

**United States Department of Agriculture**

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## GENERAL OVERVIEW

### Snowpack

The snowpack was increasing the last week of the month on the south side of the Alaska Range above 1000 ft. elevation and the south side of the Brooks Range. The snow water content has doubled at Coldfoot for the month, going from 3.6 inches to 7.3 inches.

Southeast, the Kenai Peninsula and the lower elevations of South Central (below 1000 ft.) had very little snow in February, and many snow courses had lost what snow they had by the end of the month.

Southeast of Fairbanks, the Bonanza Creek and Lake Minchumina snow courses continue their record breaking low water contents with Bonanza Creek at 1.0 inches and Lake Minchumina at 1.5 inches. Beaver Creek in the Yukon Territory, Fort Greely and Shaw Creek Flats, near Delta Junction, are also record low snow water contents.

The north side of the Alaska Range, from Denali National Park on the west to the Richardson Highway on the east, has very little or no snow. The Fort Greely snow course has never been bare on March 1<sup>st</sup> with its 36 years of record. There is essentially no snow going north on the Parks Highway from McKinley Park to Nenana Crossing, south of the Clear Junction.

### Precipitation

Most sites in Southeast had 50 percent or less of their normal precipitation for February. Many sites along the northern Gulf Coast, including Seward and Valdez, had more than 200 percent of their normal monthly precipitation. Susitna Valley Snotel received 5.7 inches, mostly as rain, the snowpack water content went up 1.5 inches. The 5.7 inches increase for the month is more than 400 percent of the normal monthly increment.

Fairbanks had 150 percent of its normal precipitation, with a couple of rain on snow events, which is very unusual for Interior Alaska.

### Temperature

For the 5<sup>th</sup> consecutive month all National Weather Service Stations showed an above normal monthly average temperature. Juneau, in Southeast, was 3.4°F above normal; Homer, on the Southern Kenai Peninsula, was 12.1°F above normal; Big Delta, near Delta Junction, was 17.2°F above normal; Dillingham was 15.7°F above normal; Nome was 8.7°F above normal; and Barrow, on the North Slope, was 2.0°F above normal.

## STREAMFLOW

Streamflow forecasts of snowmelt runoff are as follows:

| <b>FORECAST POINT*</b>                       | <b>Percent of<br/>Ave. Flow</b> | <b>Period</b> |
|--|---------------------------------|---------------|
| Yukon River at Eagle .....                   | 86                              | April - July  |
| Yukon River near Stevens Village.....        | 89                              | April - July  |
| Tanana River at Fairbanks.....               | 95                              | April - July  |
| Tanana River at Nenana.....                  | 92                              | April - July  |
| Little Chena River near Fairbanks.....       | 95                              | April - July  |
| Chena River near Two Rivers .....            | 93                              | April - July  |
| Salcha near Salchaket.....                   | 78                              | April - July  |
| Sagvanirktok River near Pump Station 3 ..... | 95                              | April - July  |
| Kuparuk River near Deadhorse.....            | 78                              | April - July  |
| Kuskokwim River at Crooked Creek .....       | 93                              | April - June  |
| Gulkana River at Sourdough.....              | 95                              | April - July  |
| Little Susitna River near Palmer.....        | 81                              | April - July  |
| Talkeetna River near Talkeetna .....         | 83                              | April - July  |
| Ship Creek near Anchorage.....               | 69                              | April - July  |
| Kenai River at Cooper Landing .....          | 89                              | April - July  |
| Gold Creek near Juneau.....                  | 82                              | April - July  |

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

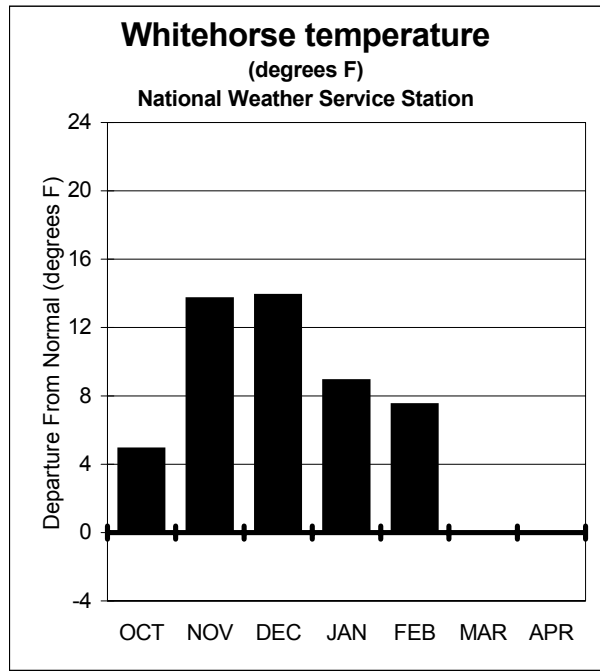
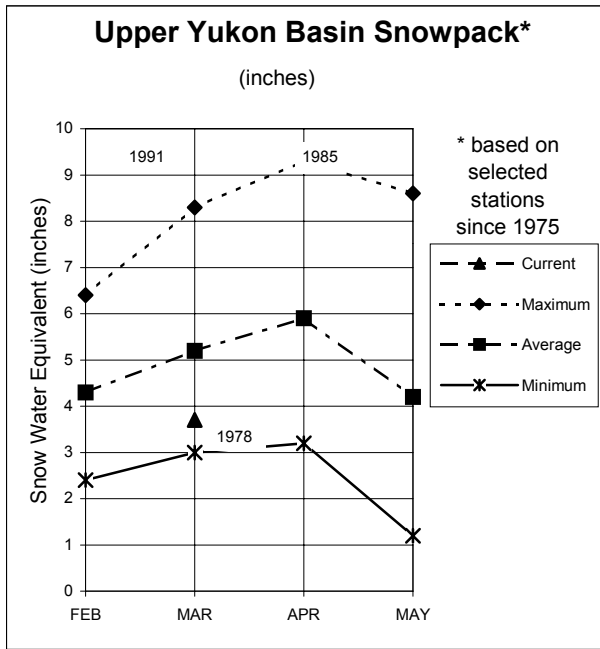
## HOW FORECASTS ARE MADE

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 snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with 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: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) 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 values (90% and 70% exceedance probability) and two larger values (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 uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this 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 (for example, 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 easily determine the chances of receiving more or less water.

# UPPER YUKON BASIN\*



## Snow Course:

The Yukon Territory basins are generally in the 70 to 80 percent of normal snow water content range with one exception. The White River basin snow course water contents are 50 percent of normal. The Grizzley Creek snow course near Dawson is the only snow course above normal water content at 108 percent.

In the White River basin, Beaver Creek snow course water content is 34 percent of normal and Burwash Airstrip has 4 inches of snow depth with the water content being 38 percent of normal. This is a record low water content for Beaver Creek, which has 27 years of record.

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

## Upper Yukon Basin

| SNOW COURSE        | ELEV. | DATE      | SNOW DEPTH | THIS YEAR WATER CONTENT | SNOW DEPTH | LAST YEAR WATER CONTENT | SNOW DEPTH | 1971-2000 AVERAGE WATER CONTENT |
|--------------------|-------|-----------|------------|-------------------------|------------|-------------------------|------------|---------------------------------|
| Arrowhead Lake     | 3680  | No Survey | --         | --                      | 22         | 3.7                     | 32         | 6.6                             |
| Atlin              | 2400  | 3/02/03   | 13         | 4.1                     | 23         | 4.4                     | 21         | 4.4                             |
| Beaver Creek       | 2150  | 2/24/03   | 8          | 1.0                     | 21         | 3.4                     | 17         | 2.9                             |
| Burns Lake         | 3650  | 2/27/03   | 25         | 5.1                     | 32         | 6.3                     | 33         | 7.4                             |
| Burwash Airstrip   | 2660  | 2/25/03   | 4          | .6                      | 12         | 2.1                     | 10         | 1.6                             |
| Calumet            | 4300  | No Survey | --         | --                      | 27         | 5.3                     | 33         | 6.7                             |
| Casino Creek       | 3500  | 3/03/03   | 24         | 3.5                     | 26         | 3.8                     | 24         | 4.0                             |
| Chair Mountain     | 3500  | No Survey | --         | --                      | 19         | 2.8                     | 19         | 3.3                             |
| Duke River         | 4800  | No Survey | --         | --                      | 15         | 2.6                     | 21         | 3.7                             |
| Edwards Lake       | 2720  | 2/26/03   | 22         | 4.0                     | 24         | 4.6                     | 29         | 5.9                             |
| Finlayson Airstrip | 3240  | 2/25/03   | 16         | 2.3                     | 20         | 3.0                     | 26         | 4.5                             |
| Fuller Lake        | 3700  | 2/26/03   | 32         | 6.6                     | 26         | 4.5                     | 29         | 6.0                             |
| Grizzly Creek      | 4000  | 2/27/03   | 30         | 6.5                     | 28         | 5.9                     | 22         | 4.1                             |
| Hoole River        | 3560  | 2/27/03   | 10         | 1.6                     | 22         | 3.6                     | 23         | 4.6                             |
| Jordan Lake        | 3050  | 2/27/03   | 19         | 3.8                     | 25         | 4.4                     | 24         | 4.7                             |
| King Solomon Dome  | 3550  | 2/26/03   | 27         | 4.4                     | 26         | 4.2                     | 29         | 5.9                             |
| Log Cabin (B.C.)   | 2880  | 2/25/03   | 30         | 8.1                     | 55         | 17.1                    | 47         | 12.8                            |
| Mayo Airport       | 1620  | 2/28/03   | 13         | 1.9                     | 19         | 2.2                     | 18         | 3.1                             |
| MacIntosh          | 3800  | 3/03/03   | 14         | 1.8                     | 21         | 3.2                     | 19         | 3.6                             |
| Meadow Creek       | 4050  | 2/24/03   | 31         | 7.2                     | 44         | 11.1                    | 38         | 9.0                             |
| Midnight Dome      | 2800  | 2/26/03   | 22         | 4.0                     | 22         | 3.6                     | 27         | 5.3                             |
| Montana Mountain   | 3340  | 2/28/03   | 17         | 3.3                     | 25         | 5.2                     | 24         | 5.1                             |
| Morley Lake        | 2700  | 2/25/03   | 23         | 4.7                     | 24         | 4.8                     | 24         | 5.3                             |
| Mount Nansen       | 3250  | 3/03/03   | 13         | 1.7                     | 18         | 2.4                     | 16         | 2.6                             |
| Mt. Berdoe         | 3390  | 3/03/03   | 15         | 1.7                     | 25         | 4.3                     | 21         | 3.7                             |
| Mt. McIntyre B     | 3700  | 2/28/03   | 17         | 2.6                     | 23         | 4.8                     | 26         | 5.2                             |
| Pelly Farm         | 1550  | 2/24/03   | 9          | 1.7                     | 15         | 2.3                     | 17         | 3.0                             |
| Plata Airstrip     | 2500  | 2/26/03   | 28         | 5.4                     | 22         | 3.7                     | 30         | 6.4                             |
| Rackla Lake        | 3410  | 2/26/03   | 26         | 5.2                     | 26         | 4.8                     | 33         | 7.0                             |
| Russell Lake       | 3480  | 2/26/03   | 28         | 5.3                     | 30         | 6.5                     | 36         | 7.0                             |
| Satasha Lake       | 3620  | 3/03/03   | 10         | 1.2                     | 21         | 3.2                     | 21         | 3.8                             |
| Tagish             | 3540  | 2/26/03   | 18         | 3.5                     | 26         | 5.9                     | 24         | 4.8                             |
| Twin Creeks        | 2950  | 2/27/03   | 25         | 4.9                     | 28         | 5.1                     | 31         | 6.6                             |
| White River        | 2500  | No Survey | --         | --                      | --         | --                      | 15         | 2.4                             |
| Whitehorse Airport | 2300  | 2/26/03   | 13         | 2.0                     | 20         | 3.7                     | 18         | 3.5                             |
| Williams Creek     | 2800  | 3/03/03   | 13         | 1.7                     | 20         | 3.1                     | 18         | 3.0                             |
| Withers Lake       | 3200  | 2/26/03   | 29         | 6.1                     | 28         | 4.9                     | 36         | 8.2                             |

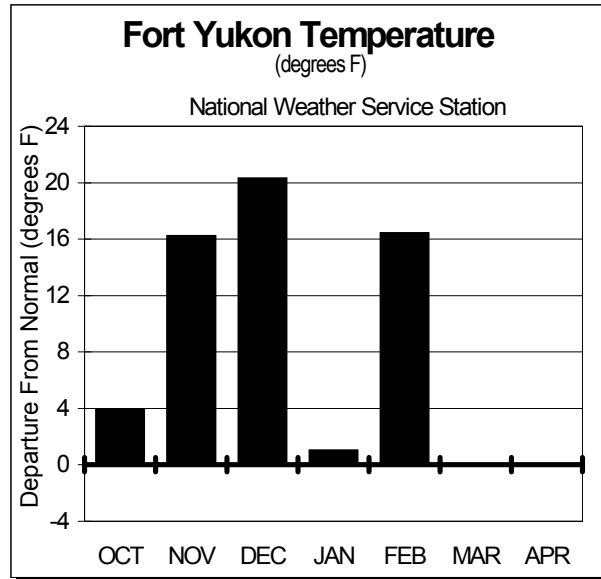
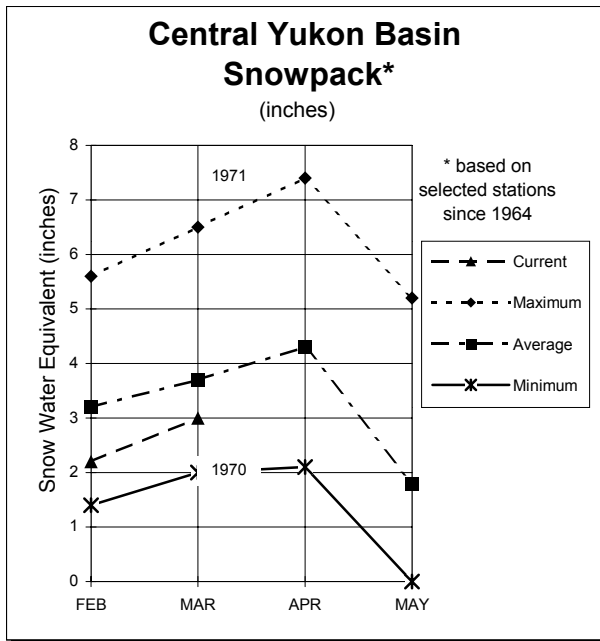
### STREAMFLOW FORECASTS

| FORECAST POINT       | FORECAST PERIOD | 30-YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|----------------------|-----------------|------------------------|---------------|--------------|-----------|-----------|
| Yukon River At Eagle | Apr- Jul        | 34200                  | 29500         | 86           | 35200     | 23800     |

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN     | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|--------------------------|--------------------|------------------------|--------------------|
| Above Whitehorse/ Tetlin | 9                  | 64                     | 72                 |
| Dawson                   | 3                  | 109                    | 87                 |
| Stewart/ Pelly           | 12                 | 97                     | 71                 |
| White River              | 4                  | 46                     | 50                 |

## CENTRAL YUKON BASIN\*



### Snowcover:

The snow courses measured in Alaska in the Yukon Flats are near normal or a little above. Fort Yukon snow water content is 106 percent of normal.

The snow courses, in the Porcupine basin in the Yukon Territory, measured a little below normal with the basin being 88 percent.

The White Mountain snow courses have a basin percent of normal of 84.

\* 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 | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Borealis           | 1330  | 2/27/03   | 23         | 3.3           | 16         | 2.8           | 27                | 4.4           |
| Boundary           | 3500  | No Report | --         | --            | 20         | 4.0           | 24                | 4.6           |
| Chicken Airstrip   | 1650  | 2/26/03   | 14         | 2.8           | 16         | 2.8           | 16                | 2.7           |
| Circle City        | 600   | 2/26/03   | 28         | 4.0           | 17         | 2.3           | 25                | 3.9           |
| Circle Hot Springs | 860   | 2/26/03   | 27         | 4.5           | 16         | 2.5           | 22                | 3.7           |
| Eagle Plains       | 2570  | 2/27/03   | 30         | 5.3           | 25         | 3.9           | 29                | 5.9           |
| Eagle River        | 1200  | 2/27/03   | 28         | 4.6           | 22         | 3.1           | 26                | 4.5           |
| Fort Yukon         | 430   | 2/25/03   | 20         | 3.4           | 23         | 4.4           | 19                | 3.2           |
| Fossil             | 1400  | 2/27/03   | 22         | 3.7           | 16         | 3.0           | 28                | 4.5           |
| Graphite Lake      | 600   | No Report | --         | --            | 11         | 1.5           | --                | --            |
| Hess Creek         | 1000  | 2/27/03   | 24         | 4.5           | 22         | 4.5           | 25                | 4.8           |
| Lower Beaver Creek | 400   | No Report | --         | --            | 18         | 2.9           | --                | --            |
| Mission Creek      | 900   | 2/26/03   | 16         | 3.8           | 14         | 2.4           | 18                | 3.6           |
| Mt. Fairplay       | 3100  | 2/26/03   | 17         | 3.8           | 20         | 4.0           | 20                | 3.8           |
| Old Crow           | 840   | 3/01/03   | 26         | 2.8           | 23         | 3.7           | 24                | 3.9           |
| Riff's Ridge       | 2130  | 2/27/03   | 27         | 4.3           | 21         | 3.1           | 27                | 5.1           |
| Seven Mile         | 600   | 2/28/03   | 27         | 4.5           | 27         | 5.2           | 26                | 4.6           |
| Stack Pup Creek    | 1620  | 2/26/03   | 27         | 4.1           | 17         | 2.4           | 24                | 3.7           |
| Tacoma Bluff       | 1450  | No Report | --         | --            | 17         | 2.4           | --                | ---           |
| Thirty Mile        | 1350  | 2/28/03   | 38         | 6.9           | 31         | 6.5           | 35                | 7.2           |
| Three Fingers      | 3350  | No Report | --         | --            | --         | --            | --                | ---           |
| Vunzik Lake        | 500   | No Report | --         | --            | 19         | 3.2           | --                | --            |
| Windy Gap          | 1900  | 2/28/03   | 25         | 4.8           | 17         | 3.0           | 28                | 4.5           |
| Wolf               | 1300  | 2/27/03   | 22         | 3.4           | 17         | 3.0           | 26                | 3.8           |

### STREAMFLOW FORECASTS

| FORECAST POINT                   | FORECAST PERIOD | 30- YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|----------------------------------|-----------------|-------------------------|---------------|--------------|-----------|-----------|
| Yukon River near Stevens Village | Apr- Jul        | 48200                   | 42820         | 89           | 49180     | 36460     |

### PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1<sup>st</sup>

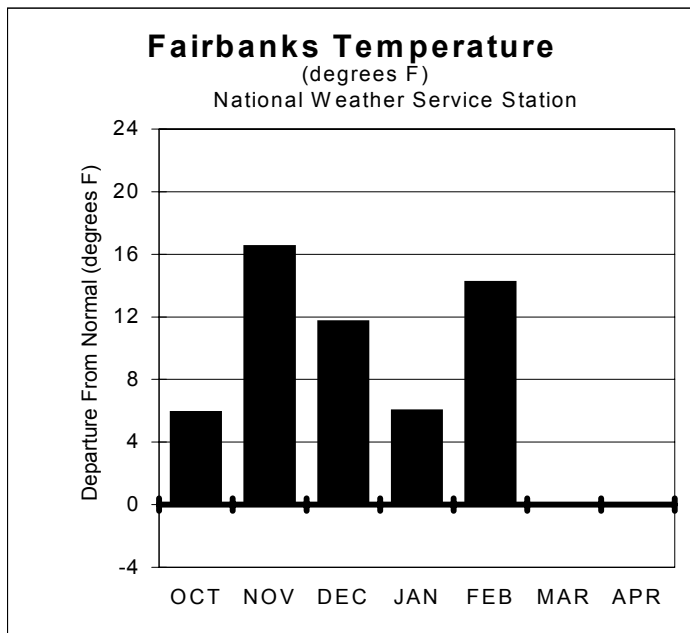
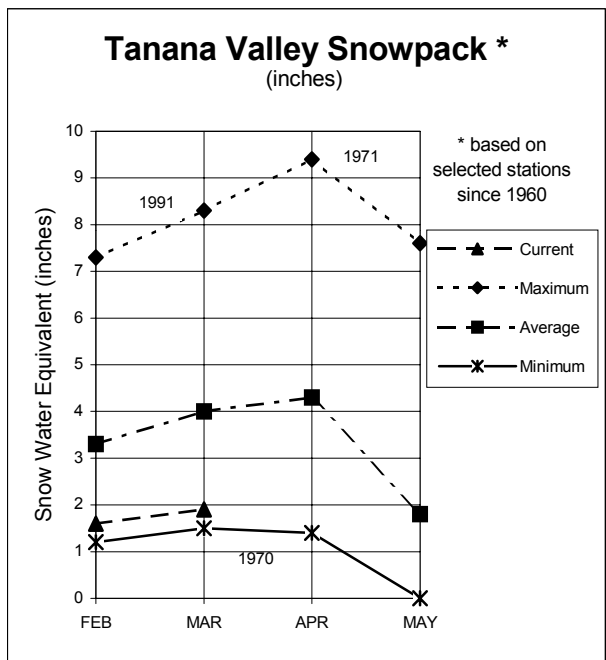
| Precipitation Gauge | Elevation | Date    | This Year | Last Year | 71-2000 Ave | % of Average |
|---------------------|-----------|---------|-----------|-----------|-------------|--------------|
| Atigun Pass**       | 4800      | 2/25/03 | 6.0       | 4.9       | 5.0         | 120          |
| Chandalar Shelf**   | 3300      | 2/25/03 | 5.8       | 4.4       | 4.6         | 126          |
| Fort Yukon          | 430       | 2/25/03 | 3.1       | 3.0       | 3.8         | 82           |
| Mission Creek       | 900       | 2/26/03 | 5.0       | 3.2       | 4.0         | 120          |

\*\*Wyoming Shielded Gauge

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Forty Mile           | 4                  | 115                    | 103                |
| Porcupine (Y.T.)     | 4                  | 123                    | 88                 |
| White Mountain       | 4                  | 129                    | 84                 |
| Yukon Flats          | 2                  | 157                    | 104                |

## TANANA BASIN\*



### Snowcover:

In the Upper Tanana Valley, Tok snow course water content is 81 percent of normal. The percent of normal decreases as you proceed southeast to Beaver Creek, which has a record low water content for March 1<sup>st</sup>. The Lower Tanana Valley also has record low water contents at Bonanza Creek and Lake Minchumina. Snow course percents of normal increase as you increase elevation in the Chena Basin and proceed up the Steese Highway.

Near Delta Junction, the Fort Greely snow course has never been bare of snow on March 1<sup>st</sup>, and the Shaw Creek Flats snow course also has a record low water content of .6 of an inch. The north side of the Alaska Range, from Denali National Park to the Richardson Highway, has little or no snow.

\* 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 | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Bonanza Creek       | 1150  | 2/28/03 | 10         | 1.0           | 11         | 2.0           | 23                | 4.7           |
| Caribou Creek       | 1250  | 2/27/03 | 15         | 3.8           | 12         | 1.7           | 24                | 4.6           |
| Caribou Snow Pillow | 900   | 2/27/03 | 18         | 3.8           | 11         | 1.7           | 24                | 4.5           |
| Cleary Summit       | 2230  | 2/26/03 | 23         | 4.6           | 17         | 2.8           | 29                | 6.0           |
| Colorado Creek      | 700   | 2/27/03 | 12         | 2.5           | 18         | 2.3           | 23                | 4.4           |
| Edgar Creek         | 2400  | 3/01/03 | 8          | 1.6           | 21         | 4.1           | --                | ---           |
| Fairbanks FO        | 450   | 2/27/03 | 17         | 3.2           | 13         | 1.8           | 23                | 4.1           |
| Faith Creek         | 1900  | 2/26/03 | 22         | 4.4           | 16         | 2.4           | 27                | 4.4           |
| Fielding Lake       | 3000  | 2/25/03 | 40         | 7.8           | 24         | 5.4           | 41                | 10.2          |
| Fort Greely         | 1500  | 2/25/03 | 0          | 0.0           | 13         | 2.7           | 18                | 3.2           |
| French Creek        | 1800  | 2/26/03 | 9          | 1.8           | 17         | 3.7           | 26                | 5.9           |
| Gerstle River       | 1200  | 2/26/03 | 8          | 1.2           | 14         | 2.7           | 19                | 3.0           |
| Gold King           | 1700  | 3/01/03 | 5          | 1.0           | 22         | 3.5           | --                | ---           |
| Granite Creek       | 1240  | 2/28/03 | 8          | 2.0           | 13         | 2.6           | 19                | 3.5           |
| Jatahmund Lake      | 2180  | 2/27/03 | 15         | 2.6           | 18         | 3.1           | --                | ---           |
| Kantishna           | 1550  | 2/27/03 | 14         | 2.3           | 15         | 2.8           | --                | ---           |
| Lake Minchumina     | 730   | 2/27/03 | 14         | 1.5           | 15         | 2.1           | 21                | 4.0           |
| Mentasta Pass       | 2430  | 2/25/03 | 25         | 5.3           | 18         | 3.7           | 26                | 5.8           |
| Paradise Hill       | 2200  | 2/27/03 | 8          | 1.2           | 20         | 3.5           | --                | ---           |
| Ptarmigan Airstrip  | 2400  | 3/01/03 | 5          | 1.0           | 9          | 1.9           | --                | ---           |
| Ptarmigan Creek     | 2230  | 2/26/03 | 23         | 3.5           | 16         | 2.5           | 17                | 3.1           |
| Rock Creek Bottom   | 2250  | 2/28/03 | 3          | 0.4           | 14         | 2.8           | --                | ---           |
| Rock Creek Ridge    | 2600  | 2/28/03 | 3          | 0.3           | --         | --            | --                | ---           |
| Shaw Creek Flats    | 980   | 2/26/03 | 2          | 0.6           | 13         | 2.5           | 17                | 3.1           |
| Stampede            | 1800  | 2/27/03 | 4          | 0.4           | New        | --            | --                | ---           |
| Tok Junction        | 1650  | 2/25/03 | 14         | 2.6           | 22         | 4.5           | 19                | 3.2           |
| Upper Wood River    | 2990  | 3/01/03 | 7          | 1.5           | 19         | 3.1           | --                | ---           |

\* Estimate

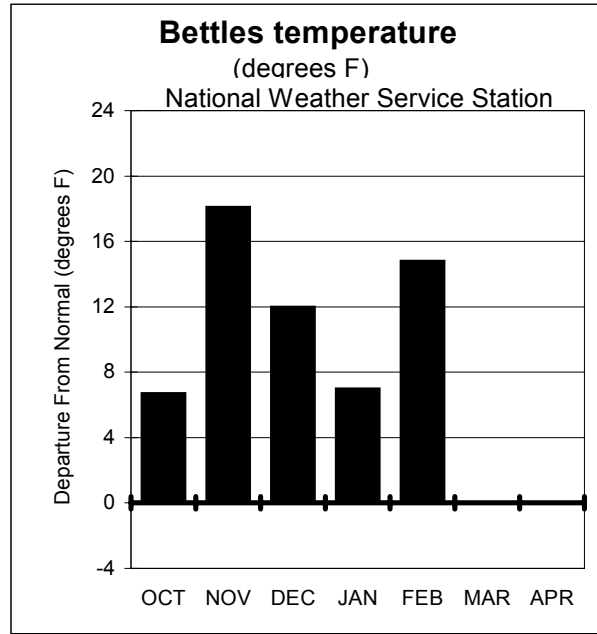
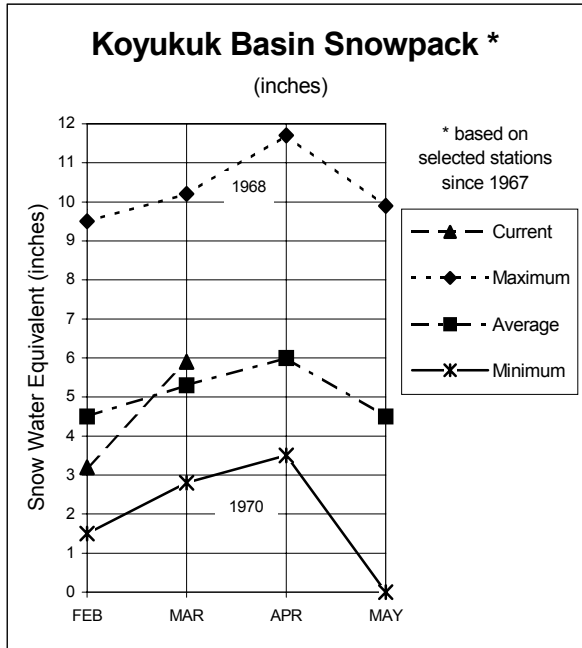
## STREAMFLOW FORECASTS

| FORECAST POINT                    | FORECAST PERIOD | 30-YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|-----------------------------------|-----------------|------------------------|---------------|--------------|-----------|-----------|
| Tanana River at Fairbanks         | Apr- Jul        | 7100                   | 6750          | 95           | 7640      | 5860      |
| Little Chena River near Fairbanks | Apr- Jul        | 78                     | 74            | 95           | 99        | 49        |
| Chena River near Two Rivers       | Apr- Jul        | 270                    | 250           | 93           | 360       | 141       |
| Salcha River near Salchaket       | Apr- Jul        | 625                    | 490           | 78           | 725       | 255       |
| Tanana River at Nenana            | Apr- Jul        | 9000                   | 8250          | 92           | 9630      | 6870      |

## WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN               | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|------------------------------------|--------------------|------------------------|--------------------|
| Chatanika                          | 4                  | 193                    | 85                 |
| Chena Basin                        | 3                  | 101                    | 55                 |
| Lower Tanana Valley                | 7                  | 193                    | 85                 |
| Mid Tanana Valley (Delta Junction) | 6                  | 64                     | 51                 |
| Upper Tanana Valley (Tok)          | 4                  | 51                     | 62                 |

## WESTERN INTERIOR BASINS\*



### Snowcover:

#### Koyukuk

The basin average is 115 percent of normal with the Disaster Creek snow course north of Coldfoot being the highest percent above normal at 139 percent. The Coldfoot snow course doubled in water content from February 1<sup>st</sup> to March 1<sup>st</sup>, increasing 3.5 inches, while normal is .9 inches of water content.

#### Kuskokwim

The Lake Minchumina snow course remains at a record low water content for March 1<sup>st</sup>, 1.5 inches.

McGrath had rain and snow through the month. The National Weather Service Observer measured 3.59 inches, which is 544 percent of normal precipitation. The snow depth at the end of the month is 19, with an estimated 4.9 inches of water content, 86 percent of normal.

#### Lower Yukon

There are no measurements from the Innoko Wildlife Refuge this month.

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

## Western Interior Basins

### SNOWPACK DATA

| SNOW COURSE        | ELEV. | DATE      | THIS YEAR  |               | LAST YEAR  |               | 1971-2000 AVERAGE |               |
|--------------------|-------|-----------|------------|---------------|------------|---------------|-------------------|---------------|
|                    |       |           | SNOW DEPTH | WATER CONTENT | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| <b>Koyukuk</b>     |       |           |            |               |            |               |                   |               |
| Bettles Field      | 640   | 2/28/03*  | 38         | 6.5           | 26         | 6.3           | 30                | 6.1           |
| Bonanza Forks      | 900   | 2/27/03   | 32         | 6.3           | 24         | 4.9           | 26                | 5.1           |
| Coldfoot           | 1040  | 2/27/03   | 35         | 7.0           | 24         | 5.1           | 30                | 6.0           |
| Disaster Creek     | 1550  | 2/27/03   | 30         | 5.0           | 23         | 3.7           | 22                | 3.6           |
| Kaldoyeit          | 580   | No Report | --         | --            | 22         | 4.5           | --                | ---           |
| Kanuti-Chelatna    | 550   | No Report | --         | --            | 27         | 5.3           | --                | ---           |
| Kanuti-Kilolitna   | 550   | No Report | --         | --            | 28         | 5.5           | --                | ---           |
| Lake Todatonen     | 550   | 3/03/03   | 33         | 4.9           | 31         | 5.4           | 27                | 5.1           |
| Minnkokut          | 580   | No Report | --         | --            | 34         | 6.1           | --                | ---           |
| Nolitna            | 560   | No Report | --         | --            | 27         | 5.5           | --                | ---           |
| Table Mountain     | 2200  | 2/27/03   | 26         | 5.0           | 21         | 3.3           | 23                | 4.1           |
| <b>*Estimate</b>   |       |           |            |               |            |               |                   |               |
| <b>Kuskokwim</b>   |       |           |            |               |            |               |                   |               |
| Lake Minchumina    | 730   | 2/27/03   | 14         | 1.5           | 15         | 2.1           | 21                | 4.0           |
| McGrath            | 340   | 2/28/03*  | 25         | 4.9           | 23         | 4.2           | 30                | 5.7           |
| Purkeypile Mine    | 2030  | No Survey | --         | --            | 18         | 3.8           | 21                | 4.6           |
| Telaquana Lake     | 1550  | 2/28/03   | 0          | 0.0           | 23         | 4.5           | --                | ---           |
| Upper Twin Lakes   | 2000  | 2/28/03   | 0          | 0.0           | 30         | 5.5           | 28                | 6.4           |
| <b>Lower Yukon</b> |       |           |            |               |            |               |                   |               |
| Grouch Creek       | 220   | No Survey | --         | --            | --         | ---           | --                | ---           |
| Holikachuk         | 100   | No Survey | --         | --            | 43         | 9.7           | --                | ---           |
| Horsefly Creek     | 180   | No Survey | --         | --            | 36         | 7.9           | --                | ---           |
| Innoko Cabin       | 200   | No Survey | --         | --            | 26         | 4.5           | --                | ---           |
| Menotl Creek       | 380   | No Survey | --         | --            | 46         | 10.8          | --                | ---           |
| Middle Innoko      | 150   | No Survey | --         | --            | 42         | 9.5           | --                | ---           |
| Tozikaket          | 600   | No Survey | --         | --            | 20         | 3.2           | 22                | 3.9           |
| Upper Innoko       | 180   | No Survey | --         | --            | 34         | 7.7           | --                | ---           |
| Wapoo Hills        | 220   | No Survey | --         | --            | 33         | 7.5           | --                | ---           |
| Yankee Slough      | 100   | No Survey | --         | --            | 45         | 10.3          | --                | ---           |
| Yetna River        | 120   | No Survey | --         | --            | --         | ---           | --                | ---           |

### STREAMFLOW FORECASTS

| FORECAST POINT                   | FORECAST PERIOD | 30-YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|----------------------------------|-----------------|------------------------|---------------|--------------|-----------|-----------|
| Kuskokwim River at Crooked Creek | Apr- Jul        | 10500                  | 9800          | 93           | 13010     | 6590      |

### PRECIPITATION DATA

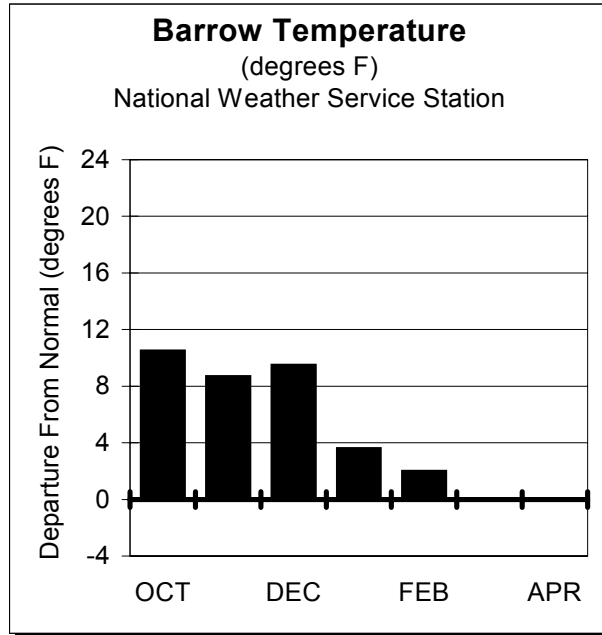
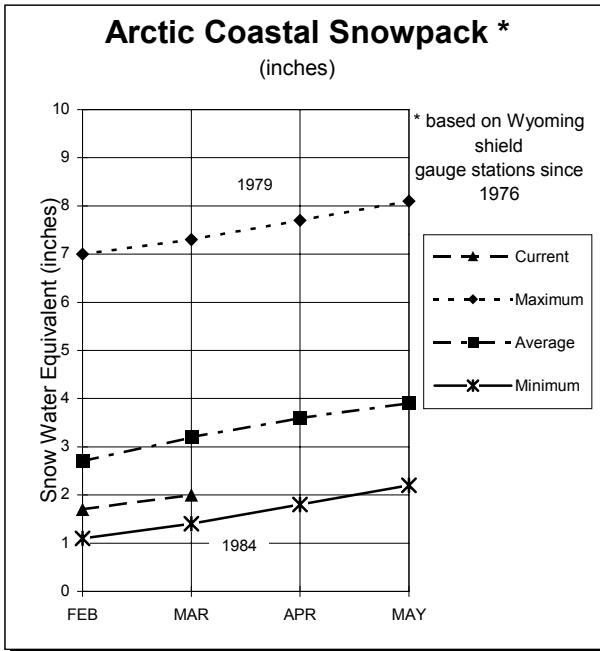
INCHES ACCUMULATED SINCE OCTOBER 1<sup>st</sup>

| PRECIPITATION GAUGE | ELEVATION | DATE      | THIS YEAR | LAST YEAR | 71- 2000 AVE | % OF AVERAGE |
|---------------------|-----------|-----------|-----------|-----------|--------------|--------------|
| Bettles Field       | 640       | No Report | --        | 5.7       | 5.7          |              |
| Coldfoot            | 1040      | 2/27/03   | 7.9       | 4.0       | 5.5          | 144          |
| Gobblers Knob       | 2030      | 2/27/03   | 8.6       | 8.0       | 6.1          | 141          |

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Koyukuk              | 6                  | 123                    | 114                |
| Upper Kuskokwim      | 2                  | 100                    | 65                 |

# ARCTIC AND KOTZEBUE SOUND\*



## Snowcover:

### Arctic

The Wyoming shielded precipitation gauge at Barrow received .2 inches in February; it is currently 62 percent of normal.

Atigun Pass, on the Dalton Highway, received 1.8 inches of precipitation; and the snow depth increased from 40 inches to 58 inches.

Imnaviat Creek at M.S. 117.1 remains above normal precipitation for the water year at 103 percent.

### Kotzebue

The Wyoming shielded precipitation gauge at Red Dog caught .6 inches and is 86 percent of normal since October 1<sup>st</sup>.

\* 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 | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Kugaruk     | 225   | No Report |            |               | 18         | 3.7           | --                | --            |

### PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

| Precipitation Gauge   | Elev. | Date      | This Year | Last Year | 71-2000 Ave | % of Average |
|-----------------------|-------|-----------|-----------|-----------|-------------|--------------|
| <b>Arctic</b>         |       |           |           |           |             |              |
| Atigun Camp           | 3400  | 2/25/03   | 2.7       | 2.2       | 3.5         | 77           |
| Atigun Pass           | 4800  | 2/25/03   | 6.0       | 4.9       | 5.0         | 120          |
| Barrow                | 25    | 3/03/03   | 1.6       | 1.2       | 2.6         | 62           |
| Imnaviat Creek        | 3050  | 2/28/03   | 3.5       | 2.2       | 3.4         | 103          |
| Prudhoe Bay           | 30    | No Report |           | 2.4       | 3.4         |              |
| <b>Kotzebue Sound</b> |       |           |           |           |             |              |
| Red Dog**             | 950   | 2/28/03   | 4.4       | 3.0       | 5.1         | 86           |

\*\* Wyoming Shielded Gauge

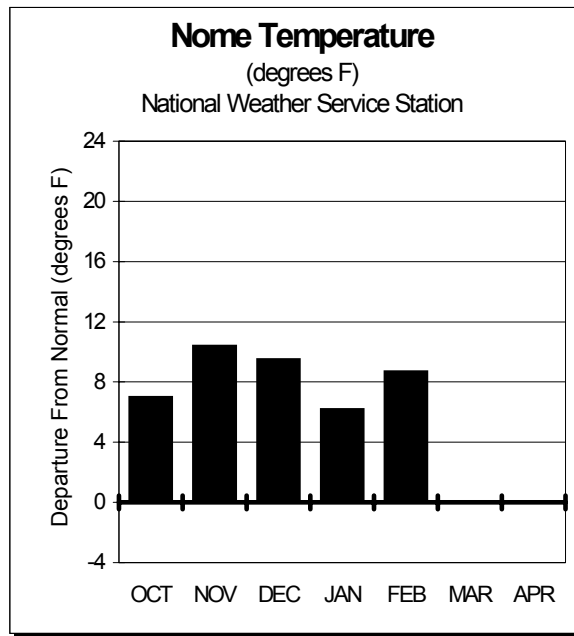
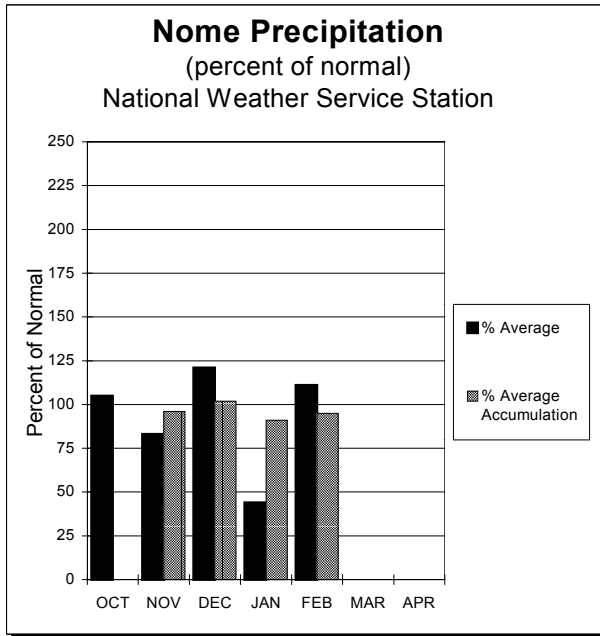
### STREAMFLOW FORECASTS

| FORECAST POINT                         | FORECAST PERIOD | 30-YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|--|-----------------|------------------------|---------------|--------------|-----------|-----------|
| Sagvanirktok River near Pump Station 3 | Apr- Jul        | 685                    | 650           | 95           | 795       | 505       |
| Kuparuk River near Deadhorse           | April - Jul     | 795                    | 620           | 78           | 860       | 380       |

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Arctic Coast         | 1                  | 133                    | 62                 |
| Dalton Highway       | 2                  | 141                    | 90                 |

# NORTON SOUND/SOUTHWEST DELTA/BRISTOL BAY\*



## Snowcover:

### Norton Sound

The Pargon Creek SNOTEL site had increased from 10 inches to 16 inches of snow depth by the 8<sup>th</sup> of February. Three inches blew away with 30 m.p.h. winds on the 12<sup>th</sup> and 13<sup>th</sup> of February. The precipitation gauge has caught 151 percent more than last year since October 1<sup>st</sup>.

### Southwest Delta/Bristol Bay

The trend continues in this region with essentially no snow in the area and many of the lakes have remained unfrozen. No snow exists at the snow courses with the exception of Fishtrap Lake, which recorded the least measured on March 1<sup>st</sup> since the record began in 1992.

Snow begins about the 2500 foot elevation level and at some point becomes significant when the large amount of rain at lower elevations was all snow at the higher elevations.

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



# Norton Sound / Southwest Delta / Bristol Bay

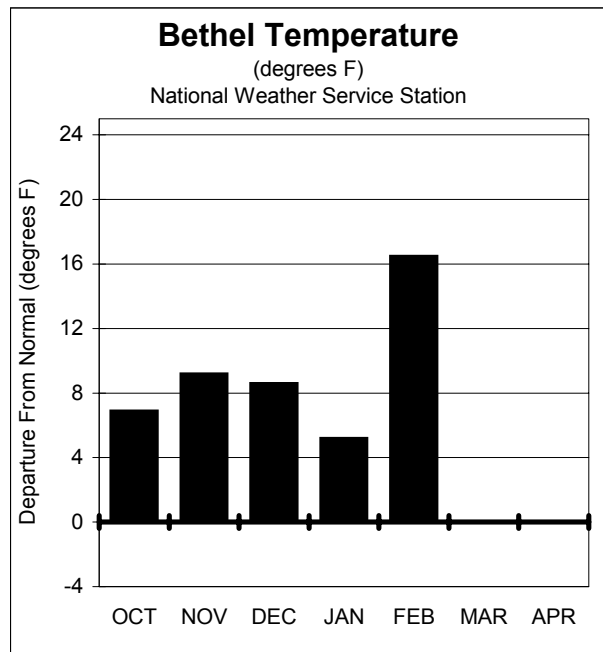
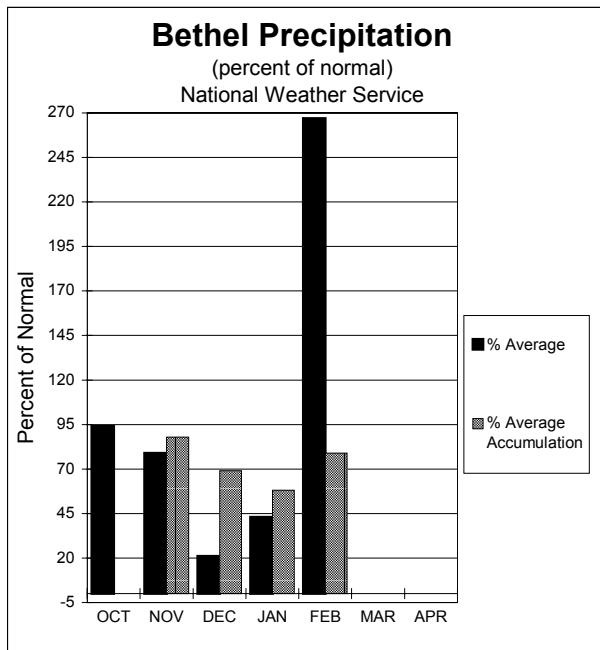
## SNOWPACK DATA

| SNOW COURSE        | ELEV. | DATE      | THIS YEAR  |               | LAST YEAR  |               | 1971-2000 AVERAGE |               |
|--------------------|-------|-----------|------------|---------------|------------|---------------|-------------------|---------------|
|                    |       |           | SNOW DEPTH | WATER CONTENT | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| <b>Bristol Bay</b> |       |           |            |               |            |               |                   |               |
| Brooks Camp        | 150   | No Survey | --         | ---           | --         | ---           | 38                | 8.9           |
| Fishtrap Lake      | 1800  | 2/28/03   | 12         | 3.7           | 42         | 9.6           | ---               | ---           |
| Port Alsworth      | 270   | 2/28/03   | 0          | 0.0           | 20         | 5.9           | ---               | ---           |
| Three Forks        | 900   | No Survey | --         | ---           | --         | ---           | ---               | ---           |
| Upper Twin Lakes   | 2000  | 2/28/03   | 0          | 0.0           | 30         | 5.5           | --                | ---           |

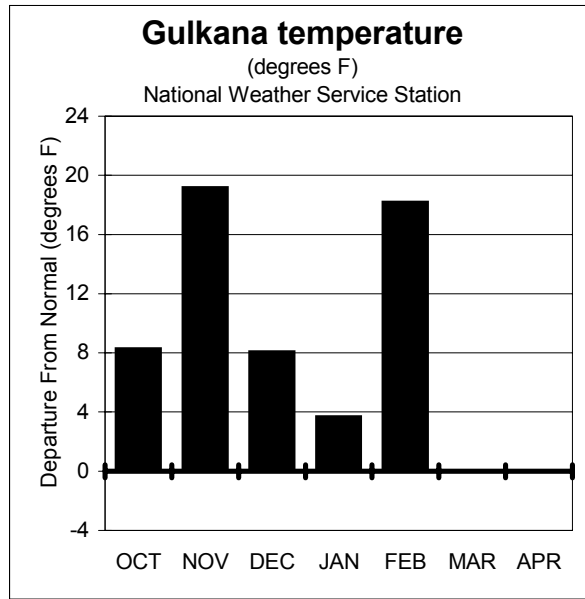
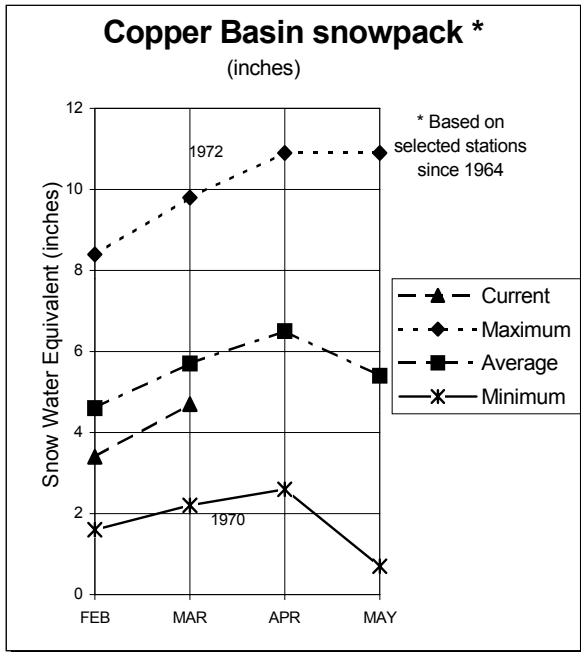
## PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

| Precipitation Gauge | Elevation | Date    | This Year | Last Year | 71-2000 Ave | % of Average |
|---------------------|-----------|---------|-----------|-----------|-------------|--------------|
| Pargon Creek        | 100       | 2/28/03 | 5.6       | 3.7       | --          | --           |
| Rocky Point         | 500       | 2/28/03 | 5.2       | 2.2       | --          | --           |



# COPPER BASIN\*



## Snowcover:

The Basin varies from 86 percent of normal water content in the north to 72 percent of normal in the east and south by the Wrangle Mountains. To the west side of the basin, the Little Nelchina snow course is less than 50 percent of its normal water content, while the rest of the courses in this area vary from 68 percent at Lake Louise to 102 percent of normal at Tyone River.

The Gulkana River at Sourdough is forecast to flow 95 percent of normal, 450,000 acre-feet for the April through July time period.

\* 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 | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Chistochina         | 2170  | 2/25/03 | 17         | 3.6           | 14         | 2.6           | 22                | 3.5           |
| Dadina Lake         | 2160  | 2/28/03 | 21         | 4.8           | --         | ---           | 29                | 5.1           |
| Haggard Creek       | 2540  | 2/25/03 | 26         | 5.5           | 21         | 4.6           | 27                | 5.6           |
| Horsepasture Pass   | 4300  | 2/27/03 | 33         | 6.9           | 22         | 33            | 28                | 5.6           |
| Kenny Lake School   | 1300  | 3/03/03 | 13         | 3.3           | 19         | 2.5           | 18                | 3.4           |
| Lake Louise         | 2400  | 2/28/03 | 16         | 2.7           | 19         | 3.1           | 22                | 4.0           |
| Little Nelchina     | 2650  | 2/28/03 | 14         | 2.2           | 19         | 3.4           | 24                | 4.6           |
| Mentasta Pass       | 2430  | 2/25/03 | 25         | 5.3           | 18         | 3.7           | 26                | 5.8           |
| Monsoon Lake        | 3100  | 2/28/03 | 24         | 4.6           | --         | ---           | 28                | 5.6           |
| Paxson              | 2650  | 2/25/03 | 33         | 6.5           | 21         | 4.6           | 31                | 6.6           |
| Sanford River       | 2280  | 2/28/03 | 12         | 2.8           | --         | ---           | 28                | 5.4           |
| St. Anne Lake       | 1990  | 2/26/03 | 17         | 3.4           | 19         | 3.4           | 25                | 4.9           |
| Tazlina             | 1220  | 3/03/03 | 10         | 3.0           | 24         | 3.4           | --                | ---           |
| Tolsona Creek       | 2000  | 2/28/03 | 16         | 3.2           | 17         | 2.7           | 22                | 3.8           |
| Tsina River         | 1650  | 3/03/03 | 44         | 13.8          | 54         | 12.1          | 56                | 15.7          |
| Twin Lakes          | 2400  | 2/26/03 | 21         | 4.2           | 21         | 3.6           | 31                | 5.9           |
| Worthington Glacier | 2100  | 3/03/03 | 62         | 21.5          | 72         | 21.9          | 68                | 21.6          |

## STREAMFLOW FORECASTS

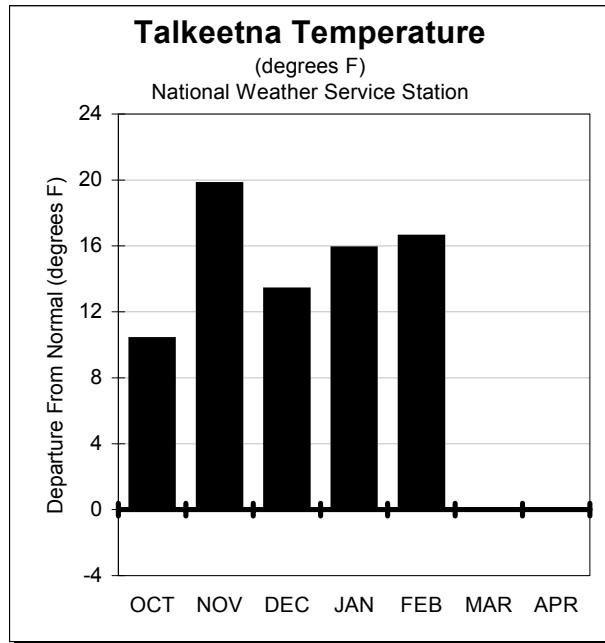
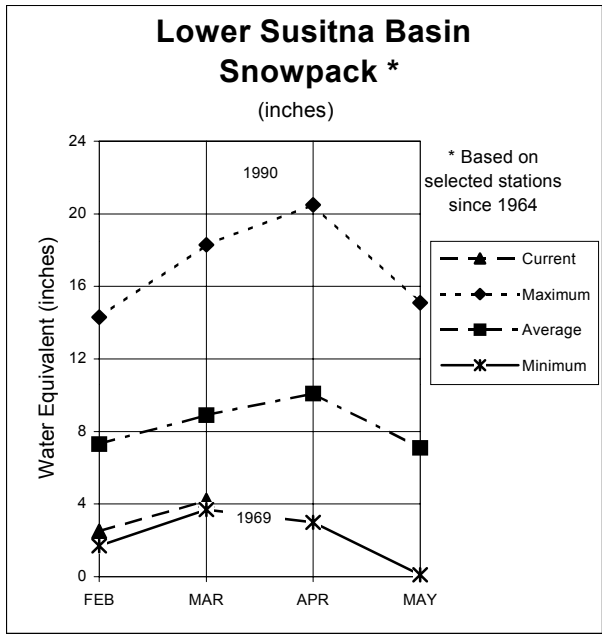
| FORECAST POINT             | FORECAST PERIOD | 30- YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|----------------------------|-----------------|-------------------------|---------------|--------------|-----------|-----------|
| Gulkana River at Sourdough | Apr- Jul        | 475                     | 450           | 95           | 600       | 300       |

## WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Alaska Range         | 3                  | 143                    | 86                 |
| Basin Floor          | 6                  | 104                    | 84                 |
| Chugach Range        | 3                  | 115                    | 77                 |
| Talkeetna Mountains  | 3                  | 127                    | 97                 |
| Wrangell Mountains   | 2                  | 128                    | 72                 |

\*At the foot of the Alaska Range.

# MATANUSKA - SUSITNA BASINS\*



## Snowcover:

The snow water contents in the Little Susitna basin vary from 44 percent of normal water content at the Little Susitna snow course to 104 percent of normal at Independence Mine. This is the trend throughout the whole basin, at low elevation a good percentage of the precipitation came as rain, while at high elevations or further north, north of the Chulitna River crossing on the Parks Highway, it was snow. In the Upper Susitna Basin, Monahan Flat near the West Fork of the Susitna Glacier, is 122 percent of normal water content.

Talkeetna snow course is a record low with 9 inches of depth and 1.5 inches of water content as of February 24<sup>th</sup>.

The Susitna Valley High precipitation gauge received 5.7 inches, more than 4 times its normal monthly increment of 1.3 inches.

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

## Matanuska - Susitna Basins

### SNOWPACK DATA

| SNOW COURSE         | ELEV. | DATE      | THIS YEAR  |               | LAST YEAR  |               | 1971-2000 AVERAGE |               |
|---------------------|-------|-----------|------------|---------------|------------|---------------|-------------------|---------------|
|                     |       |           | SNOW DEPTH | WATER CONTENT | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Alexander Lake      | 160   | 2/27/03   | 28         | 6.5           | 42         | 10.0          | 43                | 10.7          |
| Archangel Road      | 2200  | 2/26/03   | 37         | 6.3           | 36         | 8.5           | 47                | 13.5          |
| Bentalit Lodge      | 150   | No Survey | --         | --            | --         | ---           | --                | ---           |
| Blueberry Hill      | 1200  | 2/24/03   | 43         | 8.9           | 28         | 6.0           | 53                | 13.8          |
| Chelatna Lake       | 1650  | No Survey | --         | --            | 38         | 9.0           | 42                | 10.0          |
| Clearwater Lake     | 2650  | 2/28/03   | 29         | 6.1           | 19         | 3.4           | 26                | 5.1           |
| Denali View         | 700   | 2/24/03   | 33         | 5.8           | 25         | 5.0           | 46                | 11.4          |
| Dutch Hills         | 3100  | No Survey | --         | --            | 60         | 16.0          | 76                | 23.0          |
| E. Fork Chulitna    | 1800  | 2/24/03   | 46         | 11.2          | 30         | 6.4           | 51                | 12.7          |
| Eldridge Glacier    | 3400  | No Survey | --         | --            | New        | --            | --                | --            |
| Fishhook Basin      | 3300  | 3/03/03   | 63         | 14.9          | 44         | 12.8          | 58                | 17.7          |
| Fog Lakes           | 2120  | 2/28/03   | 24         | 5.7           | 20         | 3.2           | 26                | 5.3           |
| Halfway Slough      | 350   | 2/24/03   | 8          | 1.3           | New        | --            | --                | --            |
| Independence Mine   | 3550  | 3/03/03   | 83         | 22.1          | 50         | 14.0          | 68                | 21.2          |
| Lake Louise         | 2400  | 2/28/03   | 16         | 2.7           | 19         | 3.1           | 22                | 4.0           |
| Little Susitna      | 1700  | 2/26/03   | 27         | 5.1           | 32         | 7.6           | 42                | 11.6          |
| Monahan Flat        | 2710  | 2/28/03   | 37         | 9.0           | 23         | 3.8           | 34                | 7.4           |
| Moose Creek Ranch   | 450   | 2/28/03   | 3          | 0.7           | 17         | 3.3           | --                | ---           |
| Nugget Bench        | 2010  | No Survey | --         | --            | 46         | 12.0          | 51                | 12.9          |
| Ramsdyke Creek      | 2220  | No Survey | --         | --            | 60         | 16.0          | 66                | 18.9          |
| Sheep Mountain      | 2900  | 2/28/03   | 20         | 4.5           | 21         | 3.9           | 26                | 5.4           |
| Skwentna            | 160   | 2/27/03   | 26         | 6.3           | 36         | 8.8           | 43                | 10.5          |
| Square Lake         | 2950  | 2/27/03   | 21         | 3.0           | 19         | 3.2           | 22                | 3.8           |
| Susitna Valley High | 500   | 2/24/03   | 10         | 1.9           | 25         | 5.6           | 39                | 8.3           |
| Talkeetna           | 350   | 2/24/03   | 9          | 1.5           | 19         | 4.2           | 32                | 7.6           |
| Tokositna Valley    | 850   | No Survey | --         | --            | 61         | 14.0          | 61                | 15.7          |
| Tyone River         | 2500  | 2/27/03   | 24         | 4.5           | --         | --            | --                | ---           |
| West Fork Yentna    | 950   | No Survey | --         | --            | New        | --            | --                | --            |
| Willow Airstrip     | 200   | 2/24/03   | 9          | 2.4           | 24         | 5.4           | 30                | 6.9           |

### STREAMFLOW FORECASTS

| FORECAST POINT                   | FORECAST PERIOD | 30-YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|----------------------------------|-----------------|------------------------|---------------|--------------|-----------|-----------|
| Little Susitna River near Palmer | Apr- Jul        | 86                     | 70            | 81           | 55        | 86        |
| Talkeetna River near Talkeetna   | Apr-Jul         | 1630                   | 1350          | 83           | 1630      | 1070      |

### PRECIPITATION DATA

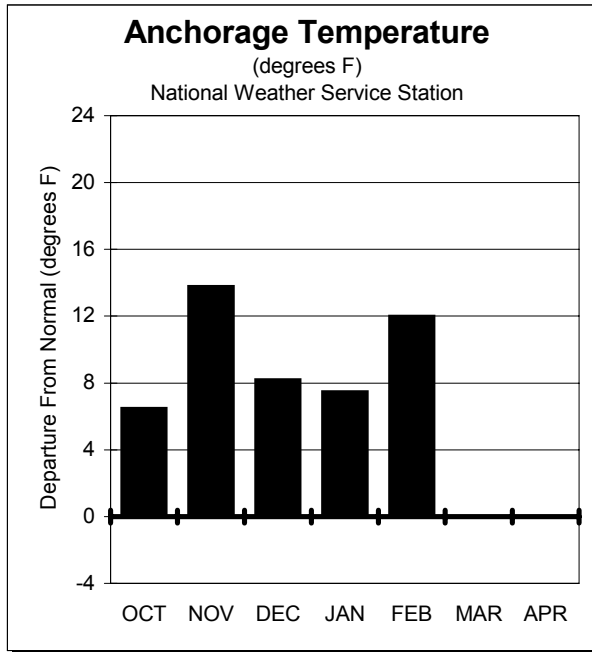
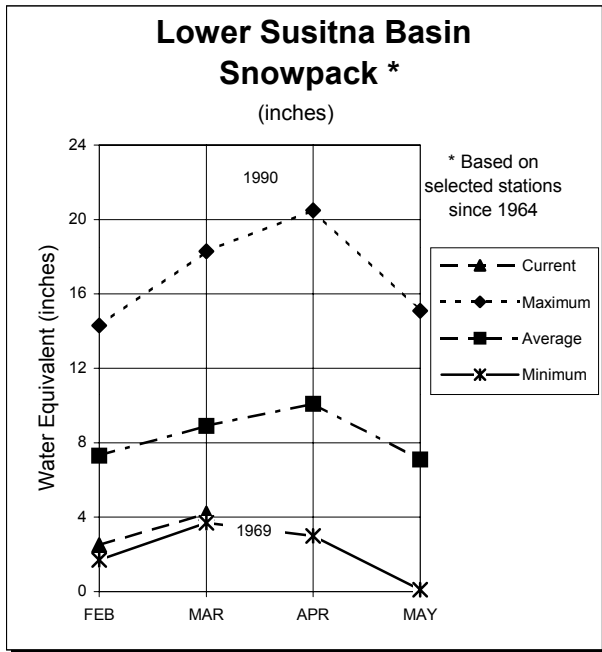
INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

| Precipitation Gauge | Elevation | Date    | This Year | Last Year | 71-2000 Ave | % of Average |
|---------------------|-----------|---------|-----------|-----------|-------------|--------------|
| Susitna Valley      | 375       | 2/28/03 | 11.1      | 5.4       | 10.3        | 108          |

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN     | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|--------------------------|--------------------|------------------------|--------------------|
| Lower Susitna            | 4                  | 59                     | 47                 |
| Matanuska/Little Susitna | 5                  | 113                    | 76                 |
| Peters Hills             | No Report          | --                     | --                 |
| Upper Susitna            | 5                  | 153                    | 108                |

# NORTHERN COOK INLET\*



## Snowcover:

Only in 1 previous year have Arctic Valley #1 and #2 snow courses had no snow on March 1<sup>st</sup>. That year was 1968. The record began in 1964. The Kincaid snow course is also bare. In contrast, the Indian Pass snow course is 69 percent of normal water content.

The west side of Cook Inlet progresses from no snow at sea level to 67 percent of normal at Congahbuna Lake, elevation 500 feet, to probably much above normal at an elevation above 2500 feet.

The projected volume flow for Ship Creek for the April through July time period is 40,000 acre feet, or 69 percent of normal flow.

\* 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 | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Anchorage Hillside   | 2080  | 2/26/03   | 12         | 4.1           | 34         | 8.9           | 35                | 8.9           |
| Arctic Ski Bowl      | 3000  | 3/03/03   | 21         | 6.5           | 44         | 14.3          | 28                | 11.9          |
| Arctic Valley #1     | 500   | 3/03/03   | 0          | 0.0           | 20         | 4.9           | 17                | 3.9           |
| Arctic Valley #2     | 500   | 3/03/03   | 0          | 0.0           | 27         | 6.4           | 20                | 4.6           |
| Arctic Valley #3     | 500   | 3/03/03   | 9          | 2.7           | 29         | 6.6           | 28                | 6.9           |
| Arctic Valley #4     | 500   | 3/03/03   | 10         | 3.1           | 25         | 5.7           | 27                | 6.9           |
| Chuitna Plateau      | 1540  | No Survey | --         | --            | 75         | 26.5          | 65                | 20.8          |
| Congahbuna Lake      | 500   | 2/27/03   | 18         | 6.0           | 31         | 8.1           | 32                | 8.9           |
| Granite Point        | 250   | 2/27/03   | 2          | 0.5           | 8          | 2.5           | 22                | 5.6           |
| Indian Pass          | 2350  | 2/28/03*  | 41         | 13.6          | 48         | 14.9          | 64                | 19.7          |
| Kincaid Park         | 250   | 3/03/03   | 0          | 0.0           | 17         | 4.0           | --                | ---           |
| Lone Ridge           | 1680  | No Survey | --         | --            | 69         | 23.5          | 79                | 28.8          |
| Moraine              | 2100  | 2/28/03   | 8          | 2.4           | New        |               | --                | --            |
| Mt. Alyeska          | 1540  | 2/28/03*  | 64         | 21.3          | 90         | 30.1          | 94                | 30.7          |
| Point Mackenzie      | 200   | 2/26/03   | 6          | 1.7           | 21         | 4.3           | 21                | 4.8           |
| Portage Valley       | 50    | 2/28/03   | 0          | 0.0           | 46         | 13.4          | 39                | 12.9          |
| South Campbell Creek | 1200  | 2/26/03   | 4          | 1.6           | 24         | 6.1           | 26                | 6.2           |

\*Estimate

## STREAMFLOW FORECASTS

| FORECAST POINT            | FORECAST PERIOD | 30- YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|---------------------------|-----------------|-------------------------|---------------|--------------|-----------|-----------|
| Ship Creek near Anchorage | Apr- Jul        | 58                      | 40            | 69           | 53        | 27        |

## PRECIPITATION DATA

### INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

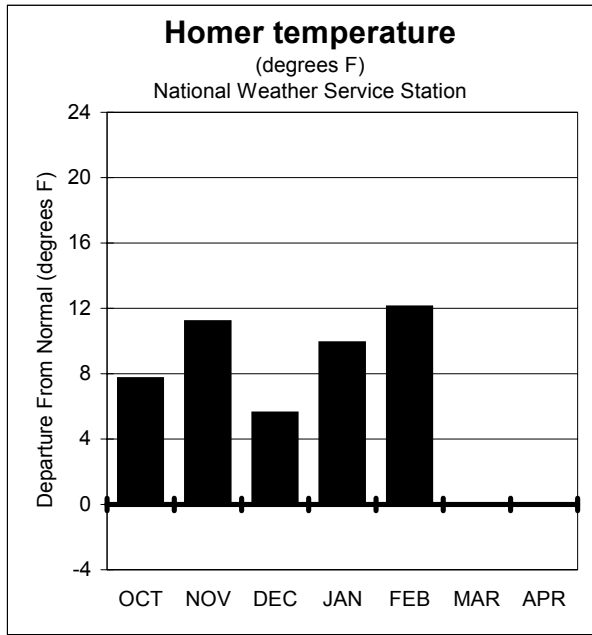
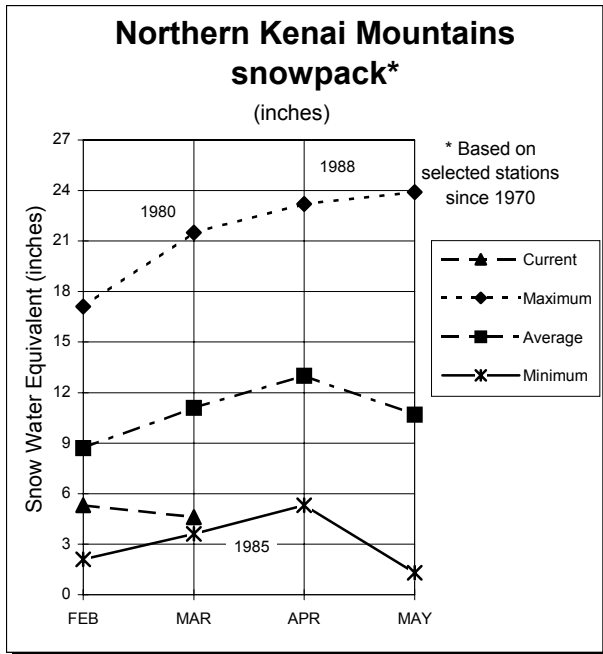
| Precipitation Gauge | Elevation | Date      | This Year | Last Year | 71-2000 Ave | % of Average |
|---------------------|-----------|-----------|-----------|-----------|-------------|--------------|
| Indian Pass         | 2350      | 2/28/03   | 25.8      | 18.2      | 21.1        | 122          |
| Mt. Alyeska         | 1540      | No Report |           | 39.2      | 37.5        |              |
| Point Mackenzie     | 200       | 2/28/03   | 6.8       | 4.0       | 6.9         | 99           |

\* Estimate

## WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Beluga               | 1                  | 74                     | 67                 |
| Campbell Creek       | 2                  | 38                     | 38                 |
| Ship Creek           | 3                  | 71                     | 59                 |
| Turnagain Arm        | 2                  | 60                     | 73                 |

# KENAI PENINSULA\*



## Snowcover:

The following snow courses have no snow on March 1<sup>st</sup>: Demonstration Forest, Port Graham, Jean Lake, Kenai Moose Pens, Moose Pass, and Snug Harbor Road.

The Jean Lake snow course had no snow on March 1<sup>st</sup> previously in 1970, 1977, and 1981. Nuka Glacier has 36 inches of snow depth about 40 percent of normal water content, Kenai Summit has 58 percent of normal water content and Turnagain Pass is estimated to be 77 percent of normal water content.

\* 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 | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Bertha Creek         | 950   | 2/27/03   | 20         | 6.7           | 74         | 20.5          | 51                | 14.7          |
| Bridge Creek         | 1300  | 3/03/03   | 7          | 2.3           | 58         | 16.2          | 38                | 10.2          |
| Cooper Lake          | 1200  | 2/28/03   | 13         | 40            | 66         | 19.5          | 47                | 13.2          |
| Demonstration Forest | 780   | 3/03/03   | 0          | 0.0           | 38         | 9.5           | 28                | 7.7           |
| Eagle Lake           | 1400  | No Survey | --         | --            | 68         | 17.5          | 38                | 10.7          |
| Grandview            | 1100  | 3/04/03   | 31         | 11.3          | 85         | 27.1          | 75                | 24.7          |
| Grouse Creek Divide  | 700   | 2/28/03   | 16         | 4.2           | 73         | 23.3          | 51                | 15.1          |
| Jean Lake            | 620   | 2/28/03   | 0          | 0.0           | 22         | 6.0           | 17                | 3.8           |
| Kenai Moose Pens     | 300   | 2/28/03   | 0          | 0.0           | 20         | 4.5           | 17                | 3.8           |
| Kenai Summit         | 1390  | 2/27/03   | 24         | 7.1           | 49         | 14.0          | 44                | 12.3          |
| McNeil Canyon        | 1320  | 3/03/03   | 6          | 2.0           | 53         | 16.4          | 36                | 9.5           |
| Moose Pass           | 700   | 2/27/03   | 0          | 0.0           | 35         | 11.3          | 22                | 6.3           |
| Nanwalek             | 500   | No Survey | --         | --            | --         | --            | --                | --            |
| Nuka Glacier         | 1250  | 2/28/03   | 36         | 10.7          | 125        | 49.7          | 69                | 26.9          |
| Port Graham          | 300   | 2/28/03   | 0          | 0.0           | 35         | 12.9          | --                | --            |
| Snug Harbor Road     | 500   | 2/28/03   | 0          | 0.0           | 26         | 6.6           | 20                | 5.1           |
| Summit Creek         | 1400  | 2/27/03   | 18         | 5.0           | 44         | 11.0          | 38                | 10.4          |
| Turnagain Pass       | 1880  | 2/28/03   | 70         | 22.6          | 120        | 42.5          | 92                | 29.2          |

### STREAMFLOW FORECASTS

| FORECAST POINT                | FORECAST PERIOD | 30- YR AVERAGE (1000AF) | 50 PERCENTILE | % OF AVERAGE | MAX (kaf) | MIN (kaf) |
|-------------------------------|-----------------|-------------------------|---------------|--------------|-----------|-----------|
| Kenai River at Cooper Landing | Apr- Jul        | 925                     | 820           | 89           | 930       | 715       |

### PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

| Precipitation Gauge   | Elev. | Date      | This Year | Last Year | 71-2000 Ave | % of Average |
|-----------------------|-------|-----------|-----------|-----------|-------------|--------------|
| Cooper Lake           | 1200  | 2/28/03   | 45.1      | 22.5      | 20.7        | 218          |
| Grandview             | 1100  | 3/04/03   | 52.7      | 36.5      | 33.1        | 159          |
| Grouse Creek Divide   | 700   | 2/28/03   | 59.1      | 35.8      | 30.6        | 194          |
| Kenai Moose Pens      | 300   | 2/28/03   | 6.2       | 6.6       | 7.3         | 85           |
| McNeil Canyon         | 1320  | 2/28/03   | 22.8      | 18.8      | 13.6        | 168          |
| Middle Fork Bradley** | 2300  | No Report |           | 22.1      | 30.6        |              |
| Nuka Glacier**        | 1250  | 2/28/03   | 98.6      | 44.7      | 48.1        | 221          |
| Port Graham           | 300   | 2/28/03   | 61.4      | 44.3      | ---         |              |
| Summit Creek          | 1400  | 2/27/03   | 23.0      | 16.0      | 14.3        | 161          |
| Turnagain Pass        | 1880  | 2/28/03   | 50.8      | 40.1      | 34.0        | 149          |

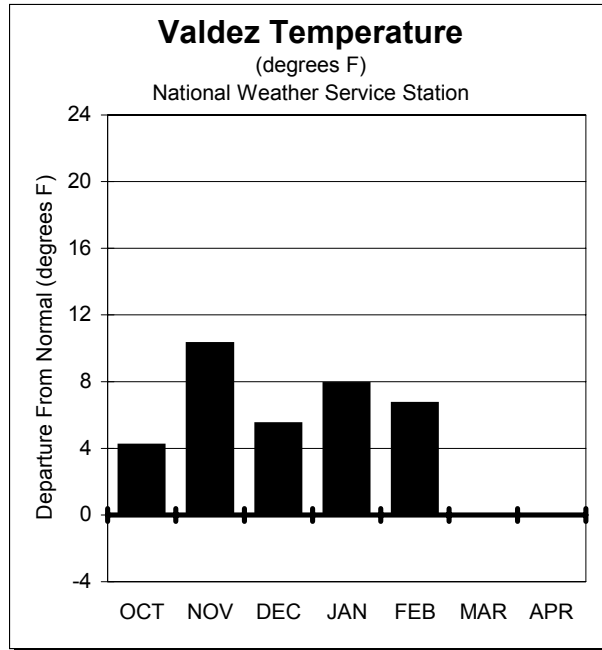
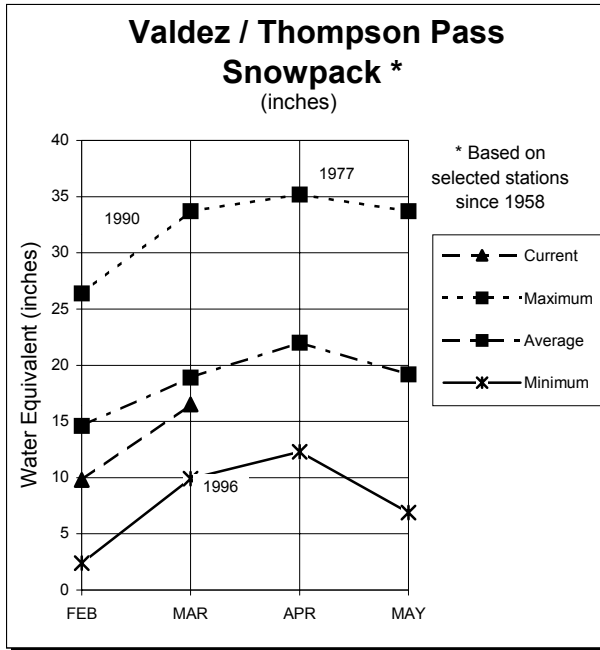
\*\*Wyoming Shielded gauge

☼ Estimate

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN     | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|--------------------------|--------------------|------------------------|--------------------|
| Bradley Lake             | 1                  | 22                     | 40                 |
| Ninilchik Dome           | 2                  | 13                     | 22                 |
| Northern Kenai Mountains | 6                  | 27                     | 37                 |
| Northern Kenai Flats     | 1                  | 0                      | 0                  |

## WESTERN GULF\*



### Snowcover:

The snow courses on the Kenai Peninsula side of the Western Gulf are less than 50 percent of normal. Grouse Creek Divide, 12 miles north of Seward, is 28 percent of normal water content.

The snow courses near Valdez have a more near normal water content. Sugarloaf Mountain is 75 percent of normal and Worthington Glacier is right at normal water content, 100 percent.

\* For more information contact the Natural Resources Conservation Service in Delta Junction.

## Western Gulf

### SNOWPACK DATA

| SNOW COURSE         | ELEV. | DATE      | THIS YEAR  |               | LAST YEAR  |               | 1971-2000 AVERAGE |               |
|---------------------|-------|-----------|------------|---------------|------------|---------------|-------------------|---------------|
|                     |       |           | SNOW DEPTH | WATER CONTENT | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Exit Glacier        | 400   | No Report | --         | --            | 67         | 22.8          | 53                | 13.7          |
| Grouse Creek Divide | 700   | 2/28/03   | 16         | 4.2           | 73         | 23.3          | 51                | 15.1          |
| Lowe River          | 600   | 3/03/03   | 43         | 12.8          | 61         | 16.9          | 53                | 15.1          |
| Nuka Glacier        | 1250  | 2/28/03   | 36         | 10.7          | 125        | 49.7          | 69                | 26.9          |
| Sugarloaf Mountain  | 530   | 2/27/03   | 63         | 17.4          | 72         | 20.9          | 79                | 23.3          |
| Tsina River         | 1650  | 3/03/03   | 44         | 13.8          | 54         | 12.1          | 56                | 15.7          |
| Valdez              | 50    | 3/03/02   | 43         | 14.4          | 54         | 14.5          | 51                | 15.5          |
| Worthington Glacier | 2100  | 3/03/03   | 62         | 21.5          | 72         | 21.9          | 68                | 21.6          |

### PRECIPITATION DATA

#### INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

| Precipitation Gauge | Elev. | Date    | This Year | Last Year | 71-2000 Ave | % of Average |
|---------------------|-------|---------|-----------|-----------|-------------|--------------|
| Grouse Creek Divide | 700   | 2/28/03 | 59.1      | 35.5      | 30.5        | 194          |
| Nuka Glacier**      | 1250  | 2/28/03 | 98.6      | 44.7      | 44.1        | 221          |
| Solomon Gulch*      | 36    | 2/28/03 | 47.3      | 36.7      | 35.5        | 133          |
| Sugarloaf Mountain  | 530   | 2/26/03 | 58.1      | 32.6      | 36.3        | 160          |

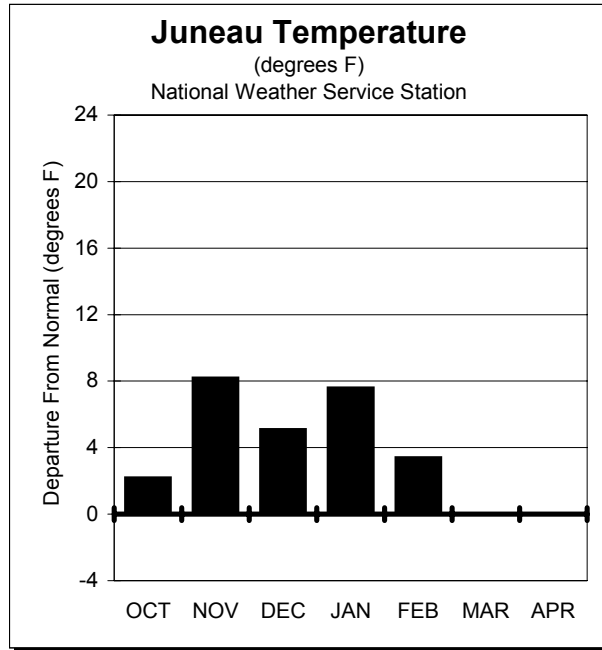
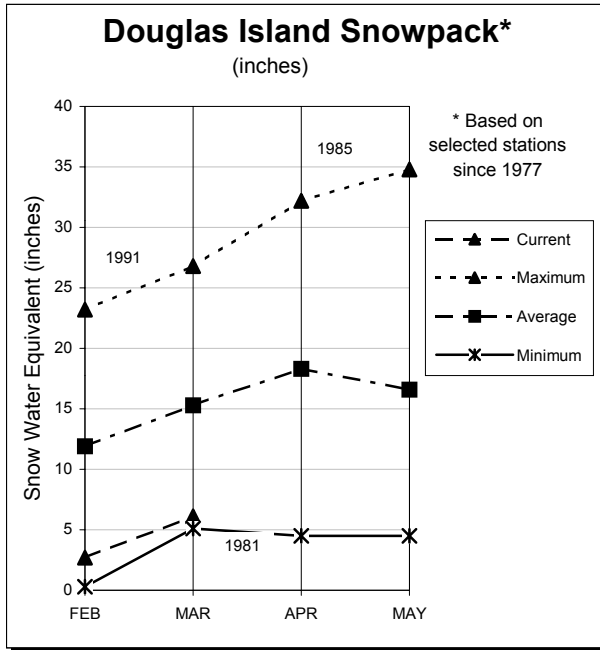
\*\*Wyoming Shielded Gauge

\*Copper Valley Electric Association

### WATERSHED SNOWPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Lowe River (Valdez)  | 4                  | 89                     | 88                 |

# SOUTHEAST\*



## Snowcover:

At the Petersburg Ridge snow course, only 1 year, 1981, has a lower snow water content than this year. In 1981 there was no snow.

On Douglas Island, the Cropley Lake snow course water content has had only 1 year, 1981, with a lower water content.

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

## Southeast

### SNOWPACK DATA

| SNOW COURSE          | ELEV. | DATE      | THIS YEAR  |               | LAST YEAR  |               | 1971-2000 AVERAGE |               |
|----------------------|-------|-----------|------------|---------------|------------|---------------|-------------------|---------------|
|                      |       |           | SNOW DEPTH | WATER CONTENT | SNOW DEPTH | WATER CONTENT | SNOW DEPTH        | WATER CONTENT |
| Cropley Lake         | 1650  | 2/26/03   | 34         | 11.6          | 109        | 26.3          | 70                | 23.9          |
| Eagle Crest          | 1000  | 2/26/03   | 16         | 5.4           | 68         | 20.0          | 48                | 16.1          |
| Fish Creek           | 500   | 2/26/03   | 5          | 1.2           | 21         | 6.6           | 20                | 6             |
| Long Lake            | 425   | No Report | --         | --            | 53         | 15.9          | --                | ---           |
| Moore Creek Bridge   | 2250  | 2/28/03   | 40         | 8.2           | 72         | 15.8          | --                | ---           |
| Petersburg Reservoir | 550   | 2/28/03   | 6          | 1.0           | 51         | 13.0          | 18                | 5.8           |
| Petersburg Ridge     | 1650  | 2/27/03   | 32         | 7.4           | 112        | 35.2          | 65                | 21.8          |
| Speel River          | 280   | No Report |            |               | 96         | 32.0          | 75                | 26.8          |

### 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                      | 27            | 82           | 32        | 22        |

### PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1<sup>ST</sup>

| Precipitation Gauge | Elev. | Date      | This Year | Last Year | 71-2000 Ave | % of Average |
|---------------------|-------|-----------|-----------|-----------|-------------|--------------|
| Long Lake           | 1020  | No Report | --        | 79.5      | --          | ---          |
| Snettisham          | 25    | 2/28/03   | 85.6      | 85.9      | 95.2        | 90           |
| Swan Lake           | 50    | 2/28/03   | 81.6      | 85.2      | 66.6        | 122          |

### WATERSHED SNOPACK ANALYSIS

| REGION / RIVER BASIN | # COURSES AVERAGED | THIS YEAR AS LAST YEAR | PERCENT OF AVERAGE |
|----------------------|--------------------|------------------------|--------------------|
| Douglas Island       | 3                  | 34                     | 40                 |
| Petersburg           | 2                  | 17                     | 30                 |

For further information contact:

NRCS Alaska web site: [www.ak.nrcs.gov](http://www.ak.nrcs.gov)

Alaska Meteor Burst Communication System (AMBCS) web site: **[ambcs.org](http://ambcs.org)**

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