

siteinit -- ver: 1.10 Oct 16 1998 (C) Azimuth Systems UK 1996

Usage: siteinit [-p fn] [-t sd st et] [-s ss es] [-n site] [-v]  
[-m Vdn ent] -h fn

-h fn : fn= HDF file  
-t sd st et : sd= dd/mm/yy = day at site start  
: st, et= enclosing start and end hhmss for site  
-s ss es : ss, es= start, end scan numbers for site  
-n site : site= site name with no blanks  
-p fn : fn= file containing detailed parameters  
-m Vdn ent : general entries for Mission Vgroup  
: Vdn= Vdata name, ent= entry in quotes  
-v : verbose listing mode

NB: use -p before -[tsn] to overwrite parameter file defaults  
-m items overwrite all previous entries

atm\_1 -- ver: 1.00 Jan 15 1997 (C) Azimuth Systems (UK) 1996

Usage: atm\_1 -0 fn -1 fn [-g g1..] [-r] [-c] [-s rs] [-v]  
-0 fn : fn= input Level 0 HDF file  
-1 fn : fn= output Level 1 HDF file  
-l s e : scan line limits to allow editing from lev 0 to lev1  
: s & e are lines consistent with sscan and escan in MIS  
: defaults: 1a file - all scans sscan to escan  
: 1b file - scans with coordinates in SCO vgroup  
-g g1 ... g12 : replacement gain flags for twelve bands  
: valid values are: 1, 2, 3, 4, 5 representing...  
: gains: 0.5, 1, 2, 4, 8  
-r : roll gyro NOT USED, default is used  
-c : if present forces NO calibration  
-s rs : rs= radiance scale factor, default= 1000.0  
-sl s1... s12 : radiance scale factors for bands 1-12  
: defaults all = 1000.0  
: calibrated DN values are multiplied by this for output  
-t t d : chan 11+12 temp/dn gap check vales def: 0.5, 10  
-ts t1 d1 t2 d2 : replacement temps/dns at start of file  
: t1/d1 for bb1 t2/d2 for bb2 in degs and dns  
-v : verbose listing mode

scannav -- ver: 1.30 Jan 22 1998 (C) Azimuth Systems UK 1996

Usage: scannav -0 fn -1 fn [-v]

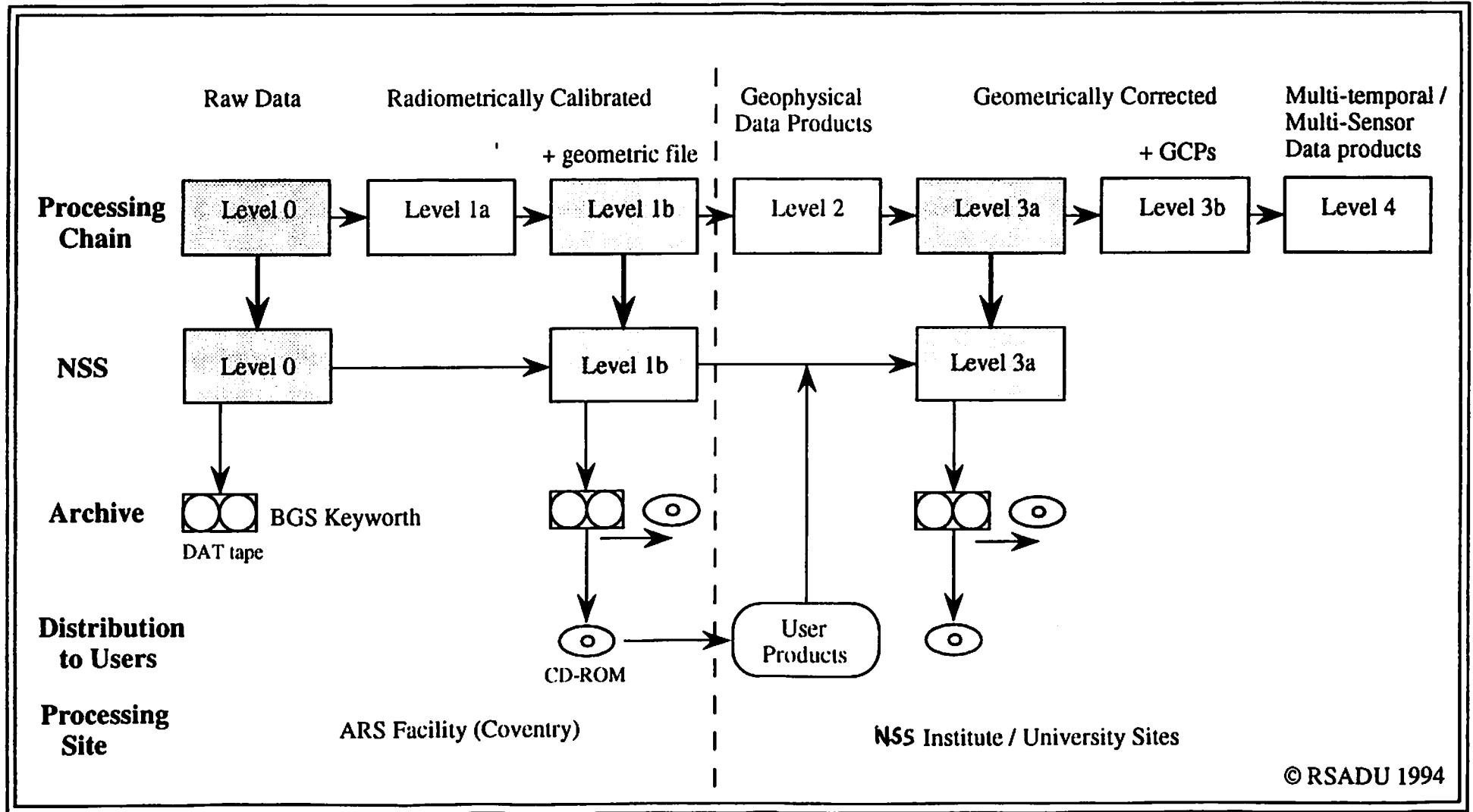
-0 fn : fn= input Level 0 HDF file  
-1 fn : fn= output Level 1 HDF file  
-t st en : limiting times: st: start hms en: end hms (dec secs)  
: default is to use all scans with navigation  
-NO : allow NO attitude/position interpolation/extrap  
: default is to fill in to get results  
-a2 : use set 2 of attitude items  
-a1 : force use of set 1 of attitude items  
-p2 : use set 2 of position and attitude items  
: NB: if req. use a2 after p2 if second att set is at  
: different time spacing to positions or use  
: a1 after p2 if set 1 atts are required  
-i p : interpolation smoothing parameter  
: 0.001 for cubic spline to 50.0 for almost linear  
-v : verbose listing mode

atmcct0 -- ver: 1.10 Jul 20 1998 (C) Azimuth Systems UK 1996

Usage: atmcct0 -c fn -h fn [options...]

-c fn : fn= CCT file name; this may be used multiple times  
: to concatenate cct files which may be in any order  
-cal fn : calibration file to be used in level 1 processing  
-h fn : fn= HDF file name  
-H hn : HDDT tape name  
-C cn : CCT tape name  
-S : perform file check only - NO hdf output  
-z : zero complete file before saving scans  
-l st en : start and end (line) scan nos to use  
: if st = en = 0 file limits are searched for  
: -r can be used for control; x and f are not needed  
: if st > 0 and en > 0 THEN x and f options must be  
: used to give correct values for header and extras  
-lc st en : as -l but still checks file(s) and applies limit  
-r l sk : l= scans to search for start and end of file  
: sk= scans to ignore before search at end of file  
: defaults: l = 50, sk = 0  
-x by : extras bytes to skip at end of original tape records  
: default = 2  
-f by : size of file header in bytes (default = 568)  
-fg g : allowable scan gap between files, default: 5  
-s? : control of scan/band number gaps, ? = mode  
-so g : omit scans with gaps in line/band from scan header  
: g= min scan gap to accept as real gap in line  
: by default scans are only omitted if the scan header  
: has been corrupted  
: by default program terminates if this gap is exceeded  
: use -g to flag BUT ignore gaps of size > abs(g)  
-sn : no attempt on recover, line/band used as decoded  
: NB: if -fg is not used gaps between files are ignored  
-ie c : line parameter changes listing control...  
: c= n no listing, c= a list all (default)  
: c= g gain changes only  
-ip v n : line info to list to stdout  
: omitted = errors only listed  
: v= s gives summary every 100 or 1000 lines  
: v= d decoded header values for every line/band  
: v= h header in hex and decoded values  
: n= count of lines from file start to list, 0= all  
-ib m : bad scans to list, m= max to list  
-if v n : as lp but list to file: atmlines.lst  
-t t d : chan 11+12 temp/dn gap check values def: 0.5, 10  
-tf : chan 11+12 temps and dns to file: atmt11.lst atmt12.lst  
-g : requests printing of gain statistics  
-v : verbose listing mode

# NERC Airborne Remote Sensing Data Processing Strategy



Ready Reckoner for quick calculations of instrument coverage (not exact).

Swath coverage and approx central pixel size (see U G section 7 for precise pixel position size formulae).

(approximate swath and centre pixel size are all in metres, photo swath in metres and area covered in square kilometres, scale of photo approx to nearest 50th, it may not be possible to acquire data below 600m alt. due to low-unstable-aircraft speed, integration times and scan rates etc)

Alt. a.g.l.		ATM		casi		RC - 10		
feet	m	swath	pix	swath	pix	swath	km2	scale 1:
1000	300	600	0.75	246	0.48	456	0.21	:1950
1310	400	800	1.0	328	0.64	608	0.36	:2650
1640	500	1000	1.25	410	0.8	760	0.58	:3300
1870	600	1200	1.5	492	0.96	912	0.83	:3950
2300	700	1400	1.75	573	1.12	1064	1.13	:4600
2630	800	1600	2.0	655	1.28	1216	1.48	:5250
2950	900	1800	2.25	737	1.44	1368	1.87	:5900
3280	1000	2000	2.5	819	1.6	1520	2.31	:6600
3610	1100	2200	2.75	901	1.76	1672	2.80	:7250
3940	1200	2400	3.0	983	1.92	1824	3.33	:7900
4270	1300	2600	3.25	1065	2.08	1976	3.90	:8550
4590	1400	2800	3.5	1147	2.24	2128	4.53	:9200
4920	1500	3000	3.75	1229	2.4	2280	5.19	:9850
5250	1600	3200	4.0	1311	2.56	2432	5.92	:10550
5580	1700	3400	4.25	1393	2.72	2584	6.68	:11200
5910	1800	3600	4.5	1475	2.88	2736	7.49	:11850
6230	1900	3800	4.75	1556	3.04	2888	8.34	:12500
6560	2000	4000	5.0	1638	3.2	3040	9.24	:13150
6890	2100	4200	5.25	1720	3.36	3192	10.19	:13800
7220	2200	4400	5.5	1802	3.52	3344	11.18	:14450
7550	2300	4600	5.75	1884	3.68	3496	12.22	:15150
7870	2400	4800	6.0	1966	3.84	3648	13.31	:15800
8200	2500	5000	6.25	2048	4.0	3800	14.44	:16450
8530	2600	5200	6.5	2130	4.16	3952	15.62	:17100
8860	2700	5400	6.75	2212	4.32	4104	16.84	:17750
9190	2800	5600	7.0	2294	4.48	4256	18.11	:18400
9510	2900	5800	7.25	2376	4.64	4408	19.43	:19100
9840	3000	6000	7.5	2458	4.8	4560	20.79	:19750
10170	3100	6200	7.75	2540	4.96	4712	22.20	:20400
10500	3200	6400	8.0	2621	5.12	4864	23.66	:21050
10830	3300	6600	8.25	2703	5.28	5016	25.16	:21700

To calculate scale of airphoto :

alt. in metres divide by focal length 152mm e.g. 760m / 0.152 = 5000

alt. in feet (into inches) divide by focal length 6 inches e.g. 2500' x 12 = 30000" / 6 = 5000

To convert metres into feet divide by 0.3048

To convert feet into metres divide by 3.281