IMIKPUK LAKE / ALISON DATA MANAGEMENT

Tim Buckley
Barrow High School
GEOS 595

WHA'SUP

- What I wanted to accomplish objectives & standards
- What I did accomplish data, methods, & views
- Applications of GIS at BHS future uses

OBJECTIVES

- design a GIS that students can use to manage ALISON data
- become more proficient at using the ArcView program
- discover new applications of ArcView and GIS

Alaska State STANDARDS

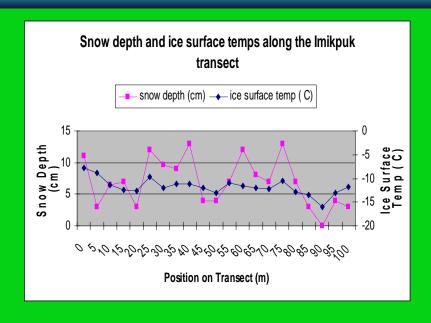
Science: B1, B3, C7, D1, & D3

Technology: A1, A2, B1, & C1

Geography: A2, A6, B6, & B8

Data Source

Data for the project came from the Imikpuk Lake site of the Alaska Lake and Snow
Observatory
Network

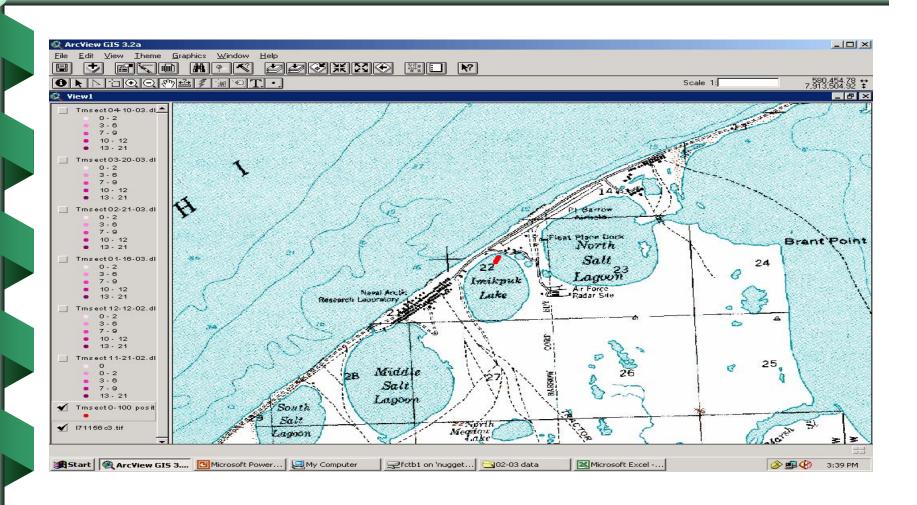


How I got to where I am

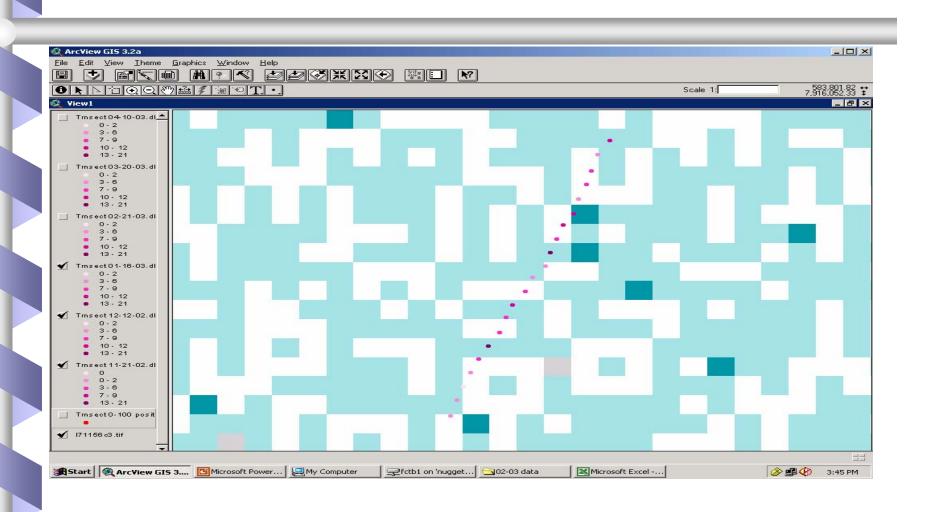
- Data collection
- Input and process raw data
- Post data to web site

- Input lake image from topo
- Process data for transfer to ArcView
- Make graphs from tables

Where is Imikpuk?



The Transect



Partial data set

transect position (m)	easting	northing	Snow depth (c	m) 7	Temperature, snow surface (°C)	Temperature,	snow base	(°C)	Snow	Density	(g cm-3)
0	583904.95	7916044.68		17	-23.45			-15.8			0.365719670
5	583902.15	7916039.87		2	-23.45			-20.0			0.365719670
10	583900.65	7916034.46		0	-23.45			-24.0			
15	583899.44	7916029.95		4	-23.45			-24.3			0.365719670
20	583897.64	7916024.84		4	-23.45			-22.0			0.365719670
25	583896.44	7916020.03		21	-23.45			-22.2			0.365719670
30	583894.03	7916016.13		8	-23.45			-21.7			0.365719670
35	583892.53	7916011.32		5	-23.45			-21.7			0.365719670
40	583891.03	7916006.81		11	-23.45			-20.1			0.365719670
45	583889.83	7916002.30		6	-23.45			-22.8			0.365719670
50	583886.82	7915998.40		6	-23.45			-22.3			0.365719670
55	583885.02	7915993.59		6	-23.45			-22.4			0.365719670
60	583882.01	7915989.08		11	-23.45			-21.8			0.365719670
65	583880.51	7915984.87		6	-23.45			-23.4			0.365719670
70	583879.01	7915979.77		6	-23.45			-23.1			0.365719670
75	583876.30	7915975.26		6	-23.45			-23.4			0.365719670
80	583873.90	7915970.75		8	-23.45			-23.0			0.365719670
85	583872.10	7915966.24		9	-23.45			-24.0			0.365719670
90	583870.29	7915961.43		8	-23.45			-22.1			0.365719670
95	583868.79	7915956.93		7	-23.45			-23.5			0.365719670
100	583867.29	7915951.52		12	-23.45			-21.1			0.365719670

Conclusions

- Broaden the topic. A single transect on a single lake is too narrow
- Data can be more than numbers
- A database and a spreadsheet are NOT the same thing
- Think BIG PICTURE!!!

Where do we go from here?

- Projects using critters, trends, land use, and traditions.
- Learn to use MS Access (good data in/good project out)
- Convince UAF GI staff to offer a semester long web based ArcGIS class

Acknowledgements

- Martin Jeffries/ ALISON
- Neal Brown/NASA Space Grant Program
- GEOS 595 instructors:
- Anupma Praksash
- Gary Cooper
- Bill Witte (911) and
- Rudy, Katie, & Steffen