAM: THERMALIZATION (NT-M)  
 BPHTO: TOTAL FAST ION HEATING (WATTS)  
 BPHWO: FI ROT. NEUTRAL ESCAPE (NT-M)  
 BPHWO\_D: D BEAM: NEUTRAL ESCAPE (NT-M)  
 BPHXB: FI ROT. JXB TORQUE (NT-M)  
 BPHXB\_D: D BEAM: JXB TORQUE (NT-M)  
 BPJXB: NB PWR: JXB TORQUE (WATTS)  
 BPJXB\_D: D BEAM PWR: JXB TORQUE (WATTS)  
 BPLIM: FAST ION ORBIT LOSS (WATTS)  
 BPLIM\_D: D BEAM ORBIT LOSS (WATTS)  
 BPMINPA: MINORITY BETA (POLOIDAL) PLL ()  
 BPMINPP: MINORITY BETA (POLOIDAL) PERP ()  
 BPOH: POWER: OH CIRCUIT TO FAST IONS (WATTS)  
 BPOH\_D: POWER: OH CIRCUIT TO D BEAM (WATTS)  
 BPSHI: FAST ION SHINE-THRU POWER (WATTS)  
 BPSHI\_D: D BEAM SHINE-THRU POWER (WATTS)  
 BPST: FAST ION POWER STORED (WATTS)  
 BPST\_D: D BEAM POWER STORED (WATTS)  
 BPTDFB\_D: D BEAM PWR: ANOM.DIFF TORQUE (WATTS)  
 BPTTE: BEAM POWER TO ELECTRONS (WATTS)  
 BPTTE\_D: D BEAM POWER TO ELECTRONS (WATTS)  
 BPTH: FAST ION POWER THERMALIZED (WATTS)  
 BPTHA: NB PWR: ASSYM.THERMALIZATION (WATTS)  
 BPTHA\_D: D BEAM PWR: ASSYM.THERMALIZATION (WATTS)

BPTHR: NB PWR: THERMALIZATION>ROTATION (WATTS)  
 BPTHR\_D: D BEAM PWR: THERMALIZ>ROTATION (WATTS)  
 BPTH: NB PWR: TH.SCE.FRICTION (WATTS)  
 BPTH\_D: D BEAM PWR: TH.SCE.FRICTION (WATTS)  
 BPTH\_D: D BEAM POWER THERMALIZED (WATTS)  
 BPTI: BEAM POWER TO IONS (WATTS)  
 BPTI\_D: D BEAM POWER TO IONS (WATTS)  
 BQKPRHO\_D: RF->D Beam:avg kprp(rho) adj ()  
 BRKPRHO\_D: RF->D Beam:avg wave Dep/Pfpp ()  
 BSBAL: FAST ION PTCL BALANCE (N/SEC)  
 BSBAL\_D: D BEAM PTCL BALANCE (N/SEC)  
 BSNXI: FAST ION CX SINK (INT) (N/SEC)  
 BSNXI\_D: D BEAM CX SINK (INT) (N/SEC)  
 BSNXO: FAST ION CX SINK (EXT) (N/SEC)  
 BSNXO\_D: D BEAM CX SINK (EXT) (N/SEC)  
 BSORB: FAST ION ORBIT LOSSES (N/SEC)  
 BSORB\_D: D BEAM ORBIT LOSSES (N/SEC)  
 BSTH: FAST ION THERMALIZATIONS (N/SEC)  
 BSTH\_D: D BEAM THERMALIZATIONS (N/SEC)  
 BTDIA: DIAMAGNETIC BETA(TOROIDAL) ()  
 BTEQ: EQUILIBRIUM BETA(TOROIDAL) ()  
 BTNTS: BEAM-TARGET NEUTRONS (N/SEC)  
 BTNTS\_DD: DD BEAM-TARGET NEUTRONS (N/SEC)  
 BZ: BZ @R=RMAJOR OUTSIDE PLASMA (TESLA)  
 BZXR: VACUUM FIELD "BZ\*R" (TESLA\*CM)  
 COFRC: BEAM FRACTION "CO" ()  
 COFRC\_D: D BEAM FRACTION "CO" ()  
 CPBDEP: CPU: FAST ION DEPOSITION (HOURS)  
 CPBMAX: MAX THREAD CPU TIME: NUBEAM (HOURS)  
 CPBMCINI: CPU: FAST ION MC TABLE SETUP (HOURS)  
 CPBMIN: MIN THREAD CPU TIME: NUBEAM (HOURS)  
 CPBORB: CPU: FAST ION ORBIT + COLLISIONS (HOURS)  
 CPBOUT: CPU: FAST ION OUTPUT RENORM (HOURS)  
 CPBROOT: ROOT THREAD CPU TIME: NUBEAM (HOURS)  
 CPECH: CPU TIME IN ECH MODEL (HOURS)  
 CPFPP: CPU: ICRF & FP MODEL (HOURS)  
 CPFPP\_COEF: CPU: FPP Coefficient setup (HOURS)  
 CPFPP\_OUT: CPU: FPP Final Output (HOURS)  
 CPFPP\_QLO: CPU: FPP Quasilinear Operator (HOURS)  
 CPFPP\_RAD: CPU: FPP Radial Transport Loop (HOURS)  
 CPFPP\_SOLV: CPU: Fokker-Planck Solver (HOURS)  
 CPGEOCAL: CPU TIME: Flux Surf. Averages (HOURS)  
 CPGEOM: CPU TIME: FLUX SURFACE GEOMETRY (HOURS)  
 CPLH: CPU TIME: JET LOWER HYBRID (HOURS)  
 CPMCFI: CPU: MONTE CARLO FAST ION CODE (HOURS)  
 CPMHDQ: CPU TIME: MHD EQUILIBRIUM (HOURS)  
 CPOUT: CPU TIME: OUTPUT SYSTEM (HOURS)  
 CPSCO: CPU: NEUTRAL TRANSPORT MODEL (HOURS)  
 CPTIM: CPU TIME USED SO FAR (HOURS)  
 CPTRK: CPU TIME: STRAIGHT LINE TRACKER (HOURS)  
 CPWAVE: CPU: ICRF WAVE CODE (ONLY) (HOURS)

CPXPGL: CPU: xplasma load (HOURS)  
 DFLUX: COMPUTED DIAMAGNETIC FLUX (WEBERS)  
 DINJ01\_E1: Einj RMS Var.: beam#01(D), E#1 (eV)  
 DINJ01\_E2: Einj RMS Var.: beam#01(D), E#2 (eV)  
 DINJ01\_E3: Einj RMS Var.: beam#01(D), E#3 (eV)  
 DINJ02\_E1: Einj RMS Var.: beam#02(D), E#1 (eV)  
 DINJ02\_E2: Einj RMS Var.: beam#02(D), E#2 (eV)  
 DINJ02\_E3: Einj RMS Var.: beam#02(D), E#3 (eV)  
 DINJ03\_E1: Einj RMS Var.: beam#03(D), E#1 (eV)  
 DINJ03\_E2: Einj RMS Var.: beam#03(D), E#2 (eV)  
 DINJ03\_E3: Einj RMS Var.: beam#03(D), E#3 (eV)  
 DINJ04\_E1: Einj RMS Var.: beam#04(D), E#1 (eV)  
 DINJ04\_E2: Einj RMS Var.: beam#04(D), E#2 (eV)  
 DINJ04\_E3: Einj RMS Var.: beam#04(D), E#3 (eV)  
 DT: ENERGY BALANCE TIMESTEP (SECONDS)  
 DTG: TIMESTEP FOR GEOMETRY (SECONDS)  
 DTMAXG: MAXIMUM TIMESTEP FOR GEOMETRY (SECONDS)  
 DTPROFIL: TIME SPACING FOR PROFILE OUTPUT (SECONDS)  
 DTSCALAR: TIME SPACING FOR SCALAR OUTPUT (SECONDS)  
 DTSCE: TIMESTEP FOR SOURCES (SECONDS)  
 EOINR: TO (RECYCLING) @EDGE (EV)  
 ECEGAP: ECE B(R) monotonicity gap (CM)  
 EINJ: MAX INITIAL BEAM ENERGY (EV)  
 EINJ01\_E1: Einj: beam#01(D), E-frac#1 (eV)  
 EINJ01\_E2: Einj: beam#01(D), E-frac#2 (eV)  
 EINJ01\_E3: Einj: beam#01(D), E-frac#3 (eV)  
 EINJ02\_E1: Einj: beam#02(D), E-frac#1 (eV)  
 EINJ02\_E2: Einj: beam#02(D), E-frac#2 (eV)  
 EINJ02\_E3: Einj: beam#02(D), E-frac#3 (eV)  
 EINJ03\_E1: Einj: beam#03(D), E-frac#1 (eV)  
 EINJ03\_E2: Einj: beam#03(D), E-frac#2 (eV)  
 EINJ03\_E3: Einj: beam#03(D), E-frac#3 (eV)  
 EINJ04\_E1: Einj: beam#04(D), E-frac#1 (eV)  
 EINJ04\_E2: Einj: beam#04(D), E-frac#2 (eV)  
 EINJ04\_E3: Einj: beam#04(D), E-frac#3 (eV)  
 EINJAV\_D: D: avg full injection energy (EV)  
 ELDOT: ELDOT: GRID MOTION (1/SEC)  
 FIEFAC:  $T_i \leftrightarrow T_e$  switching factor ()  
 FLSTA: FALSI ERROR CODE (0=NORMAL)  
 FREQA1: FREQUENCY ON ICRF ANTENNA #1 (Hz)  
 FREQA2: FREQUENCY ON ICRF ANTENNA #2 (Hz)  
 GASD: D0 GAS FLOW SOURCE (N/SEC)  
 GASL: LITHIUM GAS FLOW SOURCE (N/SEC)  
 GFLRL\_BA: Fraction MC Ion GFLR Loss Bad ()  
 GFLRL\_DI: Fraction MC Ion GFLR Loss Dist ()  
 GFLRL\_ES: Fraction MC Ion GFLR Loss Est. ()  
 GFLRL\_LI: Fraction MC Ion GFLR Loss Limit ()  
 GFLRL\_MA: Fraction MC Ion GFLR Loss Map ()  
 GFLR\_AP: Fraction MC Ion GFLR Approx. ()  
 GFLR\_C: Fraction MC Ion GFLR Classical ()  
 GFLR\_GC: Fraction MC Ion GFLR GC ()

GFLR\_OK: Fraction MC Ion GFLR OK ()  
GIEFAC: Ti/Te ratio when Te used for Ti ()  
GRBA\_DATA: (R\*Bt) Ufile data at bdy (TESLA\*CM)  
GSERROR: REL.EQUIL.GRAD-SHAFRANOV ERROR ()  
H97LG: TauE97L,g confinement Hfactor ()  
H97LTH: TauE97L,th confinement Hfactor ()  
H98Y2: TauE98y,2 confinement Hfactor ()  
H98Y2E: TauE98y,2e confinement Hfactor ()  
HIO2: INDUCTANCE (HI/2) ()  
IPXVS: PCUR \* VSUR (WATTS)  
KAINT: K(ALPHA) LINE INTENSITY (ARB.UNITS)  
KATX: COMPUTED K(ALPHA) T(IMPURITY) (EV)  
L2PB1: 1D DEFINITION LI/2+BETA ()  
LAMDC: KINETIC+J EST. LAMDA ()  
LAMDM: MAGNETICS EST. LAMDA ()  
LHMODE: H-Mode indicator ()  
LI2PB: LI/2 + BETA(POLOIDAL) ()  
LIO2: INDUCTANCE (LI/2) ()  
LIO21: 1D DEFINITION OF LI/2 ()  
LIO2C: LI/2 (COMPUTED FROM J PROFILE) ()  
LIO2M: LI/2 (MAGNETICS DATA ESTIMATE) ()  
LI\_1: Inductance definition Li\_1 ()  
LI\_3: Inductance definition Li\_3 ()  
LI\_VDIFF: Inductance: TRANSP V-diff norm. ()  
MQKPRHO\_H: RF->H Minority:avg kprp(r) adj ()  
MRKPRHO\_H: RF->H Minority:avg Pwave/Pfpp ()  
MUIC: TRANSP EST. MU(DIA) MHD EQ ()  
MUIM: MAGNETICS EST. MU(DIA) ()  
NBEQ: 0 limited, -1 lower, 1 upper Div as used ()  
NBGUESS: 0 limited, -1 lower, 1 upper Div as guessed from boundary ()  
NCX0\_D: # CX events D orbiting (N)  
NEEDG: ELECTRON DENSITY AT/BEYOND BDY (N/CM\*\*3)  
NEPED: ELECTRON PEDESTAL DENSITY (N/CM\*\*3)  
NEPEDW: ELECTRON PEDESTAL WIDTH: NE ()  
NEUTT: TOTAL NEUTRONS (N/SEC)  
NEUTX: THERMONUCLEAR NEUTRONS (N/SEC)  
NEUTX\_DD: DD THERMONUCLEAR NEUTRONS (N/SEC)  
NMCLOSS\_D: Beam D MC Prompt Loss (N)  
NMCTOT\_D: Beam D Total MC Ions (N)  
NNEW\_D: Beam D MC Deposited (N)  
OMOGASFL: GAS FLOW Ang. Veloc. (AVG) (RAD/SEC)  
OMORECYC: RECYCLING GAS Ang. Veloc. (AVG) (RAD/SEC)  
OMEDG: ANGULAR VELOCITY AT/BEYOND BDY (RAD/SEC)  
POBAL: NEUTRAL POWER BALANCE CHECK (WATTS)  
POCXT: TOTAL CX POWER (WATTS)  
POESC: NEUTRAL POWER ESCAPED (WATTS)  
POFIN: NEUTRAL INFLUX POWER (WATTS)  
POINZ: NEUTRAL POWER IONIZED (WATTS)  
PORFL: NEUTRAL POWER REFLECTED IN (WATTS)  
PAREA: PLASMA CROSS SECTION AREA (CM\*\*2)  
PBDEPBA\_D: DBEAM POWER, BALANCE CHECK (WATTS)

PBDEPMC\_D: DBEAM MC IONS POWER DEPOSITED (WATTS)  
 PBINJ\_D: DBEAM MC IONS POWER INJECTED (WATTS)  
 PBSHINE\_D: DBEAM SHINE-THRU POWER (WATTS)  
 PCUR: MEASURED PLASMA CURRENT (AMPS)  
 PCURC: CALCULATED PLASMA CURRENT (AMPS)  
 PCUREQ: EQ PLASMA CURRENT (AMPS)  
 PECHT: ECRF ELECTRON HEATING (WATTS)  
 PECIN: ECRF INPUT POWER (WATTS)  
 PECIN1: POWER FROM GYROTRON 1 (WATTS)  
 PEEDG: ELECTRON ENERGY VIA BDY (WATTS)  
 PHAIECH1: Toroidal aiming, GYROTRON 1 (DEGREES)  
 PICH1: POWER ON ICRF ANTENNA #1 (WATTS)  
 PICH2: POWER ON ICRF ANTENNA #2 (WATTS)  
 PICHBAL: RF POWER BALANCE (WATTS)  
 PICHE: POWER: ICH DIRECT TO ELECTRONS (WATTS)  
 PICHEXT: RF POWER BEYOND SEPARATRIX (WATTS)  
 PICHFAST: Power: ICH DIRECT to Fast ions (WATTS)  
 PICHI: POWER: ICH DIRECT TO TH.IONS (WATTS)  
 PICHMC: POWER: ICH TO MODE CONVERSION (WATTS)  
 PICHMIN: POWER: ICH TO MINORITY IONS (WATTS)  
 PICTOT: TOTAL ICRF ANTENNA POWER (WATTS)  
 PIEDG: ION ENERGY VIA BDY (WATTS)  
 PINJ: BEAM POWER INJECTED (WATTS)  
 PINJ01: Beam#01(D) injected power (WATTS)  
 PINJ02: Beam#02(D) injected power (WATTS)  
 PINJ03: Beam#03(D) injected power (WATTS)  
 PINJ04: Beam#04(D) injected power (WATTS)  
 PINJ\_D: TOTAL INJECTED D BEAM POWER (WATTS)  
 PL2HREQ: L-H transition power (WATTS)  
 PL2HTOT: Total heating power (WATTS)  
 PLFLXA: ENCLOSED POLOIDAL FLUX (Wb/rad)  
 PLFLXD: ENCLOSED POLOIDAL FLUX (data) (Wb/rad)  
 PLH: LH INPUT POWER (WATTS)  
 PLHABS: LH POWER ABSORBED IN PLASMA (WATTS)  
 PLHABS1: POWER ABSORBED ANT. 1 (WATTS)  
 PLHABS2: POWER ABSORBED ANT. 2 (WATTS)  
 PLHANT1: POWER INPUT ON ANT. 1 (WATTS)  
 PLHANT2: POWER INPUT ON ANT. 2 (WATTS)  
 PLHBCK: LH POWER BALANCE CHECK (WATTS)  
 PLHE: LH POWER TO ELECTRONS (WATTS)  
 PLHI: LH POWER TO IONS (WATTS)  
 PLHREF: LH POWER NOT ABSORBED IN PLASMA (WATTS)  
 POHT: OHMIC INPUT POWER (WATTS)  
 PRFBTOT: ALL FAST ION HEATING by RF (WATTS)  
 PRFB\_D: RF POWER -> D BEAM IONS (WATTS)  
 PSIO\_DATA: Psi\_poloidal(axis) input data (Wb/rad)  
 PSIO\_TR: Psi\_poloidal(axis) in simulation (Wb/rad)  
 PVOL: PLASMA VOLUME (CM\*\*3)  
 PVOLB: PLASMA VOLUME FROM BOUNDARY (CM\*\*3)  
 PVOLF: PLASMA VOLUME FROM FLUX SURF (CM\*\*3)  
 Q0: Q ON AXIS ()

RAXIS: MAJOR RADIUS OF MAG. AXIS (CM)  
RCYD: D0 RECYCLING SOURCE (N/SEC)  
RCYL: LITHIUM RECYCLING SOURCE (N/SEC)  
RFMLOSS\_H: RF H Minority: Orbit loss (NT-M)  
RFPLOSS\_H: RF H Minority: Orbit loss (WATTS)  
RFPWRAB1: Power ABSORBED, Antenna #1 (WATTS)  
RFPWRAB2: Power ABSORBED, Antenna #2 (WATTS)  
RFSLOSS\_H: RF H Minority: Orbit loss (N/SEC)  
RLI\_3: Bdy R = (Rmin+Rmax)/2 for Li\_3 (CM)  
RMAJBLIM: RMAJ EXTENT OF THE BOUNDARY (CM)  
RMAJDFRAC: MAX DIFF BOUND/MIDPLANE WIDTH ()  
RMAJDIFF: MAX DIFF BOUND AND FLUX MIDPLANE (CM)  
RMCB0: 0th ASYM R COS BOUND MOMENT (CM)  
RMCB1: 1st ASYM R COS BOUND MOMENT (CM)  
RMCB10: 10th ASYM R COS BOUND MOMENT (CM)  
RMCB11: 11th ASYM R COS BOUND MOMENT (CM)  
RMCB12: 12th ASYM R COS BOUND MOMENT (CM)  
RMCB13: 13th ASYM R COS BOUND MOMENT (CM)  
RMCB14: 14th ASYM R COS BOUND MOMENT (CM)  
RMCB15: 15th ASYM R COS BOUND MOMENT (CM)  
RMCB16: 16th ASYM R COS BOUND MOMENT (CM)  
RMCB2: 2nd ASYM R COS BOUND MOMENT (CM)  
RMCB3: 3rd ASYM R COS BOUND MOMENT (CM)  
RMCB4: 4th ASYM R COS BOUND MOMENT (CM)  
RMCB5: 5th ASYM R COS BOUND MOMENT (CM)  
RMCB6: 6th ASYM R COS BOUND MOMENT (CM)  
RMCB7: 7th ASYM R COS BOUND MOMENT (CM)  
RMCB8: 8th ASYM R COS BOUND MOMENT (CM)  
RMCB9: 9th ASYM R COS BOUND MOMENT (CM)  
RMSB1: 1st ASYM R SIN BOUND MOMENT (CM)  
RMSB10: 10th ASYM R SIN BOUND MOMENT (CM)  
RMSB11: 11th ASYM R SIN BOUND MOMENT (CM)  
RMSB12: 12th ASYM R SIN BOUND MOMENT (CM)  
RMSB13: 13th ASYM R SIN BOUND MOMENT (CM)  
RMSB14: 14th ASYM R SIN BOUND MOMENT (CM)  
RMSB15: 15th ASYM R SIN BOUND MOMENT (CM)  
RMSB16: 16th ASYM R SIN BOUND MOMENT (CM)  
RMSB2: 2nd ASYM R SIN BOUND MOMENT (CM)  
RMSB3: 3rd ASYM R SIN BOUND MOMENT (CM)  
RMSB4: 4th ASYM R SIN BOUND MOMENT (CM)  
RMSB5: 5th ASYM R SIN BOUND MOMENT (CM)  
RMSB6: 6th ASYM R SIN BOUND MOMENT (CM)  
RMSB7: 7th ASYM R SIN BOUND MOMENT (CM)  
RMSB8: 8th ASYM R SIN BOUND MOMENT (CM)  
RMSB9: 9th ASYM R SIN BOUND MOMENT (CM)  
RTPC: MAG:RT, CALCULATED (CM)  
RTXUV: UV DOPPLER TI RADIUS (CM)  
RZITER: RZSOLVER iterations ()  
SBCX0MC\_D: D BEAM CX NEUTRALS LAUNCHED (N/SEC)  
SBCXBAL\_D: D BEAM CX NEUTRAL PTCL BAL (N/SEC)  
SBCXESC\_D: D BEAM CX NEUTRALS ESCAPED (N/SEC)

SBCXRMCD: D BEAM CX MC IONS RECAPTURED (N/SEC)  
SBCXRRD: D BEAM CX NEUTRALS "R.R." (N/SEC)  
SBCXX: CX FAST ION LOSS (N/SEC)  
SBCXXD: CX D BEAM ION LOSS (N/SEC)  
SBDBBCXD: D BEAM DEP: BEAM-BEAM CX (N/SEC)  
SBDBBIZD: D BEAM DEP: BEAM-BEAM IONIZ. (N/SEC)  
SBDEPBAD: D BEAM DEP PTCL BALANCE (N/SEC)  
SBDEPCXD: D BEAM DEP: CX W/THERMAL IONS (N/SEC)  
SBDEPIZD: D BEAM DEP: TH.IONIZATION (N/SEC)  
SBDEPMC D: D BEAM MC IONS DEPOSITED (N/SEC)  
SBDEPRRD: D BEAM DEP "RUSSIAN ROULETTE" (N/SEC)  
SBDEPSCD: D BEAM TOTAL DEPOSITION SCE (N/SEC)  
SBDTBMCD: D BEAM MC RATE OF CHANGE (N/SEC)  
SBORBALD: D BEAM ORBIT PTCL BALANCE (N/SEC)  
SBORBRRD: D BEAM ORBIT CODE "R.R." (N/SEC)  
SBRBBCXD: D BEAM RECAP: BEAM-BEAM CX (N/SEC)  
SBRBBIZD: D BEAM RECAP: BEAM-BEAM IONIZ. (N/SEC)  
SBSHINED: D BEAM SHINE-THROUGH (N/SEC)  
SBXRCCXD: D BEAM RECAP: TH.CX (N/SEC)  
SBXRCIZD: D BEAM RECAP: TH.IONIZATION (N/SEC)  
SBXRCSCD: D BEAM TOTAL RECAPTURE SCE (N/SEC)  
SC\_NEPED: NE PEDESTAL HEIGHT SCALE FACTOR ()  
SC\_TEPED: TE PEDESTAL HEIGHT SCALE FACTOR ()  
SC\_TIPED: TI PEDESTAL HEIGHT SCALE FACTOR ()  
SDEPUCD: Beam D orbit averaged UNCONFINED (N/SEC)  
SEEDG: ELECTRONS VIA BDY (N/SEC)  
SFDEP: FAST ION SCE: DEPOSITION (N/SEC)  
SFRCAP: FAST ION CX RECAPTURE (N/SEC)  
SHFSC: CALCULATED S1+S2 ()  
SHFSM: MAGNETICS EST. S1+S2 ()  
SINJ: FAST NEUTRALS INJECTED (N/SEC)  
SINJEAD: D DEP E.CONSERVATION ADJUST (N/SEC)  
SINJD: FAST D BEAM NEUTRALS INJECTED (N/SEC)  
SNBXBB0D: D BEAM ION CX W/ BEAM NEUTS (N/SEC)  
SNBXBB1D: D BEAM ION CX W/ FAST CX NEUTS (N/SEC)  
SNBXTOTD: TOTAL D BEAM ION CX SINK (N/SEC)  
SNBXV0D: D BEAM ION CX SINK: HALO NEUTS (N/SEC)  
SNBXW0D: D BEAM ION CX SINK: WALL NEUTS (N/SEC)  
SX\_NE: ne solver range [0:x] ()  
SX\_OMEGA: Ang. velocity solver range [0:x] ()  
SX\_TE: Te solver range [0:x] ()  
SX\_TI: Ti solver range [0:x] ()  
TOGASFL: GAS FLOW TEMPERATURE (AVG) (EV)  
TORECYC: RECYCLING GAS TEMPERATURE (AVG) (EV)  
TAUA1: ENERGY CONFINEMENT (TOTAL) (SECONDS)  
TAUE97LG: TauE97L,g confinement scaling (SECONDS)  
TAUE97LTH: TauE97L,th confinement scaling (SECONDS)  
TAUE98Y2: TauE98y,2 confinement scaling (SECONDS)  
TAUE98Y2E: TauE98y,2e confinement scaling (SECONDS)  
TAUEA: ENERGY CONFINEMENT (THERMAL) (SECONDS)  
TAUEE: ELECTRON ENERGY CONFINEMENT (SECONDS)



TEO: ELECTRON TEMPERATURE ON AXIS (EV)  
TEEDG: ELECTRON TEMPERATURE AT/BEYOND BDY (EV)  
TEPED: ELECTRON PEDESTAL TEMPERATURE (eV)  
TEPEDW: ELECTRON PEDESTAL WIDTH: TE ()  
TEPHA: SIMULATED PHA TE (EV)  
TFLUX: ENCLOSED TOROIDAL FLUX (WEBERS)  
THETECH1: Poloidal aiming, GYROTRON 1 (DEGREES)  
TIO: ION TEMPERATURE ON AXIS (EV)  
TIDAT: TI DATA (FOR COMPARISON) (EV)  
TIEDG: ION TEMPERATURE AT/BEYOND BDY (EV)  
TIME: Time (Seconds)  
TIPED: ION PEDESTAL TEMPERATURE (eV)  
TIPEDW: ION PEDESTAL WIDTH ()  
TOT2TT: TOTAL T(T,2N)HE4 FUSION (N/SEC)  
TOTDDN: TOTAL D(D,N)HE3 FUSION (N/SEC)  
TOTDDP: TOTAL D(D,P)T FUSION (N/SEC)  
TOTDT: TOTAL D-T FUSION (N/SEC)  
TRAPB0\_D: D beam full E dep banana frac. ()  
TRAPB\_D: D beam ions banana fraction ()  
TRFLXD: ENCLOSED TOROIDAL FLUX (data) (WEBERS)  
TXUV: UV DOPPLER T(IMPURITY) (EV)  
VISBC: CHORDAL VB LIGHT (CALCULATED) (VB UNITS)  
VOLTSECO: Axial flux consumption (V\*s)  
VOLTSECA: Poynting Average flux consumption (V\*s)  
VOLTSECBM: Boundary flux consumption based on meas. data (V\*s)  
VSUR: MEAS.AVG. SURFACE VOLTAGE (VOLTS)  
VSUR0: SURFACE VOLTAGE (VOLTS)  
VSURC: CALC.AVG. SURFACE VOLTAGE (VOLTS)  
WALLTIME: Elapsed wall clock time (HOURS)  
WC\_NUBEAM: WALL CLOCK TIME: NUBEAM (HOURS)  
WNMCTOT\_D: Beam D Total MC Ions (#ptcls)  
XBFAC: MHD BETA ADJUSTMENT FACTOR ()  
XIQ1: xi of Q=1 surface ()  
XIQ2: xi of Q=2 surface ()  
XIQ3: xi of Q=3 surface ()  
XIQ3\_2: xi of Q=3/2 surface ()  
XKFA1: ION CHI(I) MULTIPLIER ()  
XKFA2: Q<1 ION NC CHI(I) MULTIPLIER ()  
XZIMP: Avg Z of Impurity ()  
XZIMPD: Avg Z of Impurity Data ()  
YAXIS: ASYMMETRIC GEO: Y OF MAG. AXIS (CM)  
YMCB0: 0TH ASYM Y BOUND MOMENT (CM)  
YMCB1: 1st ASYM Y COS BOUND MOMENT (CM)  
YMCB10: 10th ASYM Y COS BOUND MOMENT (CM)  
YMCB11: 11th ASYM Y COS BOUND MOMENT (CM)  
YMCB12: 12th ASYM Y COS BOUND MOMENT (CM)  
YMCB13: 13th ASYM Y COS BOUND MOMENT (CM)  
YMCB14: 14th ASYM Y COS BOUND MOMENT (CM)  
YMCB15: 15th ASYM Y COS BOUND MOMENT (CM)  
YMCB16: 16th ASYM Y COS BOUND MOMENT (CM)  
YMCB2: 2nd ASYM Y COS BOUND MOMENT (CM)

YMCB3: 3rd ASYM Y COS BOUND MOMENT (CM)  
YMCB4: 4th ASYM Y COS BOUND MOMENT (CM)  
YMCB5: 5th ASYM Y COS BOUND MOMENT (CM)  
YMCB6: 6th ASYM Y COS BOUND MOMENT (CM)  
YMCB7: 7th ASYM Y COS BOUND MOMENT (CM)  
YMCB8: 8th ASYM Y COS BOUND MOMENT (CM)  
YMCB9: 9th ASYM Y COS BOUND MOMENT (CM)  
YMPBDY: "MIDPLANE" Y OF ASYM BDY SURFACE (CM)  
YMSB1: 1st ASYM Y SIN BOUND MOMENT (CM)  
YMSB10: 10th ASYM Y SIN BOUND MOMENT (CM)  
YMSB11: 11th ASYM Y SIN BOUND MOMENT (CM)  
YMSB12: 12th ASYM Y SIN BOUND MOMENT (CM)  
YMSB13: 13th ASYM Y SIN BOUND MOMENT (CM)  
YMSB14: 14th ASYM Y SIN BOUND MOMENT (CM)  
YMSB15: 15th ASYM Y SIN BOUND MOMENT (CM)  
YMSB16: 16th ASYM Y SIN BOUND MOMENT (CM)  
YMSB2: 2nd ASYM Y SIN BOUND MOMENT (CM)  
YMSB3: 3rd ASYM Y SIN BOUND MOMENT (CM)  
YMSB4: 4th ASYM Y SIN BOUND MOMENT (CM)  
YMSB5: 5th ASYM Y SIN BOUND MOMENT (CM)  
YMSB6: 6th ASYM Y SIN BOUND MOMENT (CM)  
YMSB7: 7th ASYM Y SIN BOUND MOMENT (CM)  
YMSB8: 8th ASYM Y SIN BOUND MOMENT (CM)  
YMSB9: 9th ASYM Y SIN BOUND MOMENT (CM)  
ZEFFC: AXIAL PLASMA COMPOSITION ZEFF ()  
ZEFFI0: INPUT AXIAL ZEFF (UNCONSTRAINED) ()  
ZEFFM: AXIAL MAGDIF. ZEFF ()

## PROFILE FUNCTIONS of TIME and "X"

...vs. X:  
AIMPJ: Zonal avg A of impurity ()  
AMAG:  $BZ^{**2}/BPOL^{**2}$  PROFILE ()  
AMOI: Total Therm Ang Inertia Dens (NtMS2/CM3)  
AMTR\_MOD: Div(ang. momentum flux) (model) (Nt-M/CM3)  
AMTR\_OBS: Div(ang. momentum flux) (obs.) (Nt-M/CM3)  
...vs. XB:  
ARAT: ASPECT RATIO ()  
...vs. X:  
BALEO: NEUTRAL POWER BALANCE (WATTS/CM3)  
BALEO\_GF\_D: D gas flow POWER BALANCE (WATTS/CM3)  
BALEO\_GF\_L: Li gas flow POWER BALANCE (WATTS/CM3)  
BALEO\_HALO: HALO NEUTRAL POWER BALANCE (WATTS/CM3)  
BALEO\_RC\_D: D recyc POWER BALANCE (WATTS/CM3)  
BALEO\_RC\_L: Li recyc POWER BALANCE (WATTS/CM3)  
BALEO\_SGF: gas flow NEUTRAL POWER BALANCE (WATTS/CM3)  
BALEO\_SRC: recycling NEUTRAL POWER BALANCE (WATTS/CM3)  
BALNO: BALANCE CHECK (N/CM3/SEC)  
BALNO\_GF\_D: D gas (e-) NEUTRAL PTCL BAL. (N/CM3/SEC)  
BALNO\_GF\_L: Li gas (e-) NEUTRAL PTCL BAL. (N/CM3/SEC)  
BALNO\_HALO: HALO (e-) NEUTRAL PTCL BALANCE (N/CM3/SEC)  
BALNO\_RC\_D: D recyc (e-) NEUTRAL PTCL BAL. (N/CM3/SEC)  
BALNO\_RC\_L: Li recyc (e-) NEUTRAL PTCL BAL. (N/CM3/SEC)  
BALNO\_SGF: gas flow (e-) NEUTRAL PTCL BAL. (N/CM3/SEC)  
BALNO\_SRC: recycling (e-) NEUTRAL PTCL BAL. (N/CM3/SEC)  
BBETA: BEAM BETA POLOIDAL ()  
...vs. MCINDEX:  
BBNT2\_DD: DD BEAM-BEAM NEUTRONS (N/CM3/SEC)  
...vs. X:  
BBNTX: BEAM-BEAM NEUTRONS (N/CM3/SEC)  
BBNTX\_DD: DD BEAM-BEAM NEUTRONS (N/CM3/SEC)  
BBPLL: BEAM BETA PLL (POLOIDAL) ()  
BBPRP: BEAM BETA PERP (POLOIDAL) ()  
BDENS: BEAM ION DENSITY (N/CM\*\*3)  
...vs. MCINDEX:  
BDENS2\_D: D Beam ion density, GC (N/CM\*\*3)  
...vs. RMAJM:  
BDENSTOTMP: Fast ion density, GC on midplane (#/CM\*\*3)  
...vs. X:  
BDENS\_D: D BEAM ION DENSITY (N/CM\*\*3)  
BDEP01\_E1: bdep: Beam#01(D), E-frac no.1 (N/CM3/SEC)  
BDEP01\_E2: bdep: Beam#01(D), E-frac no.2 (N/CM3/SEC)  
BDEP01\_E3: bdep: Beam#01(D), E-frac no.3 (N/CM3/SEC)  
BDEP01\_TOT: bdep: Beam#01(D),total depositio (N/CM3/SEC)  
BDEP02\_E1: bdep: Beam#02(D), E-frac no.1 (N/CM3/SEC)  
BDEP02\_E2: bdep: Beam#02(D), E-frac no.2 (N/CM3/SEC)  
BDEP02\_E3: bdep: Beam#02(D), E-frac no.3 (N/CM3/SEC)  
BDEP02\_TOT: bdep: Beam#02(D),total depositio (N/CM3/SEC)  
BDEP03\_E1: bdep: Beam#03(D), E-frac no.1 (N/CM3/SEC)

BDEP03\_E2: bdep: Beam#03(D), E-frac no.2 (N/CM3/SEC)  
 BDEP03\_E3: bdep: Beam#03(D), E-frac no.3 (N/CM3/SEC)  
 BDEP03\_TOT: bdep: Beam#03(D),total depositio (N/CM3/SEC)  
 BDEP04\_E1: bdep: Beam#04(D), E-frac no.1 (N/CM3/SEC)  
 BDEP04\_E2: bdep: Beam#04(D), E-frac no.2 (N/CM3/SEC)  
 BDEP04\_E3: bdep: Beam#04(D), E-frac no.3 (N/CM3/SEC)  
 BDEP04\_TOT: bdep: Beam#04(D),total depositio (N/CM3/SEC)  
 BDEPE\_D1: FULL E D BEAM DEP (TOTAL) (N/CM3/SEC)  
 BDEPE\_D2: HALF E D BEAM DEP (TOTAL) (N/CM3/SEC)  
 BDEPE\_D3: 1/3 E D BEAM DEP (TOTAL) (N/CM3/SEC)  
 BDEP\_D: D BEAM DEPOSITION (TOTAL) (N/CM3/SEC)  
 ...vs. XB:  
 BDIFBX\_D: D anom beam ion diffusivity (CM\*\*2/SEC)  
 ...vs. MCINDEX:  
 BEPLL2\_D: D Beam ion <Epll>, GC (eV)  
 BEPRP2\_D: D Beam ion <Eperp>, GC (eV)  
 ...vs. X:  
 BMAX: Bmax on flux surface (Tesla)  
 BMIN: Bmin on flux surface (Tesla)  
 ...vs. MCINDEX:  
 BMVOL: 2d MC grid zone volumes (CM\*\*3)  
 ...vs. X:  
 BN0T1: N0(BEAM):1.GEN 1/1\*EB (N/CM\*\*3)  
 BN0T2: N0(BEAM):1.GEN 1/2\*EB (N/CM\*\*3)  
 BN0T3: N0(BEAM):1.GEN 1/3\*EB (N/CM\*\*3)  
 BOGUSE: BOGUS HEATING TO KEEP TE > 0 (WATTS/CM3)  
 BOGUSI: BOGUS HEATING TO KEEP TI > 0 (WATTS/CM3)  
 ...vs. XB:  
 BPOL: POLOIDAL FIELD (TESLA)  
 ...vs. X:  
 BRFRAT\_D: RF -> D Beam: Pwave-dep/Pfpp ()  
 BTBE: BEAM BETA TOROIDAL ()  
 BTE: ELECTRON BETA TOROIDAL ()  
 BTI: ION BETA TOROIDAL ()  
 BTMIN: MINORITY BETA (TOROIDAL) ()  
 ...vs. MCINDEX:  
 BTNT2\_DD: DD BEAM-TARGET NEUTRONS (N/CM3/SEC)  
 ...vs. X:  
 BTNTX: BEAM-TARGET NEUTRONS (N/CM3/SEC)  
 BTNTX\_DD: DD BEAM-TARGET NEUTRONS (N/CM3/SEC)  
 BTPL: PLASMA BETA TOROIDAL ()  
 BTRAP0\_D: D beam full E dep banana frac. ()  
 BTRAP\_D: D beam ions banana fraction ()  
 BTROT: ROTATION BETA TOROIDAL ()  
 BTTOT: TOTAL BETA TOROIDAL ()  
 ...vs. RMAJM:  
 BTX: |BT(EXTERNAL)| (TESLA)  
 ...vs. XB:  
 BVELBX\_D: D anom beam ion velocity (CM/SEC)  
 ...vs. MCINDEX:  
 BVTOR2\_D: D Beam ion <Vtor>, GC (cm/sec)

...vs. X:

CFPCX\_GFD: CX POWER COEFF. gas flow D (WATTS/CM3/EV)  
CFPCX\_GFL: CX POWER COEFF. gas flow Li (WATTS/CM3/EV)  
CFPCX\_RCD: CX POWER COEFF. recyc. D (WATTS/CM3/EV)  
CFPCX\_RCL: CX POWER COEFF. recyc. Li (WATTS/CM3/EV)  
CFTCX\_GFD: CX TORQUE COEFF. gas flow D (Nt-M/CM3/(RAD/S))  
CFTCX\_GFL: CX TORQUE COEFF. gas flow Li (Nt-M/CM3/(RAD/S))  
CFTCX\_RCD: CX TORQUE COEFF. recyc. D (Nt-M/CM3/(RAD/S))  
CFTCX\_RCL: CX TORQUE COEFF. recyc. Li (Nt-M/CM3/(RAD/S))

...vs. XB:

CHPHDAT: MOMENTUM CHI(PHI) DATA (CM\*\*2/SEC)  
CHPHI: MOMENTUM DIFFUSIVITY (CM\*\*2/SEC)  
CHPHM: MOMENTUM CHI(PHI) MODEL (CM\*\*2/SEC)  
CHPHMNC: MOMENTUM CHI(PHI) NEOCLASSICAL (CM\*\*2/SEC)  
CHPHMTB: MOMENTUM CHI(PHI) TURBULENT (CM\*\*2/SEC)

...vs. X:

CICHD\_ALL: ICH DIRECT CUR DRIVE (AMPS/CM2)  
CICHM\_ALL: ICH MINORITY CUR DRIVE (AMPS/CM2)  
CLOGE: ELECTRON COULOMB LOG ()  
CLOGI: ION COULOMB LOG ()

...vs. XB:

CONDE: ELECTRON HEAT DIFFUSIVITY (CM\*\*2/SEC)  
CONDEF: 1 FLUID "EFFECTIVE" CHI (CM\*\*2/SEC)  
CONDEPR: chi(e) predictive model (CM\*\*2/SEC)  
CONDI: ION HEAT DIFFUSIVITY (CM\*\*2/SEC)  
CONDICWNC: NCLASS ion class heat diffus (CM\*\*2/SEC)  
CONDIPR: chi(i) predictive model (CM\*\*2/SEC)  
CONDIWNC: NCLASS ion heat diffusivity (CM\*\*2/SEC)  
CONDWNCD: NCLASS D+ heat diffusivity (CM\*\*2/SEC)  
CONDWNCE: NCLASS e- heat diffusivity (CM\*\*2/SEC)  
CONDWNCLI: NCLASS Li heat diffusivity (CM\*\*2/SEC)  
CONDWNCX: NCLASS Imp heat diffusivity (CM\*\*2/SEC)

...vs. X:

CONPLJB: Approximate <J.B>/Jtor (TESLA)

...vs. XGRID\_NPHI:

CPLSPEC1: Coupled Spectrum, Antenna #1 ()  
CPLSPEC2: Coupled Spectrum, Antenna #2 ()

...vs. X:

CUR: TOTAL PLASMA CURRENT (AMPS/CM2)  
CURB: BEAM DRIVEN CURRENT (AMPS/CM2)

...vs. XB:

CURBRABD: FAST ION RAD.CUR (ANOM DIFFUS) (AMPS)  
CURBRFSH: FAST ION RAD.CUR (FISHBONES) (AMPS)  
CURBRORB: FAST ION RADIAL CURRENT (ORBIT) (AMPS)  
CURBRRIP: FAST ION RAD.CUR (RIPPLE LOSS) (AMPS)

...vs. X:

CURBS: BOOTSTRAP CURRENT (AMPS/CM2)  
CURBSEPS: Aspect Ratio Bootstrap Current (AMPS/CM2)  
CURBSNE: Ne contrib Sauter Bootstrap Cur (AMPS/CM2)  
CURBSNI: Ni contrib Sauter Bootstrap Cur (AMPS/CM2)  
CURBSSAU: Sauter Bootstrap Current as Used (AMPS/CM2)

CURBSSAU0: Sauter Bootstrap Current Original Form (AMPS/CM2)  
CURBSSAU1: Sauter Bootstrap Current CS Chang Form (AMPS/CM2)  
CURBSTE: Te contrib Sauter Bootstrap Cur (AMPS/CM2)  
CURBSTI: Ti contrib Sauter Bootstrap Cur (AMPS/CM2)  
CURBSWNC: NCLASS Bootstrap Current (AMPS/CM2)  
CURGP: GRAD(P) TOROIDAL CUR (AMPS/CM2)  
CUROH: OHMIC PLASMA CURRENT (AMPS/CM2)  
...vs. X:  
DAREA: ZONE CROSS SECTIONAL AREA (CM\*\*2)  
...vs. XB:  
DEINT: INTOR ELECTRON DIFFUSIVITY (CM\*\*2/SEC)  
DFENC: Nclass e- particle diffusivity (CM\*\*2/SEC)  
...vs. X:  
DFIMP: DIV(IMPURITY FLUX) (N/CM3/SEC)  
...vs. XB:  
DFINC\_D: Nclass D+ particle diffusivity (CM\*\*2/SEC)  
DFINC\_LI: Nclass Li particle diffusivity (CM\*\*2/SEC)  
DFI\_D: D+ ION DIFFUSIVITY (NMODEL=4) (CM\*\*2/SEC)  
DFI\_LITH: LITH ION DIFFUSIVITY (NMODEL=4) (CM\*\*2/SEC)  
DIFB: ANOMOLOUS FAST ION DIFFUSIVITY (CM\*\*2/SEC)  
DIFFD: EFF. D+ ION DIFFUSIVITY (CM\*\*2/SEC)  
DIFFE: ELEC PTCL DIFFUSIVITY (CM\*\*2/SEC)  
DIFFI: ION DIFFUSIVITY FROM TOTAL FLUX (CM\*\*2/SEC)  
DIFFIO: INPUT ION DIFFUSIVITY (NMODEL=4) (CM\*\*2/SEC)  
DIFFIGLF: GLF23 ION DIFFUSIVITY (CM\*\*2/SEC)  
DIFFLI: EFF. LI+++ ION DIFFUSIVITY (CM\*\*2/SEC)  
DIFFX: EFF. IMP ION DIFFUSIVITY (CM\*\*2/SEC)  
DIFWE: ELEC PTCL DIFFUSIVITY (WARE) (CM\*\*2/SEC)  
...vs. X:  
DIVFD: DIV(ION FLUX D+) (N/CM3/SEC)  
DIVFE: DIV(ELECTRON FLUX) (N/CM3/SEC)  
DIVFI: DIV(TOTAL ION FLUX) (N/CM3/SEC)  
DIVLITHT: DIV(ION FLUX LI+++ ) (N/CM3/SEC)  
DNOVD: VOL NEUTRAL DENSITY G=D (N/CM\*\*3)  
DNOVLITH: VOL NEUTRAL DENSITY G=LITH (N/CM\*\*3)  
DNOWD: WALL NEUTRAL DENS G=D (N/CM\*\*3)  
DNOWLITH: WALL NEUTRAL DENS G=LITH (N/CM\*\*3)  
DNBDT\_D: D/DT(D BEAM ION DENS) (N/CM3/SEC)  
DNDDT: D/DT(ION DENS D+) (N/CM3/SEC)  
DNEDT: D/DT(ELECTRON DENSITY) (N/CM3/SEC)  
DNIDT: D/DT(TOTAL ION DENSITY) (N/CM3/SEC)  
DNIMP: D/DT(IMPURITY DENSITY) (N/CM3/SEC)  
DNLITHDT: D/DT(ION DENS LI+++ ) (N/CM3/SEC)  
DRAW: FLUX SURFACE AVG <DR> (CM)  
DRAWFAC: <dr>\*<1/dr> ()  
DVOL: ZONE VOLUME (CM\*\*3)  
DZIMP: D/DT(IMPURITY SPECIE) (N/CM3/SEC)  
...vs. RMAJM:  
EBAPLAV\_MP: FAST ION <Epll> , GC on midplane (eV)  
EBAPPAV\_MP: FAST ION <Eperp>, GC on midplane (eV)  
...vs. X:

EBEAM\_D: AVG D BEAM ION ENERGY (EV)  
 ECCUR: ECRH CURRENT (AMPS/CM2)  
 ECCUR1: ECRH CURRENT (GYROTRON 1) (AMPS/CM2)  
 EETR\_MOD: Div(elec energy flux) (model) (WATTS/CM3)  
 EETR\_OBS: Div(elec energy flux) (observed) (WATTS/CM3)  
 EHEAT: TOTAL ELECTRON HEATING (WATTS/CM3)  
 ...vs. XB:  
 ELONG: Flux surface elongation ()  
 ...vs. X:  
 EMINPAR\_H: H ICRF MINORITY <E>PLL (EV)  
 EMINPER\_H: H ICRF MINORITY <E>PERP (EV)  
 ...vs. XB:  
 EPOTNC: ER POTENTIAL: NC ANALYSIS (VOLTS)  
 EPOTRO: RADIAL POTENTIAL due to ROTATION (VOLTS)  
 ...vs. X:  
 EPTR\_MOD: Div(electron flux) (model) (N/CM3/SEC)  
 EPTR\_OBS: Div(electron flux) (observed) (N/CM3/SEC)  
 ...vs. RMAJM:  
 ERPRESS: NC radial E field, Pressure term (V/CM)  
 ERTOT: NC radial E Field (V/CM)  
 ERVPOL: NC radial E field, Vpol term (V/CM)  
 ERVTOR: NC radial E field, Vtor term (V/CM)  
 ...vs. XB:  
 ETAE:  $D(\text{LN}(\text{TE}))/D(\text{LN}(\text{NE}))$  ()  
 ETAI:  $D(\text{LN}(\text{TI}))/D(\text{LN}(\text{NI}))$  ()  
 ETAIE:  $D(\text{LN}(\text{TI}))/D(\text{LN}(\text{NE}))$  ()  
 ...vs. X:  
 ETA\_NC: NC RESISTIVITY (old fit) (OHM\*CM)  
 ETA\_SNC: Sauter Neoclassical Resistivity (OHM\*CM)  
 ETA\_SP: SPITZER RESISTIVITY (OHM\*CM)  
 ETA\_SPS: SPITZER RESISTIVITY (Sauter) (OHM\*CM)  
 ETA\_TSC: TSC Neoclassical Resistivity (OHM\*CM)  
 ETA\_USE: RESISTIVITY USED OR INFERRED (OHM\*CM)  
 ETA\_WNC: NCLASS Resistivity (OHM\*CM)  
 ...vs. XB:  
 ETPARGLF: GLF23 MOM (PAR) DIFFUSIVITY (CM\*\*2/SEC)  
 ETPERGLF: GLF23 MOM (PERP) DIFFUSIVITY (CM\*\*2/SEC)  
 ETPHGLF: GLF23 MOM (TOR) DIFFUSIVITY (CM\*\*2/SEC)  
 EXBGLF: GLF23 EXB SHEAR RATE (/SEC)  
 ...vs. X:  
 EXCS\_D\_1: FULL E D: DEPO EXCIT. FACTOR ()  
 EXCS\_D\_2: HALF E D: DEPO EXCIT. FACTOR ()  
 EXCS\_D\_3: 1/3 E D: DEPO EXCIT. FACTOR ()  
 EXCS\_D\_X: CX D: RECAP EXCIT. FACTOR ()  
 ...vs. RMAJM:  
 FBPBT:  $|BP|/|BT|$  COMPUTED ()  
 ...vs. THETA:  
 FBTH1: FI DIST 0.< R/A <.2 (N/CM\*\*3)  
 FBTH2: FI DIST .2< R/A <.4 (N/CM\*\*3)  
 FBTH3: FI DIST .4< R/A <.6 (N/CM\*\*3)  
 FBTH4: FI DIST .6< R/A <.8 (N/CM\*\*3)

FBTH5: FI DIST .8< R/A <1. (N/CM\*\*3)  
 ...vs. RMAJM:  
 FBTX: |BT|/|BT(EXTERNAL)| ()  
 FBX: |B|/|BT(EXTERNAL)| ()  
 ...vs. X:  
 FEELH: LH FRACTION FAST EL ENERGY ()  
 FENLH: LH FRACTION FAST EL PARTICLES ()  
 ...vs. XB:  
 FKBOL: CHI(I) NC BOLTON: TRANSP (CM\*\*2/SEC)  
 FKBOL\_K0: CHI(I) NC BOLTON: KAPISN\_0 (CM\*\*2/SEC)  
 FKBOL\_K1: CHI(I) NC BOLTON: KAPISN\_1 (CM\*\*2/SEC)  
 FKCH2: CHI(I) NC CHANG-HINTON VSN 2: TRANSP (CM\*\*2/SEC)  
 FKCH2\_K0: CHI(I) NC CHANG-HINTON VSN 2: KAPISN\_0 (CM\*\*2/SEC)  
 FKCH2\_K1: CHI(I) NC CHANG-HINTON VSN 2: KAPISN\_1 (CM\*\*2/SEC)  
 FKCHH: CHI(I) NC CHANG-HINTON ORIGINAL: TRANSP (CM\*\*2/SEC)  
 FKCHH\_K0: CHI(I) NC CHANG-HINTON ORIGINAL: KAPISN\_0 (CM\*\*2/SEC)  
 FKCHH\_K1: CHI(I) NC CHANG-HINTON ORIGINAL: KAPISN\_1 (CM\*\*2/SEC)  
 FKCHZ: CHI(I) NC CHANG-HINTON Z-CORR: TRANSP (CM\*\*2/SEC)  
 FKCHZ\_K0: CHI(I) NC CHANG-HINTON Z-CORR: KAPISN\_0 (CM\*\*2/SEC)  
 FKCHZ\_K1: CHI(I) NC CHANG-HINTON Z-CORR: KAPISN\_1 (CM\*\*2/SEC)  
 FKHZH: CHI(I) NC HAZELTINE-HINTON: TRANSP (CM\*\*2/SEC)  
 FKHZH\_K0: CHI(I) NC HAZELTINE-HINTON: KAPISN\_0 (CM\*\*2/SEC)  
 FKHZH\_K1: CHI(I) NC HAZELTINE-HINTON: KAPISN\_1 (CM\*\*2/SEC)  
 FKJUL: CHI(I) NC RUTHERFORD-JULICH: TRANSP (CM\*\*2/SEC)  
 FKJUL\_K0: CHI(I) NC RUTHERFORD-JULICH: KAPISN\_0 (CM\*\*2/SEC)  
 FKJUL\_K1: CHI(I) NC RUTHERFORD-JULICH: KAPISN\_1 (CM\*\*2/SEC)  
 ...vs. X:  
 FLOEI: DIV(NEUTRAL E-INFLUX) (WATTS/CM3)  
 FLOEX: DIV(NEUTRAL E-OUTFLUX) (WATTS/CM3)  
 FLXOI: DIV(NEUTRAL INFLUX) (N/CM3/SEC)  
 FLXOX: DIV(NEUTRAL OUTFLUX) (N/CM3/SEC)  
 FLXO\_GF\_D: D DIV(gas (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FLXO\_GF\_L: Li DIV(gas (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FLXO\_HALO: DIV(HALO (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FLXO\_RC\_D: D DIV(recyc (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FLXO\_RC\_L: Li DIV(recyc (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FLXO\_SGF: DIV(gas flow (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FLXO\_SRC: DIV(recycling (e-) NEUTRAL FLUX) (N/CM3/SEC)  
 FMCK\_WNC: NCLASS Fm convergence check ()  
 FPAX\_D: D BEAM SCATTERING >IMPURITIES ()  
 FPBX\_D: D BEAM DRAG >IMPURITIES ()  
 ...vs. XB:  
 FRAT1GLF: GLF23 LEADING MODE FREQUENCY (/SEC)  
 FRAT2GLF: GLF23 SCND LEADING MODE FREQ (/SEC)  
 ...vs. X:  
 FTOT2TT: TOTAL T(T,2N)HE4 FUSION (N/CM3/SEC)  
 FTOTDDN: TOTAL D(D,N)HE3 FUSION (N/CM3/SEC)  
 FTOTDDP: TOTAL D(D,P)T FUSION (N/CM3/SEC)  
 FTOTDT: TOTAL D-T FUSION (N/CM3/SEC)  
 ...vs. X:  
 GAINE: ELECTRON GAIN (WATTS/CM3)



GAINI: ION GAIN (WATTS/CM3)  
 ...vs. XB:  
 GAMDRBM1: DRBM GRTH RATE MODE=1 (1/SEC)  
 GAMDRBM2: DRBM GRTH RATE MODE=2 (1/SEC)  
 GAMDRBM3: DRBM GRTH RATE MODE=3 (1/SEC)  
 GAMMMM1: MMM95 GRTH RATE MODE=1 (1/SEC)  
 GAMMMM2: MMM95 GRTH RATE MODE=2 (1/SEC)  
 ...vs. X:  
 GAMNC: NC gamma, <n.grad(theta)> (CM\*\*-1)  
 GB1: <B> flux surface average (Tesla)  
 GB2: <B\*\*2> flux surface average (Tesla\*\*2)  
 GB2I: <B\*\*-2> flux surface average (Tesla\*\*-2)  
 GBR2: <B\*R\*\*2> flux surface average (Tesla\*cm2)  
 ...vs. XB:  
 GDATA: G profile (Ufile data) ()  
 ...vs. X:  
 GFLNC\_D: div(NC ptcl flux) thermal D+ (N/CM3/SEC)  
 GFLNC\_E: div(NC ptcl flux) electrons (N/CM3/SEC)  
 GFLNC\_I: div(NC ptcl flux) thermal ions (N/CM3/SEC)  
 GFLNC\_L: div(NC ptcl flux) thermal Li (N/CM3/SEC)  
 GFLNC\_X: div(NC ptcl flux) impurity (N/CM3/SEC)  
 ...vs. XB:  
 GFUN: G: PARA/DIAMAGNETISM ()  
 GFUNC: G: GRAD-SHAF EQUILIBRIUM CHECK ()  
 ...vs. X:  
 GMAG: GMAG (RT) PRESSURE PROFILE (JLES/CM3)  
 GR2: <R\*\*2> FLUX SURFACE VOL.AVG (CM\*\*2)  
 GR2I: <1/R\*\*2> FLUX SURFACE VOL.AVG (CM\*\*-2)  
 GR2X2: <R\*\*2\*GRAD(XI)\*\*2> FLX.SURF.AVG ()  
 ...vs. XB:  
 GRAT1GLF: GLF23 GROWTH RT OF LEADING MODE (/SEC)  
 GRAT2GLF: GLF23 GRTH RT SCND LEADING MODE (/SEC)  
 ...vs. RMJSYM:  
 GRB\_IN: GRB data as input (Tesla\*cm)  
 GRB\_USE: GRB data as used (Tesla\*cm)  
 ...vs. X:  
 GRI: <1/R> FLUX SURFACE VOL.AVG (CM\*\*-1)  
 GRIXI: <1/(R\*GRAD(XI))> FLX.SURF.AVG ()  
 GX2B2I: <grad(XI)\*\*2/B\*\*2> (1/T^2\*CM^2)  
 GX2R2I: <GRAD(XI)\*\*2/R\*\*2> FLX.SURF.AVG (CM\*\*-4)  
 GXI: <GRAD(XI)> FLUX SURF VOL.AVG (CM\*\*-1)  
 GXI2: <GRAD(XI)\*\*2> FLUX SURF VOL.AVG (CM\*\*-2)  
 ...vs. XB:  
 HFLX: M,N=1 HELICAL FLUX (Wb/rad)  
 ...vs. RMAJM:  
 HLFMP: HELICAL FLUX (Wb/rad)  
 ...vs. XB:  
 IBRORB\_D: D BEAM ION RADIAL CUR (ORBIT) (AMPS)  
 ...vs. X:  
 ICCUR: ICRF DRIVEN CURRENT (AMPS/CM2)  
 IETR\_MOD: Div(ion energy flux) (model) (WATTS/CM3)

IETR\_OBS: Div(ion energy flux) (observed) (WATTS/CM3)  
 IHEAT: TOTAL ION HEATING (WATTS/CM3)  
 ...vs. ILIM:  
 ILIM: LIMITER CONTOUR INDEX ()  
 ...vs. X:  
 IPTR\_MOD: Div(total ion flux) (model) (N/CM3/SEC)  
 IPTR\_OBS: Div(total ion flux) (observed) (N/CM3/SEC)  
 ...vs. X:  
 JBFAC: Species avg Jb shielding ()  
 JBFACZ1: Z=1 Jb shielding ()  
 JGPHR2I: <J.grad(phi)>/<1/R\*\*2> (AMPS/CM)  
 JICF01N01: ICRF CUR, Nphi= 33, FREQ#1 (AMPS/CM2)  
 JICF02N01: ICRF CUR, Nphi= -7, FREQ#2 (AMPS/CM2)  
 JICF02N02: ICRF CUR, Nphi= 14, FREQ#2 (AMPS/CM2)  
 JIC\_F1: RF J-direct drive, Freq.1 (AMPS/CM2)  
 JIC\_F2: RF J-direct drive, Freq.2 (AMPS/CM2)  
 ...vs. XB:  
 KETOT: CHI(E) "COUNTING" CONVECTION (CM\*\*2/SEC)  
 ...vs. X:  
 LHCUR: LH DRIVEN CURRENT (AMPS/CM2)  
 ...vs. XB:  
 LPOL: POLOIDAL PATH LENGTH (CM)  
 ...vs. X:  
 MONET: NET CX MOMENTUM LOSS (Nt-M/CM3)  
 MCDENS\_D: D BEAM ION DENSITY (MC LIST) (N/CM\*\*3)  
 MCDEPS\_D: NEW D BEAM IONS (MC DEP) (N/CM\*\*3)  
 ...vs. MCINDEX:  
 MCINDEX: 2d MC grid (x,th) ()  
 ...vs. X:  
 MCONV: CONVECTIVE TRANSPORT (Nt-M/CM3)  
 MODOT: MOMENTUM GAIN (Nt-M/CM3)  
 MOIG\_D: D Therm Ang Inertia Dens (NtMS2/CM3)  
 MOIG\_LI: Li Therm Ang Inertia Dens (NtMS2/CM3)  
 MOIG\_X: Impurity Therm Ang Inertia Dens (NtMS2/CM3)  
 MOIS\_TOK: TOK Therm Ang Inertia Dens (NtMS2/CM3)  
 MRFRAT\_H: RF->H Minority: Pwave/Pfpp ()  
 MVISC: VISCOUS TRANSPORT (Nt-M/CM3)  
 ...vs. X:  
 NOBCXD0: CX FAST NEUTRAL DENSITY (D0) (N/CM\*\*3)  
 NOBD0: 1.GEN FAST NEUTRAL DENSITY (D0) (N/CM\*\*3)  
 NOBH\_D: beam halo neutral density G=D (N/CM\*\*3)  
 NOBH\_LI: beam halo neutral density G=Li (N/CM\*\*3)  
 NOGF\_D\_D: D n0 due to D gas flow (N/CM\*\*3)  
 NOGF\_D\_L: D n0 due to Li gas flow (N/CM\*\*3)  
 NOGF\_L\_D: Li n0 due to D gas flow (N/CM\*\*3)  
 NOGF\_L\_L: Li n0 due to Li gas flow (N/CM\*\*3)  
 NORC\_D\_D: D n0 due to D recyc (N/CM\*\*3)  
 NORC\_D\_L: D n0 due to Li recyc (N/CM\*\*3)  
 NORC\_L\_D: Li n0 due to D recyc (N/CM\*\*3)  
 NORC\_L\_L: Li n0 due to Li recyc (N/CM\*\*3)  
 NOSGF\_D: gas flow neutral dens G=D (N/CM\*\*3)

NOSGF\_LI: gas flow neutral dens G=Li (N/CM\*\*3)  
 NOSRC\_D: recycling neutral dens G=D (N/CM\*\*3)  
 NOSRC\_LI: recycling neutral dens G=Li (N/CM\*\*3)  
 NB01\_E1: nb: Beam#01(D), E-frac no.1 (N/CM\*\*3)  
 NB01\_E2: nb: Beam#01(D), E-frac no.2 (N/CM\*\*3)  
 NB01\_E3: nb: Beam#01(D), E-frac no.3 (N/CM\*\*3)  
 NB01\_TOT: nb: Beam#01(D), total density (N/CM\*\*3)  
 NB02\_E1: nb: Beam#02(D), E-frac no.1 (N/CM\*\*3)  
 NB02\_E2: nb: Beam#02(D), E-frac no.2 (N/CM\*\*3)  
 NB02\_E3: nb: Beam#02(D), E-frac no.3 (N/CM\*\*3)  
 NB02\_TOT: nb: Beam#02(D), total density (N/CM\*\*3)  
 NB03\_E1: nb: Beam#03(D), E-frac no.1 (N/CM\*\*3)  
 NB03\_E2: nb: Beam#03(D), E-frac no.2 (N/CM\*\*3)  
 NB03\_E3: nb: Beam#03(D), E-frac no.3 (N/CM\*\*3)  
 NB03\_TOT: nb: Beam#03(D), total density (N/CM\*\*3)  
 NB04\_E1: nb: Beam#04(D), E-frac no.1 (N/CM\*\*3)  
 NB04\_E2: nb: Beam#04(D), E-frac no.2 (N/CM\*\*3)  
 NB04\_E3: nb: Beam#04(D), E-frac no.3 (N/CM\*\*3)  
 NB04\_TOT: nb: Beam#04(D), total density (N/CM\*\*3)  
 NB\_F1\_D: density: full energy D beam (N/CM\*\*3)  
 NB\_F2\_D: density: half energy D beam (N/CM\*\*3)  
 NB\_F3\_D: density: 1/3 energy D beam (N/CM\*\*3)  
 NCFT: NC trapping fraction (net) ()  
 NCFTMINUS: NC trapping fraction lower limit ()  
 NCFTPLUS: NC trapping fraction upper limit ()  
 ND: DEUTERIUM ION DENSITY (N/CM\*\*3)  
 ND\_NC: NCLASS D+ ION DENSITY (N/CM\*\*3)  
 NE: ELECTRON DENSITY (N/CM\*\*3)  
 ...vs. RMJSYM:  
 NER\_IN: NER data as input (n/cm\*\*3)  
 NER\_USE: NER data as used (n/cm\*\*3)  
 ...vs. X:  
 NETW: NE(R) ASSYMMETRY (N/CM\*\*3)  
 NI: TOTAL ION DENSITY (N/CM\*\*3)  
 NIMP: TOTAL IMPURITY DENSITY (N/CM\*\*3)  
 NIMPS\_TOK: TOK Total Impurity Density (N/CM\*\*3)  
 NIMP\_NC: NCLASS impurity density (N/CM\*\*3)  
 NIMP\_SINGL: SINGL Impurity Density (N/CM\*\*3)  
 NLITH: LITHIUM ION DENSITY (N/CM\*\*3)  
 NLITH\_NC: NCLASS Li+++ ION DENSITY (N/CM\*\*3)  
 NMC\_D: Beam D No. of MC Ions (N)  
 NMINI: TOTAL ICRF MINORITY DENSITY (N/CM\*\*3)  
 NMINI\_H: H ICRF MINORITY DENSITY (N/CM\*\*3)  
 NUSTE: ELECTRON COLLISIONALITY ()  
 NUSTI: ION COLLISIONALITY ()  
 ...vs. X:  
 OMOBH\_D: beam halo n0 ang. veloc. G=D (RAD/SEC)  
 OMOBH\_LI: beam halo n0 ang. veloc. G=Li (RAD/SEC)  
 OMOCX\_GFD: CX ANG. VELOC. gas flow D (RAD/SEC)  
 OMOCX\_GFL: CX ANG. VELOC. gas flow Li (RAD/SEC)  
 OMOCX\_RCD: CX ANG. VELOC. recyc. D (RAD/SEC)

OM0CX\_RCL: CX ANG. VELOC. recyc. Li (RAD/SEC)  
 OM0GF\_D\_D: D omega0 due to D gas flow (RAD/SEC)  
 OM0GF\_D\_L: D omega0 due to Li gas flow (RAD/SEC)  
 OM0GF\_L\_D: Li omega0 due to D gas flow (RAD/SEC)  
 OM0GF\_L\_L: Li omega0 due to Li gas flow (RAD/SEC)  
 OM0RC\_D\_D: D omega0 due to D recyc (RAD/SEC)  
 OM0RC\_D\_L: D omega0 due to Li recyc (RAD/SEC)  
 OM0RC\_L\_D: Li omega0 due to D recyc (RAD/SEC)  
 OM0RC\_L\_L: Li omega0 due to Li recyc (RAD/SEC)  
 OMOVD: VOL NEUTRAL ANG.VEL G=D (RAD/SEC)  
 OMOVLITH: VOL NEUTRAL ANG.VEL G=LITH (RAD/SEC)  
 OMOWD: WALL NEUTRAL ANG.VEL G=D (RAD/SEC)  
 OMOWLITH: WALL NEUTRAL ANG.VEL G=LITH (RAD/SEC)  
 OMEGA: TOROIDAL ANGULAR VELOCITY (RAD/SEC)  
 OMEGA\_NC: N.C. TOROIDAL ANGULAR VELOCITY (RAD/SEC)  
 OMEGB: BEAM ION AVG ANG.VELOCITY (RAD/SEC)  
 OMEGB\_D: D BEAM ION AVG ANG.VELOCITY (RAD/SEC)  
 OMEGDATA: Toroidal Ang.Velocity Data (RAD/SEC)  
 ...vs. XB:  
 OMEMMM1: MMM95 FREQUENCY MODE=1 (RAD/SEC)  
 OMEMMM2: MMM95 FREQUENCY MODE=2 (RAD/SEC)  
 OMGDRBM1: DRBM FREQUENCY MODE=1 (RAD/SEC)  
 OMGDRBM2: DRBM FREQUENCY MODE=2 (RAD/SEC)  
 OMGDRBM3: DRBM FREQUENCY MODE=3 (RAD/SEC)  
 ...vs. X:  
 POHALO: HALO NEUTRAL SCE POWER (WATTS/CM3)  
 PONET: NET CHARGE EXCHANGE LOSS (WATTS/CM3)  
 PBCX: THERMAL ION LOSS, FAST ION CX (WATTS/CM3)  
 PBCX\_D: THERMAL ION LOSS, CX W/ D BEAM (WATTS/CM3)  
 PBE: BEAM HEATING OF ELECTRONS (WATTS/CM3)  
 PBE01\_E1: Pbe: Beam#01(D), E-frac no.1 (WATTS/CM3)  
 PBE01\_E2: Pbe: Beam#01(D), E-frac no.2 (WATTS/CM3)  
 PBE01\_E3: Pbe: Beam#01(D), E-frac no.3 (WATTS/CM3)  
 PBE01\_TOT: Beam#01(D), electron heating (WATTS/CM3)  
 PBE02\_E1: Pbe: Beam#02(D), E-frac no.1 (WATTS/CM3)  
 PBE02\_E2: Pbe: Beam#02(D), E-frac no.2 (WATTS/CM3)  
 PBE02\_E3: Pbe: Beam#02(D), E-frac no.3 (WATTS/CM3)  
 PBE02\_TOT: Beam#02(D), electron heating (WATTS/CM3)  
 PBE03\_E1: Pbe: Beam#03(D), E-frac no.1 (WATTS/CM3)  
 PBE03\_E2: Pbe: Beam#03(D), E-frac no.2 (WATTS/CM3)  
 PBE03\_E3: Pbe: Beam#03(D), E-frac no.3 (WATTS/CM3)  
 PBE03\_TOT: Beam#03(D), electron heating (WATTS/CM3)  
 PBE04\_E1: Pbe: Beam#04(D), E-frac no.1 (WATTS/CM3)  
 PBE04\_E2: Pbe: Beam#04(D), E-frac no.2 (WATTS/CM3)  
 PBE04\_E3: Pbe: Beam#04(D), E-frac no.3 (WATTS/CM3)  
 PBE04\_TOT: Beam#04(D), electron heating (WATTS/CM3)  
 PBEPHI: Electrostatic field -> fast ions (WATTS/CM3)  
 PBE\_D: D BEAM->ELECTRON HEATING (WATTS/CM3)  
 PBE\_F1\_D: Pbe: full energy D beam (WATTS/CM3)  
 PBE\_F2\_D: Pbe: half energy D beam (WATTS/CM3)  
 PBE\_F3\_D: Pbe: 1/3 energy D beam (WATTS/CM3)

PBI: BEAM HEATING OF IONS (WATTS/CM3)  
PBI01\_E1: Pbi: Beam#01(D), E-frac no.1 (WATTS/CM3)  
PBI01\_E2: Pbi: Beam#01(D), E-frac no.2 (WATTS/CM3)  
PBI01\_E3: Pbi: Beam#01(D), E-frac no.3 (WATTS/CM3)  
PBI01\_TOT: Beam#01(D), ion heating (WATTS/CM3)  
PBI02\_E1: Pbi: Beam#02(D), E-frac no.1 (WATTS/CM3)  
PBI02\_E2: Pbi: Beam#02(D), E-frac no.2 (WATTS/CM3)  
PBI02\_E3: Pbi: Beam#02(D), E-frac no.3 (WATTS/CM3)  
PBI02\_TOT: Beam#02(D), ion heating (WATTS/CM3)  
PBI03\_E1: Pbi: Beam#03(D), E-frac no.1 (WATTS/CM3)  
PBI03\_E2: Pbi: Beam#03(D), E-frac no.2 (WATTS/CM3)  
PBI03\_E3: Pbi: Beam#03(D), E-frac no.3 (WATTS/CM3)  
PBI03\_TOT: Beam#03(D), ion heating (WATTS/CM3)  
PBI04\_E1: Pbi: Beam#04(D), E-frac no.1 (WATTS/CM3)  
PBI04\_E2: Pbi: Beam#04(D), E-frac no.2 (WATTS/CM3)  
PBI04\_E3: Pbi: Beam#04(D), E-frac no.3 (WATTS/CM3)  
PBI04\_TOT: Beam#04(D), ion heating (WATTS/CM3)  
PBI\_D: D B->TH ION HEATING (WATTS/CM3)  
PBI\_F1\_D: Pbi: full energy D beam (WATTS/CM3)  
PBI\_F2\_D: Pbi: half energy D beam (WATTS/CM3)  
PBI\_F3\_D: Pbi: 1/3 energy D beam (WATTS/CM3)  
PBQLN\_D: RF PWR -> D Beam: FPP QLO renorm (WATTS/CM3)  
PBQSL\_D: RF PWR -> D Beam: FPP q.l.op (WATTS/CM3)  
PBTH: FAST ION THERMALIZATION POWER (WATTS/CM3)  
PBTH01: Beam#01(D), thermalization power (WATTS/CM3)  
PBTH02: Beam#02(D), thermalization power (WATTS/CM3)  
PBTH03: Beam#03(D), thermalization power (WATTS/CM3)  
PBTH04: Beam#04(D), thermalization power (WATTS/CM3)  
PBTHA: BEAM WORK -> ROTATION (TH-ASSYM) (WATTS/CM3)  
PBTH\_D: D BEAM THERMALIZATION POWER (WATTS/CM3)  
PBTOT01: Beam#01(D), total power (WATTS/CM3)  
PBTOT02: Beam#02(D), total power (WATTS/CM3)  
PBTOT03: Beam#03(D), total power (WATTS/CM3)  
PBTOT04: Beam#04(D), total power (WATTS/CM3)  
PBWAV\_D: RF Pwr -> D Beam: Wave Depo (WATTS/CM3)  
PCHK: P: Surf. Avg. Grad-Shaf Check (PASCALS)  
PCMPE: ELECTRON COMPRESSION (WATTS/CM3)  
PCMPI: ION COMPRESSION (WATTS/CM3)  
PCNDE: ELECTRON CONDUCTION LOSS (WATTS/CM3)  
PCNVE: ELECTRON CONVECTION LOSS (WATTS/CM3)  
PCOND: ION CONDUCTION LOSS (WATTS/CM3)  
PCONV: ION CONVECTION LOSS (WATTS/CM3)  
PCPRB: POWER: COMPRESSION OF FAST IONS (WATTS/CM3)  
PCX: CHARGE EXCHANGE LOSS (WATTS/CM3)  
PCXGF\_D: CX POWER to D gas NEUTRALS (WATTS/CM3)  
PCXGF\_L: CX POWER to Li gas NEUTRALS (WATTS/CM3)  
PCXHALO: CX POWER TO HALO NEUTRALS (WATTS/CM3)  
PCXRC\_D: CX POWER to D recyc NEUTRALS (WATTS/CM3)  
PCXRC\_L: CX POWER to Li recyc NEUTRALS (WATTS/CM3)  
PCXSGF: CX POWER to gas flow NEUTRALS (WATTS/CM3)  
PCXSRC: CX POWER to recycling NEUTRALS (WATTS/CM3)

PCX\_HALO: beam halo driven cx power (WATTS/CM3)  
 PDATA: P profile (Ufile data) (PASCALS)  
 PEECH: ECRH ELECTRON HEATING (WATTS/CM3)  
 PEECH1: ECRH ELEC HEATING (GYROTRON 1) (WATTS/CM3)  
 PEICH: ICRF ELECTRON HEATING (WATTS/CM3)  
 PELH: LH ELECTRON HEATING (WATTS/CM3)  
 PFLXOGF\_D: D DIV(gas flow POWER FLUX) (WATTS/CM3)  
 PFLXOGF\_L: Li DIV(gas flow POWER FLUX) (WATTS/CM3)  
 PFLXOHALO: DIV(HALO NEUTRAL POWER FLUX) (WATTS/CM3)  
 PFLXORC\_D: D DIV(recyc POWER FLUX) (WATTS/CM3)  
 PFLXORC\_L: Li DIV(recyc POWER FLUX) (WATTS/CM3)  
 PFLXOSGF: DIV(gas flow NEUTRAL POWER FLUX) (WATTS/CM3)  
 PFLXOSRC: DIV(recycling NEUTRAL POWER FLUX) (WATTS/CM3)  
 PHBAL: ANGULAR MOMENTUM BALANCE (Nt-M/CM3)  
 PICF01N01: ICRF PWR, Nphi= 33, FREQ#1 (WATTS/CM3)  
 PICF02N01: ICRF PWR, Nphi= -7, FREQ#2 (WATTS/CM3)  
 PICF02N02: ICRF PWR, Nphi= 14, FREQ#2 (WATTS/CM3)  
 PIC\_F1: RF PWR Absorbed, Freq.1 (WATTS/CM3)  
 PIC\_F2: RF PWR Absorbed, Freq.2 (WATTS/CM3)  
 ...vs. XGRID\_NPHI:  
 PIC\_NPHI: Summed ICRF Power Spectrum (WATTS)  
 ...vs. X:  
 PIGF\_D: D gas flow ionization POWER (WATTS/CM3)  
 PIGF\_L: Li gas flow ionization POWER (WATTS/CM3)  
 PIHALO: HALO NEUTRAL RECAPTURE POWER (WATTS/CM3)  
 PIICH: ICRF ION HEATING (WATTS/CM3)  
 PILH: LH ION HEATING (WATTS/CM3)  
 PION: NEUTRAL IONIZATION WORK (WATTS/CM3)  
 PIRC\_D: D recyc ionization POWER (WATTS/CM3)  
 PIRC\_L: Li recyc ionization POWER (WATTS/CM3)  
 PISGF: gas fl neutral ionization POWER (WATTS/CM3)  
 PISRC: recyc neutral ionization POWER (WATTS/CM3)  
 PLABD: PELLET ABLATION (DATA) (N/CM\*\*3)  
 ...vs. XB:  
 PLCURPLL: POLOIDAL CUR (J PLL) (AMPS)  
 PLCURPRP: POLOIDAL CUR (J PERP) (AMPS)  
 PLCURTOT: TOTAL POLOIDAL CUR TO WALL (AMPS)  
 ...vs. X:  
 PLEB: <E.B> FLUX SURFACE VOL.AVG (VOLT\*TESLA/CM)  
 ...vs. XB:  
 PLFLX: POLOIDAL FLUX (Wb/rad)  
 PLFLX2PI: TOTAL POLOIDAL FLUX (WEBERS)  
 ...vs. RMAJM:  
 PLFMP: POLOIDAL FLUX (Wb/rad)  
 ...vs. X:  
 PLJB: <J.B> FLUX SURFACE VOL.AVG (AMP\*TESLA/CM2)  
 PLJBBGPI: <J.B>/<B.grad(phi)> (AMPS/CM)  
 PLJBOH: <J.B> OHMIC (AMP\*TESLA/CM2)  
 PLJBSNC: <J.B> NCLASS Bootstrap (AMP\*TESLA/CM2)  
 PLJBXT: <J.B> DRIVEN (SMOOTHED, USED) (AMP\*TESLA/CM2)  
 PLJBXTR: <J.B> DRIVEN, FROM RESISTIVITY (AMP\*TESLA/CM2)

PLJBXTU: <J.B> DRIVEN (UNSMOOTHED) (AMP\*TESLA/CM2)  
 PMASS: PLASMA MASS DENSITY (GRAMS/CM3)  
 PMHDF\_IN: NONTHERMAL PRESS to MHD SOLVER (PASCALS)  
 PMHDR\_IN: ROTATION PRESSURE to MHD SOLVER (PASCALS)  
 PMHDT\_IN: THERMAL PRESSURE to MHD SOLVER (PASCALS)  
 PMHD\_IN: PRESSURE INPUT to MHD SOLVER (PASCALS)  
 PNI: NEUTRAL IONIZATION SOURCE (WATTS/CM3)  
 POH: OHMIC HEATING POWER (WATTS/CM3)  
 POHB: POWER: OH CIRCUIT TO FAST IONS (WATTS/CM3)  
 PPHI: ANGULAR MOMENTUM DENSITY (NtM-S/CM3)  
 PPHIGN\_D: D NCLASS Ang Mom Dens (NtM-S/CM3)  
 PPHIGN\_LI: Li NCLASS Ang Mom Dens (NtM-S/CM3)  
 PPHIGN\_X: Impurity NCLASS Ang Mom Dens (NtM-S/CM3)  
 PPHIN: NCLASS Ang Mom Dens (NtM-S/CM3)  
 PPLAS: PLASMA PRESSURE (PASCALS)  
 PQLNORM\_H: RF PWR->H Min.i: FPP QLO renorm (WATTS/CM3)  
 PQSLMIN\_H: RF PWR->H Minority: FPP q.l.op (WATTS/CM3)  
 PRAD: NET RADIATED POWER USED (WATTS/CM3)  
 PRAD0: RADIATION: BOLO DATA (WATTS/CM3)  
 PRADC: NET RADIATED POWER (THEORY) (WATTS/CM3)  
 PRADS\_TOK: TOK Impurity Radiation (WATTS/CM3)  
 PRAD\_ADJ: RADIATION: BOLO DATA ADJUSTED (WATTS/CM3)  
 PRAD\_BR: BREMSSTRAHLUNG RADIATION (WATTS/CM3)  
 PRAD\_CY: CYCLOTRON RADIATION (WATTS/CM3)  
 PRAD\_LI: LINE RADIATION (WATTS/CM3)  
 PRBS\_TOK: TOK Impurity Brem Radiation (WATTS/CM3)  
 PRBX\_SINGL: SINGL Impurity Brem Radiation (WATTS/CM3)  
 PRLS\_TOK: TOK Impurity Line Radiation (WATTS/CM3)  
 PRLX\_SINGL: SINGL Impurity Line Radiation (WATTS/CM3)  
 ...vs. RMJSYM:  
 PRS\_IN: PRS data as input (Pascals)  
 PRS\_USE: PRS data as used (Pascals)  
 ...vs. X:  
 PRX\_SINGL: SINGL Impurity Radiation (WATTS/CM3)  
 PSC\_HALO: beam halo source/sink power (WATTS/CM3)  
 PSFM1: NC Pfirsch-Schluter 1 moment (CM\*\*-2)  
 PSFM10: NC Pfirsch-Schluter 10 moment (CM\*\*-2)  
 PSFM11: NC Pfirsch-Schluter 11 moment (CM\*\*-2)  
 PSFM12: NC Pfirsch-Schluter 12 moment (CM\*\*-2)  
 PSFM13: NC Pfirsch-Schluter 13 moment (CM\*\*-2)  
 PSFM14: NC Pfirsch-Schluter 14 moment (CM\*\*-2)  
 PSFM15: NC Pfirsch-Schluter 15 moment (CM\*\*-2)  
 PSFM16: NC Pfirsch-Schluter 16 moment (CM\*\*-2)  
 PSFM2: NC Pfirsch-Schluter 2 moment (CM\*\*-2)  
 PSFM3: NC Pfirsch-Schluter 3 moment (CM\*\*-2)  
 PSFM4: NC Pfirsch-Schluter 4 moment (CM\*\*-2)  
 PSFM5: NC Pfirsch-Schluter 5 moment (CM\*\*-2)  
 PSFM6: NC Pfirsch-Schluter 6 moment (CM\*\*-2)  
 PSFM7: NC Pfirsch-Schluter 7 moment (CM\*\*-2)  
 PSFM8: NC Pfirsch-Schluter 8 moment (CM\*\*-2)  
 PSFM9: NC Pfirsch-Schluter 9 moment (CM\*\*-2)

PTMIN: MINORITY TRANSPORT (WATTS/CM3)  
 PTOWB: KINETIC MHD PRESSURE W/FAST IONS (PASCALS)  
 PTRD\_MOD: Div(D ion flux) (model) (N/CM3/SEC)  
 PTRD\_OBS: Div(D ion flux) (observed) (N/CM3/SEC)  
 PTRLI\_MOD: Div(Li ion flux) (model) (N/CM3/SEC)  
 PTRLI\_OBS: Div(Li ion flux) (observed) (N/CM3/SEC)  
 PWAVMIN\_H: RF Pwr->H Minority: Wave Depo (WATTS/CM3)  
 ...vs. XB:  
 Q: Q PROFILE ()  
 QCHK: MHD EQUILIBRIUM Q CHECK ()  
 QDATA: Q profile (Ufile data) ()  
 ...vs. X:  
 QFLNCC\_D: div(NC class heat flux) D+ (WATTS/CM3)  
 QFLNCC\_E: div(NC class heat flux) electr (WATTS/CM3)  
 QFLNCC\_I: div(NC class heat flux) thermals (WATTS/CM3)  
 QFLNCC\_L: div(NC class heat flux) Li (WATTS/CM3)  
 QFLNCC\_X: div(NC class heat flux) impurity (WATTS/CM3)  
 QFLNC\_D: div(NC heat flux) thermal D+ (WATTS/CM3)  
 QFLNC\_E: div(NC heat flux) electrons (WATTS/CM3)  
 QFLNC\_I: div(NC heat flux) thermal ions (WATTS/CM3)  
 QFLNC\_L: div(NC heat flux) thermal Li (WATTS/CM3)  
 QFLNC\_X: div(NC heat flux) impurity (WATTS/CM3)  
 QICHA: TOTAL ICH HEATING (WATTS/CM3)  
 QICHE: ICH DIRECT ELECTRON HEATING (WATTS/CM3)  
 QICFAST: ICH Heating of Beam & Fush Ions (WATTS/CM3)  
 QICHI: ICH DIRECT TH.ION HEATING (WATTS/CM3)  
 QICHMC: ICH HEATING BY MODE CONVERSION (WATTS/CM3)  
 QICHMIN: ICH PWR TO MINORITY (wave code) (WATTS/CM3)  
 QIE: ION-ELECTRON COUPLING (WATTS/CM3)  
 QIESLVTX: ION-ELECTRON COUPLING(SLVTX) (WATTS/CM3)  
 QMINBAL: Minority Power Balance (WATTS/CM3)  
 QMINDOT: D/DT(MINORITY ION ENERGY) (WATTS/CM3)  
 QMINE: POWER MIN.IONS->ELECTRONS (WATTS/CM3)  
 QMINFISH: Minority ion fishbone loss (WATTS/CM3)  
 QMINI: POWER MIN.IONS->TH.IONS (WATTS/CM3)  
 QMINICH: ICRH Power (Renormalized QLO) (WATTS/CM3)  
 QMINOH: POWER OH->MIN.IONS (WATTS/CM3)  
 QMINORB: ORBIT LOSS OF MINORITY IONS (WATTS/CM3)  
 QMINPSC: MIN.IONS Ptcl Source/Sink (WATTS/CM3)  
 QMINTRAN: Min.ions transport (del.flux) (WATTS/CM3)  
 QMINWJXB: JxB omega\*Torque work done (WATTS/CM3)  
 ...vs. RMAJM:  
 QMP: ROTATIONAL TRANSFORM ()  
 ...vs. RMJSYM:  
 QPR\_IN: QPR data as input ()  
 QPR\_USE: QPR data as used ()  
 ...vs. X:  
 QRFBTOT: ALL FAST ION HEATING by RF (WATTS/CM3)  
 QROT: E(ROT)=> ION HEAT: CONV+FRICTION (WATTS/CM3)  
 QROTC: E(ROT)=>ION HEATING: CONVECTIVE (WATTS/CM3)  
 QROTF: E(ROT)=>ION HEATING: FRICTION (WATTS/CM3)



...vs. XB:  
 RBOUN: RADIUS (CM)  
 ...vs. X:  
 RCMPR: ROTATION COMPRESSION (WATTS/CM3)  
 RCONV: CONVECTIVE ROT.ENERGY LOSS (WATTS/CM3)  
 ...vs. ILIM:  
 RLIM: LIMITER R PTS (CM)  
 ...vs. RLPAR:  
 RLPAR: PARALLEL REFRACTION INDEX ()  
 RLPOW: LH POWER SPECTRUM ()  
 ...vs. XB:  
 RLTCRGKF: R/LTi: critical ITG main br. ()  
 RLTCRGKZ: R/LTi: critical ITG Carbon br. ()  
 RLTI: R/LTi: actual ITG:R\*Grad(Ti)/Ti ()  
 ...vs. RMAJM:  
 RMAJM: MIDPLANE-FLUX SURFACE RADII (CM)  
 ...vs. XB:  
 RMC00: 0TH ASYM R MOMENT (CM)  
 RMC01: 1st ASYM R COS MOMENT (CM)  
 RMC02: 2nd ASYM R COS MOMENT (CM)  
 RMC03: 3rd ASYM R COS MOMENT (CM)  
 RMC04: 4th ASYM R COS MOMENT (CM)  
 RMC05: 5th ASYM R COS MOMENT (CM)  
 RMC06: 6th ASYM R COS MOMENT (CM)  
 RMC07: 7th ASYM R COS MOMENT (CM)  
 RMC08: 8th ASYM R COS MOMENT (CM)  
 RMC09: 9th ASYM R COS MOMENT (CM)  
 RMC10: 10th ASYM R COS MOMENT (CM)  
 RMC11: 11th ASYM R COS MOMENT (CM)  
 RMC12: 12th ASYM R COS MOMENT (CM)  
 RMC13: 13th ASYM R COS MOMENT (CM)  
 RMC14: 14th ASYM R COS MOMENT (CM)  
 RMC15: 15th ASYM R COS MOMENT (CM)  
 RMC16: 16th ASYM R COS MOMENT (CM)  
 RMJMP: FLUX SURFACE CTRS (CM)  
 ...vs. RMJSYM:  
 RMJSYM: MAJOR RADII (DATA MAPPING) (CM)  
 ...vs. XB:  
 RMNMP: MIDPLANE RADII (CM)  
 RMS01: 1st ASYM R SIN MOMENT (CM)  
 RMS02: 2nd ASYM R SIN MOMENT (CM)  
 RMS03: 3rd ASYM R SIN MOMENT (CM)  
 RMS04: 4th ASYM R SIN MOMENT (CM)  
 RMS05: 5th ASYM R SIN MOMENT (CM)  
 RMS06: 6th ASYM R SIN MOMENT (CM)  
 RMS07: 7th ASYM R SIN MOMENT (CM)  
 RMS08: 8th ASYM R SIN MOMENT (CM)  
 RMS09: 9th ASYM R SIN MOMENT (CM)  
 RMS10: 10th ASYM R SIN MOMENT (CM)  
 RMS11: 11th ASYM R SIN MOMENT (CM)  
 RMS12: 12th ASYM R SIN MOMENT (CM)

RMS13: 13th ASYM R SIN MOMENT (CM)  
RMS14: 14th ASYM R SIN MOMENT (CM)  
RMS15: 15th ASYM R SIN MOMENT (CM)  
RMS16: 16th ASYM R SIN MOMENT (CM)  
...vs. X:  
RODOT: ROTATIONAL ENERGY GAIN (WATTS/CM3)  
RQBCO: BEAM WORK -> ROTATION (COL.) (WATTS/CM3)  
RQBE: BEAM WORK -> ELECTRON ROTATION (WATTS/CM3)  
RQBI: BEAM WORK -> ION ROTATION (WATTS/CM3)  
RQBTH: BEAM WORK -> ROTATION (THERMALIZ) (WATTS/CM3)  
RQJXB: BEAM WORK -> ROTATION (JXB) (WATTS/CM3)  
RQOHB: WORK: OH->BEAM, ROTATION (WATTS/CM3)  
RQRPL: BEAM WORK -> ROTATION RPL (JXB) (WATTS/CM3)  
RSFRC: ROTATION SOURCE FRICTION (WATTS/CM3)  
RSNBI\_D\_D: D\_0 ii sink by D beam ions (1/sec)  
RSNBI\_L\_D: Li\_0 ii sink by D beam ions (1/sec)  
RSNBX\_D\_D: D\_0 cx sink by D beam ions (1/sec)  
RSNBX\_L\_D: Li\_0 cx sink by D beam ions (1/sec)  
RVISC: VISCOUS ROT.ENERGY LOSS (WATTS/CM3)  
RZON: RADIUS (CM)  
...vs. X:  
SOHALO: TOTAL (e-) in HALO NEUTRAL SCE (N/CM3/SEC)  
SOVLE: TOTAL NEUTRAL VOL SCE (WATTS/CM3)  
SOVOL: TOTAL NEUTRAL VOL E-SCE (N/CM3/SEC)  
SBOID: D0 NEUTRAL SINK BEAM II (N/CM3/SEC)  
SBOILITH: LITH NEUTRAL SINK BEAM II (N/CM3/SEC)  
SBOXD: D0 NEUTRAL SINK BEAM CX (N/CM3/SEC)  
SBOXLITH: LITH NEUTRAL SINK BEAM CX (N/CM3/SEC)  
SBAL\_D: D PTCL BALANCE (N/CM3/SEC)  
SBAL\_ION: Total Ion Particle Balance (N/CM3/SEC)  
SBAL\_LI: Li PTCL BALANCE (N/CM3/SEC)  
SBCX0: FAST ION CX: NEUTRALS BORN (N/CM3/SEC)  
SBCX0\_D: D BEAM CX: NEUTRALS BORN (N/CM3/SEC)  
SBCXD: D\_0 NEUTRAL SOURCE BEAM HALO (N/CM3/SEC)  
SBCXLI: Li\_0 NEUTRAL SOURCE BEAM HALO (N/CM3/SEC)  
SBE: ELECTRON SCE FAST ION DEPOSITION (N/CM3/SEC)  
SBE\_D: ELECTRON SCE D BEAM DEPOSITION (N/CM3/SEC)  
SBHD: D+ ION SCE DUE TO BEAM (N/CM3/SEC)  
SBLITH: LITH ION SCE DUE TO BEAM (N/CM3/SEC)  
SBTH: FAST ION THERMALIZATION SOURCE (N/CM3/SEC)  
SBTH\_D: D BEAM THERMALIZATION SOURCE (N/CM3/SEC)  
SBTOT: TOTAL ION SCE(BEAM + HALO) (N/CM3/SEC)  
SBXRB: FAST ION CX: BEAM-BEAM RECAPTURE (N/CM3/SEC)  
SBXRB\_D: D BEAM CX: RECAPTURE: BEAM-BEAM (N/CM3/SEC)  
SBXRD: BEAM CX: RECAPTURE BY CX W/D+ (N/CM3/SEC)  
SBXRD\_D: D BEAM CX: RECAPTURE BY CX W/D+ (N/CM3/SEC)  
SBXRLITH: BEAM CX: RECAPTURE, CX W/LI++ (N/CM3/SEC)  
SBXR\_E\_D: D B RECAP by ioniz: electrons (N/CM3/SEC)  
SBXR\_IE: FAST ION RECAPTURE on electrons (N/CM3/SEC)  
SBXR\_II: FAST ION RECAPTURE on th.ions (N/CM3/SEC)  
SBXR\_IZ: FAST ION RECAPTURE on impurities (N/CM3/SEC)

SBXR\_I\_D: D B RECAP by ioniz: th.ions (N/CM3/SEC)  
 SBXR\_Z\_D: D B RECAP by ioniz: impurities (N/CM3/SEC)  
 SCEE: ELECTRON SOURCE (TH.NEUTRALS) (N/CM3/SEC)  
 SCEV: ELECTRON SCE (VOL. NEUTRALS) (N/CM3/SEC)  
 SCEW: ELECTRON SCE (WALL NEUTRALS) (N/CM3/SEC)  
 SCEZ: ELECTRON SCE (Impurity Ioniz.) (N/CM3/SEC)  
 SCIMP: IMPURITY SOURCE (N/CM3/SEC)  
 SDBBI: BEAM DEPOSITION: BEAM-BEAM II (N/CM3/SEC)  
 SDBBI\_D: D BEAM DEPOSITION: BEAM-BEAM II (N/CM3/SEC)  
 SDBBI\_D1: Full E D BEAM DEP: BEAM-BEAM II (N/CM3/SEC)  
 SDBBI\_D2: Half E D BEAM DEP: BEAM-BEAM II (N/CM3/SEC)  
 SDBBI\_D3: 1/3 E D BEAM DEP: BEAM-BEAM II (N/CM3/SEC)  
 SDBBX: BEAM DEPOSITION: BEAM-BEAM CX (N/CM3/SEC)  
 SDBBX\_D: D BEAM DEPOSITION: BEAM-BEAM CX (N/CM3/SEC)  
 SDBBX\_D1: Full E D BEAM DEP: BEAM-BEAM CX (N/CM3/SEC)  
 SDBBX\_D2: Half E D BEAM DEP: BEAM-BEAM CX (N/CM3/SEC)  
 SDBBX\_D3: 1/3 E D BEAM DEP: BEAM-BEAM CX (N/CM3/SEC)  
 SDBIE\_D: D BEAM DEP: IONIZ. on electrons (N/CM3/SEC)  
 SDBIE\_D1: Full E D BEAM DEP: II on (e-) (N/CM3/SEC)  
 SDBIE\_D2: Half E D BEAM DEP: II on (e-) (N/CM3/SEC)  
 SDBIE\_D3: 1/3 E D BEAM DEP: II on (e-) (N/CM3/SEC)  
 SDBII\_D: D BEAM DEP: IONIZ. on therm.ions (N/CM3/SEC)  
 SDBII\_D1: Full E D BEAM DEP: II on th.ions (N/CM3/SEC)  
 SDBII\_D2: Half E D BEAM DEP: II on th.ions (N/CM3/SEC)  
 SDBII\_D3: 1/3 E D BEAM DEP: II on th.ions (N/CM3/SEC)  
 SDBIZ\_D: D BEAM DEP: IONIZ. on impurities (N/CM3/SEC)  
 SDBIZ\_D1: Full E D BEAM DEP: IONIZ. on imp (N/CM3/SEC)  
 SDBIZ\_D2: Half E D BEAM DEP: IONIZ. on imp (N/CM3/SEC)  
 SDBIZ\_D3: 1/3 E D BEAM DEP: IONIZ. on imp (N/CM3/SEC)  
 SDB\_IE: BEAM DEP: ioniz. on electrons (N/CM3/SEC)  
 SDB\_II: BEAM DEP: ioniz. on therm. ions (N/CM3/SEC)  
 SDB\_IZ: BEAM DEP: ioniz. on impurities (N/CM3/SEC)  
 SDCXD: BEAM DEPOSITION: CX W/D+ IONS (N/CM3/SEC)  
 SDCXD\_D: D BEAM DEPOSITION: CX W/D+ IONS (N/CM3/SEC)  
 SDCXD\_D1: Full E D BEAM DEP: CX W/D+ IONS (N/CM3/SEC)  
 SDCXD\_D2: Half E D BEAM DEP: CX W/D+ IONS (N/CM3/SEC)  
 SDCXD\_D3: 1/3 E D BEAM DEP: CX W/D+ IONS (N/CM3/SEC)  
 SDCXLITH: BEAM DEPOSITION: CX W/LI IONS (N/CM3/SEC)  
 SDEP\_D: D BEAM ORBIT AV DEP (TOTAL) (N/CM3/SEC)  
 SEGf\_D: D gas flow electron source (N/CM3/SEC)  
 SEGf\_L: Li gas flow electron source (N/CM3/SEC)  
 SEHALO: (e-) RECAP in HALO ION SCEs (N/CM3/SEC)  
 SERC\_D: D recyc electron source (N/CM3/SEC)  
 SERC\_L: Li recyc electron source (N/CM3/SEC)  
 SERUN: RUNAWAY ELEC SOURCE RATE (N/CM3/SEC)  
 SESGF: gas flow electron source (N/CM3/SEC)  
 SESRC: recycling electron source (N/CM3/SEC)  
 SFCXGF\_D: D gas (e-)=> FAST ION CX (N/CM3/SEC)  
 SFCXGF\_L: Li gas (e-)=> FAST ION CX (N/CM3/SEC)  
 SFCXHALO: HALO NEUTRALS (e-)=> FAST ION CX (N/CM3/SEC)  
 SFCXRC\_D: D recyc (e-)=> FAST ION CX (N/CM3/SEC)

SFCXRC\_L: Li recyc (e-)=> FAST ION CX (N/CM3/SEC)  
SFCXSGF: gas flow (e-)=> FAST ION CX (N/CM3/SEC)  
SFCXSRC: recycling (e-)=> FAST ION CX (N/CM3/SEC)  
SFETO: ELECTRONS -> FAST NEUTRALS (N/CM3/SEC)  
SHAT: Magnetic shear  $(r/q)*(dq/dr)$  ()  
SIGF\_D\_D: D ion sce from D gas flow (N/CM3/SEC)  
SIGF\_D\_L: D ion sce from Li gas flow (N/CM3/SEC)  
SIGF\_L\_D: Li ion sce from D gas flow (N/CM3/SEC)  
SIGF\_L\_L: Li ion sce from Li gas flow (N/CM3/SEC)  
SIHALO\_D: BEAM HALO RECAP ION SCE G=D (N/CM3/SEC)  
SIHALO\_LI: BEAM HALO RECAP ION SCE G=Li (N/CM3/SEC)  
SIRC\_D\_D: D ion sce from D recyc (N/CM3/SEC)  
SIRC\_D\_L: D ion sce from Li recyc (N/CM3/SEC)  
SIRC\_L\_D: Li ion sce from D recyc (N/CM3/SEC)  
SIRC\_L\_L: Li ion sce from Li recyc (N/CM3/SEC)  
SISGF\_D: gas flow ION SCE G=D (N/CM3/SEC)  
SISGF\_LI: gas flow ION SCE G=Li (N/CM3/SEC)  
SISRC\_D: recycling ION SCE G=D (N/CM3/SEC)  
SISRC\_LI: recycling ION SCE G=Li (N/CM3/SEC)  
SMINBAL: Minority Particle Balance (N/CM3/SEC)  
SMINDOT: D/DT(MINORITY ION population) (N/CM3/SEC)  
SMINFISH: Minority ion fishbone loss (N/CM3/SEC)  
SMINORB: ORBIT LOSS OF MINORITY IONS (N/CM3/SEC)  
SMINPSC: MIN.IONS Ptcl Source/Sink (N/CM3/SEC)  
SMINTRAN: Min.ions transport (del.flux) (N/CM3/SEC)  
SNCXMC\_D: MC CX sink rate beam D,orbit (N/CM3/SEC)  
SNCX\_D: CX sink rate beam D (N/CM3/SEC)  
...vs. XB:  
SQUARE\_LO: Flux surf lower outer squareness ()  
SQUARE\_UO: Flux surf upper outer squareness ()  
...vs. X:  
SQZD\_NC: NC D+ orbit squeezing ()  
SQZE\_NC: NC electron orbit squeezing ()  
SQZLI\_NC: NC Li ion orbit squeezing ()  
SQZX\_NC: NC impurity orbit squeezing ()  
...vs. XB:  
SREXBA: ExB Shear Rate (selected) (RAD/SEC)  
SREXBGRP: ExB Shear Rate  $(dp/dr)$  (RAD/SEC)  
SREXBMOD: ExB Shear Rate (transport model) (RAD/SEC)  
SREXBPHI: ExB Shear Rate  $(V_{tor})$  (RAD/SEC)  
SREXBTHI: ExB Shear Rate  $(V_{phi})$  (RAD/SEC)  
SREXBV1: ExB Shear Rate (exbshear.f90) (RAD/SEC)  
SREXBV2: ExB Shear Rate (exbshear2.f90) (RAD/SEC)  
...vs. RMAJM:  
SREXB\_NC: ExB shear rate from nclass (RAD/SEC)  
...vs. XB:  
SREXB\_NCL: ExB shear rate (nclass,R>R\_axis) (RAD/SEC)  
SSHAF: SHAFRANOV SHIFT (CM)  
SSHAFDA: SHAFRANOV SHIFT (MHD DATA) (CM)  
SURF: FLUX SURFACE AREA (CM\*\*2)  
...vs. X:

SVD: TOT ION SCE BEAM+HALO D+ (N/CM3/SEC)  
SVLITH: TOT ION SCE BEAM+HALO LI+++ (N/CM3/SEC)  
SWD: TOT ION SCE WALL D+ (N/CM3/SEC)  
SWLITH: TOT ION SCE WALL LI+++ (N/CM3/SEC)  
SWTOT: TOTAL ION SCE(WALL NEUTRALS) (N/CM3/SEC)  
...vs. X:  
TOBH\_D: beam halo neutral temp G=D (EV)  
TOBH\_LI: beam halo neutral temp G=Li (EV)  
TOCX\_GFD: CX NEUTRAL TEMP. gas flow D (EV)  
TOCX\_GFL: CX NEUTRAL TEMP. gas flow Li (EV)  
TOCX\_RCD: CX NEUTRAL TEMP. recyc. D (EV)  
TOCX\_RCL: CX NEUTRAL TEMP. recyc. Li (EV)  
TOGF\_D\_D: D T0 due to D gas flow (EV)  
TOGF\_D\_L: D T0 due to Li gas flow (EV)  
TOGF\_L\_D: Li T0 due to D gas flow (EV)  
TOGF\_L\_L: Li T0 due to Li gas flow (EV)  
TORC\_D\_D: D T0 due to D recyc (EV)  
TORC\_D\_L: D T0 due to Li recyc (EV)  
TORC\_L\_D: Li T0 due to D recyc (EV)  
TORC\_L\_L: Li T0 due to Li recyc (EV)  
TOVD: VOL NEUTRAL TEMP G=D (EV)  
TOVLITH: VOL NEUTRAL TEMP G=LITH (EV)  
TOWD: WALL NEUTRAL TEMP G=D (EV)  
TOWLITH: WALL NEUTRAL TEMP G=LITH (EV)  
...vs. XB:  
TAPWE: ELECTRON TAU(P) WARE CORRECTION (SECONDS)  
TAUE: PLASMA ENERGY CONFINEMENT (SECONDS)  
TAUES: PLASMA ENERGY CONFINEMENT (\*) (SECONDS)  
TAUPD: D+ ION PTCL CONFINEMENT (SECONDS)  
TAUPE: ELECTRON PTCL CONFINEMNT (SECONDS)  
TAUPHI: MOMENTUM CONFINEMENT (SECONDS)  
TAUPI: ION PTCL CONFINEMENT (SECONDS)  
TAUPLITH: LITH+++ ION PTCL CONFINEMENT (SECONDS)  
...vs. X:  
TE: ELECTRON TEMPERATURE (EV)  
TEBAL: ELECTRON POWER BALANCE (WATTS/CM3)  
...vs. XB:  
TEE: ELECTRON ENERGY CONFINEMENT (SECONDS)  
TEEST: ELECTRON ENERGY CONFINEMENT (\*) (SECONDS)  
TEI: ION ENERGY CONFINEMENT (SECONDS)  
TEIST: ION ENERGY CONFINEMENT (\*) (SECONDS)  
...vs. RMJSYM:  
TER\_IN: TER data as input (eV)  
TER\_USE: TER data as used (eV)  
...vs. XB:  
THDIG: MMM95 ION DIFF (WEILAND) (CM\*\*2/SEC)  
THDKB: MMM95 ION DIFF (KB) (CM\*\*2/SEC)  
THDRB: MMM95 ION DIFF (RB) (CM\*\*2/SEC)  
THEIG: MMM95 ELEC THER DIFF (WEILAND) (CM\*\*2/SEC)  
THEKB: MMM95 ELEC THER DIFF (KB) (CM\*\*2/SEC)  
THERB: MMM95 ELEC THER DIFF (RB) (CM\*\*2/SEC)

...vs. THETA:  
 THETA: POL. ANGLE (RADIANS)  
 ...vs. XB:  
 THIIG: MMM95 ION THER DIFF (WEILAND) (CM\*\*2/SEC)  
 THIKB: MMM95 ION THER DIFF (KB) (CM\*\*2/SEC)  
 THIRB: MMM95 ION THER DIFF (RB) (CM\*\*2/SEC)  
 ...vs. X:  
 THNTX: THERMONUCLEAR NEUTRONS (N/CM3/SEC)  
 THNTX\_DD: DD THERMONUCLEAR NEUTRONS (N/CM3/SEC)  
 ...vs. XB:  
 THZIG: MMM95 IMP DIFF (WEILAND) (CM\*\*2/SEC)  
 THZKB: MMM95 IMP DIFF (KB) (CM\*\*2/SEC)  
 THZRB: MMM95 IMP DIFF (RB) (CM\*\*2/SEC)  
 ...vs. X:  
 TI: ION TEMPERATURE (EV)  
 ...vs. RMJSYM:  
 TI2\_IN: TI2 data as input (eV)  
 TI2\_USE: TI2 data as used (eV)  
 ...vs. X:  
 TIAV:  $T_{avg}=(n_x*TX+nmj*TMJ)/(n_x+nmj)$  (EV)  
 TIBAL: ION POWER BALANCE (WATTS/CM3)  
 TIMTX: TI-TX (UNSMOOTHED) (EV)  
 TIMTXSM: TI-TX (SMOOTHED) (EV)  
 TINC: NCLASS Ti (smoothed) (EV)  
 TIPRO: MEASURED TI PROFILE (EV)  
 TMINI\_H: H ICRF MINORITY 2/3<E> (EV)  
 TMJ: H/HE MAJORITY TEMPERATURE (EV)  
 TMJNC: NCLASS majority Ti (smoothed) (EV)  
 TMJSM: H/HE MAJORITY TEMP(SMOOTHED) (EV)  
 TPA1A\_D: D FULL E TAU(SCATTERING,CO) (SECONDS)  
 TPA1B\_D: D FULL E TAU(SCATTERING,CTR) (SECONDS)  
 TPA2A\_D: D HALF E TAU(SCATTERING,CO) (SECONDS)  
 TPA2B\_D: D HALF E TAU(SCATTERING,CTR) (SECONDS)  
 TPA3A\_D: D 1/3 E TAU(SCATTERING,CO) (SECONDS)  
 TPA3B\_D: D 1/3 E TAU(SCATTERING,CTR) (SECONDS)  
 TQ0FL: DIV(neutral ANG.MOMENTUM FLUX) (Nt-M/CM3)  
 TQ0FLGF\_D: D DIV(gas flow ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0FLGF\_L: Li DIV(gas flow ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0FLHALO: DIV(HALO NEUTRAL ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0FLRC\_D: D DIV(recyc ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0FLRC\_L: Li DIV(recyc ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0FLSGF: DIV(gas fl NEUTRAL ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0FLSRC: DIV(recyc NEUTRAL ANG.MO. FLUX) (Nt-M/CM3)  
 TQ0HALO: HALO NEUTRAL SCE TORQUE (Nt-M/CM3)  
 TQ0VL: NEUTRAL VOL SCE TORQUE (Nt-M/CM3)  
 TQBA0: NEUTRAL TORQUE BALANCE (Nt-M/CM3)  
 TQBA0\_GF\_D: D gas flow ANG.MO. BALANCE (Nt-M/CM3)  
 TQBA0\_GF\_L: Li gas flow ANG.MO. BALANCE (Nt-M/CM3)  
 TQBA0\_HALO: HALO NEUTRAL ANG.MO. BALANCE (Nt-M/CM3)  
 TQBA0\_RC\_D: D recyc ANG.MO. BALANCE (Nt-M/CM3)  
 TQBA0\_RC\_L: Li recyc ANG.MO. BALANCE (Nt-M/CM3)

TQBA0\_SGF: gas flow NEUTRAL ANG.MO. BALANCE (Nt-M/CM3)  
 TQBA0\_SRC: recycling NEUTRAL ANG.MO. BALANCE (Nt-M/CM3)  
 TQBCO: BEAM COLLISIONAL TORQUE (Nt-M/CM3)  
 TQBCO\_D: D BEAM COLLISIONAL TORQUE (Nt-M/CM3)  
 TQBCX: BEAM CX ANTI-TORQUE (Nt-M/CM3)  
 TQBE: BEAM TORQUE TO ELECTRONS (Nt-M/CM3)  
 TQBI: BEAM TORQUE TO IONS (Nt-M/CM3)  
 TQBTH: BEAM THERMALIZATION TORQUE (Nt-M/CM3)  
 TQCOL01: Beam#01(D) collisional torque (Nt-M/CM3)  
 TQCOL02: Beam#02(D) collisional torque (Nt-M/CM3)  
 TQCOL03: Beam#03(D) collisional torque (Nt-M/CM3)  
 TQCOL04: Beam#04(D) collisional torque (Nt-M/CM3)  
 TQCX: CHARGE EXCHANGE TORQUE (Nt-M/CM3)  
 TQCXGF\_D: CX TORQUE TO D gas NEUTRALS (Nt-M/CM3)  
 TQCXGF\_L: CX TORQUE TO Li gas NEUTRALS (Nt-M/CM3)  
 TQCXHALO: CX TORQUE TO HALO NEUTRALS (Nt-M/CM3)  
 TQCXRC\_D: CX TORQUE TO D recyc NEUTRALS (Nt-M/CM3)  
 TQCXRC\_L: CX TORQUE TO Li recyc NEUTRALS (Nt-M/CM3)  
 TQCXSGF: CX TORQUE TO gas flow NEUTRALS (Nt-M/CM3)  
 TQCXSRC: CX TORQUE TO recycling NEUTRALS (Nt-M/CM3)  
 TQCX\_HALO: beam halo driven cx torque (Nt-M/CM3)  
 TQICHMIN: ICH Torque TO MINORITY IONS (Nt-M/CM3)  
 TQIGF\_D: D gas flow ionization TORQUE (Nt-M/CM3)  
 TQIGF\_L: Li gas flow ionization TORQUE (Nt-M/CM3)  
 TQIHALO: HALO NEUTRAL RECAPTURE TORQUE (Nt-M/CM3)  
 TQIN: TOTAL INPUT TORQUE (Nt-M/CM3)  
 TQIRC\_D: D recyc ionization TORQUE (Nt-M/CM3)  
 TQIRC\_L: Li recyc ionization TORQUE (Nt-M/CM3)  
 TQISGF: gas fl NEUTRAL ionization TORQUE (Nt-M/CM3)  
 TQISRC: recyc NEUTRAL ionization TORQUE (Nt-M/CM3)  
 TQIZ: IONIZATION TORQUE (Nt-M/CM3)  
 TQJB01: Beam#01(D) JxB torque (Nt-M/CM3)  
 TQJB02: Beam#02(D) JxB torque (Nt-M/CM3)  
 TQJB03: Beam#03(D) JxB torque (Nt-M/CM3)  
 TQJB04: Beam#04(D) JxB torque (Nt-M/CM3)  
 TQJBD: BEAM DEP. JXB TORQUE (Nt-M/CM3)  
 TQJBD01: Beam#01(D) JxB torque (Nt-M/CM3)  
 TQJBD02: Beam#02(D) JxB torque (Nt-M/CM3)  
 TQJBD03: Beam#03(D) JxB torque (Nt-M/CM3)  
 TQJBD04: Beam#04(D) JxB torque (Nt-M/CM3)  
 TQJXB: BEAM JXB TORQUE (Nt-M/CM3)  
 TQJXBT: BEAM JXB TORQUE (Nt-M/CM3)  
 TQJXB\_D: D BEAM JXB TORQUE (Nt-M/CM3)  
 TQMINBAL: Minority Momentum Balance (Nt-M/CM3)  
 TQMINDOT: D/DT(MINORITY ION Momentum) (Nt-M/CM3)  
 TQMINE: TORQUE MIN.IONS->ELECTRONS (Nt-M/CM3)  
 TQMINFISH: Minority ion fishbone loss (Nt-M/CM3)  
 TQMINI: TORQUE MIN.IONS->TH.IONS (Nt-M/CM3)  
 TQMINJXB: JxB TORQUE Minority->TH.IONS (Nt-M/CM3)  
 TQMINOH: TORQUE OH->MIN.IONS (Nt-M/CM3)  
 TQMINORB: ORBIT LOSS OF MINORITY IONS (Nt-M/CM3)

TQMINPSC: MIN.IONS Ptcl Source/Sink (Nt-M/CM3)  
TQMINTRAN: Min.ions transport (del.flux) (Nt-M/CM3)  
TQOHB: TORQUE OH CIRCUIT --> BEAM (Nt-M/CM3)  
TQRPL: BEAM RPL JXB TORQUE (Nt-M/CM3)  
TQRPL\_D: D BEAM RPL JXB TORQUE (Nt-M/CM3)  
TQSC\_HALO: beam halo source/sink torque (Nt-M/CM3)  
TQTH01: Beam#01(D) thermalization torque (Nt-M/CM3)  
TQTH02: Beam#02(D) thermalization torque (Nt-M/CM3)  
TQTH03: Beam#03(D) thermalization torque (Nt-M/CM3)  
TQTH04: Beam#04(D) thermalization torque (Nt-M/CM3)  
TQTOT01: Beam#01(D) total torque (Nt-M/CM3)  
TQTOT02: Beam#02(D) total torque (Nt-M/CM3)  
TQTOT03: Beam#03(D) total torque (Nt-M/CM3)  
TQTOT04: Beam#04(D) total torque (Nt-M/CM3)  
TQXFR: FRACTION OF TQBCO -> IMPURITIES ()  
...vs. XB:  
TRFCK: MHD TOROIDAL FLUX CHECK (WEBERS)  
TRFLX: TOROIDAL FLUX (WEBERS)  
...vs. RMAJM:  
TRFMP: TOROIDAL FLUX (WEBERS)  
...vs. XB:  
TRIANG: Flux surface triangularity ()  
TRIANGL: Flux surf. lower triangularity ()  
TRIANGU: Flux surf. upper triangularity ()  
...vs. X:  
TSL1A\_D: D FULL E TAU(SLOWING DOWN,CO) (SECONDS)  
TSL1B\_D: D FULL E TAU(SLOWING DOWN,CTR) (SECONDS)  
TSL2A\_D: D HALF E TAU(SLOWING DOWN,CO) (SECONDS)  
TSL2B\_D: D HALF E TAU(SLOWING DOWN,CTR) (SECONDS)  
TSL3A\_D: D 1/3 E TAU(SLOWING DOWN,CO) (SECONDS)  
TSL3B\_D: D 1/3 E TAU(SLOWING DOWN,CTR) (SECONDS)  
TTNTX: TOTAL NEUTRONS (N/CM3/SEC)  
TX: IMPURITY TEMPERATURE (EV)  
TXNC: NCLASS impurity Ti (smoothed) (EV)  
UBCMP: B(POL) COMPRESSION (WATTS/CM3)  
UBPAR: BEAM PLL ENERGY DENSITY (JLES/CM3)  
UBPAR\_D: D BEAM PLL ENERGY DENSITY (JLES/CM3)  
UBPDT: D/DT(POLOIDAL FIELD ENERGY) (WATTS/CM3)  
UBPOL: POLOIDAL FIELD ENERGY (JLES/CM3)  
UBPRP: BEAM PERP ENERGY DENSITY (JLES/CM3)  
UBPRP\_D: D BEAM PERP ENERGY DENSITY (JLES/CM3)  
UBTDT: D/DT(FIELD ENERGY) (WATTS/CM3)  
UBTOR: TOROIDAL FIELD ENERGY (JLES/CM3)  
UCURB: UNSHIELDED BEAM CURRENT (AMPS/CM2)  
UDEXB: E CROSS B POWER (WATTS/CM3)  
UE: ELECTRON ENERGY DENSITY (JLES/CM3)  
UFASTPA: FAST ION PLL ENERGY DENSITY (JLES/CM3)  
UFASTPP: FAST ION PERP ENERGY DENSITY (JLES/CM3)  
UI: ION ENERGY DENSITY (JLES/CM3)  
UJBCO: UNSHIELDED BEAM CUR (CO BEAMS) (AMPS/CM2)  
UJBCR: UNSHIELDED BEAM CUR (CTR BEAMS) (AMPS/CM2)



UMGBA: MAGDIF ENERGY BALANCE (WATTS/CM3)  
 UMINPA: MINORITY PLL ENERGY DENSITY (JLES/CM3)  
 UMINPP: MINORITY PERP ENERGY DENSITY (JLES/CM3)  
 UPBAL: ROTATIONAL ENERGY BALANCE (WATTS/CM3)  
 UPHI: THERMAL PLASMA ROTATIONAL ENERGY (JLES/CM3)  
 UPHIN: TOTAL ROTATIONAL ENERGY INPUT (WATTS/CM3)  
 ...vs. XB:  
 UPWIND\_D: D ION UPWIND ADJUST ACTIVATION ()  
 UPWIND\_LI: Li ION UPWIND ADJUST ACTIVATION ()  
 UPWIND\_MO: Angular Momentum Balance UPWIND ADJUST ()  
 UPWIND\_TE: Electron Energy Balance UPWIND ADJUST ()  
 UPWIND\_TI: Ion Energy Balance UPWIND ADJUST ()  
 ...vs. X:  
 UTHRM: THERMAL ENERGY DENSITY (JLES/CM3)  
 UTOTL: TOTAL ENERGY DENSITY (JLES/CM3)  
 V: VOLTAGE (VOLTS)  
 ...vs. XGRID\_NPHI:  
 VACSPEC1: Vacuum Spectrum, Antenna #1 ()  
 VACSPEC2: Vacuum Spectrum, Antenna #2 ()  
 ...vs. X:  
 VBRC: VB PROFILE (CALCULATED) (VB INTENS)  
 ...vs. RMAJM:  
 VBTORAV\_MP: FAST ION <Vtor>, GC on midplane (CM/SEC)  
 ...vs. X:  
 VCHEK: VOLTAGE CHECK (VOLTS)  
 ...vs. XB:  
 VCONEMMM: MMM95 MODEL ELEC. CONV. VEL. (CM/SEC)  
 VCONIMMM: MMM95 MODEL ION CONV. VEL. (CM/SEC)  
 VCONZMMM: MMM95 MODEL IMP. CONV. VEL. (CM/SEC)  
 VELB: ANOMOLOUS FAST ION VELOCITY (CM/SEC)  
 VELD: ION VELOCITY (NET) D+ (CM/SEC)  
 VELE: ELECTRON RADIAL VELOCITY (CM/SEC)  
 VELIAV: density averaged ion radial velocity (CM/SEC)  
 VELIM: IMPURITY RADIAL VELOCITY (CM/SEC)  
 VELLITH: ION VELOCITY (NET) LI+++ (CM/SEC)  
 VELWE: ELECTRON WARE VELOCITY (CM/SEC)  
 VEL\_TE: electron energy radial velocity (CM/SEC)  
 VEL\_TI: ion energy radial velocity (CM/SEC)  
 VETAE: ETA(E) VALIDITY CHK ()  
 VETAI: ETA(I) VALIDITY CHECK ()  
 VKHDRBM: DRBM ION CONVECTIVE VELOCITY (CM/SEC)  
 ...vs. X:  
 VLH: LH ESTIMATE OF LOOP VOLTAGE (VOLTS)  
 ...vs. XB:  
 VMO\_DATA: Momentum v\_rad input data (CM/SEC)  
 VMO\_NET: Momentum v\_rad used in run (CM/SEC)  
 VMO\_PBAL: Momentum v\_rad from ptcl-bal (CM/SEC)  
 VMO\_PINCH: Momentum v\_rad pinch term (CM/SEC)  
 VMO\_THMOD: Momentum v\_rad, transport model (CM/SEC)  
 VNDNC\_D: Nclass D+ avg radial particle convection velocity (CM/SEC)  
 VNDNC\_E: Nclass e- radial particle convection velocity (CM/SEC)

VNDNC\_LI: Nclass Li avg radial particle convection velocity (CM/SEC)  
VND\_D: D+ NON-DIFFUSIVE FLOW VELOCITY (CM/SEC)  
VND\_LITH: LITH NON-DIFFUSIVE FLOW VELOCITY (CM/SEC)  
...vs. X:  
VPB01\_E1: Vpll\*B: Beam no.01(D), E-frac#1 (T\*CM/SEC)  
VPB01\_E2: Vpll\*B: Beam no.01(D), E-frac#2 (T\*CM/SEC)  
VPB01\_E3: Vpll\*B: Beam no.01(D), E-frac#3 (T\*CM/SEC)  
VPB02\_E1: Vpll\*B: Beam no.02(D), E-frac#1 (T\*CM/SEC)  
VPB02\_E2: Vpll\*B: Beam no.02(D), E-frac#2 (T\*CM/SEC)  
VPB02\_E3: Vpll\*B: Beam no.02(D), E-frac#3 (T\*CM/SEC)  
VPB03\_E1: Vpll\*B: Beam no.03(D), E-frac#1 (T\*CM/SEC)  
VPB03\_E2: Vpll\*B: Beam no.03(D), E-frac#2 (T\*CM/SEC)  
VPB03\_E3: Vpll\*B: Beam no.03(D), E-frac#3 (T\*CM/SEC)  
VPB04\_E1: Vpll\*B: Beam no.04(D), E-frac#1 (T\*CM/SEC)  
VPB04\_E2: Vpll\*B: Beam no.04(D), E-frac#2 (T\*CM/SEC)  
VPB04\_E3: Vpll\*B: Beam no.04(D), E-frac#3 (T\*CM/SEC)  
VPB\_F1\_D: Vpll.B: full energy D beam (T\*(cm/sec))  
VPB\_F2\_D: Vpll.B: half energy D beam (T\*(cm/sec))  
VPB\_F3\_D: Vpll.B: 1/3 energy D beam (T\*(cm/sec))  
...vs. XB:  
VPEPALEO: PALEOCLASSICAL THERMAL PINCH (CM/SEC)  
VPHIMMM07: MMM07 TOR. CONV. VEL. (CM/SEC)  
...vs. X:  
VPOH: VOLTAGE for POH calculation (VOLTS)  
...vs. RMAJM:  
VPOLD\_NC: NC D+ poloidal velocity (CM/SEC)  
VPOLE\_NC: NC electron poloidal velocity (CM/SEC)  
VPOLLINC: NC Li ion poloidal velocity (CM/SEC)  
VPOLX\_NC: NC impurity poloidal velocity (CM/SEC)  
VPOL\_AVG: NC avg poloidal velocity (CM/SEC)  
...vs. XB:  
VRPOT: RADIAL ELECTRICAL POTENTIAL (VOLTS)  
...vs. RMAJM:  
VTORD\_NC: NC D+ toroidal velocity (CM/SEC)  
VTORE\_NC: NC electron toroidal velocity (CM/SEC)  
VTORLINC: NC Li ion toroidal velocity (CM/SEC)  
VTORX\_NC: NC impurity toroidal velocity (CM/SEC)  
VTOR\_AVG: momentum balance avg velocity (CM/SEC)  
...vs. X:  
WNMC\_D: Beam D No. of MC Ions (#ptcls)  
X: x"r/a" ctr ()  
...vs. XB:  
XB: x"r/a" bdy ()  
XDEW19: WEILAND19 MODEL D(I) (CM\*\*2/SEC)  
XDIMIX: MIXED MODEL D(I) (CM\*\*2/SEC)  
XETAE: CHI:E(ETA(E)) ACTIVE (CM\*\*2/SEC)  
XETEO: CHI:E(ETA(E)) GUZDAR (CM\*\*2/SEC)  
XETIO: CHI(ETA(I)) RAW (CM\*\*2/SEC)  
...vs. XGRID\_NPHI:  
XGRID\_NPHI: Nphi Grid ()  
...vs. RMAJM:

XILMP: TOROIDAL FLUX LABEL ()  
...vs. RMJSYM:  
XIRSYM: FLUX LABEL (DATA MAPPING) ()  
...vs. XB:  
XKAPEGKF: IFS-PPPL GYROFLUID MODEL CHI(E) (CM\*\*2/SEC)  
XKAPIGKF: IFS-PPPL GYROFLUID MODEL CHI(I) (CM\*\*2/SEC)  
XKECDBM: CDBM MODEL CHI(E) (CM\*\*2/SEC)  
XKEDRBM: DRBM MODEL CHI(E) (CM\*\*2/SEC)  
XKEETG: HORTON ETG MODEL CHI(E) (CM\*\*2/SEC)  
XKEGLF23: GLF23 MODEL CHI(E) (CM\*\*2/SEC)  
XKEMIX: MIXED MODEL CHI(E) (CM\*\*2/SEC)  
XKEMMM07: MMM07 MODEL CHI(E) (CM\*\*2/SEC)  
XKEMMM95: MMM95 MODEL CHI(E) (CM\*\*2/SEC)  
XKEPALEO: PALEOCLASSICAL CHI(E) (CM\*\*2/SEC)  
XKEW19: WEILAND19 MODEL CHI(E) (CM\*\*2/SEC)  
XKFAC: CHI(I) MULTIPLIER ()  
XKHDRBM: DRBM ION DIFFUSIVITY (CM\*\*2/SEC)  
XKICDBM: CDBM MODEL CHI(I) (CM\*\*2/SEC)  
XKIDRBM: DRBM MODEL CHI(I) (CM\*\*2/SEC)  
XKIGLF23: GLF23 MODEL CHI(I) (CM\*\*2/SEC)  
XKIMIX: MIXED MODEL CHI(I) (CM\*\*2/SEC)  
XKIMMM07: MMM07 MODEL CHI(I) (CM\*\*2/SEC)  
XKIMMM95: MMM95 MODEL CHI(I) (CM\*\*2/SEC)  
XKINC: NEOCLASSICAL CHI(I) (CM\*\*2/SEC)  
XKIW19: WEILAND19 MODEL CHI(I) (CM\*\*2/SEC)  
XKZMMM07: MMM07 MODEL CHI(Z) (CM\*\*2/SEC)  
XKZW19: WEILAND19 MODEL CHI(Z) (CM\*\*2/SEC)  
XPPMMM07: MMM07 MODEL CHI(Theta) (CM\*\*2/SEC)  
XPPW19: WEILAND19 MODEL CHI(Theta) (CM\*\*2/SEC)  
XPTMMM07: MMM07 MODEL CHI(Phi) (CM\*\*2/SEC)  
...vs. X:  
XPTR\_MOD: Div(impurity flux) (model) (N/CM3/SEC)  
XPTR\_OBS: Div(impurity flux) (observed) (N/CM3/SEC)  
...vs. XB:  
XPTW19: WEILAND19 MODEL CHI(Phi) (CM\*\*2/SEC)  
...vs. X:  
XZIMPJ: Zonal Avg Z of Impurity ()  
...vs. ILIM:  
YLIM: LIMITER Y PTS (CM)  
...vs. XB:  
YMC00: 0TH ASYM Y MOMENT (CM)  
YMC01: 1st ASYM Y COS MOMENT (CM)  
YMC02: 2nd ASYM Y COS MOMENT (CM)  
YMC03: 3rd ASYM Y COS MOMENT (CM)  
YMC04: 4th ASYM Y COS MOMENT (CM)  
YMC05: 5th ASYM Y COS MOMENT (CM)  
YMC06: 6th ASYM Y COS MOMENT (CM)  
YMC07: 7th ASYM Y COS MOMENT (CM)  
YMC08: 8th ASYM Y COS MOMENT (CM)  
YMC09: 9th ASYM Y COS MOMENT (CM)  
YMC10: 10th ASYM Y COS MOMENT (CM)

YMC11: 11th ASYM Y COS MOMENT (CM)  
YMC12: 12th ASYM Y COS MOMENT (CM)  
YMC13: 13th ASYM Y COS MOMENT (CM)  
YMC14: 14th ASYM Y COS MOMENT (CM)  
YMC15: 15th ASYM Y COS MOMENT (CM)  
YMC16: 16th ASYM Y COS MOMENT (CM)  
YMPA: "MIDPLANE" Y OF ASYM SURFACES (CM)  
YMS01: 1st ASYM Y SIN MOMENT (CM)  
YMS02: 2nd ASYM Y SIN MOMENT (CM)  
YMS03: 3rd ASYM Y SIN MOMENT (CM)  
YMS04: 4th ASYM Y SIN MOMENT (CM)  
YMS05: 5th ASYM Y SIN MOMENT (CM)  
YMS06: 6th ASYM Y SIN MOMENT (CM)  
YMS07: 7th ASYM Y SIN MOMENT (CM)  
YMS08: 8th ASYM Y SIN MOMENT (CM)  
YMS09: 9th ASYM Y SIN MOMENT (CM)  
YMS10: 10th ASYM Y SIN MOMENT (CM)  
YMS11: 11th ASYM Y SIN MOMENT (CM)  
YMS12: 12th ASYM Y SIN MOMENT (CM)  
YMS13: 13th ASYM Y SIN MOMENT (CM)  
YMS14: 14th ASYM Y SIN MOMENT (CM)  
YMS15: 15th ASYM Y SIN MOMENT (CM)  
YMS16: 16th ASYM Y SIN MOMENT (CM)  
...vs. X:  
ZEFFI: ZEFF DATA (UNCONSTRAINED) ()  
ZEFFP: PLASMA COMPOSITION ZEFF PROFILE ()  
ZEFMD: MAGDIF ZEFF PROFILE ()  
ZIMPS\_TOK: TOK Avg. Mult. Impurity Z ()