

NAIRAS DATA TABLE: I/O REQUIREMENTS AND DATA DEFINITIONS

9/11/08

I/O type	data	definition	producer	user	cadence (minutes)	latency (minutes)	granularity (minutes)	threshold	stream	aging (hrs)
OPS INPUT	SMP	solar magnetic polarity	()	Badhwar & O'Neill					A	48
	SMP	solar magnetic polarity	()	Badhwar & O'Neill					B	48
	$\Phi(Z,t), E(Z,t)$	galactic cosmic ray particle flux and energy	Badhwar & O'Neill	HZETRN		0		N	A	48
	$\Phi(R,t), F_i(E,t)$	galactic cosmic ray particle rigidity and energy spectra	IS 15390	HZETRN		0		N	B	48
	n	neutrons	WDCCR (Lomnický, Izmiran)	GCR, HZETRN, AIR	3	3	1	N	A	48
	n	neutrons	Press et al.	GCR, HZETRN, AIR		0		N	B	48
	p	proton differential and integral direction flux	GOES/SEM EPS & HEPAD P2-P10 & I2-17	SEP, HZETRN, CMIT	5	5	5	Y	A	48
	p	proton differential and integral direction flux	GOES/SEM EPS & HEPAD P2-P10 & I2-17	SEP, HZETRN, CMIT	5	5	5	Y	B	48
	p	proton differential flux	ACE/EPAM LEMS 120 P1'-8'	SEP	3	3	1	Y	A	48
	α	alpha differential and directional flux	GOES/HEPAD A1 A7	SEP, HZETRN, CMIT	5	5	5	Y	A	48
	α	alpha differential and directional flux	GOES/HEPAD A1-A7	SEP, HZETRN, CMIT	5	5	5	Y	B	48
	Dst	Disturbance storm time index	(SET)	T05, CMIT, De Angelis, Wilson	15	15	60	N	A	48
	Dst	Disturbance storm time index	Kyoto	T05, CMIT, De Angelis, Wilson	60	60	60	N	B	48
	F10.7	daily 10.7 cm solar flux	Penticton	NRLMSIS	60	60	1440	N	A	48
	F10.7	daily 10.7 cm solar flux	Penticton	NRLMSIS	60	60	1440	N	B	48
	F81	81-d 10.7 cm solar flux	(SET)	NRLMSIS	60	60	1440	N	A	48
	F81	81-d 10.7 cm solar flux	(SET)	NRLMSIS	60	60	1440	N	B	48
	ap, Ap	geomagnetic index	NOAA SWPC/USAF	NRLMSIS	60	60	180	N	A	48
	ap, Ap	geomagnetic index	NOAA SWPC/USAF	NRLMSIS	60	60	180	N	B	48
	B	interplanetary magnetic field (IMF)	ACE	T05, CMIT	3	3	1	N	A	48
	B	interplanetary magnetic field (IMF)	WIND (HAF, CCMC)	T05, CMIT				N	B	48
	p _{sw}	solar wind pressure	ACE	T05, CMIT	3	3	1	N	A	48
	p _{sw}	solar wind pressure	WIND (HAF, CCMC)	T05, CMIT				N	B	48
	HGT(p)	geopotential height vs pressure	NCAR NCEP Reanalysis	AIR, HZETRN	360	360		N	A	48
HGT(p)	geopotential height vs pressure	UKMO	AIR, HZETRN	360	360		N	B	48	
T(p)	temperature vs pressure	NCAR NCEP Reanalysis	AIR, HZETRN	360	360		N	A	48	
T(p)	temperature vs pressure	UKMO	AIR, HZETRN	360	360		N	B	48	
INTERNAL XFER	$\zeta(h)$	Atmosphere environment condition: NRLMSIS boundary condition combined with the NCEP Reanalysis data	AIR, HZETRN	NAIRAS						
	$\Phi(\zeta, E, t)$	Boundary condition 1: GCR/SEP differential number flux spectrum (DNFS)	AIR, HZETRN	NAIRAS					-	
	R _c	Boundary condition 2: geomagnetic cutoff rigidity	Shea & Smart, Smart & Shea, IGRF, T05, LFM/CMIT, De Angelis, Wilson	NAIRAS					-	
OPS OUTPUT	Gy	Dose	NAIRAS	aviation (IPSM), NOAA SWPC, NOAA ADDS, NIOSH					ftp, http, servlets, tools	
	$\mu\text{Sv/hr}, \mu\text{Gy/hr}$	Dose equivalent	NAIRAS	aviation (IPSM), NOAA SWPC, NOAA ADDS, NIOSH					ftp, http, servlets, tools	