United States Department of Agriculture

NRCS Natural Resources Conservation Service

Alaska Basin Outlook Report

April 1, 2004

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  - Forest Service
    - Chugach National Forest
    - Tongass National Forest
- **Department of Commerce**
  - NOAA, National Weather Service
  - Climate Monitoring and Diagnostics Laboratory
- **Department of Defense**
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  - U.S. Army Cold Regions Research and Engineers Laboratory
- **Department of Interior**
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  - Geological Survey
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- Alaskan Weather Records
- Alyeska Resort, Inc.
- Alyeska Pipeline Service Company
- Anchorage Municipal Light and Power
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- Copper Valley Electric Association
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Alaska Public Schools

- Mantanuska-Susitna Borough School District

Canada

- **Ministry of the Environment**
  - British Columbia
- **Department of the Environment**
  - Government of the Yukon

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GENERAL OVERVIEW

Snowpack

The snow pack varies from much above normal at low elevations in the Kenai Mountains to a record low at Lake Minchumina, north of Mt. McKinley. The Upper Yukon Basin in Canada has much above normal snow water content at many low elevation snow courses and along the border, north of Skagway, at Log Cabin snow course.

In the Koyukuk, Bonanza Forks is 98 percent of normal water content for April 1st. West of there, in the Kanuti Flats the snow pack is normal or above.

The Lower Yukon snow courses in the Innoko Wildlife Refuge appear to be in the 110 to 130 percent of normal range.

The Tanana Valley snow water contents generally range from 80 to 100 percent with the exceptions of Fort Greely and Granite Creek, much above normal.

In the Susitna Valley most areas are normal to below. The Anchorage Bowl has a much above normal snow pack as indicated by Kincaid Park, 171 percent. This decreases as you go up in elevation, Indian Pass at the headwaters of South Fork of Ship Creek is 89 percent of normal.

In Southeast, Petersburg Ridge went up 10.2 inches of water content in March to 106 percent of normal. Most of Southeast at elevation had this same occurrence and is normal or above.

Precipitation

The precipitation was below normal in the South Central, as well as north and west of the Alaska Range. Southeast had above normal precipitation as indicated by Juneau being 170 percent of normal for the month.

Temperature

The temperatures for Alaska were in the more normal range. Fairbanks was 4.8 º F. below the normal monthly average and Talkeetna was 3.8 º F. above normal for the monthly average. Barrow was right at normal at plus 0.3 º F., Nome was plus 1.7 º F., and Dillingham was minus 2.1 º F. for the month.

STREAMFLOW

Streamflow forecasts of snowmelt runoff are as follows:

FORECAST POINT*	Percent of Ave. Flow	Period
Yukon River at Eagle	107	April - July
Yukon River near Stevens Village	106	April - July
Tanana River at Fairbanks	102	April - July
Tanana River at Nenana	94	April - July
Little Chena River near Fairbanks	83	April - July
Chena River near Two Rivers	80	April - July
Salcha near Salchaket	90	April - July
Sagvanirktok River near Pump Station 3	95	April - July
Kuparuk River near Deadhorse	91	April - July
Kuskokwim River at Crooked Creek	86	April - June
Gulkana River at Sourdough	94	April - July
Little Susitna River near Palmer	85	April - July
Talkeetna River near Talkeetna	86	April - July
Ship Creek near Anchorage	110	April - July
Kenai River at Cooper Landing	105	April - July
Gold Creek near Juneau	109	April - July

SNOWMELT RUNOFF INDEX (SRI)
For streams that no longer have stream gauging stations.

FORECAST POINT	INDEX
Koyukuk River at Hughes	-1.2
Beaver Creek above Victoria Creek	-1.7
Birch Creek below South Fork	-2.2
Caribou Creek at Chatanika	-0.5
Susitna River near Gold Creek	-1.0
Chulitna River near Talkeetna	-2.5
Deshka River at mouth near Willow	-1.4
Montana Creek at Parks Highway	-1.8
Willow Creek near Willow	-1.2
Skwentna River at Skwentna	-1.7
Chuitna River near Tyonek	-2.0
Campbell Creek near Spenard	+0.3
Indian Creek at Indian	-1.8
Bird Creek at Bird Creek	-1.8
Six Mile Creek near Hope	-1.5
Resurrection Creek near Hope	-0.7
Anchor River near Anchor Point	-1.4
Deep Creek near Ninilchik	-1.0
Ninilchik River near Ninilchik	-1.0
Fritz Creek near Homer	-0.9
Skagway River at Skagway	+2.6

Index	Key:
-2 to -3	much below average snowmelt runoff
-1 to -2	below average snowmelt runoff
-1 to +1	average snowmelt runoff
+1 to +2	above average snowmelt runoff
+2 to +3	much above average snowmelt runoff

* See regional summaries for the forecast period and the actual forecasted flow volumes.

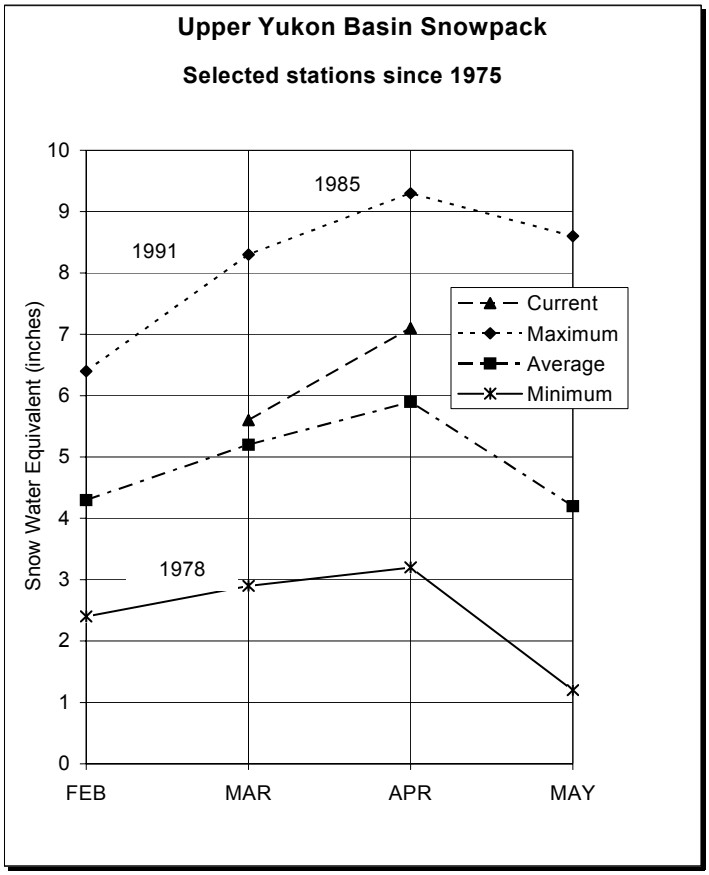
HOW FORECASTS ARE MADE

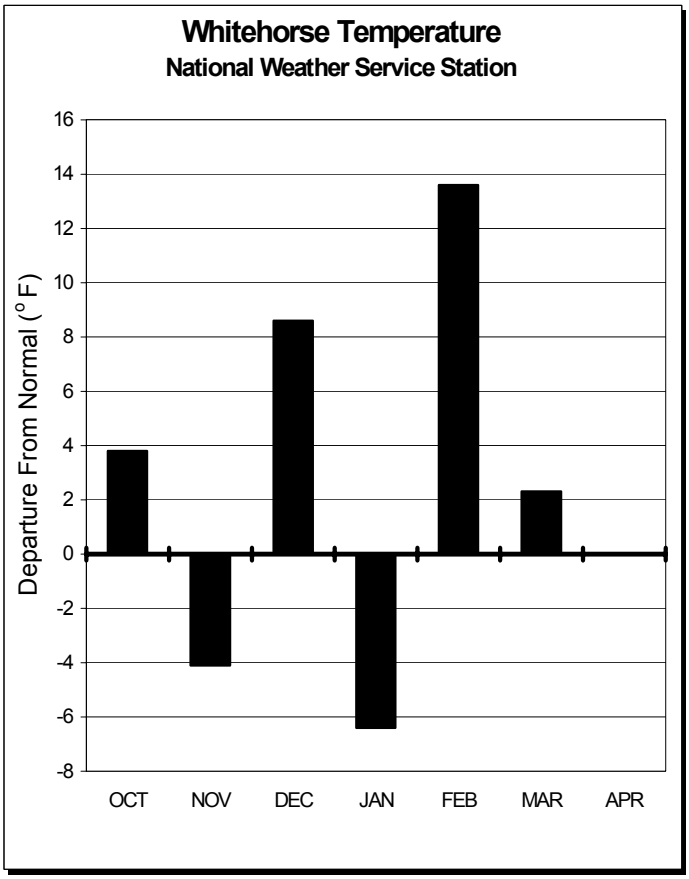
Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of the water content in the snow at selected manual snow courses and automated SNOTEL sites are used in the runoff estimates. In addition, precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: uncertain knowledge of future weather conditions, uncertainty in the forecasting procedure, and errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above and a 50% chance that the actual flow will be below this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller flows (90% and 70% exceedance probability) and two larger flows (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertainty there is in the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known. This accuracy is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water, such as the threat of flooding, they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount. By using the exceedance probability information, users can determine the chances of receiving more or less water for their specific streamflow need.

UPPER YUKON BASIN*





Current Basin Conditions

For the area above the Whitehorse/ Teslin, the average for the basin is 110 percent of normal. The Log Cabin snow course increased from last month 4.4 inches of water content to 19.0 inches and is 130 percent of normal. The low percent of normal in this area is Morley Lake at 85 percent.

The Stewart/Pelly Basin snow courses are 114 percent of normal varying from 186 percent of normal at Mayo Airport to 81 percent of normal at Finlayson Airstrip.

The Dawson area is 117 percent of normal.

The White River varies from 153 percent of normal at Burwash Airstrip to 88 percent of normal at Beaver Creek with the average of the 6 snow courses in the basin being 124 percent of normal.

The Yukon River at Eagle is forecast to flow 107 percent of normal, 36,690,000 acre-ft for the April - July time period.

* For further information contact the Natural Resources Conservation Service in Anchorage.

Upper Yukon Basin

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Arrowhead Lake	3675	3/29/04	35	5.9	--	--	35	7.9
Atlin	2395	3/31/04	27	7.6	35	3.8	21	4.9
Beaver Creek	2150	3/31/04	18	2.9	10	1.5	17	3.3
Burns Lake	3650	3/31/04	41	9.7	28	6.3	37	8.4
Burwash Airstrip	2660	3/30/04	14	2.6	7	0.9	9	1.7
Calumet	4300	4/01/04	39	8.9	35	7.3	36	7.6
Casino Creek	3490	3/29/04	27	5.4	24	3.2	26	4.9
Chair Mountain	3500	3/31/04	22	4.0	13	1.7	19	3.7
Duke River	4300	3/31/04	29	6.1	17	2.7	23	4.1
Edwards Lake	2720	3/29/04	38	9.1	25	4.7	30	6.7
Finlayson Airstrip	3240	3/31/04	20	3.9	19	3.7	23	4.8
Fuller Lake	3690	3/29/04	39	9.3	33	7.7	34	7.9
Grizzly Creek	3200	3/30/04	36	7.2	33	6.8	32	6.9
Hoole River	3400	3/31/04	31	6.5	14	2.8	24	5.2
Jordan Lake	3050	3/31/04	27	6.0	23	4.0	24	5.2
King Solomon Dome	3540	3/31/04	35	7.2	27	4.7	29	6.0
Log Cabin (B.C.)	2900	3/29/04	59	19.0	34	8.1	49	14.6
Mayo Airport	1770	4/01/04	28	6.9	14	2.4	17	3.7
MacIntosh	3805	3/29/04	23	4.6	14	2.0	21	3.8
Meadow Creek	4050	3/30/04	47	10.9	39	6.2	42	10.4
Midnight Dome	2805	3/31/04	36	7.5	25	3.8	28	5.8
Montana Mountain	3350	3/26/04	22	5.0	22	5.3	25	5.5
Morley Lake	2700	4/05/04	20	5.0	28	6.1	25	5.9
Mount Nansen	3350	3/29/04	21	4.1	12	2.0	17	3.0
Mt. Berdoe	3400	3/30/04	27	5.6	14	2.5	22	4.2
Mt. McIntyre B	3600	3/26/04	26	5.3	24	4.3	28	5.9
Pelly Farm	1550	3/27/04	21	4.4	11	1.9	15	3.0
Plata Airstrip	2720	3/29/04	38	9.6	30	7.2	33	7.5
Rackla Lake	3410	3/29/04	37	7.8	30	6.1	37	8.2
Russell Lake	3480	3/30/04	40	9.8	33	7.5	37	8.9
Satasha Lake	3805	3/29/04	19	3.1	23	1.4	21	4.3
Tagish	3540	3/26/04	24	5.1	21	4.2	26	5.5
Twin Creeks	2950	3/29/04	37	7.9	28	6.9	32	7.3
White River	2700	No Report	--	--	--	--	16	3.0
Whitehorse Airport	2300	3/26/04	19	4.0	16	3.2	19	3.9
Williams Creek	3000	3/29/04	26	5.4	11	1.7	18	3.5
Withers Lake	3200	3/29/04	42	10.2	34	7.8	39	9.4

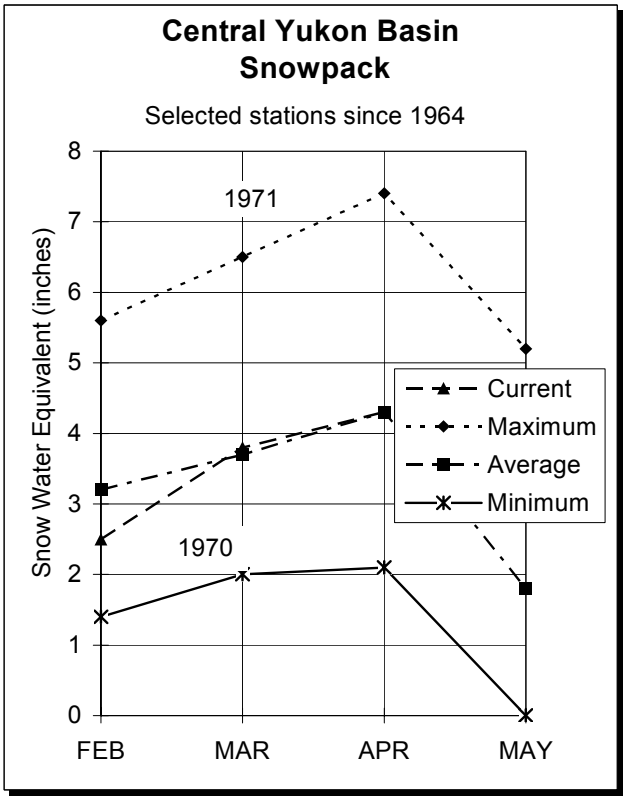
STREAMFLOW FORECASTS

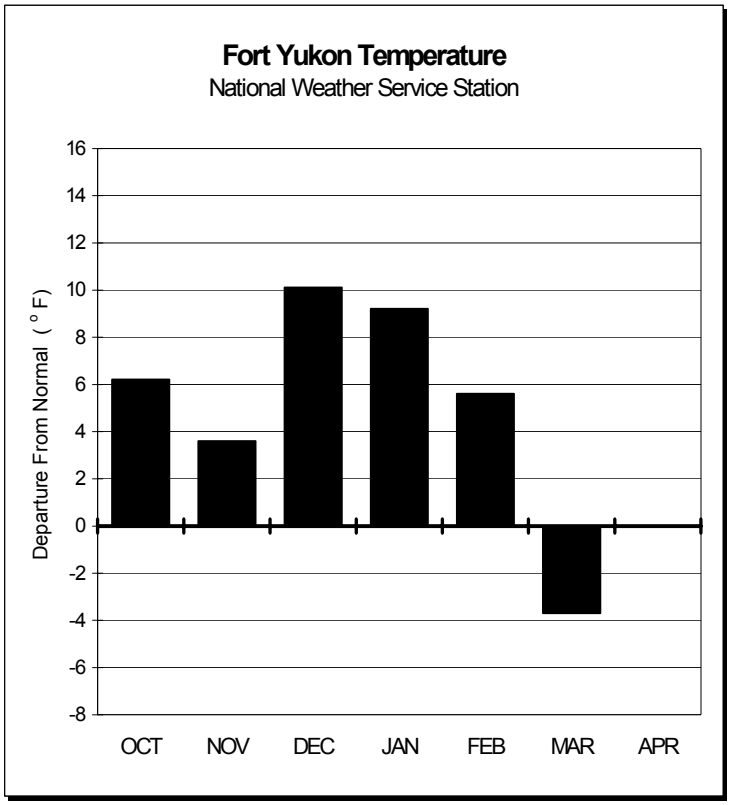
Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Yukon River At Eagle	Apr-Jul	34200	36690	107	41280	32100

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Above Whitehorse/ Tetlin	9	150	110
Dawson	3	143	117
Stewart/ Pelly	13	144	114
White River	6	225	124

CENTRAL YUKON BASIN*





Current Basin Conditions

The four Porcupine snow courses in Canada are 108 percent of normal and 121 percent of last year.

The Forty Mile Basin is 123 percent of normal with Boundary snow course being 104 percent and Mt. Fairplay 119 percent of normal. Chicken Airstrip is 141 percent of normal 20 inches of snow and 4.5 inches of water content.

The three Yukon Flat snow course water contents are 82 percent of normal and 80 percent of last year's water contents.

The White Mountains are 92 percent of normal and 111 percent of last year's water contents. The Birch Creek below South Fork Snowmelt Runoff Index is minus 2.2, much below average range.

The forecasted flow for the Yukon River near Stevens Village is 106 percent of normal for the April through July time period, 50,990,000 acre-feet.

* For further information contact the Natural Resources Conservation Service in Fairbanks.

Central Yukon Basin

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Borealis	1330	3/25/04	25	4.8	21	3.6	28	5.2
Boundary	3300	3/26/04	23	5.5	28	6.0	25	5.3
Cathedral Creek	1800	No Report	--	--	31	6.6	--	--
Chicken Airstrip	1650	4/02/04	20	4.5	15	3.1	16	3.2
Circle City	600	3/31/04	25	3.7	28	4.9	26	4.5
Circle Hot Springs	860	3/31/04	22	3.2	29	5.1	26	4.5
Coal Creek	1000	No Report	--	---	--	--	--	--
Copper Creek	2000	No Report	--	--	3	0.6	--	---
Cresent Creek	2600	No Report	--	--	13	2.5	--	---
Eagle Plains	2330	3/30/04	35	6.7	31	6.4	32	7.0
Eagle River	1120	3/30/04	31	5.4	26	4.7	27	5.5
Fort Yukon	430	3/31/04	18	3.5	20	4.1	20	3.8
Fossil	1400	3/25/04	25	4.8	22	4.1	--	---
Graphite Lake	600	No Report			--	--	--	--
Hess Creek	1000	3/31/04	23	4.0	22	4.4	26	5.4
Lost Chicken Hill	2100	4/02/04	23	5.0	16	4.0	--	---
Lower Beaver Creek	400	No Report	--	--	--	--	--	--
Mission Creek	900	Delayed Rpt	--	--	18	3.7	18	4.1
Mt. Fairplay	3100	4/02/04	21	5.1	22	5.2	20	4.3
Old Crow	980	4/06/04	26	6.1	29	4.0	25	4.6
Riff's Ridge	2130	3/30/04	33	6.3	26	5.1	29	5.7
Seven Mile	600	3/31/04	23	3.9	24	4.8	26	5.2
Stack Pup Creek	1620	3/31/04	24	3.4	28	4.8	25	4.4
Step Mountain	2850	No Report	--	--	31	6.4	--	---
Tacoma Bluff	1450	No Report	--	--	23	4.4	--	---
Thirty Mile	1350	3/31/04	32	5.8	35	7.8	37	8.1
Three Fingers	3350	No Report	--	--	33	6.9	--	---
Vuznik Lake	500	No Report	--	--	--	--	--	--
Windy Gap	1900	3/25/04	27	5.7	26	5.7	31	5.7
Wolf	1200	3/26/04	23	4.2	23	4.1	27	4.8

STREAMFLOW FORECASTS

Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Yukon River near Stevens Village	Apr-Jul	48200	50990	106	58240	43740

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

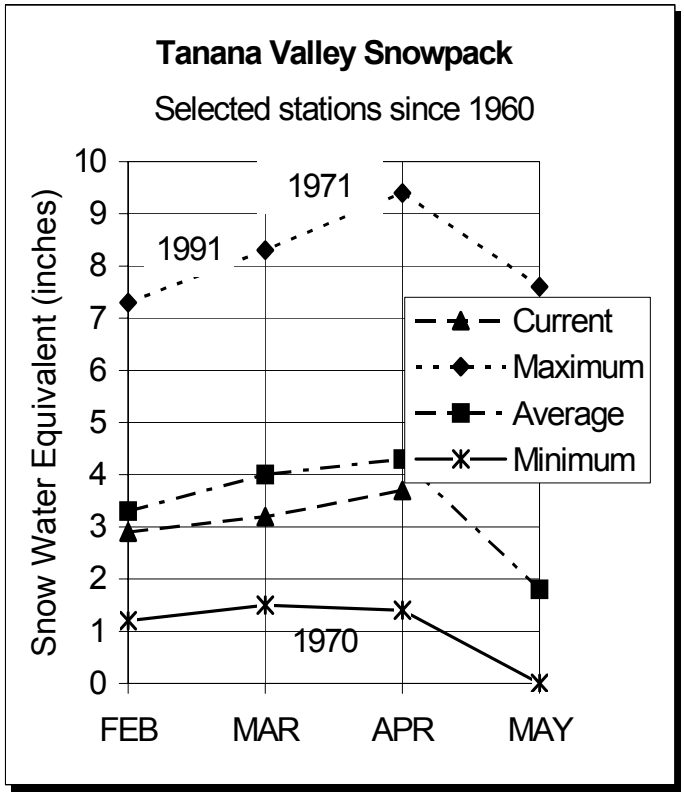
Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Atigun Pass**	4800	4/01/04	5.1	6.9	6.0	85
Chandalar Shelf**	3300	4/01/04	5.1	6.5	5.3	96
Eagle Summit	3650	3/31/04	4.0	5.8	6.3	63
Fort Yukon	430	3/31/04	2.7	3.8	--	--
Mission Creek	900	4/01/04	4.7	5.6	5.2	90

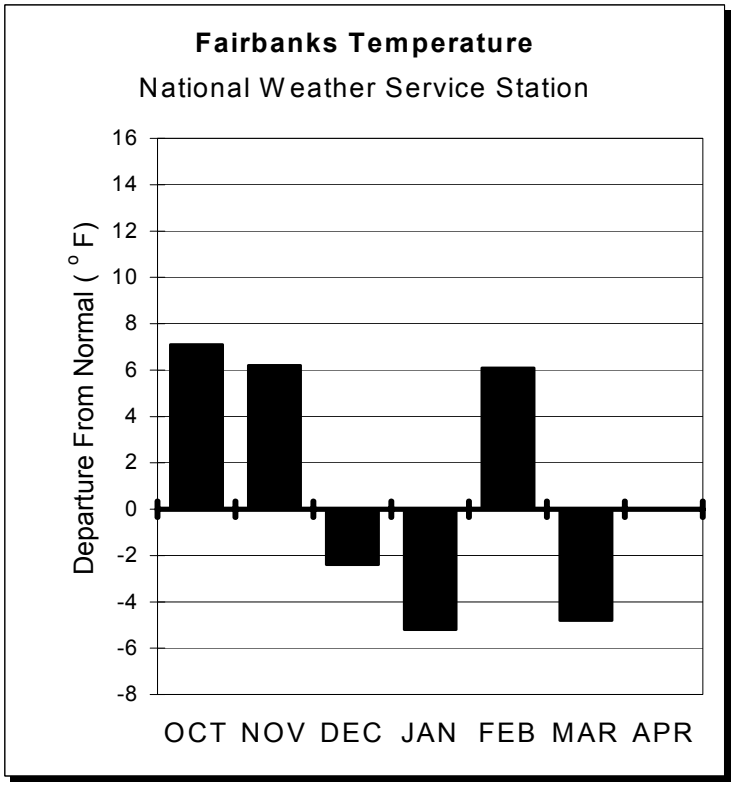
**Wyoming shielded gauge

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Forty Mile	4	110	123
Porcupine (Y.T.)	4	121	108
White Mountain	4	111	92
Yukon Flats	3	80	82

TANANA BASIN*





Current Basin Conditions

Most of the snow course water contents across the Basin are below normal with the exception of those near Delta Junction, Granite Creek, 124 percent of normal, and Fort Greely, 119 percent of normal. Lake Minchumina, having 1.5 inches, continues the winter setting record low water contents.

The five Chatanika snow courses are 93 percent of normal and 118 percent of last year.

The Chena snow course water contents vary from 100 percent at Little Chena Ridge to 85 percent of normal at Colorado Creek. The Chena River is forecast to flow 80 percent of normal volume for the April through July time period.

* For further information contact the Natural Resources Conservation Service in Fairbanks or Delta Junction.

Tanana Basin

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Bonanza Creek	1150	4/01/04	23	5.1	9	2.5	23	5.0
Caribou Creek	1250	3/30/04	23	4.6	16	3.5	23	5.0
Caribou Mine	1150	4/01/04	31	5.5	24	4.7	27	5.6
Caribou Snow Pillow	900	3/30/04	23	4.4	18	3.8	23	4.8
Cleary Summit	2230	3/31/04	33	6.5	23	5.0	31	6.7
Colorado Creek	700	4/01/04	24	4.0	13	2.9	23	4.7
Edgar Creek	2400	4/01/04	27	5.2	15	2.3	--	---
Fairbanks FO	450	3/31/04	22	3.8	16	3.1	23	4.5
Faith Creek	1900	3/31/04	26	4.4	25	4.8	28	4.9
Fielding Lake	3000	3/30/04	48	11.0	36	8.8	46	12.0
Fort Greely	1500	4/01/04	24	4.3	4	0.4	17	3.6
French Creek	1800	4/01/04	30	5.6	16	2.7	27	6.4
Gerstle River	1200	3/31/04	24	3.5	11	1.4	18	3.4
Gold King	1700	4/01/04	21	3.8	9	1.5	--	---
Granite Creek	1240	4/01/04	22	4.7	11	2.4	18	3.8
Haystack Mountain	1950	3/30/04	30	5.9	26	4.8	31	6.0
Jatahmund Lake	2180	3/31/04	19	4.0	18	3.0	--	---
Kantishna	1550	3/30/04	30	5.8	20	3.0	--	---
Lake Minchumina	730	3/30/04	10	1.5	14	1.8	21	4.4
Little Chena Bottom	1460	4/01/04	25	4.4	13	2.1	21	4.3
Little Chena Ridge	2000	4/01/04	29	5.9	26	5.5	28	5.9
Lost Creek	3030	3/27/l04	22	4.4	23	4.6	--	---
Mentasta Pass	2430	3/30/04	22	4.5	28	6.2	28	6.7
Monument Creek	1850	4/01/04	28	5.2	28	5.4	25	5.2
Mt. Ryan	2800	4/01/04	29	6.0	35	7.6	31	6.8
Munson Ridge	3100	4/01/04	35	7.2	32	6.2	38	9.1
Paradise Hill	2200	3/31/04	20	4.0	11	1.7	18	3.6
Ptarmigan Airstrip	2400	4/01/04	19	3.5	12	2.0	--	---
Ptarmigan Creek	2230	3/31/04	25	3.9	25	4.5	19	3.8
Rock Creek Bottom	2250	4/01/04	22	4.3	4	0.5	22	4.3
Rock Creek Ridge	2600	4/01/04	19	4.0	4	0.5	26	5.3
Shaw Creek Flats	980	3/31/04	20	3.2	4	0.8	16	3.4
Stampede	1800	3/30/04	22	4.3	7	0.9	--	---
Teuchet Creek	1640	4/01/04	24	3.9	22	3.9	23	4.4
Tok Junction	1650	3/30/04	21	3.1	16	2.8	19	3.6
Upper Chena	3000	4/01/04	32	6.7	32	6.8	33	7.8
Upper Chena Pillow	2850	4/01/04	36	5.0	34	7.0	32	7.5
Upper Wood River	2990	4/01/04	25	4.8	15	2.5	--	---

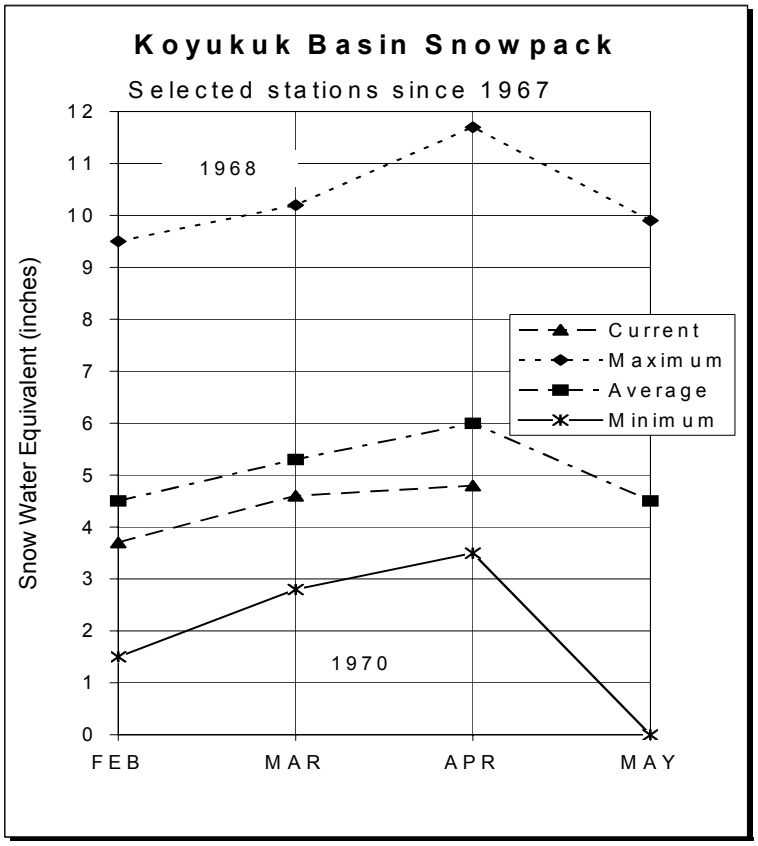
STREAMFLOW FORECASTS

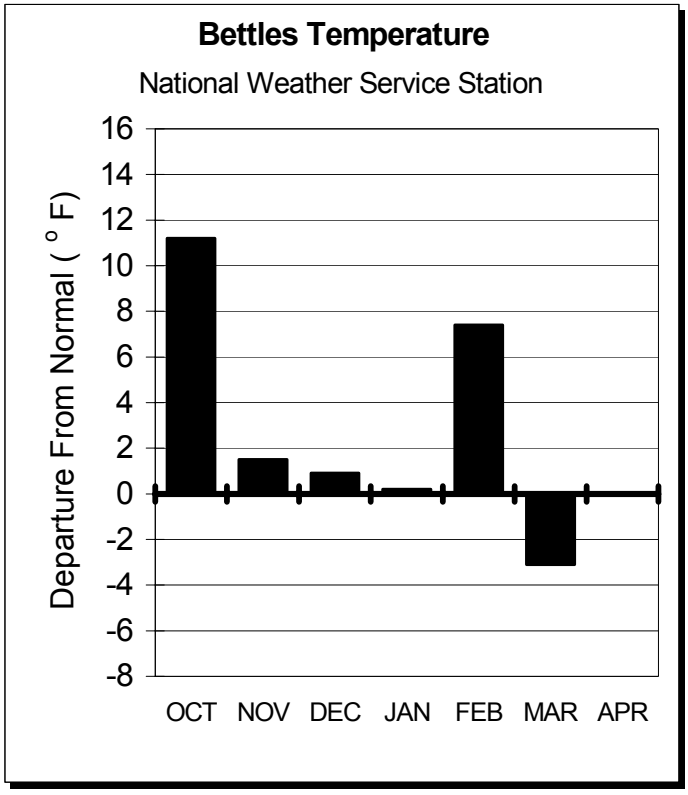
Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Tanana River at Fairbanks	Apr-Jul	7100	7270	102	8160	6380
Little Chena R. near Fairbanks	Apr-Jul	78.0	65.0	83	90.0	40.0
Chena River near Two Rivers	Apr-Jul	270	215	80	327	103
Salcha River near Salchaket	Apr-Jul	625	560	90	775	345
Tanana River at Nenana	Apr-Jul	9000	8490	94	9850	7130

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Chatanika	5	118	94
Chena Basin	8	110	91
Lower Tanana Valley	8	219	76
Mid Tanana Valley (Delta Junction)	5	190	97
Upper Tanana Valley (Tok)	3	156	99

WESTERN INTERIOR BASINS*





Current Basin Conditions

Koyukuk

The Bonanza Forks snow course has 98 percent of normal snow water content with Coldfoot 83 percent of normal. Disaster Creek is at 70 percent and Table Mountain is 59 percent of normal snow water content.

The snow courses in the Kanuti National Wildlife Refuge are showing a normal to above normal snow with Minnkokut having 35 inches of snow depth and 7.3 inches of water content.

The Snowmelt runoff index for the Koyukuk at Hughes is minus 1.2, in the below average range of minus 1 to 2.

Kuskokwim

The McGrath snow course has 74 percent of normal snow water content with 4.8 inches. The Lake Minchumina snow course has 10 inches of snow depth and a water content of 1.5 inches. This is 34 percent of normal and a new minimum of record snow water content.

To the west side of Mt. McKinley, the Purkeypile Mine snow course is 137 percent of normal.

Lower Yukon

Western Interior Basins

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Koyukuk								
Bettles Field	640	4/05/04	31	6.5	38	9.4	32	6.9
Bonanza Forks	1200	3/31/04	28	5.5	34	7.6	27	5.6
Coldfoot	1040	3/31/04	28	5.7	36	8.5	31	6.9
Disaster Creek	1550	4/01/04	19	3.0	27	5.5	23	4.4
Kaldoyeit	750	4/01/04	22	4.6	18	3.9	--	---
Kanuti-Chelatna	670	4/01/04	24	5.6	27	5.7	--	---
Kanuti-Kilolitna	550	4/01/04	23	5.4	22	3.8	--	---
Lake Todatonen	550	4/02/04	28	5.0	27	5.6	28	5.5
Minnkokut	580	4/01/04	35	7.3	34	7.0	--	---
Nolitna	560	4/01/04	25	5.7	25	5.5	--	---
Table Mountain	2200	4/01/04	18	2.9	27	5.9	24	4.9
Taiholman	540	4/01/04	3	1.0	6	1.5	--	---
Kuskokwim								
Lake Minchumina	730	3/30/04	10	1.5	14	1.8	21	4.4
McGrath	340	4/02/04	23	4.8	23	6.2	30	6.5
Purkeypile Mine	2025	3/31/04	31	5.6	8	1.0	21	4.1
Telaquana Lake	1550	4/01/04	17	4.4	6	0.6	20	4.5
Lower Yukon								
Grouch Creek	220	3/31/04	30	6.4	19	4.6	--	---
Holikachuk	100	3/31/04	36	8.0	26	6.8	--	---
Horsefly Creek	180	3/31/04	31	6.5	21	5.1	--	---
Innoko Cabin	200	4/01/04	24	4.4	--	--		
Menotl Creek	380	3/31/04	39	9.0	32	8.6	--	---
Middle Innoko	150	3/31/04	33	7.3	23	6.0	--	---
Tozikaket	600	No Report	--	--	13	1.5	24	5.0
Upper Innoko	180	3/31/04	33	7.0	28	7.5	--	---
Wapoo Hills	220	3/31/04	37	8.2	22	5.5	--	---
Yankee Slough	100	3/31/04	47	10.5	33	8.9	--	---
Yetna River	120	3/31/04	31	6.8	--	--	--	--

STREAMFLOW FORECASTS

Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Kuskokwim River at Crooked Creek	Apr-Jul	10500	9000	86	11990	6010

PRECIPITATION DATA

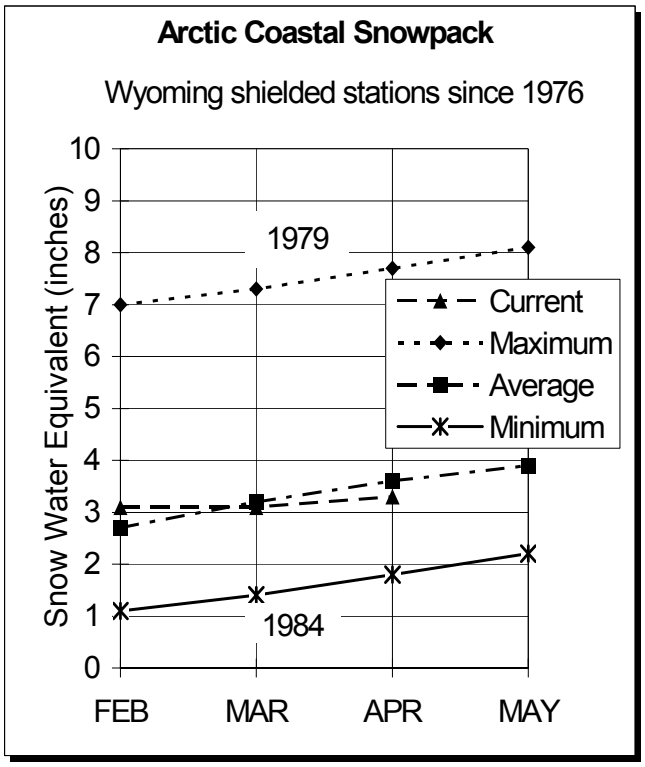
INCHES ACCUMULATED SINCE OCTOBER 1st

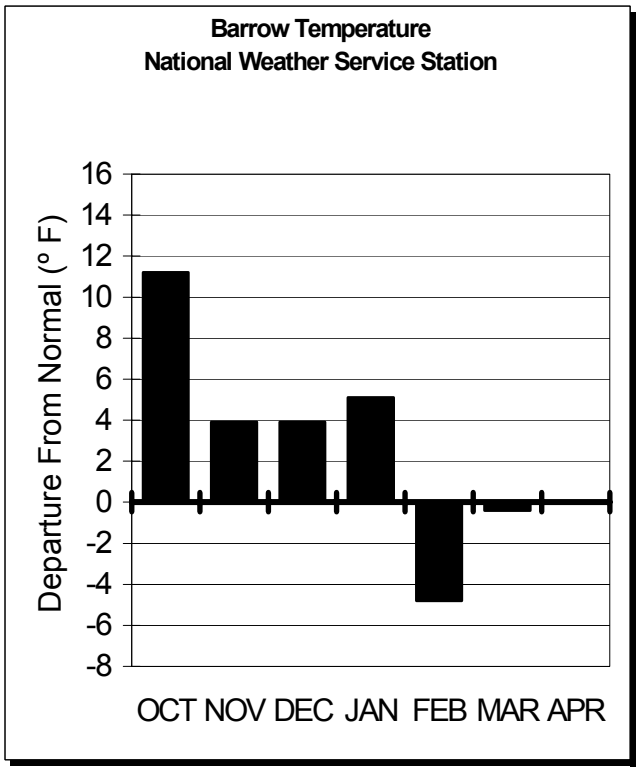
Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Bettles Field	640	No Report	--	7.9	6.7	
Coldfoot	1040	3/31/04	6.2	9.4	6.7	92
Gobblers Knob	2030	3/31/04	9.6	10.5	9.7	99

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Koyukuk	9	78	89
Upper Kuskokwim	3	132	73
Lower Yukon	10	119	118

ARCTIC AND KOTZEBUE SOUND*





Current Basin Conditions

Arctic

Atigun Pass continues below normal with 21 inches of snow and 5.1 inches of water content received since October 1st at the Wyoming shielded precipitation gauge. This is 85 percent of normal.

Barrow remains above normal at 107 percent.

The Kuparak River near Deadhorse is forecast to flow 725,000 acre-ft for the April – July time period, 91 percent of normal.

Kotzebue

The Red Dog Mine precipitation gauge has received 4.3 inches of water content since October 1st, 90 percent of last year. To the southwest, on the coast, the Kivalina precipitation gauge has received 3.8 inches of water content since October 1st, 127 percent of last year.

* For further information contact the Natural Resources Conservation Service in Anchorage.

Arctic and Kotzebue Sound

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Kugarak	225	No Report	--	--	27	5.0	--	---

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1ST

Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Arctic						
Atigun Camp	3400	4/01/04	2.7	2.8	5.0	54
Atigun Pass	4800	4/01/04	5.1	6.9	6.0	85
Barrow	25	4/02/04	3.2	2.0	3.0	107
Imnaviat Creek	3050	4/01/04	1.9	5.1	3.8	63
Prudhoe Bay	30	No Report				
Kotzebue Sound						
Kivalina	50	3/31/04	3.8	3.0	--	--
Red Dog**	950	3/31/04	4.3	4.8	--	--

** Wyoming Shielded Gauge

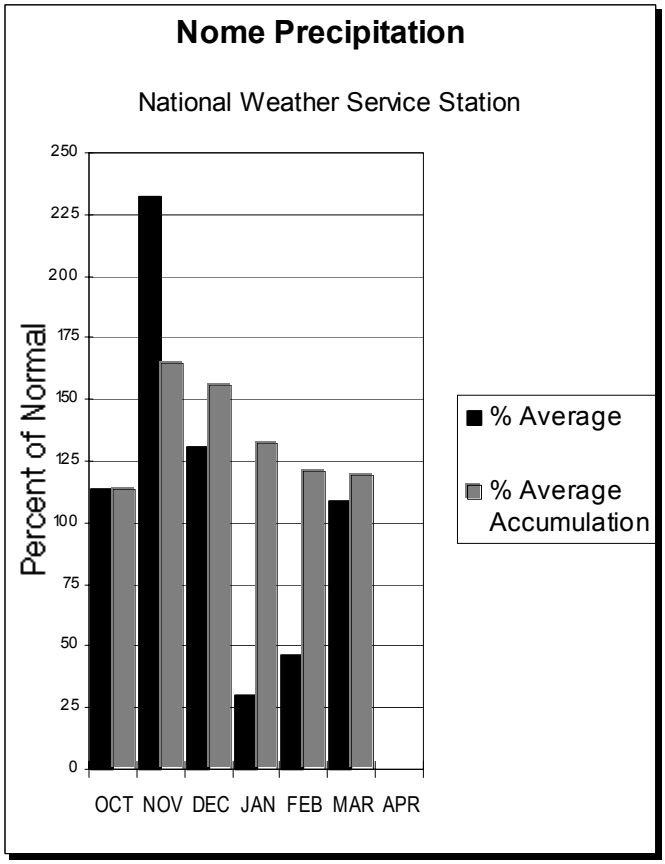
STREAMFLOW FORECASTS

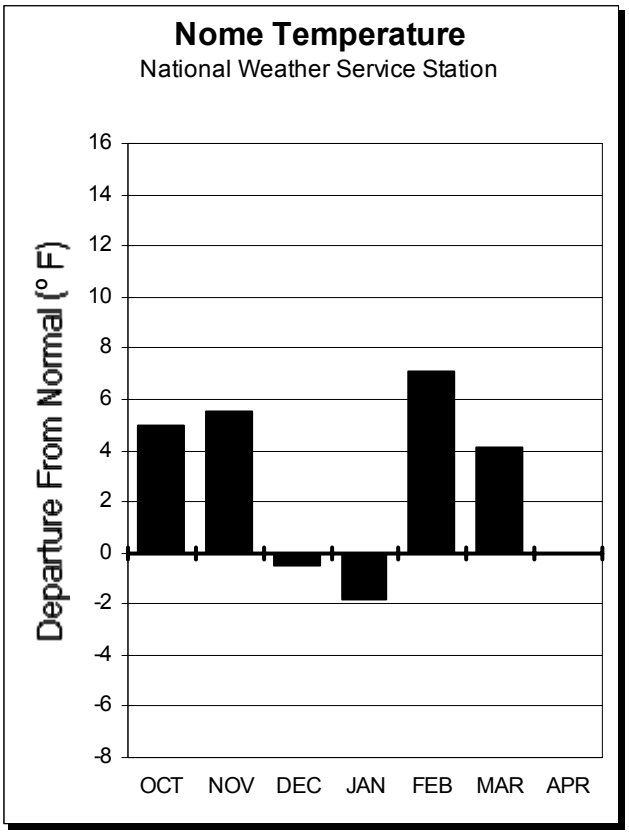
Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Sagvanirktok River near Pump Station 3	May- Jul	685	650	95	780	520
Kuparuk River near Deadhorse	April - Jul	795	725	91	975	475

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Arctic Coast	1	160	107
Dalton Highway	2	58	58

NORTON SOUND/SOUTHWEST DELTA/BRISTOL BAY*





Current Basin Conditions

Norton Sound

The Rocky Point SNOTEL site on the coast of Norton Sound has 14 inches of snow the end of March. The snow is rock hard due to the amount of wind it has received. It has caught 6.0 inches of precipitation since October 1st and is 115 percent last years catch at this date.

Pargon Creek had 7 inches of snow on the ground the 1st of April. At one point this month there was 11 inches, but it appears to have blown away the 18th of March.

Southwest Delta/Bristol Bay

Port Alsworth has 5.1 inches of snow water content, 124 percent of normal.

Fishtrap Lake has 35 inches of snow depth with 8.6 inches of water content; the water content appears to be in the 80 percent of normal range.

* For further information contact the Natural Resources Conservation Service in Anchorage.

NORTON SOUND/SOUTHWEST DELTA/BRISTOL BAY*

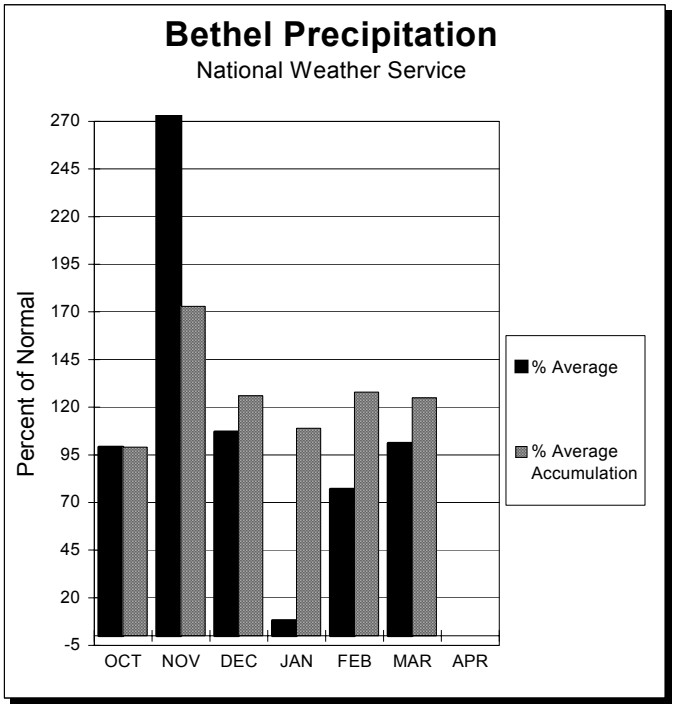
SNOWPACK DATA

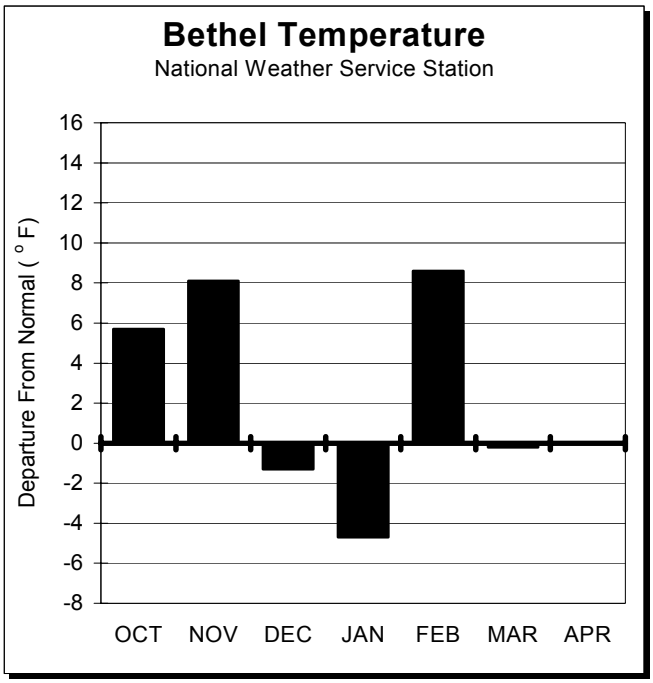
Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Bristol Bay								
Brooks Camp	150	No Report	--	--	--	--	--	---
Fishtrap Lake	1800	4/01/04	35	8.6	--	--	--	---
Port Alsworth	270	4/05/04	19	5.1	0	0.0	12	4.1
Three Forks	900	No Report	--	--	--	--	--	---
Upper Twin Lakes	2000	4/01/04	25	5.8	--	--	27	7.2

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1ST

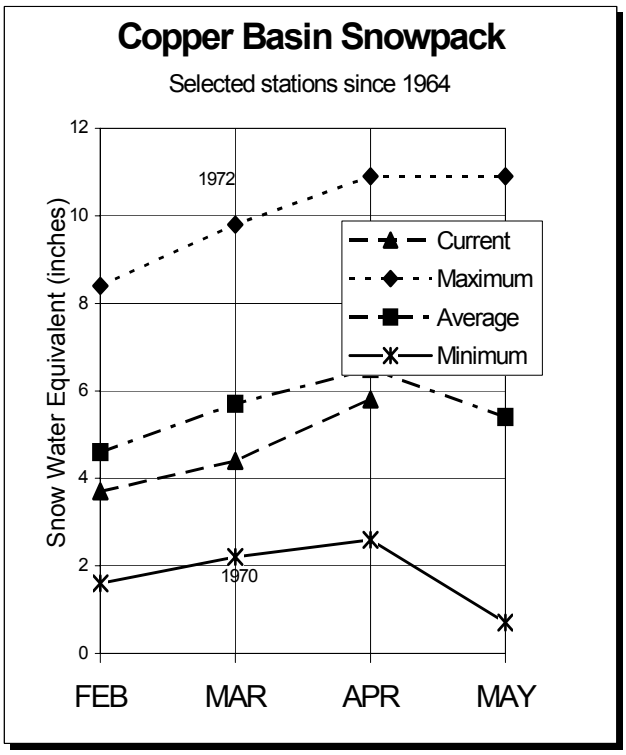
Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Pargon Creek	100	No Report	--	6.0	---	--
Rocky Point	500	3/31/04	6.0	5.2	---	--

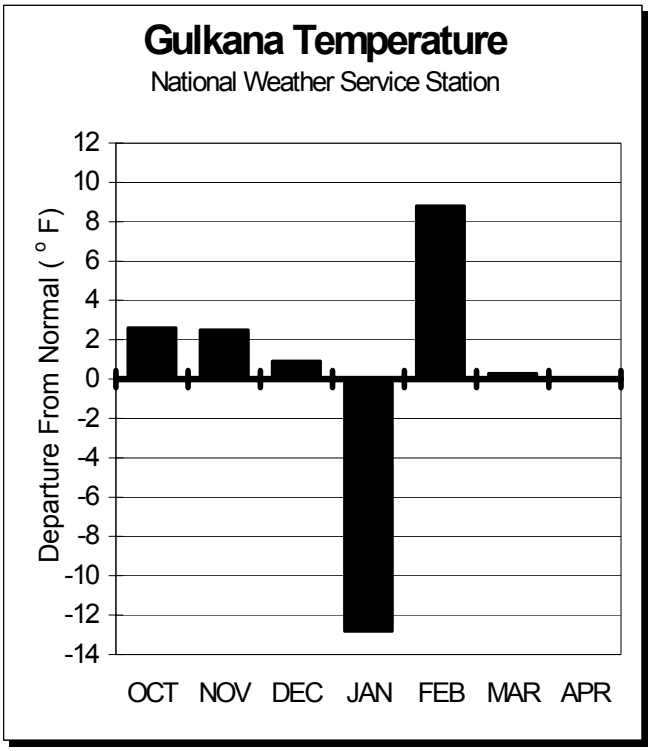




* For further information contact the Natural Resources Conservation Service in Anchorage.

COPPER BASIN*





Current Basin Conditions

The snow course water contents vary from 67 percent of normal at Mentasta Pass to 122 percent of normal at Kenny Lake. Most of the basin is in the 80 to 100 percent of normal range.

The East Side of the Basin, the Wrangle Mountains is 99 percent of normal, with the north side being much below normal as shown by Mentasta Pass. The south side of the Alaska Range is 83 percent of normal. The West Side of the basin which is the East Side of the Talkeetna Mountains is 98 percent of normal. The south side, north of the Chugach Range is 100 percent of normal.

The new SNOTEL (SNOw TELemetry) site at Upper Tsaina River has received 25.0 inches of precipitation since the 1st of October.

The forecasted flow for the Gulkana River is 94 percent of normal, 445,000 acre – ft.

* For more information contact the Natural Resources Conservation Service in Copper River, Delta Junction or Anchorage.

Copper Basin

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)				(inches)			
Chisana	3320	3/30/04	23	5.0	16	3.0	22	3.6
Chistochina	1950	3/30/04	20	3.1	19	4.0	22	4.1
Chokosna	1550	3/27/04	26	5.4	9	2.1	22	3.9
Dadina Lake	2160	3/31/04	28	5.5	14	4.0	27	5.9
Haggard Creek	2540	3/30/04	28	4.6	28	6.1	29	6.3
Horsepasture Pass	4300	3/31/04	31	7.0	33	7.4	29	6.4
Kenny Lake School	1300	3/30/04	22	4.5	13	3.5	17	3.7
Lake Louise	2400	4/01/04	24	4.8	16	3.4	23	4.6
Little Nelchina	2650	4/01/04	26	5.2	15	2.9	--	---
Lost Creek	3030	3/27/04	22	4.4	23	4.6	--	---
May Creek	1610	4/06/04	34	9.0	16	3.2	21	4.5
Mentasta Pass	2430	3/30/04	22	4.5	28	6.2	28	6.7
Monsoon Lake	3100	4/01/04	26	5.1	20	4.4	28	6.4
Paxson	2650	3/30/04	35	6.8	30	6.8	32	7.8
Sanford River	2280	3/31/04	29	6.5	13	4.8	28	6.2
St. Anne Lake	1990	3/31/04	24	4.9	18	3.7	25	5.5
Tazlina	1225	3/30/04	22	4.8	10	2.5	--	---
Tolsona Creek	2000	3/30/04	23	4.2	16	3.2	22	4.1
Tsaina River	1650	3/31/04	53	14.2	46	14.5	57	17.6
Twin Lakes	2400	3/31/04	28	6.2	17	3.2	28	6.4
Upper Tsaina River	1750	3/31/04	70	22.0	New	--	--	--
Worthington Glacier	2100	3/31/04	76	23.9	54	22.0	72	24.9

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1ST

Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Upper Tsaina River	1750	3/31/04	25.0	New	---	--

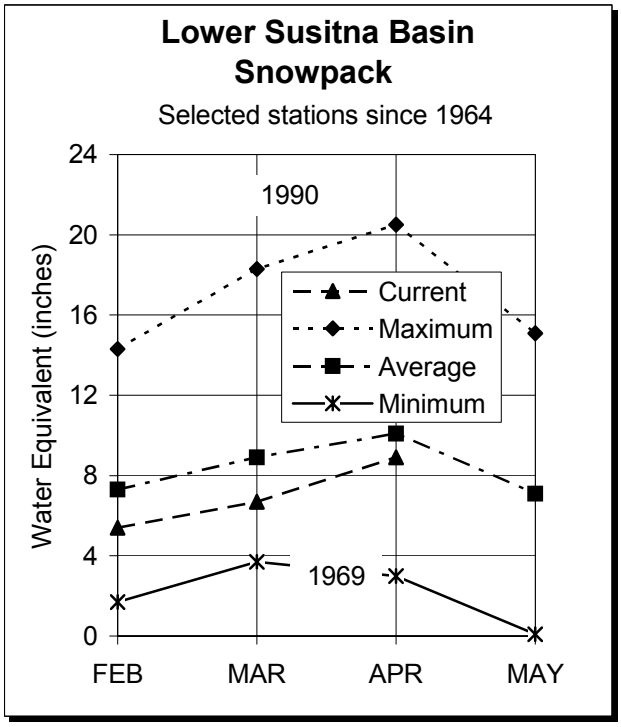
STREAMFLOW FORECASTS

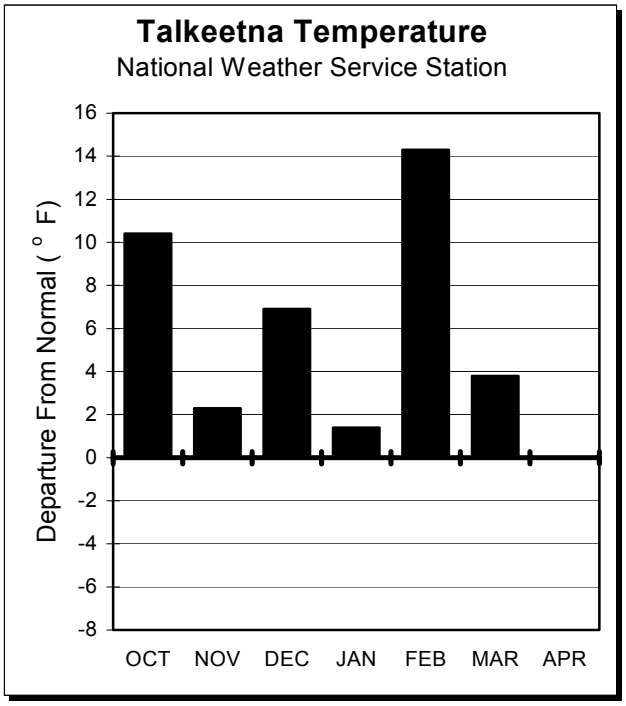
Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Gulkana River at Sourdough	Apr-Jul	475	445	94	550	340

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Alaska Range	4	105	83
Basin Floor	5	112	90
Chugach Range	3	150	100
Talkeetna Mountains	3	101	98
Wrangell Mountains	2	133	99

MATANUSKA - SUSITNA BASINS*





Current Basin Conditions

The Upper Susitna snow courses are 100 percent of normal with Monahan Flat being 90 percent and Horsepasture Pass at 109 percent of normal water content.

The Peters Hills snow courses are 81 percent of normal snow water content with Dutch Hills, at an elevation of 3100 feet being 72 percent of normal and Tokositna Valley, at 850 feet elevation being 89 percent of normal.

The Snowmelt Runoff Index for the Deshka River at the mouth near Willow is minus 1.4, below average range.

The Snowmelt Runoff Index for the Chulitna River near Talkeetna is minus 2.5, much below average range.

The Matanuska/Little Susitna Basin area is 76 percent of normal. The Little Susitna forecast to flow at 85 percent of normal for the April – July period, 73,000 acre – ft.

* For more information contact the Natural Resources Conservation Service in Wasilla.

Matanuska - Susitna Basins

SNOWPACK DATA

Snow Course	Elev. (feet)	Date	THIS YEAR Snow Depth (inches)	THIS YEAR Water Content (inches)	LAST YEAR Sow Depth (inches)	LAST YEAR Water Content (inches)	1971-2000 AVERAGE Snow Depth (inches)	1971-2000 AVERAGE Water Content (inches)
Alexander Lake	160	3/31/04	40	11.3	28	8.2	44	12.0
Archangel Road	2200	4/01/04	45	11.5	31	8.0	50.0	16.3
Bentalit Lodge	150	3/31/04	31	8.1	--	--	--	--
Blueberry Hill	1200	3/26/04	45	12.3	41	10.6	58	16.0
Chelatna Lake	1450	No Survey			35	8.8	44	11.6
Clearwater Lake	2650	4/01/04	28	5.3	20	3.3	27	5.7
Curtis Lake	2850	3/31/04	27	5.2	--	--	--	---
Denali View	700	3/26/04	35	9.4	33	8.2	50	13.4
Dunkle Hills	2700	3/31/04	20	5.5	--	--	--	--
Dutch Hills	3100	3/31/04	66	19.8	75	24.0	80	27.5
E. Fork Chulitna	1800	3/26/04	42	10.4	44	12.1	54	14.0
Eldridge Glacier	3400	3/31/04	8	2.5	32	8.3	--	---
Fishhook Basin	3300	4/01/04	54	15.5	64	20.1	64	20.5
Fog Lakes	2120	4/01/04	30	6.2	18	3.4	28	6.2
Halfway Slough	350	3/26/04	26	6.4	6	1.4	--	---
Independence Mine	3550	4/01/04	60	18.6	73	23.2	70	24.2
Lake Louise	2400	4/01/04	24	4.8	16	3.4	23	4.6
Little Susitna	1700	4/01/04	40	10.1	24	5.8	43	13.3
Moose Creek Ranch	450	4/01/04	22	5.4	2	0.3	--	---
Monahan Flat	2710	4/01/04	33	7.3	26	5.3	35	8.1
Nugget Bench	2010	3/31/04	46	13.5	45	11.8	55	15.5
Ramsdyke Creek	2220	3/31/04	60	18.0	61	17.0	69	22.0
Sheep Mountain	2900	4/01/04	27	5.4	21	4.9	26	6.0
Skwentna	160	3/31/04	40	10.9	26	8.2	42	11.6
Square Lake	2950	3/31/04	21	3.9	22	3.8	22	4.2
Susitna Valley High	375	3/26/04	30	7.1	10	2.4	39	9.5
Talkeetna	350	3/26/04	25	5.6	8	2.1	34	8.7
Tokositna Valley	850	3/31/04	57	16.7	46	12.5	62	18.7
Tyone River	2500	3/31/04	27	5.5	21	4.2	24	5.2
Upper Oshetna	3150	3/31/04	19	3.8	--	--	--	---
Upper Sanona	3100	3/31/04	27	5.6	--	--	--	---
West Fork Yentna	950	No Survey	--	--	--	--	--	--
Willow Airstrip	200	3/27/04	32	7.9	7	1.7	31	8.1
Ward Lake	2700	3/31/04	33	6.3	--	--	--	---

STREAMFLOW FORECASTS

Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Little Susitna River near Palmer	Apr-Jul	86	73.0	85	97.0	49.0
Talkeetna River near Talkeetna	Apr-Jul	1630	1400	86	1650	1150

PRECIPITATION DATA

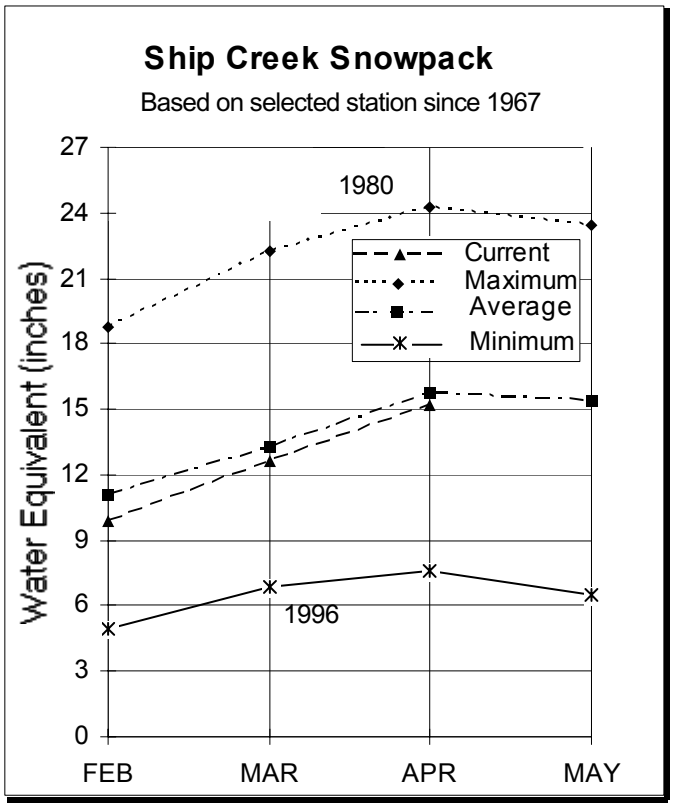
INCHES ACCUMULATED SINCE OCTOBER 1ST

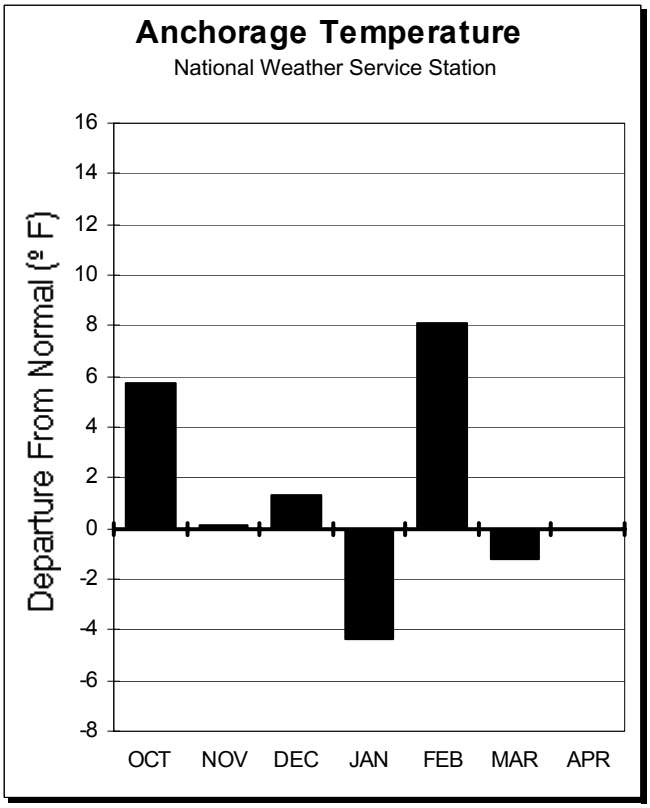
Precipitation Gauge	Elevation (ft.)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Independence Mine	3550	4/01/04	19.7	21.0	--	--
Susitna Valley High	375	3/27/04	9.0	13.0	11.7	77

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Lower Susitna	4	177	88
Matanuska/Little Susitna	5	99	76
Peters Hills	4	104	81
Upper Susitna	5	130	100

NORTHERN COOK INLET*





Current Basin Conditions

The Kincaid Park snow course is 171 percent of normal water content. On snow courses on the hillside, South Campbell Creek is 122 percent of normal and the Anchorage Hillside snow course is 119 percent of normal.

This same progression of higher percents of normal at low elevation is shown at the Arctic Valley snow courses with Arctic Valley #1 being 181 percent of normal water content and Arctic Ski Bowl being 99 percent of normal.

The Moraine SNOTEL site in the Eklutna basin has 39 inches of snow depth with 8.2 inches of water content, 264 percent of last year.

The forecasted volume flow for Ship Creek for the April through July time period is 110 percent of normal, 64,000 acre-ft.

The Bird Creek Snowmelt Runoff Index is minus 1.8, in the below average range.

* For more information contact the Natural Resources Conservation Service in Wasilla or Anchorage.

Northern Cook Inlet

SNOW PACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Anchorage Hillside	2080	3/31/04	49	12.4	16	4.5	38	10.4
Arctic Ski Bowl	3000	4/01/04	45	13.9	21	5.4	43	14.0
Arctic Valley #1	500	4/01/04	26	6.5	1	0.2	14	3.6
Arctic Valley #2	1000	4/01/04	30	7.9	2	0.4	20	5.1
Arctic Valley #3	1450	4/01/04	37	9.5	10	2.1	28	7.3
Arctic Valley #4	2030	4/01/04	35	9.3	13	2.4	29	7.7
Chuitna Plateau	1540	3/31/04	64	20.5	76	24.3	86	26.9
Congahbuna Lake	500	3/31/04	38	10.6	17	4.8	38	10.8
Granite Point	250	3/31/04	19	4.8	3	1.0	15	5.6
Indian Pass	2350	3/29/04	70	21.0	57	17.2	71	23.7
Kincaid Park	250	4/01/04	29	7.2	0	0.0	16	4.2
Lone Ridge	1675	3/31/04	72	23.0	67	21.4	86	33.1
Moraine	2100	4/01/04	39	8.2	11	3.1	--	---
Mt. Alyeska	1540	4/06/04	106	36.0	61	18.4	107	36.9
Point Mackenzie	200	3/29/04	29	6.1	4	0.9	20	5.4
Portage Valley	50	4/01/04	69	23.3	21	4.2	39	15.0
South Campbell Creek	1200	3/31/04	40	9.0	3	2.2	28	7.4

STREAMFLOW FORECASTS

Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Ship Creek near Anchorage	Apr-Jul	58.0	64.0	110	72.0	56.0

PRECIPITATION DATA

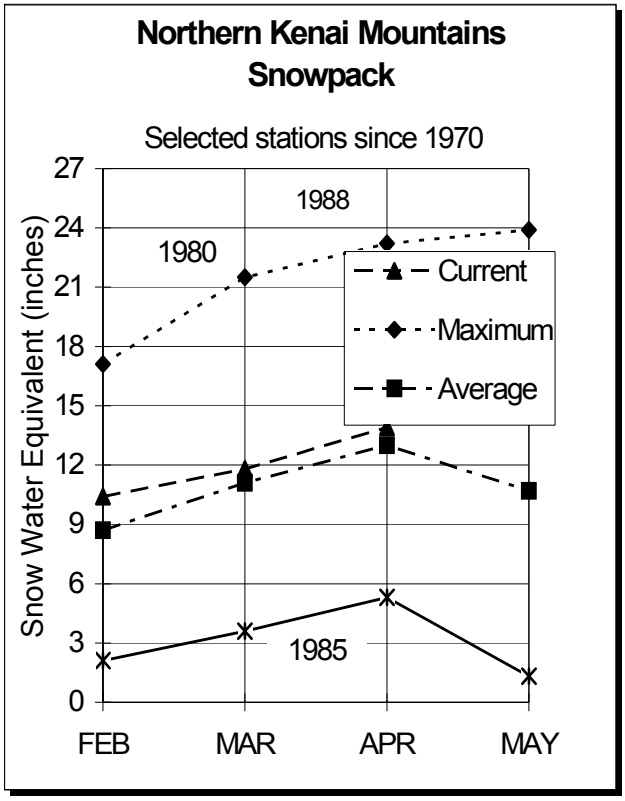
INCHES ACCUMULATED SINCE OCTOBER 1ST

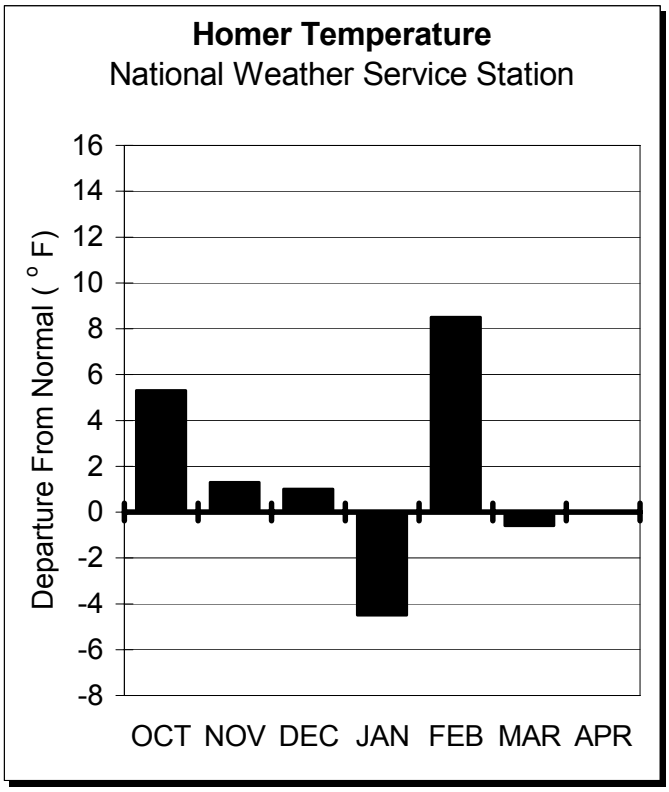
Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Indian Pass	2350	3/29/04	24.3	28.2	23.9	86
Moraine	2100	4/01/04	11.8	9.4	--	--
Mt. Alyeska	1540	4/06/04	50.1	86.8	43.1	116
Point Mackenzie	200	3/29/04	8.1	7.5	8.1	100

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Beluga	3	107	76
Campbell Creek	2	319	120
Ship Creek	3	177	102
Turnagain Arm	2	178	104

KENAI PENINSULA*





Current Basin Conditions

The northern Kenai Mountain snow pack varies from 253 percent of normal water content at the Jean Lake snow course to 82 percent of normal water content at the Turnagain Pass SNOTEL site. The Moose Pass snow course is also high at 156 percent of normal with 34 inches of snow depth and 11.1 inches of water content.

On the rim above Homer the snow course water contents average to be 87 percent. The Fritz Creek Snowmelt Runoff index is minus 0.9, in the normal range.

The Snowmelt Runoff Index for Six Mile Creek near Hope is minus 1.5, in the below average range.

The forecasted volume flow for the Kenai River for the April through July time period is 105 percent of normal. This is based on normal weather conditions through the forecast period.

* For more information contact the Natural Resources Conservation Service in Homer.

Kenai Peninsula

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Anchor River Divide	1600	4/02/04	44	12.8	21	6.4	40	11.7
Bertha Creek	950	3/27/04	55	16.1	32	9.3	57	17.6
Bridge Creek	1300	4/02/04	41	10.7	10	3.4	44	12.9
Cooper Lake	1200	3/30/04	57	17.6	18	4.7	50	15.0
Demonstration Forest	780	4/02/04	27	7.2	0	0.0	32	9.5
Eagle Lake	1400	3/31/04	46	11.4	19	6.0	42	12.7
Grandview	1100	4/02/04	95	28.7	41	15.4	41	27.8
Grouse Creek Divide	700	3/30/04	70	22.5	24	7.2	24	18.4
Jean Lake	620	3/30/04	39	10.1	0	0.0	0	4.0
Kenai Moose Pens	300	3/31/04	32	7.5	3	0.5	3	4.1
Kenai Summit	1390	3/26/04	46	14.5	29	8.9	29	14.3
McNeil Canyon	1320	3/31/04	42	10.3	8	2.4	41	11.7
Moose Pass	700	3/26/04	34	11.1	7	1.5	21	7.1
Nanwalek	500	No Survey			--	--	--	--
Nuka Glacier	1250	3/31/04	105	30.5	37	20.0	95	39.5
Pass Creek	1200	Delayed Rpt.	--	--	15	3.9	32	8.6
Port Graham	300	4/01/04	16	5.6	5	1.4	32	8.6
Resurrection Pass	2250	Delayed Rpt.	--	--	26	6.5	38	10.9
Snug Harbor Road	500	3/30/04	31	11.8	4	1.0	18	15.1
Summit Creek	1400	3/26/04	41	11.9	22	7.0	43	11.7
Turnagain Pass	1880	4/01/04	95	28.7	80	25.7	106	34.9

STREAMFLOW FORECASTS

Forecast Point	Forecast Period	30- Yr Average (1000AF)	50 Percentile	% of Average	Max (1000AF)	Min (1000AF)
Kenai River at Cooper Landing	Apr-Jul	925	970	105	1060	880

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1ST

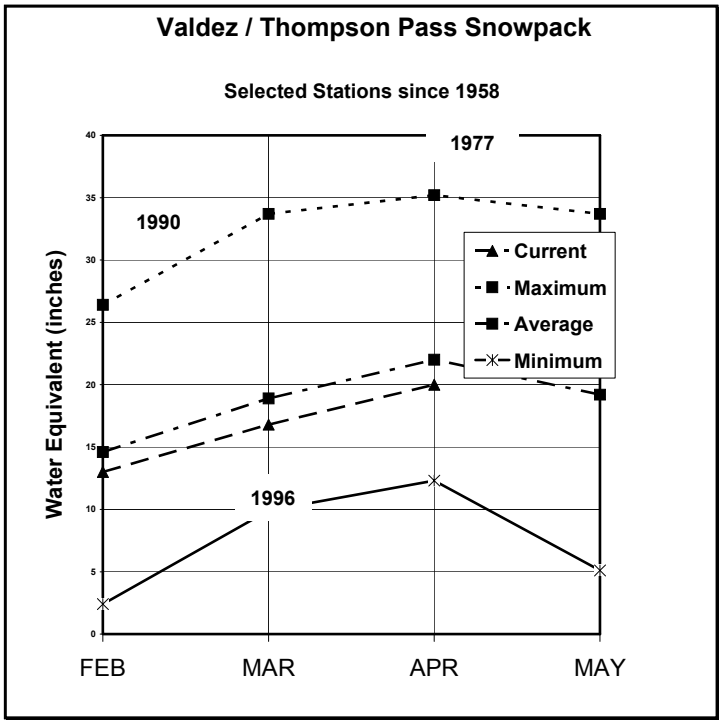
Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Cooper Lake	1200	3/30/04	31.6	46.6	23.4	135
Grandview	1100	4/02/04	41.1	58.8	37.0	111
Grouse Creek Divide	700	3/30/04	39.9	55.0	35.5	112
Kenai Moose Pens	300	3/31/04	9.4	6.6	8.2	115
McNeil Canyon	1320	3/31/04	15.5	23.0	15.6	99
Middle Fork Bradley**	2300	4/01/04	30.0	69.5	34.3	88
Nuka Glacier**	1250	4/01/04	54.6	100.4	53.1	103
Port Graham	300	4/01/04	40.7	64.1	--	--
Summit Creek	1400	3/26/04	15.5	23.6	16.2	96
Turnagain Pass	1880	4/01/04	40.1	53.7	39.8	101

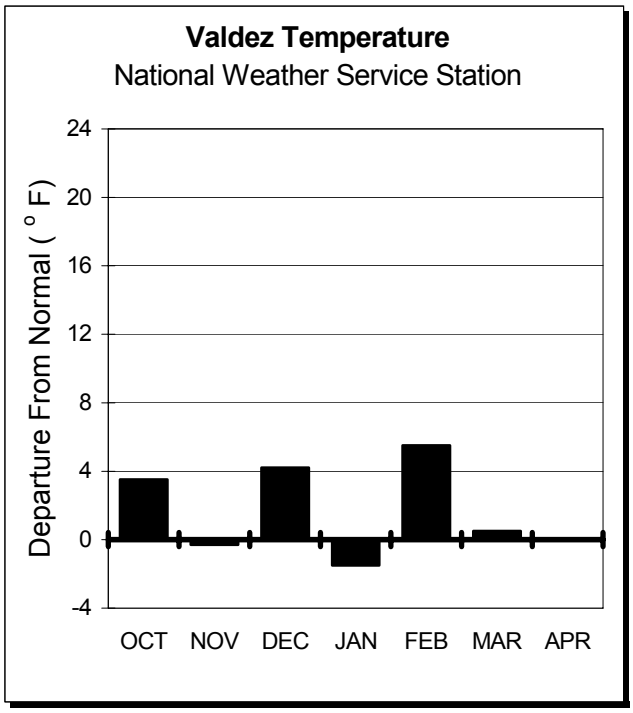
**Wyoming shielded gauge

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Bradley Lake	1	153	77
Ninilchik Dome	3	275	87
Northern Kenai Mountains	6	259	117
Northern Kenai Flats	1	150	183

WESTERN GULF*





Current Basin Conditions

The Valdez area snow courses are 97 percent of normal. The Soloman Gulch precipitation gauge has caught 36.1 inches of precipitation since October 1st, 85 percent of normal.

* For more information contact the Natural Resources Conservation Service in Copper Center.

Western Gulf

SNOWPACK DATA

Snow Course	Elev.	Date	THIS YEAR		LAST YEAR		1971-2000 AVERAGE	
			Snow Depth	Water Content	Sow Depth	Water Content	Snow Depth	Water Content
	(feet)		(inches)					
Exit Glacier	400	No Report	--	--	28	9.9	57	15.9
Grouse Creek Divide	700	3/30/04	70	22.5	24	7.2	57	18.4
Lowe River	600	3/31/04	62	17.9	42	14.5	54	17.1
Nuka Glacier	1250	3/31/04	105	30.5	37	20.0	95	39.5
Sugarloaf Mountain	550	4/07/04	77	25.1	61	21.1	87	28.0
Tsaina River	1650	3/31/04	53	14.2	46	14.5	57	17.6
Upper Tsaina River	1750	3/31/04	70	22.0	New	--	--	--
Valdez	50	3/31/04	56	16.4	40	14.8	54	17.8
Worthington Glacier	2100	3/31/04	76	23.9	54	22.0	72	24.9

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1ST

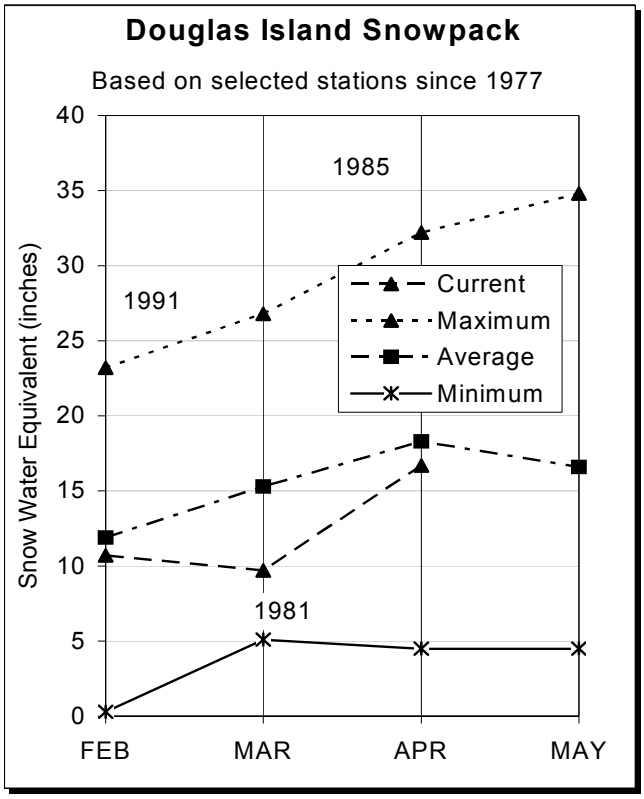
Precipitation Gauge	Elevation (feet)	Date	This Year	Last Year	1971-2000 Ave	% of Average
Grouse Creek Divide	700	3/30/04	39.9	55.0	35.5	112
Nuka Glacier**	1250	4/01/04	54.6	100.4	53.1	103
Solomon Gulch*	30	3/31/04	30.9	48.5	40.7	76
Sugarloaf Mountain	550	3/22/04	36.1	60.4	42.4	85
Upper Tsaina River	1750	3/31/04	25.0	New	--	--

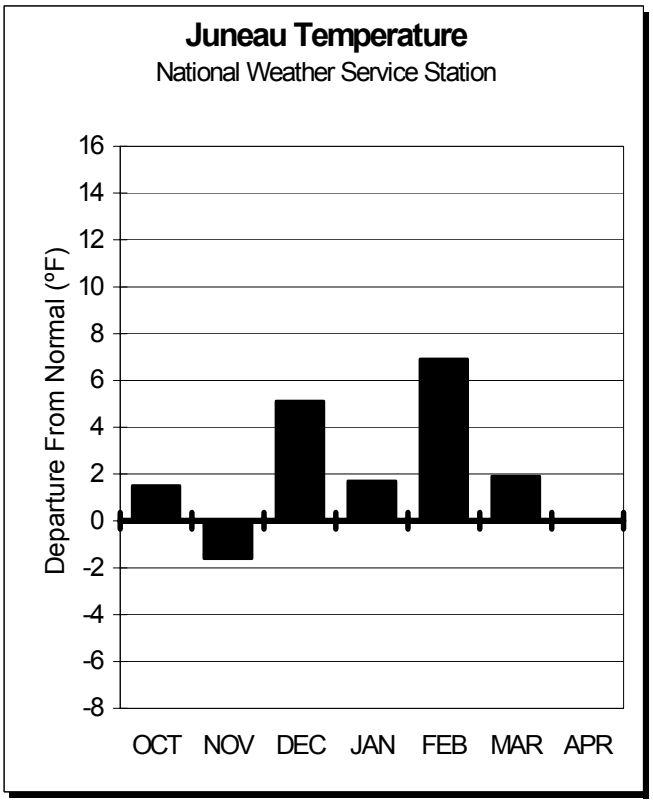
**Wyoming shielded gauge
*Copper Valley Electric Association

WATERSHED SNOWPACK ANALYSIS

Region / River Basin	No. of Courses Averaged	Percent of Last Year	Percent of Average
Lowe River (Valdez)	3	113	97

SOUTHEAST*





Snowcover:

The Long Lake SNOTEL site, in the basin of the Snettisham Hydroelectric facility has 40.8 inches of snow water content, 158 percent of last year and probably near normal for a 30 year period.

The Swan Lake snow courses, in the basin providing water for power generation for the City of Ketchikan, are near normal water content. Lake Grace Pass has 118 inches of snow depth and 51.7 inches of water content.

The Petersburg Ridge snow course is 106 percent of normal having increased snow water content 10.2 inches in the month of March. No snow at Petersburg Reservoir, elevation 550 feet, the average is 15 inches of snow depth.

The Douglas Island snow courses, across from Juneau, are 91 percent of normal, up significantly from last month's 63 percent of normal.

* For further information contact the Natural Resources Conservation Service in Anchorage.

Southeast

SNOWPACK DATA

SNOW COURSE	ELEV.	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVERAGE SNOW DEPTH	1971-2000 AVERAGE WATER CONTENT
Cropley Lake	1650	3/31/04	90	30.0	47	17.8	81	30.3
Eagle Crest	1200	3/31/04	60	18.0	23	11.4	54	18.5
Fish Creek	500	3/31/04	11	2.1	2	0.4	19	6.2
Lake Grace Pass	1900	4/06/04	118	51.7	72	27.3	--	--
Long Lake	850	4/06/04	96	40.8	76	25.8	--	--
Lost Lake	425	4/06/04	33	12.7	68	26.0	--	--
Mint Creek Ridge	1900	4/06/04	91	36.3	67	24.6	--	--
Moore Creek Bridge	2250	3/30/04	83	26.7	41	12.2	73	26.2
Petersburg Reservoir	550	3/29/01	0	0.0	0	0.0	15	6.2
Petersburg Ridge	1650	3/29/04	73	28.0	41	12.9	71	26.4
Speel River	280	3/31/04	85	33.0	57	20.4	78	31.1
Upper Swan Lake	1700	4/06/04	24	9.1	22	8.9	--	--

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX (kaf)	MIN (kaf)
Gold Creek near Juneau	Apr- Jul	33	36.0	109	43.0	29.0

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1ST

Precipitation Gauge	Elev.	Date	This Year	Last Year	71-2000 Ave	% of Average
Long Lake	850	No Report		90.2	--	
Snettisham	25	3/31/04	111.7	95.0	106.8	105
Swan Lake	50	3/31/04	121.4	101.0	88.2	138
Moore Creek Bridge	2250	No Report		--		

WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Douglas Island	3	169	91
Long Lake	1	158	--
Petersburg	2	217	86
Swan Lake	4	179	105

For further information contact:

NRCS Alaska web site: www.ak.nrcs.gov
Alaska Meteor Burst Communication System (AMBCS) web site: ***ambcs.org***

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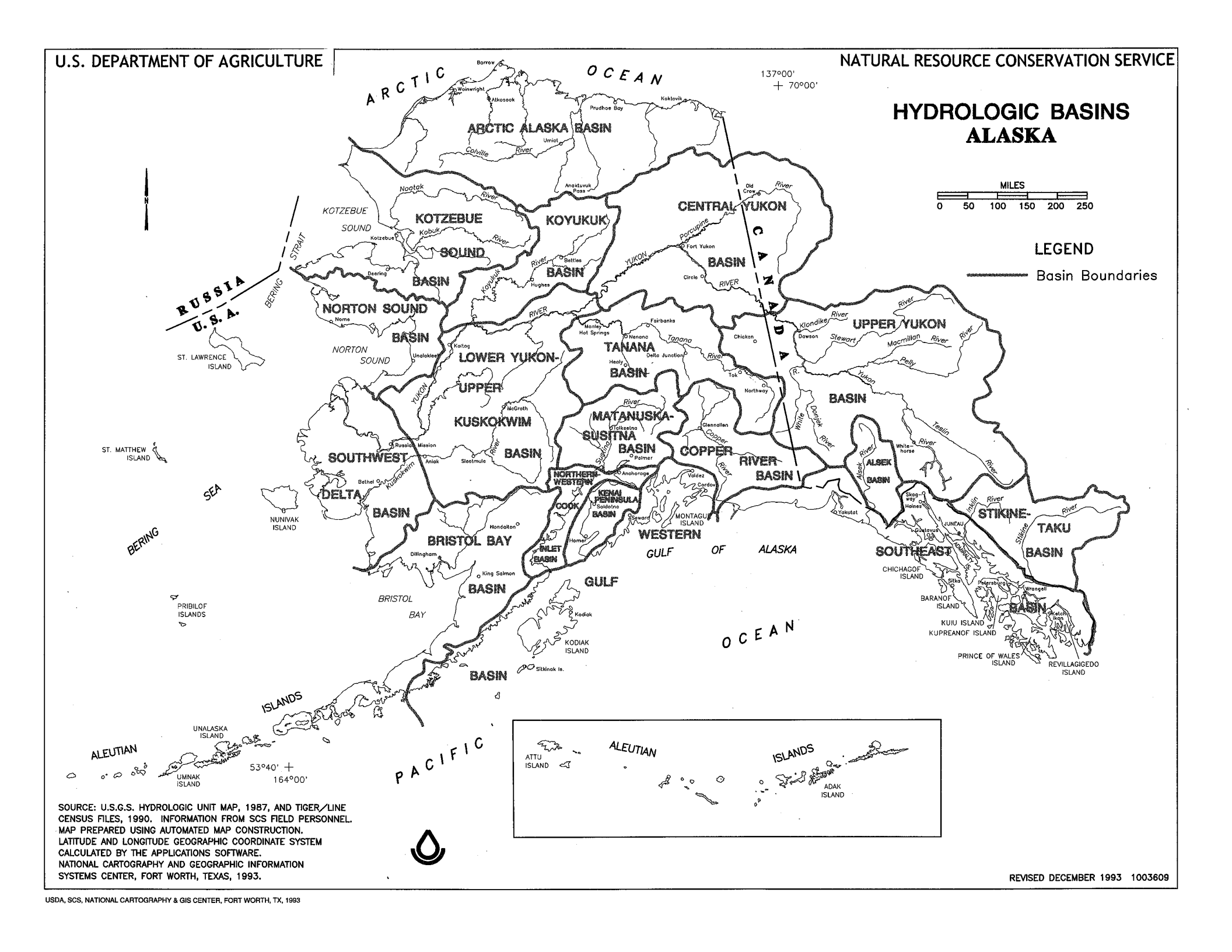
U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCE CONSERVATION SERVICE

HYDROLOGIC BASINS
ALASKA



SOURCE: U.S.G.S. HYDROLOGIC UNIT MAP, 1987, AND TIGER/LINE CENSUS FILES, 1990. INFORMATION FROM SCS FIELD PERSONNEL.
MAP PREPARED USING AUTOMATED MAP CONSTRUCTION.
LATITUDE AND LONGITUDE GEOGRAPHIC COORDINATE SYSTEM CALCULATED BY THE APPLICATIONS SOFTWARE.
NATIONAL CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS CENTER, FORT WORTH, TEXAS, 1993.

REVISED DECEMBER 1993 1003609

USDA, SCS, NATIONAL CARTOGRAPHY & GIS CENTER, FORT WORTH, TX, 1993

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Alaska
Basin Outlook Report

Natural Resources Conservation Service
Anchorage, AK