

JUNEAU ICEFIELD GPS MOVEMENT PROFILE COORDINATES

COORDINATE TABLES TO AID IN THE ESTABLISHMENT OF SURVEY PROFILES ON THE JUNEAU ICEFIELD, ALASKA



PREPARED BY

FOUNDATION FOR GLACIER AND ENVIRONMENTAL RESEARCH
JUNEAU ICEFIELD RESEARCH PROGRAM
SEATTLE, WASHINGTON
AND
GLACIOLOGICAL AND ARCTIC SCIENCES INSTITUTE
UNIVERSITY OF IDAHO
MOSCOW, IDAHO

**JIRP OPEN FILE SURVEY REPORT
APRIL, 2007**

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JIRP GPS Movement Profile Coordinates
Compiled by Scott McGee

Foundation for Glacier and Environmental Research
Juneau Icefield Research Program
514 E. 1st Street
Moscow, Idaho, 83843
USA

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JUNEAU ICEFIELD GPS MOVEMENT PROFILE COORDINATES

One of the primary goals of the surveying program of the Juneau Icefield Research Program is to provide annual data concerning the surface movement and surface elevation of the glaciers on the Juneau Icefield. To do so in a consistent, quantitative manner requires that the various movement profiles be established in the same areas, with the same number of flags, and with the same flag spacing from year to year.

Prior to 1992, the establishment of the profiles was accomplished by simply placing the flags in the general area in which they were located in previous years. There was no consistent, repeatable method whereby the flags could be placed within a known distance of their positions in previous years. As a result, the location of a profile could vary by as much as 500 meters or so from year to year. Additionally, the number of flags in a profile and the flag spacing varied widely. Because of this, it is nearly impossible to perform a quantitative analysis, based on survey data from 1946 to 1991, of the temporal and spatial changes in the surface movement and surface elevations of the glaciers.

Beginning in 1992, GPS was used for the first time in the surveying of the Juneau Icefield. This allowed for the integration of the separate Lemon, Taku, and Gilkey Local Networks that had been utilized by the previous theodolite/EDM surveys. However, determining the flag coordinates still required post processing after performing a survey, so that flag coordinates were not known at the time the profile was established or surveyed. This required establishing the profiles in the same manner as was done before the advent of GPS.

The summer of 1995 saw the first use of real-time differential GPS on the Juneau Icefield. Because the easting and northing coordinates are displayed in near real-time on the roving unit, it made it possible for the first time to navigate to the exact location of a flag as it was placed in previous years. The accuracy to which this can done is about 1-10 cm. This was a significant advance in the surveying of the Icefield because it allowed the profiles to be consistently established from year to year. This allows highly detailed, quantitative analyses to be made,

assuming that real-time GPS continues to be used in establishing the profiles.

This booklet presents the GPS coordinates of all the profiles which have been surveyed with GPS, either rapid static or real-time. The coordinates are based on the JIRP projection system that was defined in 1992 and subsequently refined in 1995. This refinement of the projection system resulted in the GPS easting coordinates from 1992–1994 being reduced by 14.580 meters, the northing coordinates being reduced by 3.409 meters, and the heights being increased by 19.740 meters in the C-10 area. For profiles in the C-18 area, the 1992–1994 GPS easting coordinates were decreased by 1.670 meters, the northing coordinates were decreased by 1.512 meters, and the heights were increased by 0.763 meters in order to fit with the revised 1995 coordinate system.

All coordinates listed in this booklet are in the revised 1995 coordinate system. *Assuming the movement profiles will be established with the aid of real-time differential GPS, the coordinates shown here must be used to set the profiles.*

When using real-time GPS to establish the profiles, you must make certain that both the reference and roving units are first programmed to display the coordinates based on the JIRP projection. The parameters of the projection are shown in the table below. Flag placement error should not exceed 30 cm.

PARAMETER	VALUE	PROJECTION FILE
Projection	Transverse Mercator	
Units	Meters	
Central Meridian	134° 00' 00" West	
Latitude of Origin	0° 00' 00" North	
Zone Width	3° 00' 00"	
Central Meridian Scale	1.000000	
False Easting	500,000 meters	
False Northing	0 meters	

Parameters of the JIRP projection. The column "Projection File" lists the parameters required to transform from the JIRP projection to a different projection via Arc/Info.

JIRP Survey Chronology												
Profile	Year Surveyed											
	93	94	95	96	97	98	99	00	01	02	03	
1		●										
2	●	●							●			
3	●	●	●	●			●	●	●	●	●	
3a						●	●	●	●			
3b						●	●					
4	●	●	●	●	●	●	●	●	●	●	●	
5	●	●	●	●	●	●	●	●	●			
6		●				●	●	●		●	●	
6a	●	●	●	●		●						
6b						●						
6c						●						
6d						●						
7				●	●	●	●	●	●		●	
7a	●	●	●	●	●	●	●	●				
7b						●						
8	●		●	●	●				●		●	
9			●	●	●			●		●	●	
9a	●						●					
10		●	●									
10a						●						
10b			●									
11					●				●			
Longitudinal A								●	●	●	●	
Longitudinal B								●	●	●	●	
Longitudinal C							●	●	●	●	●	
Longitudinal D								●	●	●	●	
Longitudinal E									●	●	●	
Longitudinal F								●	●	●		
Longitudinal G									●		●	
Benchmarks	●	●	●	●	●	●	●			●		
Camp 16 Area											●	
Gilkey 1990		●							●			
Gilkey Triangles											●	
Icy Basin		●							●			
Lemon Height					●	●	●		●	●	●	
Lemon Velocity							●					
Matthes/Llew Topo									●			
M/VL Triangle			●									
North Basin										●		
Ptarmigan Height					●							
Ptarmigan Velocity							●					
Taku Ter. Velocity										●	●	
VL Longitudinal									●		●	
VL Wave Bulges									●			

JIRP Survey Chronology													
Profile	Year Surveyed												
	04	05	06	07	08	09	10	11	12	13	14		
1													
2													
3			●										
3a													
3b													
4	●	●	●										
5			●										
6													
6a													
6b													
6c													
6d			●										
7	●		●										
7a													
7b													
8		●											
9	●		●										
9a													
10													
10a													
10b													
11	●												
Longitudinal A	●	●	●										
Longitudinal B	●	●	●										
Longitudinal C	●			●									
Longitudinal D	●	●	●										
Longitudinal E	●			●									
Longitudinal F	●			●									
Longitudinal G	●			●									
Benchmarks	●												
Camp 16 Area													
Gilkey 1990													
Gilkey Triangles													
Icy Basin													
Lemon Height	●	●	●										
Lemon Velocity													
Matthes/Llew Topo													
M/VL Triangle													
North Basin													
Ptarmigan Height	●			●									
Ptarmigan Velocity													
Taku Ter. Velocity													
VL Longitudinal	●	●	●										
VL Wave Bulges													

GPS BENCHMARKS (JIRP PROJECTION COORDINATES)			
BENCHMARK	EASTING (M)	NORTHING(M)	HEIGHT(M)
FFGR 01 (C-17)	478,573.838	6,472,234.227	1,301.709
FFGR 06 (Cleaver)	483,309.746	6,524,118.094	1,388.753
FFGR 09 (Icy Basin S.)	489,181.351	6,501,882.011	1,105.758
FFGR 12 (C-19)	482,221.820	6,522,621.728	1,292.865
FFGR 19 (C-10)	488,001.820	6,503,290.614	1,180.836
FFGR 19.1 (Scott)	487,963.303	6,503,372.111	1,189.740
FFGR 24 (C-18)	484,189.635	6,524,371.872	1,733.416
FFGR 26 (C-10)	487,983.651	6,503,410.033	1,198.000
FFGR 31 (C-8???)	492,136.624	6,521,147.773	2,051.576
FFGR 31 (Cleaver???)	483,705.534	6,524,279.606	1,623.548
FFGR 34 (C-18)	484,554.464	6,524,402.905	1,734.890
FFGR 39 (Blizzard)	487,443.145	6,524,360.975	1,984.385
FFGR 40 (TakuD Low)	482,601.539	6,509,092.743	1,399.213
FFGR 43 (Cleaver)	483,990.101	6,524,352.738	1,703.762
FFGR 44 (Cleaver)	483,834.598	6,524,280.382	1,669.527
FFGR 45 (C-18)	484,309.150	6,524,412.394	1,746.191
FFGR 53 (C-19)	482,195.157	6,522,670.922	1,277.773
FFGR 59 (Taku SWPt.)	487,320.590	6,495,968.917	1,133.488
FFGR 62 (F-10)	492,497.562	6,535,469.195	1,860.563
FFGR 63 (C-18)	484,315.335	6,524,309.996	1,723.699
FFGR 64 (C-18)	484,219.214	6,524,334.390	1,727.783
FFGR 65 (Taku D)	482,942.072	6,509,779.956	1,774.109
FFGR 68 (C-18)	484,425.554	6,524,412.335	1,751.611
FFGR 81 (Knowl)	476,860.898	6,504,945.914	1,533.461
FFGR 96 (Boulder)	494,531.122	6,515,717.135	1562.521
FFGR 97 (Marmot)	493,094.441	6,544,549.841	1438.350
C-9 Bolt	489,442.431	6,510,665.042	1,554.938
Camp 12	494,270.294	6,479,536.343	216.740
Lupine (Sunday Point)	490,263.717	6,500,621.560	1,080.574
N1 (C-18)	484,073.444	6,524,262.764	1,698.457
N2 (Cleaver)	483,956.314	6,524,239.526	1,682.217
Taku NW Pt. (UniBm)	479,188.345	6,505,144.633	1,402.149
Taku NW Pt. (USGS)	479,186.763	6,505,147.716	1,402.060
Vista (Camp 9 east)	489,873.478	6,510,298.945	1,564.057
DATUM: WGS84			

GPS BENCHMARKS
(GEOGRAPHIC COORDINATES)

BENCHMARK	LONGITUDE (W)	LATITUDE (N)	HEIGHT(M)
FFGR 01 (C-17)	134° 21' 57.942684"	58° 22' 01.733000"	1,301.709
FFGR 06 (Cleaver)	134° 17' 20.377172"	58° 49' 59.308577"	1,388.753
FFGR 09 (Icy Basin S)	134° 11' 10.525565"	58° 38' 01.345247"	1,105.758
FFGR 12 (C-19)	134° 18' 27.762700"	58° 49' 10.792630"	1,292.865
FFGR 19 (C-10)	134° 12' 23.899681"	58° 38' 46.758301"	1,180.836
FFGR 19.1 (Scott)	134° 12' 26.303369"	58° 38' 49.388359"	1,189.740
FFGR 24 (C-18)	134° 16' 25.595230"	58° 50' 07.629631"	1,733.416
FFGR 26 (C-10)	134° 12' 25.049008"	58° 38' 50.615989"	1,198.000
FFGR 31 (C-8???)	134° 08' 09.785576"	58° 48' 24.218750"	2,051.576
FFGR 31 (Cleaver???)	134° 16' 55.748732"	58° 50' 04.582845"	1,623.548
FFGR 34 (C-18)	134° 16' 02.860336"	58° 50' 08.680203"	1,734.890
FFGR 39 (Blizzard)	134° 13' 02.775834"	58° 50' 07.663145"	1,984.385
FFGR 40 (TakuD Low)	134° 18' 00.327718"	58° 41' 53.616493"	1,399.213
FFGR 43 (Cleaver)	134° 16' 38.028785"	58° 50' 06.984728"	1,703.762
FFGR 44 (Cleaver)	134° 16' 47.703578"	58° 50' 04.625431"	1,669.527
FFGR 45 (C-18)	134° 16' 18.155186"	58° 50' 08.954948"	1,746.191
FFGR 53 (C-19)	134° 18' 29.438156"	58° 49' 12.378511"	1,277.773
FFGR 59 (TakuSWPt.)	134° 13' 04.662102"	58° 34' 50.057855"	1,133.488
FFGR 62 (F-10)	134° 07' 49.040300"	58° 56' 07.081016"	1,860.563
FFGR 63 (C-18)	134° 16' 17.743731"	58° 50' 05.646475"	1,723.699
FFGR 64 (C-18)	134° 16' 23.741807"	58° 50' 06.422198"	1,727.783
FFGR 65 (Taku D)	134° 17' 39.370491"	58° 42' 15.874937"	1,774.109
FFGR 68 (C-18)	134° 16' 10.898731"	58° 50' 08.968250"	1,751.611
FFGR 81 (Knowl)	134° 23' 55.243719"	58° 39' 38.631082"	1,533.461
FFGR 96 (Boulder)	134° 05' 40.162857"	58° 45' 28.842237"	1,562.521
FFGR 97 (Marmot)	134° 07' 12.745164"	59° 01' 00.580341"	1,438.350
C-9 Bolt	134° 10' 55.822743"	58° 42' 45.226083"	1,554.938
Camp 12	134° 05' 53.098166"	58° 25' 59.489130"	216.740
Lupine (Sunday Pt.)	134° 10' 03.247228"	58° 37' 20.700809"	1,080.574
N1 (C-18)	134° 16' 32.810299"	58° 50' 04.088085"	1,698.457
N2 (Cleaver)	134° 16' 40.105698"	58° 50' 03.321435"	1,682.217
Taku NW Pt. (UniBm)	134° 21' 30.949035"	58° 39' 45.477933"	1,402.149
Taku NW Pt. (USGS)	134° 21' 31.048187"	58° 39' 45.577298"	1,402.060
Vista (Camp 9 east)	134° 10' 28.987537"	58° 42' 33.431384"	1,564.057
DATUM: WGS84			

PROFILE 1		
(TAKU GLACIER AT BRASSIERE HILLS)		
FLAG	EASTING (M)	NORTHING (M)
1	494,202.588	6,480,523.850
2	494,428.598	6,480,622.759
3	494,593.534	6,480,714.807
4	494,864.590	6,480,865.869
5	495,068.471	6,480,979.688
6	495,243.327	6,481,055.134
7	495,481.137	6,481,184.554
8	495,690.544	6,481,274.547
9	495,960.184	6,481,439.295
10	496,285.804	6,481,626.187
11	496,508.093	6,481,697.418
12	494,145.128	6,480,455.640
13	494,103.290	6,480,417.759
14	494,076.204	6,480,386.358
15	494,052.498	6,480,360.039

BASELINE YEAR: 1994

YEARS SET AT BASELINE: 94

MEAN HEIGHT: ~343 M (1994)

RT-GPS REFERENCE POINT: NONE ESTABLISHED

PROFILE 2		
(TAKU GLACIER AT GOAT RIDGE)		
FLAG	EASTING (M)	NORTHING (M)
1	493,221.505	6,492,499.937
2	493,039.308	6,492,605.948
3	492,814.376	6,492,500.290
4	492,592.089	6,492,441.775
5	492,404.718	6,492,385.760
6	492,153.147	6,492,273.133
7	491,825.549	6,492,148.035
8	491,579.249	6,492,064.461
9	491,446.403	6,492,025.044
10	491,291.100	6,491,990.370
11	491,071.246	6,491,905.278
12	490,764.621	6,491,784.654

BASELINE YEAR: 1994

YEARS SET AT BASELINE: 94, 00

MEAN HEIGHT: 824 M (2000)

RT-GPS REFERENCE POINT: LUPINE (TAKU A)

PROFILE 3		
(LOWER DEMOREST GLACIER)		
FLAG	EASTING (M)	NORTHING (M)
1	491,627.147	6,501,358.294
2	491,862.944	6,501,154.452
3	492,098.741	6,500,950.610
4	492,334.538	6,500,746.768
5	492,570.335	6,500,542.926
6	492,806.132	6,500,339.084
7	493,041.929	6,500,135.242
8	493,277.726	6,499,931.400
9	493,513.523	6,499,727.558
10	493,749.320	6,499,523.716
11	493,985.117	6,499,319.874
12	494,102.992	6,499,234.961

BASELINE YEAR: 1998
YEARS SET AT BASELINE: 98, 99, 00, 01, 02, 03, 06
MEAN HEIGHT: 1,034 M (2006)
RT-GPS REFERENCE POINT: LUPINE (TAKU A)

PROFILE 3A		
(DEMOREST GLACIER EAST OF C-9)		
FLAG	EASTING (M)	NORTHING (M)
1	492,009.683	6,510,931.602
2	492,309.351	6,510,940.424
3	492,611.755	6,510,949.336
4	492,911.923	6,510,958.447
5	493,213.042	6,510,967.166
6	493,513.414	6,510,976.364
7	493,807.409	6,510,984.579
8	494,109.448	6,510,992.832
9	494,407.213	6,511,001.091
10	494,706.581	6,511,009.717
11	495,006.768	6,511,018.261
12	495,309.020	6,511,026.776
13	495,607.578	6,511,035.213
14	495,908.106	6,511,043.518
15	496,208.896	6,511,052.760

BASELINE YEAR: 1998

YEARS SET AT BASELINE: 98, 99, 00, 01

MEAN HEIGHT: 1,358 M (2001)

RT-GPS REFERENCE POINT: VISTA (C-9)

PROFILE 3B		
(FLOPROCK PEAK TO SCATTER PEAKS)		
FLAG	EASTING (M)	NORTHING (M)
1	496,374.305	6,506,824.861
2	495,883.988	6,506,762.848
3	495,387.511	6,506,702.636
4	494,891.494	6,506,640.948
5	494,394.597	6,506,582.871
6	493,898.548	6,506,522.531
7	493,402.704	6,506,463.361
8	492,907.070	6,506,404.580

BASELINE YEAR: 1999
YEARS SET AT BASELINE: 99, 00
MEAN HEIGHT: 1,242 M (2000)
RT-GPS REFERENCE POINT: VISTA (C-9)

PROFILE 4		
(TAKU GLACIER AT C-10)		
FLAG	EASTING (M)	NORTHING (M)
1	487,744.558	6,503,055.271
2	487,527.414	6,503,206.819
3	487,601.279	6,502,925.736
4	487,380.242	6,503,056.891
5	487,454.297	6,502,792.822
6	487,219.219	6,502,892.955
7	487,266.743	6,502,623.410
8	487,079.493	6,502,750.063
9	487,088.983	6,502,462.428
10	486,936.245	6,502,604.403
11	486,955.346	6,502,341.581
12	486,755.083	6,502,418.956
13	486,716.641	6,502,124.995
14	486,483.751	6,502,199.046
15	486,484.695	6,501,915.579
16	486,222.777	6,501,971.820
17	486,193.390	6,501,651.586
18	485,891.842	6,501,670.771
19	485,916.025	6,501,399.690
20	485,639.949	6,501,442.829
21	485,636.642	6,501,145.952
22	485,391.514	6,501,220.810
23	485,397.765	6,500,929.198
24	485,121.571	6,500,992.813
25	485,110.387	6,500,667.968

PROFILE 4 (CONTINUED) (TAKU GLACIER AT C-10)		
FLAG	EASTING (M)	NORTHING (M)
26	484,859.271	6,500,778.014
27	484,829.919	6,500,413.740
28	484,511.971	6,500,493.919
29	484,572.808	6,500,179.083
30	484,251.471	6,500,282.032
31	484,323.800	6,499,953.167

BASELINE YEAR: 1993
YEARS SET AT BASELINE: 93 TO 06
MEAN HEIGHT: 1,126 M (2006)
RT-GPS REFERENCE POINT: SCOTT (C-10)

ICY BASIN (C-10 TO TAKU 'A')		
FLAG	EASTING (M)	NORTHING (M)
1	488,164.897	6,503,116.702
2	488,292.156	6,502,991.340
3	488,410.455	6,502,874.900
4	488,531.775	6,502,755.513
5	488,653.038	6,502,635.780
6	488,765.252	6,502,526.369
7	488,883.944	6,502,408.419
8	488,995.433	6,502,298.559
9	489,105.694	6,502,189.626

BASELINE YEAR: 1995
YEARS SET AT BASELINE: 95
MEAN HEIGHT: 1,098 M (1995)
RT-GPS REFERENCE POINT: FFGR 19 (C-10)

NORTH BASIN		
(C-10 ACROSS NORTH BASIN)		
FLAG	EASTING (M)	NORTHING (M)
1	487,627.533	6,503,952.638
2	487,598.046	6,503,993.823
3	487,568.859	6,504,034.793
4	487,539.383	6,504,076.377
5	487,510.515	6,504,118.000
6	487,480.961	6,504,158.927
7	487,452.394	6,504,199.508
8	487,423.102	6,504,241.070
9	487,394.137	6,504,282.653
10	487,364.967	6,504,324.635
11	487,335.636	6,504,367.231
12	487,306.138	6,504,410.437

BASELINE YEAR: 2002
YEARS SET AT BASELINE: 02
MEAN HEIGHT: 1,119 M (2002)
RT-GPS REFERENCE POINT: SCOTT (C-10)

PROFILE 5		
(LOWER SOUTHWEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
1	485,734.862	6,498,030.013
2	485,859.279	6,497,874.656
3	485,960.973	6,497,734.648
4	486,104.910	6,497,545.452
5	486,272.932	6,497,352.036
6	486,450.129	6,497,147.013
7	486,577.595	6,496,992.743
8	486,689.735	6,496,863.595
9	486,805.654	6,496,732.153
10	486,904.407	6,496,621.479
11	487,011.856	6,496,489.179
12	487,116.982	6,496,357.218

BASELINE YEAR: 1994
YEARS SET AT BASELINE: 94, 95, 97 TO 00, 06
MEAN HEIGHT: 1,069 M (2006)
RT-GPS REFERENCE POINT: SCOTT (C-10)

PROFILE 6		
(TAKU NW POINT TO ECHO MOUNTAIN)		
FLAG	EASTING (M)	NORTHING (M)
1	478,980.615	6,505,811.793
2	478,921.534	6,506,034.753
3	478,861.504	6,506,256.899
4	478,798.216	6,506,470.477
5	478,770.800	6,506,588.044
6	478,742.863	6,506,717.599
7	478,690.409	6,506,936.364
8	478,636.384	6,507,159.088
9	478,581.668	6,507,384.098
10	478,526.139	6,507,610.211
11	478,471.931	6,507,835.217
12	478,415.984	6,508,059.046
13	478,358.097	6,508,285.778
14	478,306.994	6,508,512.305
15	478,255.147	6,508,738.809
16	478,204.684	6,508,976.305

BASELINE YEAR: 1995

YEARS SET AT BASELINE: 95, 98, 99, 00, 02, 03

MEAN HEIGHT: 1,329 M (2003)

RT-GPS REFERENCE POINT: TAKU NW (USGS)

PROFILE 6A		
(TAKU NW POINT TO TAKU 'D')		
FLAG	EASTING (M)	NORTHING (M)
1	482,197.478	6,508,673.093
2	482,130.831	6,508,591.078
3	481,951.747	6,508,374.406
4	481,773.624	6,508,156.382
5	481,597.024	6,507,940.186
6	481,420.566	6,507,722.677
7	481,244.913	6,507,506.302
8	481,070.871	6,507,290.200
9	480,893.769	6,507,070.432
10	480,717.259	6,506,850.205
11	480,526.900	6,506,612.948
12	480,335.446	6,506,376.778
13	480,144.835	6,506,140.397
14	479,954.564	6,505,905.402
15	479,768.265	6,505,669.222
16	479,586.886	6,505,441.312

BASELINE YEAR: 1994

YEARS SET AT BASELINE: 94, 98

MEAN HEIGHT: 1,276 M (1998)

RT-GPS REFERENCE POINT: TAKU NW (USGS)

PROFILE 6B		
(TAKU NW POINT TO TAKU 'C')		
FLAG	EASTING (M)	NORTHING (M)
1	485,121.412	6,506,722.356
2	484,928.637	6,506,693.730
3	484,531.314	6,506,640.747
4	484,137.879	6,506,568.639
5	483,753.113	6,506,454.268
6	483,366.532	6,506,339.367
7	482,982.183	6,506,218.768
8	482,601.544	6,506,102.841
9	482,223.346	6,505,984.767
10	481,836.238	6,505,864.458
11	481,434.884	6,505,827.959
12	481,031.136	6,505,772.317
13	480,633.750	6,505,701.447
14	480,243.416	6,505,604.649
15	479,852.242	6,505,506.565
BASELINE YEAR: 1997		
YEARS SET AT BASELINE: 97		
MEAN HEIGHT: 1,255 M(1997)		
RT-GPS REFERENCE POINT: TAKU NW (USGS)		

PROFILE 6C		
(TRICOUNI PEAK TO GLACIER KING)		
FLAG	EASTING (M)	NORTHING (M)
1	472,014.117	6,506,140.968
2	471,984.365	6,506,461.620
3	471,954.643	6,506,782.878
4	471,924.422	6,507,105.638
5	471,894.431	6,507,426.774
6	471,864.719	6,507,744.693
7	471,835.399	6,508,060.705
8	471,805.099	6,508,385.935
9	471,775.477	6,508,704.891
10	471,745.478	6,509,027.206
11	471,715.674	6,509,347.051
12	471,686.354	6,509,663.441
13	471,660.028	6,509,929.260

BASELINE YEAR: 1997

YEARS SET AT BASELINE: 97

MEAN HEIGHT: 1,470 M (1997)

RT-GPS REFERENCE POINT: TAKU NW (USGS)

PROFILE 6D		
(KNOWL PEAK TO TRICOUNI PEAK)		
FLAG	EASTING (M)	NORTHING (M)
1	476,049.497	6,505,071.932
2	475,727.933	6,505,122.223
3	475,413.381	6,505,173.884
4	475,094.358	6,505,228.182
5	474,771.115	6,505,283.671
6	474,456.972	6,505,338.505
7	474,145.819	6,505,393.636
8	473,807.809	6,505,453.301
9	473,477.727	6,505,511.856
10	473,157.937	6,505,568.582
11	472,845.837	6,505,624.057
12	472,529.285	6,505,678.645
13	472,214.784	6,505,732.894
14	472,013.142	6,505,768.250

BASELINE YEAR: 1997
YEARS SET AT BASELINE: 97, 06
MEAN HEIGHT: 1,436 M (2006)
RT-GPS REFERENCE POINT: FFGR 81(KNOWL)

PROFILE 7		
(C-9 TO CENTURIAN PEAK)		
FLAG	EASTING (M)	NORTHING (M)
1	488,875.589	6,511,059.324
2	488,742.010	6,511,131.096
3	488,520.935	6,511,249.375
4	488,305.823	6,511,364.022
5	488,075.255	6,511,486.294
6	487,839.924	6,511,611.379
7	487,614.210	6,511,731.606
8	487,386.392	6,511,854.309
9	487,147.432	6,511,982.416
10	486,912.542	6,512,107.944
11	486,677.913	6,512,231.682
12	486,445.891	6,512,351.088
13	486,214.436	6,512,478.135
14	485,980.325	6,512,605.722
15	485,760.241	6,512,725.697
16	485,544.077	6,512,843.783

BASELINE YEAR: 1996

YEARS SET AT BASELINE: 96 TO 00, 02, 04, 06

MEAN HEIGHT: 1,421 M (2006)

RT-GPS REFERENCE POINT: C-9 BOLT

PROFILE 7A		
(TAKU 'C' TO TAKU 'D')		
FLAG	EASTING (M)	NORTHING (M)
1	483,727.039	6,509,199.381
2	483,850.028	6,509,107.958
3	484,016.982	6,508,983.974
4	484,171.491	6,508,870.349
5	484,330.132	6,508,753.317
6	484,487.932	6,508,636.987
7	484,646.112	6,508,520.767
8	484,802.055	6,508,406.687
9	484,954.874	6,508,294.649
10	485,116.199	6,508,176.452
11	485,229.884	6,508,093.214
12	485,343.470	6,508,009.811
13	485,455.581	6,507,927.800
14	485,584.783	6,507,833.634

BASELINE YEAR: 1996
YEARS SET AT BASELINE: 96, 97, 98, 99
MEAN HEIGHT: 1,309 M (1999)
RT-GPS REFERENCE POINT: TAKU NW (USGS)

PROFILE 7B		
(THE CITADEL TO SPIRIT RANGE)		
FLAG	EASTING (M)	NORTHING (M)
1	490,216.098	6,517,031.994
2	489,959.082	6,516,988.121
3	489,705.508	6,516,930.609
4	489,450.625	6,516,880.140
5	489,196.178	6,516,828.615
6	488,942.805	6,516,777.430
7	488,687.580	6,516,726.074
8	488,437.607	6,516,676.265
9	488,179.919	6,516,624.377
10	487,924.023	6,516,572.850
11	487,667.760	6,516,521.488

BASELINE YEAR: 1998
YEARS SET AT BASELINE: 98
MEAN HEIGHT: 1,567 M (1998)
RT-GPS REFERENCE POINT: C-9 BOLT

PROFILE 8		
(BLIZZARD PEAK TO C-8)		
FLAG	EASTING (M)	NORTHING (M)
1	490,903.021	6,522,004.866
2	490,613.420	6,522,169.266
3	490,366.204	6,522,305.920
4	490,119.216	6,522,443.514
5	489,885.040	6,522,574.352
6	489,636.881	6,522,711.678
7	489,366.448	6,522,858.938
8	489,089.149	6,523,015.443
9	488,765.920	6,523,197.618
10	488,415.469	6,523,396.533
11	488,105.722	6,523,570.894
12	487,864.179	6,523,706.811

BASELINE YEAR: 1995
YEARS SET AT BASELINE: 95, 96, 97, 00, 02, 05
MEAN HEIGHT: 1,808 M (2005)
RT-GPS REFERENCE POINT: FFGR 39 (BLIZZARD PK)

PROFILE 9		
(UPPER VAUGHAN LEWIS)		
FLAG	EASTING (M)	NORTHING (M)
1	485,620.483	6,524,358.071
2	485,747.180	6,524,153.872
3	485,830.159	6,523,948.108
4	485,874.313	6,523,693.866
5	485,877.331	6,523,472.567
6	485,794.830	6,523,293.130
7	485,670.263	6,523,112.673
8	485,441.790	6,523,028.187

BASELINE YEAR: 1995

**YEARS SET AT BASELINE: 95, 96, 97, 00, 02, 03,
04, 06**

MEAN HEIGHT: 1,743 M (2006)

RT-GPS REFERENCE POINT: N1 (C-18)

PROFILE 9A		
(MATTHES/VAUGHAN LEWIS DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1	485,780.082	6,523,138.636
2	486,078.883	6,523,045.181
3	486,397.978	6,522,945.019
4	486,675.468	6,522,857.943
5	486,974.302	6,522,764.327
6	487,294.209	6,522,663.993
7	487,592.494	6,522,570.693
8	487,912.829	6,522,470.463
9	488,210.118	6,522,377.209
10	488,509.122	6,522,282.476
11	488,807.498	6,522,189.067
12	489,127.194	6,522,089.428
13	489,425.396	6,521,995.470
14	489,724.449	6,521,902.153
15	490,044.290	6,521,801.061
16	490,321.334	6,521,714.265

BASELINE YEAR: 1952

YEARS SET AT BASELINE: 52, 93, 98

MEAN HEIGHT: 1,778 M (1993)

RT-GPS REFERENCE POINT: FFGR 39 (BLIZZARD Pk)

PROFILE 10		
(MATTHES/LLEWELLYN LONGITUDINAL)		
FLAG	EASTING (M)	NORTHING (M)
1	488,866.765	6,522,402.662
2	489,015.804	6,522,671.637
3	489,156.398	6,522,957.106
4	489,275.232	6,523,242.862
5	489,425.420	6,523,573.553
6	489,520.207	6,523,919.657
7	489,699.298	6,524,260.169
8	489,879.630	6,524,544.849
9	490,022.373	6,524,858.055
10	490,138.876	6,525,189.659
11	490,324.058	6,525,607.582
12	490,588.401	6,526,177.434
13	489,448.084	6,523,134.842
14	489,107.760	6,523,347.296
15	490,746.217	6,526,519.924
16	490,913.452	6,526,854.310
17	491,022.767	6,527,209.109
18	491,139.601	6,527,561.943
19	491,251.410	6,527,917.401
20	491,363.041	6,528,270.706
21	491,477.384	6,528,633.059
22	491,588.604	6,528,985.070
23	491,701.993	6,529,342.783
24	491,815.634	6,529,701.109
25	491,929.387	6,530,058.155

PROFILE 10 (CONTINUED)
(MATTHES/LLEWELLYN LONGITUDINAL)

FLAG	EASTING (M)	NORTHING (M)
26	492,043.911	6,530,415.667
27	492,158.401	6,530,773.036
28	492,271.425	6,531,125.263
29	492,386.016	6,531,482.149

BASELINE YEAR: 1995, 1996

YEARS SET AT BASELINE: 95, 96

MEAN HEIGHT: 1,844 M (1995-96)

RT-GPS REFERENCE POINT: FFGR 39 (BLIZZARD PK)

Note: Flags 1-15 were surveyed in 1995 only.
Flags 17-29 were surveyed in 1996 only.
Flag 16 was surveyed in 1995 and 1996.

PROFILE 10A		
(MATTHES/LLEWELLYN DIVIDE GRID)		
FLAG	EASTING (M)	NORTHING (M)
1	490,493.921	6,527,357.998
2	490,359.933	6,527,089.935
3	490,227.049	6,526,821.963
4	490,091.980	6,526,552.018
5	490,762.197	6,527,223.032
6	490,629.094	6,526,955.470
7	490,495.007	6,526,687.307
8	490,360.468	6,526,418.406
9	491,031.565	6,527,088.902
10	490,898.193	6,526,821.510
11	490,763.203	6,526,553.263
12	490,628.068	6,526,284.358
13	491,299.551	6,526,956.015
14	491,164.879	6,526,686.845
15	491,031.057	6,526,418.465
16	490,897.134	6,526,149.497
17	491,567.976	6,526,821.939
18	491,434.248	6,526,552.486
19	491,299.039	6,526,285.199
20	491,164.886	6,526,015.697
21	490,629.119	6,527,625.650
22	490,896.417	6,527,492.440
23	491,165.013	6,527,358.088
24	491,432.939	6,527,223.977
25	491,702.288	6,527,089.990

PROFILE 10A (CONTINUED)
(MATTHES/LLEWELLYN DIVIDE GRID)

FLAG	EASTING (M)	NORTHING (M)
26	491,970.566	6,526,956.073
27	491,836.738	6,526,687.888
28	491,702.112	6,526,417.988
29	491,567.379	6,526,149.934
30	491,433.609	6,525,883.058

BASELINE YEAR: 1997

YEARS SET AT BASELINE: 97

MEAN HEIGHT: 1,876 M (1997)

RT-GPS REFERENCE POINT: FFGR 39 (BLIZZARD PK)

PROFILE 10B		
(LLEWELLYN GLACIER AT THE BLOB)		
FLAG	EASTING (M)	NORTHING (M)
1	496272.230	6531070.167
2	496044.060	6531210.161
3	495796.073	6531324.582
4	495545.088	6531448.143
5	495172.308	6531627.656
6	494800.409	6531824.010
7	494414.400	6532013.268
8	493959.896	6532233.939
9	493507.568	6532456.889
10	493150.832	6532663.336
11	492856.106	6532855.979

BASELINE YEAR: 1995
YEARS SET AT BASELINE: 95
MEAN HEIGHT: 1,807 M (1995)
REFERENCE POINT: FFGR 39 (BLIZZARD PK)

PROFILE 11		
(LLEWELLYN GLACIER AT F-10)		
FLAG	EASTING (M)	NORTHING (M)
1	492,977.553	6,535,458.168
2	493,256.451	6,535,472.598
3	493,534.616	6,535,487.459
4	493,816.791	6,535,501.810
5	494,092.844	6,535,516.718
6	494,367.125	6,535,531.346
7	494,645.675	6,535,546.045
8	494,926.270	6,535,561.045
9	495,206.397	6,535,576.264
10	495,494.533	6,535,591.996
11	495,767.858	6,535,607.000
12	496,061.395	6,535,622.790

BASELINE YEAR: 1997
YEARS SET AT BASELINE: 97, 00, 04
MEAN HEIGHT: 1,724 M (2004)
RT-GPS REFERENCE POINT: F-10 (FFGR 62)

LONGITUDINAL A		
(TAKU / MATTHES / LLEWELLYN GLACIERS)		
FLAG	EASTING (M)	NORTHING (M)
28	495,227.702	6,487,893.762
29	494,855.097	6,488,229.104
30	494,452.531	6,488,524.171
31	494,030.311	6,488,792.840
32	493,642.649	6,489,105.498
33	493,265.106	6,489,432.137
34	492,924.122	6,489,802.566
35	492,639.500	6,490,212.433
36	492,436.060	6,490,669.104
37	492,237.706	6,491,127.695
38	492,067.416	6,491,597.191
39	491,894.848	6,492,066.523
40	491,772.200	6,492,552.215
41	491,710.170	6,493,049.990
42	491,688.195	6,493,551.633
43	491,658.108	6,494,051.907
44	491,606.495	6,494,547.069
45	491,525.406	6,495,040.634
46	491,428.973	6,495,531.839
47	491,308.757	6,496,018.131
48	491,146.362	6,496,491.593
49	490,889.558	6,496,929.657
50	490,565.939	6,497,307.452
51	490,193.446	6,497,639.550
52	489,812.820	6,497,965.423

LONGITUDINAL A (CONTINUED)
(TAKU / MATTHES / LLEWELLYN GLACIERS)

FLAG	EASTING (M)	NORTHING (M)
53	489,618.971	6,498,128.408
54	489,235.864	6,498,450.518
55	488,848.921	6,498,768.827
56	488,471.616	6,499,101.050
57	488,098.679	6,499,436.370
58	487,723.591	6,499,767.482
59	487,348.977	6,500,100.984
60	486,994.979	6,500,454.794
61	486,652.320	6,500,816.149
62	486,312.297	6,501,180.991
63	485,985.232	6,501,559.657
64	485,675.812	6,501,949.490
65	485,364.519	6,502,341.683
66	485,064.924	6,502,746.020
67	484,784.039	6,503,160.648
68	484,537.306	6,503,595.772
69	484,289.723	6,503,967.453
70	484,084.774	6,504,426.970
71	483,954.432	6,504,907.868
72	483,910.719	6,505,403.812
73	483,900.559	6,505,903.491
74	483,952.387	6,506,401.708
75	484,058.061	6,506,888.983
76	484,277.360	6,507,336.610
77	484,569.168	6,507,741.410

LONGITUDINAL A (CONTINUED)
(TAKU / MATTHES / LLEWELLYN GLACIERS)

FLAG	EASTING (M)	NORTHING (M)
78	484,851.876	6,508,149.661
79	485,109.083	6,508,581.846
80	485,355.665	6,509,017.530
81	485,598.605	6,509,453.699
82	485,844.182	6,509,889.932
83	486,093.527	6,510,323.752
84	486,352.321	6,510,750.714
85	486,622.655	6,511,171.339
86	486,907.785	6,511,581.830
87	487,209.781	6,511,979.547
88	487,520.299	6,512,370.240
89	487,829.031	6,512,765.246
90	488,126.825	6,513,166.680
91	488,414.319	6,513,574.415
92	488,676.778	6,513,996.991
93	488,896.128	6,514,444.596
94	489,045.168	6,514,919.268
95	489,154.866	6,515,405.809
96	489,161.522	6,515,901.008
97	489,071.939	6,516,388.599
98	488,909.620	6,516,860.537
99	488,844.726	6,517,355.616
100	488,838.004	6,517,852.682
101	488,853.473	6,518,347.966
102	488,887.181	6,518,845.163

LONGITUDINAL A (CONTINUED)
(TAKU / MATTHES / LLEWELLYN GLACIERS)

FLAG	EASTING (M)	NORTHING (M)
103	488,939.300	6,519,340.586
104	488,996.217	6,519,837.310
105	489,056.998	6,520,334.502
106	489,152.121	6,520,825.138
107	489,247.232	6,521,315.710
108	489,358.568	6,521,802.122
109	489,506.425	6,522,278.039
110	489,654.393	6,522,754.311
111	489,809.023	6,523,229.799
112	489,979.205	6,523,699.501
113	490,149.130	6,524,168.496
114	490,319.202	6,524,637.893
115	490,495.716	6,525,102.936
116	490,706.659	6,525,556.239
117	490,917.221	6,526,008.726
118	491,127.751	6,526,461.140
119	491,338.024	6,526,913.004
120	491,548.520	6,527,365.347
121	491,759.530	6,527,818.793
122	491,966.046	6,528,271.343
123	492,172.599	6,528,724.348
124	492,387.865	6,529,173.721
125	492,601.941	6,529,625.629
126	492,814.166	6,530,075.912
127	493,026.875	6,530,527.222

LONGITUDINAL A (CONTINUED)
(TAKU / MATTHES / LLEWELLYN GLACIERS)

FLAG	EASTING (M)	NORTHING (M)
128	493,214.291	6,530,990.084
129	493,394.205	6,531,455.805
130	493,567.545	6,531,923.724
131	493,731.079	6,532,395.713
132	493,894.731	6,532,868.909
133	494,017.569	6,533,351.935
134	494,140.706	6,533,836.140
135	494,263.544	6,534,319.166
136	494,386.305	6,534,801.893
137	494,514.984	6,535,284.663
138	494,639.547	6,535,767.698
139	494,744.073	6,536,255.451
140	494,848.727	6,536,743.803
141	494,952.831	6,537,229.585
142	495,045.620	6,537,721.247
143	495,109.431	6,538,214.304
144	495,173.423	6,538,708.755
145	495,237.234	6,539,201.813
146	495,301.364	6,539,697.338
147	495,380.842	6,540,179.195

BASELINE YEARS:

1999, 49-110

2000, 38-48 AND 111-147

2001, 28-37

YEARS SET AT BASELINE: 99 TO 06
RT-GPS REFERENCE POINTS:
28 – 60, LUPINE (TAKU A)
61 – 78, SCOTT (C-10)
79 – 100, C-9 BOLT
101 – 120, FFGR 39 (BLIZZARD)
121 – 147, FFGR 62 (F-10)

LONGITUDINAL B (DEMORREST GLACIER)		
FLAG	EASTING (M)	NORTHING (M)
1	490,757.045	6,497,410.728
2	490,726.178	6,497,907.420
3	490,830.999	6,498,392.825
4	491,050.762	6,498,840.349
5	491,377.818	6,499,212.163
6	491,791.231	6,499,497.772
7	492,235.288	6,499,729.943
8	492,684.775	6,499,945.261
9	493,118.005	6,500,195.070
10	493,564.883	6,500,418.780
11	493,989.926	6,500,678.018
12	494,413.110	6,500,940.119
13	494,810.819	6,501,238.646
14	495,165.717	6,501,591.507
15	495,483.910	6,501,968.653
16	495,732.480	6,502,401.022
17	495,894.584	6,502,875.246

LONGITUDINAL B		
(DEMAREST GLACIER)		
FLAG	EASTING (M)	NORTHING (M)
18	495,987.691	6,503,365.949
19	495,989.844	6,503,864.377
20	495,941.059	6,504,359.707
21	495,864.685	6,504,850.049
22	495,719.416	6,505,325.851
23	495,497.314	6,505,774.373
24	495,249.113	6,506,208.838
25	495,037.600	6,506,662.305
26	494,854.742	6,507,127.238
27	494,690.073	6,507,599.925
28	494,530.422	6,508,074.815
29	494,390.625	6,508,553.608
30	494,281.969	6,509,041.126
31	494,193.443	6,509,530.087
32	494,177.491	6,510,029.056
33	494,192.430	6,510,525.775
34	494,282.741	6,511,013.740
35	494,433.974	6,511,487.584
36	494,624.086	6,511,953.520
37	494,838.249	6,512,402.675
38	495,073.475	6,512,844.002
39	495,334.571	6,513,266.878
40	495,607.372	6,513,684.170
41	495,865.128	6,514,109.462
42	496,088.469	6,514,553.971
43	496,215.507	6,515,039.443

LONGITUDINAL B (DEMOREST GLACIER)		
FLAG	EASTING (M)	NORTHING (M)
44	496,280.870	6,515,532.290
45	496,306.794	6,516,032.356
46	496,299.072	6,516,530.787
47	496,285.325	6,517,031.074
48	496,257.208	6,517,531.238
49	496,193.016	6,518,027.653
50	496,097.342	6,518,517.701
51	495,986.234	6,519,003.272
52	495,861.586	6,519,488.743
53	495,724.885	6,519,971.634
54	495,618.725	6,520,333.477
55	495,682.753	6,520,762.167
BASELINE YEARS: 1999, 1-34 2004, 35-55		
YEARS SET AT BASELINE: 99 TO 06		
RT-GPS REFERENCE POINTS: B1 – B19, LUPINE (TAKU A) B20 – B34, VISTA (C-9) B35 – B55, BOULDER (FFGR 96)		

**LONGITUDINAL C
(SOUTHWEST BRANCH)**

FLAG	EASTING (M)	NORTHING (M)
1	489,153.976	6,498,308.005
2	488,654.556	6,498,350.884
3	488,156.497	6,498,317.760
4	487,671.237	6,498,185.939
5	487,235.585	6,497,941.770
6	486,870.145	6,497,605.622
7	486,548.929	6,497,226.209
8	486,232.675	6,496,840.866
9	485,914.719	6,496,458.242
10	485,611.176	6,496,062.944
11	485,307.338	6,495,666.286
12	485,006.456	6,495,263.834
13	484,717.792	6,494,857.385
14	484,440.778	6,494,442.801
15	484,156.494	6,494,031.790
16	483,873.175	6,493,618.788
17	483,597.213	6,493,204.584
18	483,320.296	6,492,786.812
19	483,039.283	6,492,369.678
20	482,758.809	6,491,957.603
21	482,477.833	6,491,544.731
22	482,198.009	6,491,133.963
23	481,915.336	6,490,721.166
24	481,634.045	6,490,308.903
25	481,359.857	6,489,890.123

LONGITUDINAL C (SOUTHWEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
26	481,087.121	6,489,472.597
27	480,807.389	6,489,056.342
28	480,545.104	6,488,669.598
BASELINE YEARS:		
1999, 1-14		
2000, 15-16		
2001, 17-28		
YEARS SET AT BASELINE: 99 TO 02, 04, 06		
RT-GPS REFERENCE POINT: LUPINE (TAKU A)		

LONGITUDINAL D (NORTHWEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
1	483,965.054	6,504,345.774
2	483,618.114	6,504,704.897
3	483,260.602	6,505,053.457
4	482,878.234	6,505,374.445
5	482,485.888	6,505,683.224
6	482,084.923	6,505,979.750
7	481,673.018	6,506,262.524
8	481,252.143	6,506,529.895
9	480,838.369	6,506,756.697
10	480,392.781	6,506,982.131
11	479,914.539	6,507,132.111
12	479,427.047	6,507,236.656

LONGITUDINAL D (NORTHWEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
13	478,939.181	6,507,330.835
14	478,448.884	6,507,421.325
15	477,957.440	6,507,506.058
16	477,470.954	6,507,579.907
17	476,984.168	6,507,457.935
18	476,520.843	6,507,275.387
19	476,094.206	6,507,016.407
20	475,687.381	6,506,727.948
21	475,308.937	6,506,402.201
22	474,995.153	6,506,014.747
23	474,802.539	6,505,552.350
24	474,782.393	6,505,051.370
25	474,829.564	6,504,555.451
26	474,966.852	6,504,076.837
27	475,116.445	6,503,601.620
28	475,288.470	6,503,132.810
29	475,490.553	6,502,675.758
30	475,691.726	6,502,217.791
31	475,854.276	6,501,743.200
32	476,000.706	6,501,264.410
33	476,115.985	6,500,778.536
34	476,194.752	6,500,283.479
35	476,239.171	6,499,783.022
36	476,258.539	6,499,282.764
37	476,229.471	6,498,784.339
38	476,128.065	6,498,295.386

LONGITUDINAL D (NORTHWEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
39	476,037.200	6,497,802.371
40	476,010.845	6,497,300.470
41	476,029.187	6,496,797.708
42	476,058.246	6,496,300.400
43	476,117.310	6,495,804.953
44	476,205.534	6,495,311.449
45	476,330.060	6,494,826.524
46	476,456.198	6,494,341.923
47	476,589.670	6,493,861.259
48	476,734.373	6,493,381.578

BASELINE YEARS:
2000, 1-16
2001, 17-48
YEARS SET AT BASELINE: 00 TO 06
RT-GPS REFERENCE POINT:
1 – 15, TAKU NW (USGS)
16 – 48, KNOWL (FFGR 81)

LONGITUDINAL E (SNOW TOWERS BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
1	475,171.608	6,503,106.364
2	475,151.770	6,502,607.001
3	474,980.751	6,502,137.086
4	474,761.437	6,501,689.438
5	474,507.725	6,501,258.496
6	474,220.474	6,500,848.766
7	473,889.613	6,500,476.214
8	473,529.854	6,500,127.702
9	473,161.846	6,499,790.882
10	472,744.198	6,499,520.473
11	472,298.026	6,499,299.424
12	471,847.592	6,499,088.159
13	471,420.015	6,498,831.304
14	471,027.333	6,498,521.724

BASELINE YEAR: 2001
YEARS SET AT BASELINE: 01 TO 04, 06
RT-GPS REFERENCE POINT: KNOWL (FFGR-81)

LONGITUDINAL F (WEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
1	476,975.718	6,507,646.351
2	476,481.470	6,507,690.459
3	475,982.391	6,507,716.529
4	475,483.222	6,507,736.333
5	474,983.030	6,507,742.541
6	474,484.904	6,507,748.724
7	473,985.739	6,507,754.919
8	473,486.604	6,507,758.833
9	472,988.470	6,507,762.927
10	472,488.296	6,507,767.666
11	471,991.231	6,507,751.946
12	471,493.058	6,507,736.609
13	470,998.865	6,507,664.008
14	470,544.154	6,507,456.608
15	470,145.708	6,507,155.911
16	469,813.121	6,506,784.733
17	469,607.280	6,506,328.614
18	469,467.330	6,505,846.650
19	469,384.584	6,505,351.453
20	469,338.025	6,504,853.294
21	469,281.367	6,504,353.316
22	469,215.193	6,503,857.287
23	469,088.899	6,503,373.280
24	468,872.376	6,502,919.464
25	468,586.174	6,502,508.721

LONGITUDINAL F (WEST BRANCH)		
FLAG	EASTING (M)	NORTHING (M)
26	468,219.011	6,502,170.187
BASELINE YEARS:		
2000, 1-18		
2001, 19-26		
YEARS SET AT BASELINE: 00, 01, 02, 04, 06		
RT-GPS REFERENCE POINT: KNOWL (FFGR-81)		

LONGITUDINAL G (ECHO GLACIER)		
FLAG	EASTING (M)	NORTHING (M)
1	480,544.969	6,507,163.343
2	480,479.315	6,507,659.966
3	480,465.304	6,508,159.416
4	480,469.028	6,508,658.368
5	480,472.602	6,509,157.336
6	480,482.851	6,509,657.088
7	480,531.759	6,510,156.203
8	480,587.276	6,510,655.658
9	480,377.236	6,511,117.265
10	480,182.393	6,511,570.297
11	479,984.954	6,512,020.628
BASELINE YEAR: 2001		
YEARS SET AT BASELINE: 01, 03, 04, 06		
RT-GPS REFERENCE POINT: TAKU NWPT (USGS)		

LEMON VELOCITY PROFILE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
1	478,658.271	6,472,199.604
2	478,955.316	6,472,091.105
3	479,146.553	6,472,015.917
4	479,322.219	6,471,944.401
5	479,485.615	6,471,876.157
6	479,638.536	6,471,814.316
7	479,786.888	6,471,755.514
8	479,924.317	6,471,702.207

BASELINE YEAR: 1999
YEARS SET AT BASELINE: 99
MEAN HEIGHT: 1,222 M (1999)
RT-GPS REFERENCE POINT: FFGR 1 (GEN SHED)

PTARMIGAN VELOCITY PROFILE (PTARMIGAN GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
1	478,281.189	6,472,611.053
2	478,134.939	6,472,604.899
3	478,026.147	6,472,602.251
4	477,951.938	6,472,600.607
5	477,896.290	6,472,599.553
6	477,797.124	6,472,597.845

BASELINE YEAR: 1999
YEARS SET AT BASELINE: 99
MEAN HEIGHT: 1,232 M (1999)
RT-GPS REFERENCE POINT: FFGR 1 (GEN SHED)

LEMON HEIGHT CHANGE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
A01	478,386.717	6,471,922.557
A02	478,429.534	6,471,901.926
A03	478,467.309	6,471,881.522
A04	478,498.556	6,471,863.396
A05	478,529.998	6,471,843.750
A06	478,562.375	6,471,824.018
A07	478,596.779	6,471,805.342
A08	478,633.758	6,471,786.384
A09	478,669.705	6,471,762.393
A10	478,702.149	6,471,736.243
A11	478,736.442	6,471,711.103
A12	478,770.990	6,471,688.098
A13	478,807.932	6,471,667.229
A14	478,851.522	6,471,633.652
A15	478,883.199	6,471,607.039
A16	478,909.510	6,471,574.531
A17	478,942.595	6,471,543.783
A18	478,978.274	6,471,520.808
A19	479,013.551	6,471,497.440
A20	479,052.390	6,471,476.660
A21	479,087.544	6,471,454.110
A22	479,125.931	6,471,432.855
A23	479,165.046	6,471,412.359
A24	479,203.707	6,471,395.811
A25	479,244.458	6,471,376.617

LEMON HEIGHT CHANGE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
B01	478,658.773	6,472,199.367
B02	478,825.761	6,472,140.711
B03	478,955.347	6,472,091.082
B04	479,018.473	6,472,066.248
B05	479,082.858	6,472,041.331
B06	479,146.550	6,472,015.902
B07	479,207.331	6,471,991.859
B08	479,265.727	6,471,967.550
B09	479,322.276	6,471,944.393
B10	479,377.218	6,471,920.214
B11	479,431.758	6,471,896.959
B12	479,485.573	6,471,876.177
B13	479,539.042	6,471,855.323
B14	479,588.710	6,471,835.379
B15	479,638.607	6,471,814.288
B16	479,689.181	6,471,793.154
B17	479,738.538	6,471,773.328
B18	479,786.813	6,471,755.481
B19	479,833.450	6,471,736.813
B20	479,879.293	6,471,719.573
B21	479,924.333	6,471,702.135
B22	479,970.134	6,471,682.090
B23	480,020.382	6,471,662.371
B24	480,070.848	6,471,642.305
B25	480,120.555	6,471,621.547
B26	480,166.802	6,471,602.135

LEMON HEIGHT CHANGE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
B27	480,225.983	6,471,577.888
B28	480,276.530	6,471,556.314
B29	480,313.359	6,471,536.120
C01	479,024.206	6,472,626.197
C02	479,053.031	6,472,618.290
C03	479,098.475	6,472,613.328
C04	479,146.188	6,472,608.029
C05	479,194.536	6,472,602.043
C06	479,242.723	6,472,595.800
C07	479,292.927	6,472,589.391
C08	479,346.223	6,472,582.858
C09	479,399.094	6,472,576.420
C10	479,453.060	6,472,568.945
C11	479,506.041	6,472,563.268
C12	479,559.952	6,472,556.716
C13	479,613.320	6,472,550.112
C14	479,666.554	6,472,542.574
C15	479,718.723	6,472,535.186
C16	479,772.228	6,472,528.430
C17	479,826.201	6,472,520.914
C18	479,883.794	6,472,512.567
C19	479,942.948	6,472,504.770
C20	480,002.313	6,472,497.014
C21	480,068.094	6,472,488.274
C22	480,146.617	6,472,478.347
C23	480,248.897	6,472,466.382

LEMON HEIGHT CHANGE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
C24	480,326.933	6,472,450.575
C25	480,404.864	6,472,429.271
D01	478968.726	6473542.348
D02	479061.864	6473571.691
D03	479171.738	6473603.947
D04	479253.250	6473625.227
D05	479320.747	6473642.549
D06	479381.408	6473659.462
D07	479443.169	6473676.206
D08	479502.922	6473689.235
D09	479554.647	6473702.080
D10	479608.264	6473718.311
D11	479662.186	6473731.053
D12	479715.835	6473743.794
D13	479771.680	6473760.587
D14	479809.401	6473770.855
D15	479866.544	6473786.535
D16	479920.387	6473802.568
D17	479976.829	6473818.150
D18	480032.249	6473834.236
D19	480088.216	6473848.811
D20	480143.292	6473865.395
D21	480198.737	6473878.706
D22	480248.824	6473892.511
D23	480302.384	6473904.633
D24	480348.945	6473915.733

LEMON HEIGHT CHANGE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
E01	479225.158	6474092.757
E02	479292.068	6474106.452
E03	479360.786	6474103.100
E04	479453.160	6474101.370
E05	479551.311	6474123.493
E06	479630.444	6474130.212
E07	479691.587	6474138.989
E08	479767.878	6474145.101
E09	479803.715	6474150.905
E10	479868.728	6474164.061
E11	479933.135	6474182.777
E12	480029.838	6474192.823
E13	480124.491	6474217.313
E14	480184.888	6474242.917
E15	480280.327	6474283.190
L01	478,958.915	6,471,585.466
L02	478,996.769	6,471,662.915
L03	479,041.381	6,471,732.691
L04	479,078.934	6,471,809.086
L05	479,123.512	6,471,881.315
L06	479,167.125	6,471,952.625
L07	479,201.993	6,472,024.125
L08	479,246.919	6,472,091.757
L09	479,295.735	6,472,156.800
L10	479,343.967	6,472,223.934
L11	479,391.411	6,472,289.719

LEMON HEIGHT CHANGE (LEMON GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
L12	479,437.714	6,472,356.623
L13	479,485.054	6,472,421.695
L14	479,532.242	6,472,486.532
L15	479,573.491	6,472,554.590
L16	479458.483	6472651.235
L17	479529.204	6472781.125
L18	479580.406	6472903.421
L19	479635.213	6473047.997
L20	479692.978	6473181.624
L21	479721.920	6473278.022
L22	479750.467	6473384.544
L23	479777.569	6473497.672
L24	479788.488	6473563.849
L25	479801.438	6473699.885
L26	479805.737	6473805.796
L27	479792.709	6473926.198
L28	479779.987	6474024.201
BASELINE YEARS:		
1997: A1-25, B1-29, C1-25, L1-15		
2001: D1-24, L16-25		
2004: E1-15, L26-28		
YEARS SET AT BASELINE: 97, 98, 99, 01 TO 06		
MEAN HEIGHT: 1,174 M (2006)		
RT-GPS REFERENCE POINT: FFGR 1 (GEN SHED)		

PTARMIGAN HEIGHT CHANGE (PTARMIGAN GLACIER AT C-17)		
FLAG	EASTING (M)	NORTHING (M)
1	478,412.237	6,472,170.081
2	478,305.225	6,472,205.183
3	478,180.646	6,472,247.918
4	478,045.309	6,472,297.152
5	477,907.811	6,472,314.776
6	477,799.790	6,472,348.755
7	477,615.025	6,472,384.796
8	477,837.456	6,473,037.410
9	477,906.001	6,473,012.435
10	477,973.048	6,472,986.694
11	478,066.835	6,472,963.284
12	478,156.827	6,472,952.949
13	478,250.477	6,472,945.192
14	477,829.899	6,472,661.276

BASELINE YEAR: 1997
YEARS SET AT BASELINE: 97, 04, 06
MEAN HEIGHT: 1,101 M (2006)
REFERENCE POINT: FFGR 1 (GEN SHED)

CAMP 16		
(NORTHWEST BRANCH AT CAMP 16)		
FLAG	EASTING (M)	NORTHING (M)
1	471,218.797	6,500,854.837
2	471,646.731	6,500,580.580
3	472,071.906	6,500,310.178
4	472,497.067	6,500,037.928
5	472,925.240	6,499,763.923
6	473,356.352	6,499,486.158
7	473,784.537	6,499,204.785
8	473,904.154	6,499,124.229
9	474,109.624	6,498,989.082
10	474,245.010	6,498,952.990
11	474,493.559	6,498,886.311
12	474,743.141	6,498,825.322
13	474,996.543	6,498,760.537
14	475,248.048	6,498,697.675
15	475,502.525	6,498,634.810
16	475,749.162	6,498,572.011
17	476,009.457	6,498,507.250
18	476,257.110	6,498,446.370
19	476,503.828	6,498,383.618
20	476,755.369	6,498,318.959
21	476,999.197	6,498,256.256
22	477,243.011	6,498,189.892
BASELINE YEAR: 2002		
YEARS SET AT BASELINE: 02		
MEAN HEIGHT: 1,564 M (2002)		
REFERENCE POINT: MAGELLAN MERIDIAN + WAAS		

GILKEY 1990		
(GILKEY GLACIER 1990 SURVEY POINTS)		
FLAG	EASTING (M)	NORTHING (M)
D1	482,609.782	6,524,214.721
D2	482,598.631	6,524,318.084
D5	482,180.283	6,524,157.490
D6	482,134.770	6,524,373.560
D7	481,881.396	6,524,226.470
D8	481,955.716	6,524,371.418
D9	481,772.240	6,524,314.892
E2	482,993.542	6,524,326.650
E3	482,914.735	6,524,267.174

BASELINE YEAR: 1995
YEARS SET AT BASELINE: 95, 01
MEAN HEIGHT: 1,082 M (2001)
REFERENCE POINT: FFGR 12 (CAMP 19)

GILKEY TRIANGLES		
(STRAIN TRIANGLES ON THE GILKEY GLACIER)		
FLAG	EASTING (M)	NORTHING (M)
1	482,018.550	6,522,976.842
2	482,221.447	6,523,864.918
3	482,217.346	6,523,364.139
4	482,584.133	6,523,691.735
5	482,230.959	6,524,716.629
6	481,785.452	6,524,401.920
7	481,467.029	6,524,235.296

BASELINE YEAR: 2003
YEARS SET AT BASELINE: 03
MEAN HEIGHT: 1,067 M (2003)
REFERENCE POINT: FFGR 12 (CAMP 19)

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
1	482,797.778	6,523,674.641
2	482,791.089	6,523,675.060
3	482,784.463	6,523,675.729
4	482,777.910	6,523,676.645
5	482,771.473	6,523,676.596
6	482,764.950	6,523,676.823
7	482,757.814	6,523,676.908
8	482,749.906	6,523,677.381
9	482,741.914	6,523,677.750
10	482,735.821	6,523,678.469
11	482,728.556	6,523,678.717
12	482,721.557	6,523,678.960
13	482,714.922	6,523,678.184
14	482,708.353	6,523,677.592
15	482,701.063	6,523,677.132
16	482,693.433	6,523,676.910
17	482,685.752	6,523,676.753
18	482,678.545	6,523,676.933
19	482,671.026	6,523,677.066
20	482,662.744	6,523,676.840
21	482,656.177	6,523,677.319
22	482,650.338	6,523,676.414
23	482,643.455	6,523,676.192
24	482,635.613	6,523,676.353
25	482,627.811	6,523,676.296

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
26	482,619.774	6,523,675.376
27	482,611.605	6,523,674.152
28	482,603.786	6,523,673.176
29	482,596.541	6,523,671.555
30	482,588.226	6,523,670.334
31	482,580.270	6,523,669.549
32	482,571.456	6,523,668.181
33	482,564.236	6,523,666.731
34	482,557.740	6,523,665.804
35	482,554.087	6,523,665.272
36	482,535.470	6,523,663.164
37	482,525.500	6,523,660.306
38	482,520.856	6,523,658.591
39	482,515.174	6,523,656.759
40	482,509.386	6,523,655.038
41	482,502.425	6,523,652.607
42	482,494.576	6,523,650.218
43	482,486.910	6,523,647.326
44	482,479.071	6,523,644.040
45	482,471.419	6,523,641.203
46	482,464.053	6,523,640.315
47	482,456.230	6,523,639.609
48	482,448.094	6,523,638.849
49	482,440.748	6,523,637.540
50	482,434.498	6,523,636.541
51	482,429.629	6,523,634.714

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
52	482,422.297	6,523,632.695
53	482,417.230	6,523,630.508
54	482,402.452	6,523,632.095
55	482,396.334	6,523,630.226
56	482,390.461	6,523,628.162
57	482,385.280	6,523,626.441
58	482,378.579	6,523,623.603
59	482,370.485	6,523,621.762
60	482,363.018	6,523,618.748
61	482,355.193	6,523,616.484
62	482,347.981	6,523,614.477
63	482,340.201	6,523,611.987
64	482,332.777	6,523,609.102
65	482,325.993	6,523,606.665
66	482,319.755	6,523,604.540
67	482,311.763	6,523,602.296
68	482,304.628	6,523,600.204
69	482,297.616	6,523,597.784
70	482,290.830	6,523,595.632
71	482,283.911	6,523,594.330
72	482,276.664	6,523,592.755
73	482,270.553	6,523,591.872
74	482,262.480	6,523,591.189
75	482,253.813	6,523,588.216
76	482,246.056	6,523,584.302
77	482,239.644	6,523,581.150

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
78	482,232.713	6,523,577.847
79	482,225.276	6,523,577.389
80	482,218.142	6,523,573.289
81	482,211.272	6,523,570.467
82	482,202.915	6,523,568.884
83	482,194.630	6,523,567.918
84	482,186.572	6,523,565.417
85	482,178.315	6,523,562.647
86	482,170.905	6,523,559.689
87	482,163.533	6,523,556.679
88	482,156.506	6,523,552.529
89	482,150.459	6,523,548.877
90	482,144.143	6,523,545.074
91	482,136.367	6,523,542.404
92	482,129.496	6,523,542.310
93	482,121.803	6,523,541.599
94	482,114.441	6,523,538.201
95	482,107.878	6,523,534.878
96	482,101.603	6,523,532.748
97	482,094.049	6,523,531.961
98	482,085.721	6,523,531.236
99	482,078.276	6,523,529.076
100	482,071.940	6,523,524.168
101	482,064.402	6,523,520.145
102	482,056.266	6,523,518.192
103	482,048.205	6,523,514.768

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
104	482,038.733	6,523,513.151
105	482,030.070	6,523,508.802
106	482,022.142	6,523,507.234
107	482,014.565	6,523,504.067
108	482,006.522	6,523,500.127
109	482,000.176	6,523,495.415
110	481,992.281	6,523,491.113
111	481,984.863	6,523,487.588
112	481,976.528	6,523,484.363
113	481,969.612	6,523,480.419
114	481,961.849	6,523,477.685
115	481,953.483	6,523,474.729
116	481,945.749	6,523,471.599
117	481,938.084	6,523,467.445
118	481,930.668	6,523,461.694
119	481,923.494	6,523,456.425
120	481,914.697	6,523,451.463
121	481,905.849	6,523,447.692
122	481,896.984	6,523,444.744
123	481,888.024	6,523,442.206
124	481,876.468	6,523,437.310
125	481,865.643	6,523,435.957
126	481,856.932	6,523,430.959
127	481,845.166	6,523,427.566
128	481,836.832	6,523,425.476
129	481,827.771	6,523,423.189

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
130	481,818.679	6,523,420.102
131	481,808.333	6,523,419.889
132	481,800.655	6,523,417.551
133	481,790.582	6,523,414.610
134	481,782.110	6,523,410.990
135	481,773.042	6,523,409.000
136	481,764.584	6,523,408.799
137	481,756.673	6,523,407.591
138	481,748.841	6,523,406.405
139	481,740.162	6,523,405.544
140	481,726.465	6,523,405.342
141	481,719.057	6,523,402.417
142	481,705.345	6,523,397.823
143	481,694.400	6,523,387.998
144	481,682.651	6,523,378.047
145	481,669.336	6,523,368.986
146	481,655.454	6,523,360.747
147	481,639.064	6,523,357.337
148	481,623.385	6,523,353.535
149	481,605.645	6,523,353.218
150	481,589.799	6,523,351.024
151	481,574.163	6,523,347.266
152	481,557.187	6,523,344.674
153	481,544.619	6,523,335.678
154	481,535.713	6,523,322.518
155	481,525.937	6,523,313.049

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
156	481,514.032	6,523,304.512
157	481,499.674	6,523,297.169
158	481,484.814	6,523,291.904
159	481,469.853	6,523,290.733
160	481,454.756	6,523,288.102
161	481,438.654	6,523,285.381
162	481,425.515	6,523,280.010
163	481,411.882	6,523,276.553
164	481,391.878	6,523,274.427
165	481,377.267	6,523,267.042
166	481,362.091	6,523,262.375
167	481,345.706	6,523,261.213
168	481,330.968	6,523,259.985
169	481,314.942	6,523,260.152
170	481,298.032	6,523,261.253
171	481,281.961	6,523,260.648
172	481,266.095	6,523,259.689
173	481,252.807	6,523,253.489
174	481,239.319	6,523,243.980
175	481,226.130	6,523,230.758
176	481,212.430	6,523,218.967
177	481,197.572	6,523,210.691
178	481,181.583	6,523,203.196
179	481,166.955	6,523,194.379
BASELINE YEAR: 2001		

VAUGHAN LEWIS LONGITUDINAL (CENTERLINE OF WAVE BULGES)		
FLAG	EASTING (M)	NORTHING (M)
YEARS SET AT BASELINE: 01, 03, 04, 05, 06		
MEAN HEIGHT:		
REFERENCE POINT: N1 (CAMP 18)		

VAUGHAN LEWIS BULGES (WAVE BULGES 1 TO 4)		
FLAG	EASTING (M)	NORTHING (M)
wb1-1	482,789.875	6,523,855.133
wb1-2	482,751.690	6,523,736.577
wb1-3	482,754.809	6,523,600.255
wb1-4	482,787.452	6,523,508.947
wb2-1	482,635.333	6,523,820.108
wb2-2	482,607.153	6,523,691.319
wb2-3	482,674.744	6,523,510.540
wb3-1	482,516.246	6,523,811.890
wb3-2	482,476.707	6,523,692.423
wb3-3	482,543.645	6,523,535.853
wb3-4	482,628.912	6,523,448.099
BASELINE YEAR: 2001		
YEARS SET AT BASELINE: 01		
MEAN HEIGHT: 1,093 M (2001)		
REFERENCE POINT: FFGR 12 (CAMP 19)		

MATTHES/VAUGHAN LEWIS TRIANGLE (MATTHES/VAUGHAN LEWIS DIVIDE AREA)		
FLAG	EASTING (M)	NORTHING (M)
1	488,065.530	6,521,713.608
2	487,837.500	6,521,529.754
3	487,630.589	6,521,359.718
4	487,441.498	6,521,227.073
5	487,782.609	6,521,108.736
6	488,016.931	6,521,018.129
7	488,205.098	6,520,935.506
8	488,149.090	6,521,193.007
9	488,106.877	6,521,466.950

BASELINE YEAR: 1995
YEARS SET AT BASELINE: 95
MEAN HEIGHT: 1,765 M (1995)
REFERENCE POINT: N1 (CAMP 18)

TAKU TERMINUS VELOCITY (TAKU GLACIER TERMINUS)		
FLAG	EASTING (M)	NORTHING (M)
Wheel1	497,914.563	6,478,087.183
Wheel2	497,105.474	6,477,299.910
Can1	495,525.576	6,478,100.604
Can2	496,334.249	6,478,391.224
Can3	497,541.406	6,479,182.974
Can4	498,309.176	6,480,322.408

BASELINE YEAR: 2001 (WHEELS), 2002 (CANS)
YEARS SET AT BASELINE: 01, 02
MEAN HEIGHT:
REFERENCE POINT: MAGELLAN MERIDIAN + WAAS

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1	489,364.811	6,528,392.252
2	489,364.814	6,528,392.243
3	489,364.812	6,528,392.249
4	489,364.809	6,528,392.253
5	489,381.540	6,528,400.670
6	489,411.202	6,528,383.860
7	489,440.760	6,528,352.217
8	489,480.584	6,528,321.584
9	489,532.783	6,528,298.799
10	489,597.325	6,528,275.961
11	489,669.648	6,528,254.288
12	489,735.608	6,528,234.492
13	489,800.019	6,528,216.056
14	489,870.454	6,528,195.041
15	489,965.546	6,528,169.818
16	490,067.220	6,528,145.015
17	490,112.272	6,528,134.155
18	490,142.026	6,528,127.738
19	490,200.436	6,528,116.743
20	490,268.992	6,528,100.458
21	490,351.390	6,528,080.548
22	490,435.993	6,528,057.733
23	490,520.146	6,528,034.621
24	490,607.172	6,528,014.586
25	490,694.650	6,527,997.627
26	490,783.218	6,527,979.242

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
27	490,871.191	6,527,962.856
28	490,955.196	6,527,943.930
29	491,075.853	6,527,917.581
30	491,075.866	6,527,917.695
31	491,075.867	6,527,917.718
32	491,076.110	6,527,919.055
33	491,109.429	6,527,913.032
34	491,173.085	6,527,900.328
35	491,246.143	6,527,883.882
36	491,325.445	6,527,867.526
37	491,404.492	6,527,852.228
38	491,487.456	6,527,835.464
39	491,574.385	6,527,818.443
40	491,662.272	6,527,801.821
41	491,802.053	6,527,770.709
42	491,802.034	6,527,770.701
43	491,802.145	6,527,771.609
44	491,849.804	6,527,761.730
45	491,934.713	6,527,745.070
46	492,022.084	6,527,726.380
47	492,068.018	6,527,717.065
48	492,068.175	6,527,718.104
49	492,114.793	6,527,708.479
50	492,186.581	6,527,693.144
51	492,260.745	6,527,676.910
52	492,335.623	6,527,660.730

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
53	492,410.223	6,527,646.764
54	492,482.828	6,527,632.322
55	492,556.071	6,527,616.255
56	492,632.990	6,527,600.870
57	492,708.402	6,527,583.839
58	492,851.755	6,527,550.688
59	492,895.161	6,527,539.806
60	492,968.808	6,527,522.878
61	493,048.021	6,527,506.431
62	493,129.326	6,527,487.851
63	493,209.575	6,527,470.099
64	493,290.859	6,527,452.136
65	493,371.476	6,527,433.603
66	493,456.029	6,527,415.454
67	493,540.404	6,527,398.015
68	493,625.234	6,527,378.795
69	493,709.458	6,527,357.321
70	493,793.515	6,527,338.874
71	493,875.274	6,527,319.614
72	493,956.955	6,527,297.754
73	494,039.973	6,527,277.204
74	494,123.440	6,527,256.497
75	494,209.798	6,527,235.168
76	494,242.960	6,527,226.881
77	494,307.008	6,527,210.629
78	494,386.574	6,527,190.884

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
79	494,473.002	6,527,169.129
80	494,561.380	6,527,146.318
81	494,651.520	6,527,126.117
82	494,739.670	6,527,107.460
83	494,828.715	6,527,093.319
84	494,915.300	6,527,077.707
85	494,998.395	6,527,062.500
86	495,080.396	6,527,047.002
87	495,161.651	6,527,028.595
88	495,247.083	6,527,010.368
89	495,331.024	6,526,994.276
90	495,413.490	6,526,978.881
91	495,493.980	6,526,958.790
92	495,568.802	6,526,942.893
93	495,632.780	6,526,931.852
94	495,690.425	6,526,923.906
95	495,739.528	6,526,917.450
96	495,788.238	6,526,905.711
97	495,837.390	6,526,891.199
98	495,887.051	6,526,874.912
99	495,937.267	6,526,857.721
100	495,987.384	6,526,841.639
101	496,009.218	6,526,835.535
102	496,004.054	6,526,801.759
103	495,991.293	6,526,752.644
104	495,981.850	6,526,703.813

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
105	495,976.427	6,526,656.689
106	495,965.168	6,526,614.840
107	495,963.719	6,526,613.545
108	495,930.178	6,526,613.315
109	495,891.480	6,526,621.220
110	495,852.671	6,526,630.124
111	495,804.623	6,526,639.347
112	495,753.497	6,526,647.794
113	495,719.144	6,526,649.027
114	495,671.067	6,526,648.825
115	495,618.078	6,526,657.708
116	495,558.944	6,526,671.316
117	495,495.118	6,526,685.644
118	495,420.360	6,526,702.359
119	495,340.920	6,526,720.761
120	495,256.190	6,526,738.533
121	495,172.883	6,526,757.828
122	495,090.866	6,526,776.498
123	495,057.805	6,526,784.803
124	495,057.814	6,526,784.638
125	495,022.604	6,526,792.232
126	494,960.167	6,526,807.194
127	494,895.704	6,526,822.500
128	494,827.849	6,526,840.589
129	494,753.690	6,526,858.333
130	494,678.809	6,526,876.277

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
131	494,607.319	6,526,893.956
132	494,531.537	6,526,911.430
133	494,458.198	6,526,928.652
134	494,383.747	6,526,945.506
135	494,308.308	6,526,963.377
136	494,270.897	6,526,972.408
137	494,239.782	6,526,980.589
138	494,210.906	6,526,989.524
139	494,173.551	6,526,997.175
140	494,130.642	6,527,006.918
141	494,097.561	6,527,012.437
142	494,085.820	6,527,013.734
143	494,061.087	6,527,021.113
144	494,012.357	6,527,032.284
145	493,960.970	6,527,044.226
146	493,904.072	6,527,058.033
147	493,840.664	6,527,074.344
148	493,774.963	6,527,089.873
149	493,707.988	6,527,105.118
150	493,639.800	6,527,120.953
151	493,602.507	6,527,128.620
152	493,584.908	6,527,132.391
153	493,535.447	6,527,142.867
154	493,494.428	6,527,156.155
155	493,467.662	6,527,167.254
156	493,418.137	6,527,179.068

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
157	493,359.933	6,527,192.561
158	493,356.423	6,527,193.383
159	493,325.881	6,527,200.289
160	493,271.267	6,527,213.258
161	493,212.498	6,527,226.641
162	493,151.010	6,527,241.035
163	493,086.009	6,527,255.914
164	493,017.558	6,527,272.590
165	492,948.707	6,527,288.824
166	492,879.921	6,527,305.412
167	492,813.364	6,527,321.797
168	492,747.433	6,527,338.100
169	492,680.841	6,527,353.754
170	492,614.847	6,527,368.435
171	492,547.824	6,527,384.289
172	492,480.824	6,527,399.219
173	492,414.401	6,527,415.018
174	492,347.613	6,527,430.877
175	492,281.031	6,527,446.746
176	492,216.000	6,527,463.314
177	492,148.627	6,527,479.652
178	492,081.767	6,527,497.196
179	492,012.030	6,527,514.331
180	491,946.104	6,527,530.517
181	491,876.599	6,527,546.499
182	491,809.414	6,527,563.015

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
183	491,740.511	6,527,581.067
184	491,670.169	6,527,596.741
185	491,598.984	6,527,611.228
186	491,528.729	6,527,627.416
187	491,459.834	6,527,643.639
188	491,388.199	6,527,661.476
189	491,318.908	6,527,678.192
190	491,247.230	6,527,695.710
191	491,174.671	6,527,714.835
192	491,101.021	6,527,732.933
193	491,026.765	6,527,748.124
194	490,951.254	6,527,764.766
195	490,876.908	6,527,781.664
196	490,804.445	6,527,799.219
197	490,738.307	6,527,814.760
198	490,666.657	6,527,831.695
199	490,591.686	6,527,850.446
200	490,519.917	6,527,867.972
201	490,447.372	6,527,884.233
202	490,375.768	6,527,901.379
203	490,303.523	6,527,916.442
204	490,233.783	6,527,931.331
205	490,164.648	6,527,946.818
206	490,089.836	6,527,963.396
207	489,977.310	6,527,988.123
208	489,952.187	6,527,994.516

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
209	489,921.215	6,528,000.156
210	489,876.437	6,528,006.189
211	489,863.140	6,528,008.232
212	489,863.181	6,528,008.760
213	489,863.266	6,528,009.473
214	489,702.329	6,528,037.620
215	489,663.787	6,528,042.788
216	489,617.969	6,528,044.948
217	489,571.660	6,528,043.640
218	489,530.384	6,528,048.906
219	489,498.087	6,528,054.974
220	489,497.800	6,528,055.019
221	489,467.177	6,528,057.944
222	489,443.378	6,528,060.459
223	489,419.327	6,528,063.723
224	489,387.936	6,528,066.315
225	489,359.935	6,528,069.821
226	489,332.706	6,528,072.612
227	489,332.685	6,528,072.613
228	489,303.457	6,528,073.740
229	489,268.990	6,528,072.126
230	489,231.740	6,528,073.158
231	489,190.034	6,528,079.725
232	489,144.186	6,528,089.948
233	489,096.550	6,528,099.783
234	489,050.282	6,528,109.002

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
235	489,040.171	6,528,111.087
236	489,020.089	6,528,085.785
237	488,997.879	6,528,038.696
238	488,974.291	6,527,989.376
239	488,950.526	6,527,939.670
240	488,930.675	6,527,895.523
241	488,926.422	6,527,886.104
242	488,950.507	6,527,869.212
243	489,004.911	6,527,852.347
244	489,058.818	6,527,836.872
245	489,114.974	6,527,818.973
246	489,177.828	6,527,800.192
247	489,246.141	6,527,778.678
248	489,316.513	6,527,758.957
249	489,372.685	6,527,745.172
250	489,372.682	6,527,745.175
251	489,420.945	6,527,732.061
252	489,495.296	6,527,713.038
253	489,543.970	6,527,701.165
254	489,601.637	6,527,688.064
255	489,604.850	6,527,686.999
256	489,611.272	6,527,685.884
257	489,670.208	6,527,671.816
258	489,722.075	6,527,660.100
259	489,788.945	6,527,645.259
260	489,865.129	6,527,627.781

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
261	489,948.531	6,527,608.903
262	490,084.131	6,527,577.033
263	490,083.938	6,527,577.300
264	490,083.939	6,527,577.300
265	490,136.366	6,527,566.677
266	490,213.174	6,527,548.676
267	490,289.088	6,527,530.983
268	490,368.975	6,527,513.410
269	490,455.560	6,527,494.224
270	490,564.625	6,527,470.836
271	490,616.026	6,527,460.639
272	490,722.987	6,527,436.649
273	490,743.669	6,527,432.802
274	490,799.561	6,527,420.630
275	490,865.859	6,527,405.413
276	490,936.571	6,527,389.588
277	491,010.813	6,527,372.837
278	491,084.932	6,527,355.376
279	491,161.611	6,527,339.500
280	491,239.625	6,527,321.579
281	491,320.154	6,527,302.716
282	491,398.462	6,527,282.945
283	491,478.578	6,527,263.345
284	491,557.721	6,527,243.070
285	491,637.837	6,527,223.267
286	491,718.976	6,527,203.262

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
287	491,799.608	6,527,183.094
288	491,880.640	6,527,162.604
289	491,959.535	6,527,141.581
290	492,039.112	6,527,122.742
291	492,119.695	6,527,104.690
292	492,202.340	6,527,086.291
293	492,281.950	6,527,068.151
294	492,364.554	6,527,051.352
295	492,445.162	6,527,034.276
296	492,524.245	6,527,016.047
297	492,604.967	6,526,998.262
298	492,685.960	6,526,978.491
299	492,768.356	6,526,958.397
300	492,850.515	6,526,940.088
301	492,935.493	6,526,919.815
302	493,112.020	6,526,878.414
303	493,137.768	6,526,871.793
304	493,217.914	6,526,854.494
305	493,290.421	6,526,836.468
306	493,365.892	6,526,818.971
307	493,419.318	6,526,807.205
308	493,467.242	6,526,796.358
309	493,512.112	6,526,786.183
310	493,555.981	6,526,775.831
311	493,596.829	6,526,766.242
312	493,641.831	6,526,755.668

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
313	493,700.297	6,526,741.031
314	493,757.132	6,526,726.185
315	493,757.047	6,526,726.442
316	493,783.233	6,526,719.933
317	493,825.897	6,526,708.051
318	493,860.469	6,526,699.706
319	493,860.816	6,526,699.747
320	493,877.909	6,526,695.036
321	493,929.196	6,526,681.515
322	493,985.714	6,526,668.146
323	494,032.086	6,526,656.740
324	494,064.876	6,526,648.261
325	494,126.339	6,526,631.867
326	494,164.159	6,526,622.781
327	494,164.218	6,526,622.794
328	494,164.313	6,526,622.877
329	494,283.238	6,526,593.898
330	494,303.509	6,526,588.113
331	494,357.833	6,526,574.248
332	494,414.928	6,526,561.667
333	494,469.259	6,526,549.853
334	494,517.421	6,526,538.118
335	494,573.453	6,526,525.110
336	494,628.476	6,526,511.730
337	494,686.315	6,526,499.006
338	494,744.890	6,526,483.288

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
339	494,804.861	6,526,470.553
340	494,869.294	6,526,454.639
341	494,934.008	6,526,439.602
342	495,002.943	6,526,424.304
343	495,072.203	6,526,410.123
344	495,141.993	6,526,396.558
345	495,211.794	6,526,381.042
346	495,282.327	6,526,364.589
347	495,352.380	6,526,346.919
348	495,421.948	6,526,326.694
349	495,493.910	6,526,307.468
350	495,561.526	6,526,291.433
351	495,627.255	6,526,276.571
352	495,691.345	6,526,260.663
353	495,751.046	6,526,244.154
354	495,802.639	6,526,233.020
355	495,841.042	6,526,225.357
356	495,874.302	6,526,217.856
357	495,908.646	6,526,208.639
358	495,922.402	6,526,186.615
359	495,919.069	6,526,155.067
360	495,905.581	6,526,121.132
361	495,881.983	6,526,106.241
362	495,857.350	6,526,104.321
363	495,809.869	6,526,108.714
364	495,743.146	6,526,118.521

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
365	495,678.938	6,526,130.363
366	495,614.407	6,526,139.979
367	495,549.724	6,526,151.258
368	495,484.754	6,526,176.128
369	495,415.370	6,526,182.490
370	495,347.728	6,526,193.617
371	495,276.609	6,526,204.816
372	495,198.695	6,526,217.504
373	495,120.069	6,526,231.353
374	494,976.391	6,526,257.734
375	494,974.995	6,526,258.003
376	494,926.183	6,526,266.449
377	494,858.555	6,526,278.462
378	494,782.226	6,526,292.111
379	494,701.581	6,526,307.097
380	494,617.975	6,526,322.404
381	494,487.993	6,526,344.959
382	494,434.155	6,526,355.306
383	494,372.267	6,526,366.965
384	494,308.761	6,526,379.181
385	494,271.035	6,526,386.188
386	494,238.772	6,526,390.971
387	494,194.146	6,526,399.751
388	494,160.360	6,526,406.169
389	494,124.411	6,526,414.107
390	494,069.992	6,526,423.714

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
391	494,015.017	6,526,435.619
392	493,950.110	6,526,448.449
393	493,914.413	6,526,457.037
394	493,878.153	6,526,464.509
395	493,824.470	6,526,475.597
396	493,785.572	6,526,484.295
397	493,756.657	6,526,489.487
398	493,728.408	6,526,494.494
399	493,392.164	6,526,558.643
400	493,382.214	6,526,560.446
401	493,338.868	6,526,570.505
402	493,327.321	6,526,574.661
403	493,327.323	6,526,574.620
404	493,327.338	6,526,574.682
405	493,327.436	6,526,574.784
406	493,327.613	6,526,574.977
407	493,327.317	6,526,574.661
408	493,324.819	6,526,575.721
409	493,282.287	6,526,585.349
410	493,235.476	6,526,596.159
411	493,170.496	6,526,606.806
412	493,099.517	6,526,619.173
413	493,025.215	6,526,633.063
414	492,948.867	6,526,646.820
415	492,873.362	6,526,660.583
416	492,797.129	6,526,674.116

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
417	492,720.259	6,526,688.407
418	492,641.971	6,526,702.198
419	492,567.980	6,526,716.940
420	492,493.376	6,526,731.211
421	492,417.045	6,526,745.554
422	492,339.069	6,526,759.710
423	492,261.870	6,526,774.383
424	492,187.853	6,526,788.729
425	492,110.301	6,526,803.388
426	492,030.625	6,526,818.343
427	491,949.958	6,526,833.002
428	491,866.575	6,526,848.106
429	491,782.535	6,526,864.432
430	491,699.036	6,526,880.078
431	491,615.597	6,526,895.562
432	491,533.767	6,526,909.586
433	491,451.866	6,526,924.608
434	491,371.609	6,526,939.688
435	491,292.109	6,526,954.547
436	491,211.083	6,526,969.716
437	491,129.168	6,526,984.204
438	491,046.790	6,526,998.610
439	490,960.555	6,527,012.942
440	490,876.971	6,527,027.535
441	490,794.267	6,527,043.078
442	490,710.348	6,527,058.833

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
443	490,624.699	6,527,074.512
444	490,539.537	6,527,090.580
445	490,455.149	6,527,105.685
446	490,372.341	6,527,121.689
447	490,289.385	6,527,138.544
448	490,207.773	6,527,157.197
449	490,129.157	6,527,175.788
450	490,050.466	6,527,194.818
451	489,970.430	6,527,211.442
452	489,890.308	6,527,228.834
453	489,812.612	6,527,248.225
454	489,735.927	6,527,265.073
455	489,660.628	6,527,282.475
456	489,587.225	6,527,296.917
457	489,513.151	6,527,311.782
458	489,443.331	6,527,324.924
459	489,373.478	6,527,338.693
460	489,304.580	6,527,351.709
461	489,257.624	6,527,360.273
462	489,212.876	6,527,367.115
463	489,152.484	6,527,378.185
464	489,093.712	6,527,389.797
465	489,038.077	6,527,400.246
466	488,994.171	6,527,407.643
467	488,985.780	6,527,408.867
468	488,985.953	6,527,408.396

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
469	488,986.172	6,527,407.822
470	488,906.089	6,527,422.838
471	488,875.271	6,527,429.032
472	488,835.804	6,527,438.150
473	488,793.848	6,527,449.144
474	488,758.390	6,527,457.092
475	488,724.003	6,527,464.137
476	488,685.689	6,527,472.845
477	488,650.397	6,527,481.598
478	488,613.336	6,527,491.873
479	488,571.797	6,527,502.564
480	488,530.610	6,527,513.583
481	488,490.849	6,527,522.855
482	488,467.155	6,527,528.337
483	488,466.999	6,527,528.371
484	488,466.996	6,527,528.384
485	488,452.378	6,527,531.736
486	488,415.503	6,527,541.613
487	488,389.966	6,527,544.931
488	488,376.495	6,527,518.851
489	488,369.081	6,527,492.735
490	488,367.184	6,527,484.016
491	488,337.415	6,527,370.084
492	488,331.341	6,527,348.031
493	488,320.947	6,527,305.073
494	488,311.165	6,527,266.303

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
495	488,304.758	6,527,228.225
496	488,301.135	6,527,191.220
497	488,303.264	6,527,188.884
498	488,376.765	6,527,165.275
499	488,407.483	6,527,157.736
500	488,438.672	6,527,152.283
501	488,462.655	6,527,146.967
502	488,462.834	6,527,147.303
503	488,483.357	6,527,141.538
504	488,601.958	6,527,104.359
505	488,606.354	6,527,103.057
506	488,654.198	6,527,089.693
507	488,710.114	6,527,073.093
508	488,760.614	6,527,057.756
509	488,801.726	6,527,046.405
510	488,854.621	6,527,032.239
511	488,888.816	6,527,022.576
512	488,906.627	6,527,018.479
513	488,906.437	6,527,018.651
514	488,906.216	6,527,018.929
515	488,923.000	6,527,014.265
516	488,960.076	6,527,005.120
517	488,960.111	6,527,005.123
518	488,960.104	6,527,005.103
519	488,960.068	6,527,005.189
520	488,960.099	6,527,005.115

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
521	488,960.161	6,527,004.802
522	488,960.149	6,527,004.730
523	488,968.206	6,527,003.521
524	489,013.516	6,526,992.349
525	489,068.836	6,526,976.394
526	489,129.896	6,526,960.352
527	489,199.922	6,526,940.308
528	489,273.019	6,526,920.893
529	489,347.555	6,526,901.209
530	489,428.471	6,526,879.223
531	489,511.312	6,526,854.120
532	489,596.425	6,526,830.566
533	489,680.066	6,526,809.076
534	489,763.159	6,526,788.407
535	489,844.539	6,526,766.959
536	489,924.687	6,526,744.524
537	490,005.215	6,526,723.665
538	490,084.411	6,526,702.989
539	490,167.558	6,526,682.806
540	490,252.873	6,526,662.086
541	490,338.821	6,526,639.349
542	490,426.675	6,526,617.816
543	490,516.009	6,526,595.207
544	490,607.762	6,526,571.670
545	490,700.142	6,526,547.350
546	490,791.190	6,526,524.700

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
547	490,880.896	6,526,501.860
548	490,969.238	6,526,480.148
549	491,056.719	6,526,458.800
550	491,145.994	6,526,437.643
551	491,232.936	6,526,415.966
552	491,317.750	6,526,394.176
553	491,402.046	6,526,373.991
554	491,488.363	6,526,352.338
555	491,576.551	6,526,331.697
556	491,664.340	6,526,310.393
557	491,751.851	6,526,289.053
558	491,836.722	6,526,267.834
559	491,920.124	6,526,247.059
560	492,003.399	6,526,225.059
561	492,087.965	6,526,203.333
562	492,169.697	6,526,182.249
563	492,254.459	6,526,160.365
564	492,338.832	6,526,138.366
565	492,420.229	6,526,116.561
566	492,499.760	6,526,094.449
567	492,580.654	6,526,072.875
568	492,663.667	6,526,050.485
569	492,746.404	6,526,029.830
570	492,825.625	6,526,009.577
571	492,905.463	6,525,989.592
572	492,988.023	6,525,968.351

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
573	493,069.714	6,525,948.047
574	493,151.073	6,525,929.003
575	493,231.273	6,525,909.455
576	493,311.338	6,525,888.567
577	493,362.247	6,525,876.466
578	493,413.854	6,525,863.153
579	493,429.423	6,525,859.210
580	493,429.782	6,525,859.040
581	493,434.881	6,525,854.898
582	493,421.645	6,525,823.459
583	493,396.895	6,525,787.016
584	493,359.705	6,525,753.128
585	493,323.146	6,525,717.098
586	493,284.103	6,525,687.601
587	493,239.561	6,525,690.074
588	493,196.334	6,525,699.790
589	493,164.154	6,525,713.411
590	493,128.617	6,525,720.534
591	493,101.725	6,525,726.201
592	493,088.599	6,525,729.676
593	493,041.587	6,525,740.481
594	492,991.551	6,525,751.177
595	492,931.435	6,525,764.915
596	492,867.734	6,525,780.208
597	492,800.480	6,525,796.928
598	492,730.139	6,525,814.170

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
599	492,654.597	6,525,833.004
600	492,581.951	6,525,851.253
601	492,512.195	6,525,868.367
602	492,444.712	6,525,886.434
603	492,375.353	6,525,903.698
604	492,303.069	6,525,922.334
605	492,228.949	6,525,939.954
606	492,152.269	6,525,955.023
607	492,075.443	6,525,970.317
608	491,998.424	6,525,985.357
609	491,921.750	6,526,000.948
610	491,842.916	6,526,015.197
611	491,763.533	6,526,029.820
612	491,691.492	6,526,042.477
613	491,621.886	6,526,056.495
614	491,547.731	6,526,071.046
615	491,470.679	6,526,084.847
616	491,392.896	6,526,100.317
617	491,313.830	6,526,115.144
618	491,255.085	6,526,125.879
619	491,187.309	6,526,139.643
620	491,113.933	6,526,154.325
621	491,038.629	6,526,168.726
622	490,963.650	6,526,184.300
623	490,888.001	6,526,198.927
624	490,815.456	6,526,213.648

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
625	490,739.859	6,526,228.253
626	490,661.256	6,526,243.214
627	490,583.510	6,526,258.062
628	490,506.108	6,526,273.096
629	490,426.770	6,526,288.547
630	490,348.505	6,526,303.071
631	490,273.258	6,526,317.686
632	490,202.154	6,526,331.261
633	490,130.305	6,526,344.796
634	490,057.568	6,526,358.065
635	489,985.049	6,526,371.838
636	489,913.758	6,526,384.756
637	489,846.000	6,526,397.509
638	489,830.657	6,526,400.397
639	489,830.661	6,526,400.397
640	489,830.664	6,526,400.387
641	489,830.661	6,526,400.387
642	489,830.661	6,526,400.388
643	489,830.667	6,526,400.388
644	489,830.662	6,526,400.395
645	489,830.662	6,526,400.387
646	489,830.662	6,526,400.390
647	489,830.661	6,526,400.396
648	489,830.661	6,526,400.373
649	489,830.664	6,526,400.372
650	489,830.671	6,526,400.389

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
651	489,795.836	6,526,407.248
652	489,734.126	6,526,421.504
653	489,667.735	6,526,437.368
654	489,599.770	6,526,453.371
655	489,530.729	6,526,469.007
656	489,464.386	6,526,484.342
657	489,400.851	6,526,500.138
658	489,336.361	6,526,516.086
659	489,272.084	6,526,532.113
660	489,206.549	6,526,547.786
661	489,140.769	6,526,563.859
662	489,078.100	6,526,579.921
663	489,012.392	6,526,597.525
664	488,946.308	6,526,612.825
665	488,882.676	6,526,628.349
666	488,819.896	6,526,643.858
667	488,757.271	6,526,659.750
668	488,694.716	6,526,674.601
669	488,667.950	6,526,680.605
670	488,634.830	6,526,687.882
671	488,603.085	6,526,695.456
672	488,603.100	6,526,695.440
673	488,603.089	6,526,695.447
674	488,603.090	6,526,695.450
675	488,603.096	6,526,695.432
676	488,603.092	6,526,695.441

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
677	488,603.091	6,526,695.452
678	488,603.094	6,526,695.450
679	488,590.989	6,526,699.291
680	488,556.524	6,526,710.096
681	488,535.040	6,526,714.844
682	488,528.764	6,526,716.229
683	488,485.758	6,526,726.455
684	488,435.704	6,526,739.400
685	488,380.688	6,526,751.695
686	488,348.953	6,526,760.106
687	488,315.952	6,526,768.504
688	488,276.849	6,526,777.916
689	488,241.936	6,526,786.580
690	488,224.919	6,526,777.397
691	488,217.895	6,526,750.531
692	488,205.337	6,526,711.311
693	488,194.270	6,526,663.233
694	488,175.521	6,526,616.961
695	488,166.159	6,526,572.785
696	488,172.701	6,526,546.223
697	488,204.523	6,526,536.151
698	488,254.616	6,526,521.443
699	488,311.308	6,526,505.224
700	488,357.363	6,526,493.559
701	488,387.186	6,526,486.211
702	488,446.662	6,526,473.254

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
703	488,511.192	6,526,457.202
704	488,579.660	6,526,440.242
705	488,649.637	6,526,423.530
706	488,722.572	6,526,405.840
707	488,793.569	6,526,389.659
708	488,863.842	6,526,375.441
709	488,931.141	6,526,361.323
710	489,001.129	6,526,345.419
711	489,075.819	6,526,327.494
712	489,145.497	6,526,311.019
713	489,218.532	6,526,294.829
714	489,293.539	6,526,279.466
715	489,360.316	6,526,265.072
716	489,433.950	6,526,249.219
717	489,504.384	6,526,232.729
718	489,578.218	6,526,214.509
719	489,656.429	6,526,197.942
720	489,733.968	6,526,181.503
721	489,812.121	6,526,163.005
722	489,893.425	6,526,144.270
723	489,974.534	6,526,124.557
724	490,059.487	6,526,104.273
725	490,146.934	6,526,083.234
726	490,234.300	6,526,061.702
727	490,322.796	6,526,040.895
728	490,411.602	6,526,019.971

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
729	490,501.960	6,525,997.349
730	490,590.460	6,525,977.109
731	490,677.057	6,525,956.687
732	490,764.577	6,525,936.684
733	490,854.440	6,525,915.738
734	490,944.222	6,525,894.360
735	491,033.452	6,525,873.095
736	491,121.000	6,525,851.163
737	491,207.860	6,525,829.420
738	491,294.628	6,525,809.219
739	491,379.957	6,525,789.513
740	491,466.106	6,525,769.702
741	491,551.712	6,525,748.713
742	491,637.313	6,525,728.354
743	491,721.823	6,525,709.332
744	491,807.020	6,525,688.285
745	491,890.817	6,525,663.316
746	491,976.451	6,525,645.208
747	492,060.831	6,525,627.207
748	492,146.940	6,525,608.637
749	492,228.336	6,525,591.409
750	492,311.276	6,525,574.292
751	492,393.555	6,525,558.450
752	492,478.066	6,525,541.997
753	492,560.672	6,525,524.736
754	492,641.165	6,525,507.846

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
755	492,722.093	6,525,490.530
756	492,801.588	6,525,474.187
757	492,864.864	6,525,460.353
758	492,911.795	6,525,447.543
759	492,946.890	6,525,437.377
760	492,984.853	6,525,427.521
761	493,021.609	6,525,419.749
762	493,052.145	6,525,413.601
763	493,074.475	6,525,409.368
764	493,093.234	6,525,396.192
765	493,085.717	6,525,346.857
766	492,946.576	6,525,120.000
767	492,946.571	6,525,120.001
768	492,920.511	6,525,117.268
769	492,871.803	6,525,124.272
770	492,815.706	6,525,136.255
771	492,754.371	6,525,149.989
772	492,690.904	6,525,163.118
773	492,618.884	6,525,178.049
774	492,543.588	6,525,195.316
775	492,460.950	6,525,214.176
776	492,375.493	6,525,233.573
777	492,290.691	6,525,254.106
778	492,204.899	6,525,271.240
779	492,119.810	6,525,286.875
780	492,034.910	6,525,305.491

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
781	491,948.111	6,525,323.339
782	491,861.595	6,525,340.963
783	491,772.367	6,525,359.971
784	491,685.300	6,525,378.296
785	491,598.711	6,525,396.149
786	491,514.394	6,525,414.183
787	491,427.861	6,525,432.068
788	491,343.809	6,525,449.306
789	491,260.825	6,525,466.770
790	491,179.957	6,525,485.166
791	491,100.911	6,525,503.901
792	491,020.340	6,525,522.350
793	490,939.704	6,525,540.312
794	490,858.759	6,525,558.146
795	490,778.151	6,525,576.525
796	490,695.855	6,525,594.395
797	490,614.723	6,525,612.003
798	490,534.643	6,525,629.249
799	490,453.818	6,525,646.369
800	490,371.905	6,525,663.619
801	490,290.364	6,525,681.400
802	490,208.257	6,525,698.520
803	490,128.905	6,525,715.622
804	490,054.613	6,525,732.052
805	489,981.723	6,525,746.109
806	489,908.266	6,525,760.605

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
807	489,836.820	6,525,775.132
808	489,759.386	6,525,789.983
809	489,686.109	6,525,805.355
810	489,613.253	6,525,820.106
811	489,539.766	6,525,834.752
812	489,465.370	6,525,852.270
813	489,401.011	6,525,866.875
814	489,335.019	6,525,879.271
815	489,274.638	6,525,890.692
816	489,215.777	6,525,901.737
817	489,159.972	6,525,912.122
818	489,101.573	6,525,921.455
819	489,045.816	6,525,931.342
820	488,989.432	6,525,942.947
821	488,931.307	6,525,955.799
822	488,869.717	6,525,969.568
823	488,805.348	6,525,985.045
824	488,738.559	6,526,000.134
825	488,671.671	6,526,015.570
826	488,610.370	6,526,029.545
827	488,553.546	6,526,042.471
828	488,502.873	6,526,053.958
829	488,477.050	6,526,059.329
830	488,443.078	6,526,066.676
831	488,399.413	6,526,075.453
832	488,367.021	6,526,080.076

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
833	488,366.370	6,526,079.826
834	488,365.484	6,526,080.755
835	488,344.349	6,526,084.510
836	488,302.218	6,526,093.048
837	488,259.774	6,526,101.661
838	488,218.288	6,526,110.809
839	488,181.948	6,526,118.099
840	488,164.879	6,526,119.193
841	488,119.898	6,526,124.893
842	488,091.328	6,526,122.332
843	488,080.535	6,526,061.988
844	488,063.160	6,526,010.405
845	488,050.172	6,525,962.375
846	488,065.554	6,525,921.800
847	488,104.302	6,525,892.714
848	488,146.260	6,525,868.836
849	488,191.558	6,525,854.653
850	488,229.594	6,525,843.280
851	488,265.144	6,525,834.302
852	488,306.361	6,525,823.692
853	488,338.214	6,525,814.745
854	488,362.802	6,525,806.891
855	488,394.250	6,525,799.458
856	488,426.527	6,525,797.191
857	488,462.296	6,525,795.155
858	488,490.483	6,525,793.037

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
859	488,518.305	6,525,788.185
860	488,548.557	6,525,781.838
861	488,589.997	6,525,773.324
862	488,632.491	6,525,761.944
863	488,677.068	6,525,749.194
864	488,726.365	6,525,737.847
865	488,775.916	6,525,725.582
866	488,836.799	6,525,711.933
867	488,880.087	6,525,703.623
868	488,880.091	6,525,703.619
869	488,892.365	6,525,700.695
870	488,908.255	6,525,697.377
871	488,908.248	6,525,697.365
872	488,908.239	6,525,697.400
873	488,908.245	6,525,697.379
874	488,927.930	6,525,693.579
875	488,968.619	6,525,686.387
876	489,026.610	6,525,673.937
877	489,093.443	6,525,660.135
878	489,172.309	6,525,644.583
879	489,257.112	6,525,628.581
880	489,342.780	6,525,609.174
881	489,427.871	6,525,590.130
882	489,515.009	6,525,572.344
883	489,607.996	6,525,553.268
884	489,701.969	6,525,533.676

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
885	489,797.810	6,525,513.510
886	489,938.835	6,525,483.952
887	489,938.775	6,525,483.971
888	489,938.770	6,525,483.924
889	489,938.763	6,525,483.906
890	489,938.787	6,525,483.845
891	489,938.787	6,525,483.825
892	489,938.787	6,525,483.847
893	489,938.779	6,525,483.834
894	489,938.796	6,525,483.846
895	489,938.781	6,525,483.837
896	489,959.434	6,525,479.507
897	489,960.062	6,525,479.400
898	489,960.066	6,525,479.400
899	489,960.055	6,525,479.394
900	489,960.074	6,525,479.403
901	489,960.085	6,525,479.383
902	489,960.072	6,525,479.389
903	489,960.050	6,525,479.377
904	489,960.062	6,525,479.404
905	489,960.059	6,525,479.379
906	489,960.064	6,525,479.418
907	489,960.018	6,525,479.067
908	489,960.040	6,525,478.977
909	489,960.060	6,525,479.002
910	489,960.242	6,525,478.937

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
911	489,965.636	6,525,477.749
912	490,025.415	6,525,465.875
913	490,102.986	6,525,450.177
914	490,185.035	6,525,435.249
915	490,269.926	6,525,418.777
916	490,395.008	6,525,394.957
917	490,394.931	6,525,395.032
918	490,394.901	6,525,395.138
919	490,394.905	6,525,395.150
920	490,394.903	6,525,395.136
921	490,394.896	6,525,395.160
922	490,394.955	6,525,395.052
923	490,421.162	6,525,389.879
924	490,484.630	6,525,377.126
925	490,558.577	6,525,362.170
926	490,638.224	6,525,345.835
927	490,716.634	6,525,330.113
928	490,799.158	6,525,315.028
929	490,883.727	6,525,298.982
930	490,915.828	6,525,293.598
931	490,915.865	6,525,293.394
932	490,915.868	6,525,293.295
933	490,915.873	6,525,293.240
934	490,915.895	6,525,293.186
935	490,915.898	6,525,293.170
936	490,915.888	6,525,293.172

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
937	490,915.901	6,525,293.172
938	490,915.882	6,525,293.215
939	490,945.138	6,525,287.310
940	491,010.468	6,525,273.254
941	491,079.683	6,525,258.277
942	491,150.661	6,525,245.281
943	491,220.687	6,525,232.288
944	491,293.817	6,525,216.372
945	491,372.340	6,525,199.333
946	491,450.594	6,525,183.628
947	491,528.858	6,525,166.646
948	491,608.422	6,525,149.770
949	491,662.762	6,525,139.232
950	491,662.757	6,525,139.177
951	491,688.706	6,525,134.464
952	491,755.455	6,525,120.447
953	491,825.498	6,525,105.843
954	491,900.210	6,525,088.868
955	491,972.533	6,525,074.004
956	492,048.887	6,525,058.562
957	492,126.127	6,525,041.457
958	492,167.990	6,525,033.463
959	492,167.988	6,525,033.361
960	492,167.994	6,525,033.291
961	492,167.982	6,525,033.274
962	492,167.982	6,525,033.280

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
963	492,167.994	6,525,033.251
964	492,168.001	6,525,033.222
965	492,167.988	6,525,033.243
966	492,167.978	6,525,033.228
967	492,167.970	6,525,033.244
968	492,167.991	6,525,033.239
969	492,167.995	6,525,033.233
970	492,167.990	6,525,033.230
971	492,167.996	6,525,033.219
972	492,167.993	6,525,033.235
973	492,167.960	6,525,033.130
974	492,187.645	6,525,028.978
975	492,251.058	6,525,014.028
976	492,317.928	6,524,999.473
977	492,390.761	6,524,985.642
978	492,463.729	6,524,972.133
979	492,536.095	6,524,957.133
980	492,607.232	6,524,942.196
981	492,672.844	6,524,928.684
982	492,742.496	6,524,914.004
983	492,811.697	6,524,898.684
984	492,878.526	6,524,883.867
985	492,902.276	6,524,878.438
986	492,902.284	6,524,878.424
987	492,902.217	6,524,878.671
988	492,902.218	6,524,878.656

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
989	492,915.792	6,524,875.590
990	492,964.630	6,524,864.550
991	493,004.494	6,524,855.466
992	493,033.487	6,524,848.619
993	493,060.614	6,524,829.956
994	493,057.375	6,524,791.277
995	493,044.280	6,524,742.266
996	493,030.905	6,524,691.976
997	493,021.653	6,524,648.707
998	493,004.719	6,524,610.729
999	492,973.899	6,524,600.337
1000	492,956.152	6,524,603.582
1001	492,904.504	6,524,613.530
1002	492,846.685	6,524,625.404
1003	492,782.050	6,524,639.213
1004	492,720.160	6,524,652.167
1005	492,649.577	6,524,667.015
1006	492,579.551	6,524,682.354
1007	492,508.115	6,524,697.169
1008	492,432.190	6,524,713.118
1009	492,350.091	6,524,729.756
1010	492,269.270	6,524,745.376
1011	492,189.323	6,524,761.775
1012	492,108.003	6,524,779.424
1013	492,027.011	6,524,797.133
1014	491,944.486	6,524,814.734

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1015	491,861.680	6,524,832.515
1016	491,782.664	6,524,849.981
1017	491,704.154	6,524,866.302
1018	491,625.511	6,524,883.039
1019	491,547.048	6,524,899.025
1020	491,470.748	6,524,915.535
1021	491,391.656	6,524,931.690
1022	491,312.664	6,524,947.846
1023	491,233.876	6,524,963.677
1024	491,154.782	6,524,980.024
1025	491,074.715	6,524,996.590
1026	490,995.117	6,525,011.816
1027	490,918.267	6,525,027.323
1028	490,845.312	6,525,041.763
1029	490,767.093	6,525,059.115
1030	490,689.780	6,525,074.878
1031	490,610.243	6,525,092.438
1032	490,530.374	6,525,109.647
1033	490,450.988	6,525,127.049
1034	490,371.328	6,525,142.661
1035	490,289.605	6,525,159.976
1036	490,211.623	6,525,176.013
1037	490,136.788	6,525,191.955
1038	490,063.371	6,525,206.476
1039	489,987.048	6,525,222.963
1040	489,926.788	6,525,235.929

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1041	489,926.800	6,525,235.857
1042	489,926.738	6,525,235.646
1043	489,907.388	6,525,239.980
1044	489,835.211	6,525,255.356
1045	489,763.775	6,525,269.532
1046	489,690.465	6,525,285.227
1047	489,615.064	6,525,301.161
1048	489,539.366	6,525,318.019
1049	489,463.156	6,525,334.366
1050	489,369.487	6,525,355.180
1051	489,369.333	6,525,354.985
1052	489,340.740	6,525,361.317
1053	489,280.897	6,525,376.142
1054	489,216.570	6,525,389.164
1055	489,150.257	6,525,401.731
1056	489,084.660	6,525,414.276
1057	489,022.345	6,525,426.578
1058	488,963.672	6,525,437.525
1059	488,907.495	6,525,448.812
1060	488,851.545	6,525,459.384
1061	488,793.716	6,525,474.135
1062	488,732.365	6,525,489.088
1063	488,672.074	6,525,499.068
1064	488,616.532	6,525,509.858
1065	488,578.696	6,525,522.504
1066	488,560.437	6,525,499.350

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1067	488,552.235	6,525,476.963
1068	488,540.621	6,525,461.686
1069	488,525.754	6,525,446.174
1070	488,509.425	6,525,433.072
1071	488,497.115	6,525,420.635
1072	488,481.866	6,525,403.441
1073	488,464.143	6,525,393.541
1074	488,448.002	6,525,380.221
1075	488,433.038	6,525,366.863
1076	488,449.245	6,525,354.617
1077	488,502.420	6,525,341.821
1078	488,577.494	6,525,324.743
1079	488,654.888	6,525,306.816
1080	488,721.674	6,525,288.239
1081	488,796.126	6,525,267.783
1082	488,875.343	6,525,249.706
1083	488,958.521	6,525,230.421
1084	489,045.305	6,525,212.605
1085	489,134.576	6,525,193.888
1086	489,222.984	6,525,175.074
1087	489,309.084	6,525,155.672
1088	489,396.220	6,525,135.595
1089	489,484.205	6,525,117.724
1090	489,571.463	6,525,100.677
1091	489,658.007	6,525,083.003
1092	489,743.308	6,525,065.004

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1093	489,826.600	6,525,049.068
1094	489,911.285	6,525,029.636
1095	489,996.531	6,525,011.048
1096	490,080.795	6,524,994.043
1097	490,163.441	6,524,977.584
1098	490,244.482	6,524,961.058
1099	490,325.740	6,524,945.611
1100	490,405.215	6,524,929.297
1101	490,484.771	6,524,913.900
1102	490,563.412	6,524,898.426
1103	490,644.557	6,524,883.571
1104	490,724.990	6,524,866.693
1105	490,804.504	6,524,850.508
1106	490,882.841	6,524,832.343
1107	490,960.755	6,524,817.160
1108	491,036.396	6,524,803.106
1109	491,115.980	6,524,786.587
1110	491,192.199	6,524,771.303
1111	491,268.648	6,524,755.922
1112	491,346.929	6,524,739.687
1113	491,422.778	6,524,724.558
1114	491,499.651	6,524,711.056
1115	491,575.105	6,524,697.116
1116	491,650.700	6,524,680.973
1117	491,722.029	6,524,666.381
1118	491,794.493	6,524,652.139

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1119	491,872.095	6,524,638.452
1120	491,915.191	6,524,631.275
1121	491,983.492	6,524,618.812
1122	492,058.567	6,524,606.289
1123	492,134.578	6,524,594.542
1124	492,211.900	6,524,583.516
1125	492,288.847	6,524,570.287
1126	492,362.512	6,524,552.368
1127	492,435.788	6,524,530.318
1128	492,508.305	6,524,507.629
1129	492,580.039	6,524,494.320
1130	492,649.681	6,524,480.209
1131	492,718.503	6,524,464.593
1132	492,785.549	6,524,446.922
1133	492,850.047	6,524,431.036
1134	492,909.479	6,524,422.446
1135	492,935.194	6,524,415.440
1136	492,948.309	6,524,408.362
1137	492,952.039	6,524,385.373
1138	492,939.461	6,524,349.848
1139	492,929.405	6,524,307.632
1140	492,919.449	6,524,266.456
1141	492,910.012	6,524,227.505
1142	492,900.786	6,524,194.371
1143	492,875.123	6,524,194.542
1144	492,827.585	6,524,201.295

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1145	492,770.888	6,524,213.605
1146	492,709.979	6,524,227.781
1147	492,650.345	6,524,238.241
1148	492,575.733	6,524,250.738
1149	492,498.099	6,524,264.165
1150	492,420.449	6,524,276.838
1151	492,344.917	6,524,290.256
1152	492,270.228	6,524,304.021
1153	492,193.806	6,524,317.639
1154	492,120.273	6,524,330.002
1155	492,041.144	6,524,344.570
1156	491,958.876	6,524,357.999
1157	491,873.689	6,524,372.090
1158	491,813.423	6,524,383.965
1159	491,743.354	6,524,396.006
1160	491,666.661	6,524,409.237
1161	491,585.534	6,524,423.402
1162	491,502.562	6,524,437.494
1163	491,418.526	6,524,451.569
1164	491,334.832	6,524,465.615
1165	491,251.318	6,524,479.132
1166	491,169.030	6,524,493.988
1167	491,086.638	6,524,507.857
1168	491,003.560	6,524,521.085
1169	490,918.581	6,524,536.077
1170	490,833.539	6,524,551.329

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1171	490,748.340	6,524,564.801
1172	490,663.694	6,524,579.278
1173	490,582.528	6,524,593.450
1174	490,498.933	6,524,606.733
1175	490,417.177	6,524,619.930
1176	490,336.469	6,524,633.994
1177	490,256.182	6,524,647.747
1178	490,176.419	6,524,660.925
1179	490,094.596	6,524,675.374
1180	490,013.500	6,524,689.678
1181	489,933.263	6,524,704.647
1182	489,907.211	6,524,697.843
1183	489,923.958	6,524,699.521
1184	489,879.740	6,524,713.455
1185	489,812.362	6,524,727.883
1186	489,740.985	6,524,742.122
1187	489,666.889	6,524,755.672
1188	489,590.181	6,524,769.629
1189	489,513.577	6,524,783.610
1190	489,437.693	6,524,796.515
1191	489,361.335	6,524,808.187
1192	489,283.456	6,524,822.761
1193	489,211.923	6,524,836.493
1194	489,139.314	6,524,850.503
1195	489,065.690	6,524,862.478
1196	488,992.944	6,524,876.114

MATTHES/LLEWELLYN TOPO (MATTHES/LLEWELLYN DIVIDE)		
FLAG	EASTING (M)	NORTHING (M)
1197	488,925.419	6,524,889.077
1198	488,862.449	6,524,903.264
1199	488,806.029	6,524,914.605
1200	488,745.677	6,524,924.205
1201	488,691.490	6,524,934.352
1202	488,635.156	6,524,943.836
1203	488,578.185	6,524,952.361
1204	488,523.507	6,524,962.188
1205	488,473.311	6,524,972.952
1206	488,424.698	6,524,982.813
1207	488,375.366	6,524,990.707
1208	488,322.052	6,525,000.880
1209	488,268.471	6,525,010.240
1210	488,220.506	6,525,018.878
1211	488,175.319	6,525,026.140
1212	488,131.424	6,525,034.379
1213	488,087.001	6,525,041.272
1214	488,049.864	6,525,045.926
1215	488,010.062	6,525,049.836
1216	487,976.197	6,525,051.829
1217	487,955.377	6,525,051.807
1218	487,955.389	6,525,051.810
BASELINE YEAR: 2001 YEARS SET AT BASELINE: 01 MEAN HEIGHT: 1,872 M REFERENCE POINT: FFGR 39 (BLIZZARD)		

**TEST PITS - JIRP COORDINATES
(VARIOUS TEST PITS ON THE ICEFIELD)**

PIT (YEAR)	EASTING (M)	NORTHING (M)
G (1997)	484,542.000	6,504,749.000
H (1997)	484,002.000	6,505,875.000
I (1997)	484,472.132	6,507,965.432
M (1997)	490,785.000	6,521,788.000
O (1997)	489,670.000	6,525,391.000
P (1997)	491,393.000	6,529,720.000
Q (1997)	492,980.000	6,533,436.000
R (1997)	493,656.000	6,535,916.000
Pr. 4, Flag 3 (1998)	487,600.000	6,502,917.000
Pr. 4, Flag 16 (1998)	486,122.000	6,502,133.000
Taku Glacier (1998)	484,744.000	6,504,344.000
Profile 3 (1999)	492,560.117	6,500,105.535
Profile 3a (1999)	494,279.351	6,511,026.570
Profile 5 Pit #1 (1999)	486,289.139	6,501,310.997
Profile 5 Pit #2 (1999)	486,509.246	6,496,728.178
Profile 6 (1999)	478,631.637	6,507,139.523
Profile 7a (1999)	484,535.143	6,508,229.631
B19 Demorest (2000)	496,002.278	6,503,860.272
M/L Divide (2000)	490,050.016	6,526,427.675
C-9 Junction (2000)	487,479.471	6,511,372.446
C-18 Basin (2000)	485,897.804	6,524,760.413
COORDINATES ROUNDED TO WHOLE METERS WERE SURVEYED WITH ROCKWELL PLGR (ACCURACY ~5 M). OTHERS WERE SURVEYED WITH DIFFERENTIAL GPS.		

**TEST PITS – GEOGRAPHIC COORDINATES
(VARIOUS TEST PITS ON THE ICEFIELD)**

PIT (YEAR)	LATITUDE (N)	LONGITUDE (W)
G (1997)	58° 39' 33.50"	134° 15' 58.77"
H (1997)	58° 40' 09.82"	134° 16' 32.55"
I (1997)	58° 41' 17.44"	134° 16' 03.90"
M (1997)	58° 48' 44.81"	134° 09' 34.07"
O (1997)	58° 50' 41.16"	134° 10' 44.13"
P (1997)	58° 53' 01.21"	134° 08' 57.29"
Q (1997)	58° 55' 01.40"	134° 07' 18.65"
R (1997)	58° 56' 21.59"	134° 06' 36.66"
Pr. 4, Flag 3 (1998)	58° 38' 34.64"	134° 12' 48.74"
Pr. 4, Flag 16 (1998)	58° 38' 09.14"	134° 14' 20.19"
Taku Glacier (1998)	58° 39' 20.43"	134° 15' 46.14"
Profile 3 (1999)	58° 37' 04.19"	134° 07' 40.90"
Profile 3a (1999)	58° 42' 57.24"	134° 05' 55.39"
Profile 5 Pit #1 (1999)	58° 37' 42.60"	134° 14' 09.65"
Profile 5 Pit #2 (1999)	58° 35' 14.51"	134° 13' 55.03"
Profile 6 (1999)	58° 40' 49.85"	134° 22' 06.16"
Profile 7a (1999)	58° 41' 25.99"	134° 16' 00.05"
B19 Demorest (2000)	58° 39' 05.70"	134° 04' 07.90"
M/L Divide (2000)	58° 51' 14.70"	134° 10' 20.60"
C-9 Junction (2000)	58° 43' 07.90"	134° 12' 57.90"
C-18 Basin (2000)	58° 50' 20.40"	134° 14' 39.20"
DATUM: WGS84		

**WEATHERPAK STATIONS – JIRP COORDINATES
(VARIOUS WEATHERPAK SITES ON THE ICEFIELD)**

SITE (YEAR)	EASTING (M)	NORTHING (M)
Pr. 4 (1995)	487,208.398	6,501,692.502
Pr. 4 (1997)	487,795.000	6,503,053.000
Blob (1997)	491,338.000	6,528,108.000
Matthes (1997)	489,895.000	6,525,055.000
Pr. 4, Flag 15 (1998)	486,412.000	6,501,897.000
COORDINATES ROUNDED TO WHOLE METERS WERE SURVEYED WITH ROCKWELL PLGR (ACCURACY ~5 M). OTHERS WERE SURVEYED WITH DIFFERENTIAL GPS.		

**WEATHERPAK STATIONS – GEOGRAPHIC COORDINATES
(VARIOUS WEATHERPAK SITES ON THE ICEFIELD)**

SITE (YEAR)	LATITUDE (N)	LONGITUDE (W)
Pr. 4 (1995)	58° 37' 55.03"	134° 13' 12.77"
Pr. 4 (1997)	58° 38' 39.06"	134° 12' 36.68"
Blob (1997)	58° 52' 09.10"	134° 09' 00.50"
Matthes (1997)	58° 50' 30.32"	134° 10' 30.04"
Pr. 4, Flag 15 (1998)	58° 38' 01.55"	134° 14' 02.17"
DATUM: WGS84		

SEISMIC LINES – JIRP COORDINATES (BLAST POINTS & CENTERS OF SEISMIC LINES)		
SITE (YEAR)	EASTING (M)	NORTHING (M)
Demorest 1 (1996)	496,239.762	6,500,744.466
Demorest 2 (1996)	496,050.914	6,500,906.532
Demorest 3 (1996)	495,906.687	6,501,030.032
Demorest 4 (1996)	495,817.541	6,501,106.615
Demorest 6 (1996)	495,073.237	6,501,789.736
Demorest Cen (1996)	495,477.378	6,501,399.638
Pr. VIa Center (1996)	480,772.415	6,506,668.084
Matthes Cen. (1996)	484,560.289	6,508,580.075
Icy Basin 1 (1997)	488,845.000	6,502,579.000
Icy Basin 2 (1997)	488,593.000	6,502,358.000
Icy Basin 3 (1997)	488,302.000	6,502,101.000

COORDINATES ROUNDED TO WHOLE METERS WERE SURVEYED WITH
ROCKWELL PLGR (ACCURACY ~5 M). OTHERS WERE SURVEYED
WITH DIFFERENTIAL GPS.

SEISMIC LINES – GEOGRAPHIC COORDINATES (BLAST POINTS & CENTERS OF SEISMIC LINES)		
SITE (YEAR)	LATITUDE	LONGITUDE
Demorest 1 (1996)	58° 37' 25.01"	134° 03' 52.99"
Demorest 2 (1996)	58° 37' 30.24"	134° 04' 04.70"
Demorest 3 (1996)	58° 37' 34.23"	134° 04' 13.64"
Demorest 4 (1996)	58° 37' 36.70"	134° 04' 19.17"
Demorest 6 (1996)	58° 37' 58.75"	134° 05' 05.35"
Demorest Cen (1996)	58° 37' 46.16"	134° 04' 40.27"
Pr. VIa Center (1996)	58° 40' 34.98"	134° 19' 53.16"
Matthes Cen. (1996)	58° 41' 37.32"	134° 15' 58.58"
Icy Basin 1 (1997)	58° 38' 23.84"	134° 11' 31.50"
Icy Basin 2 (1997)	58° 38' 16.67"	134° 11' 47.08"
Icy Basin 3 (1997)	58° 38' 08.34"	134° 12' 05.07"
DATUM: WGS84		

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