

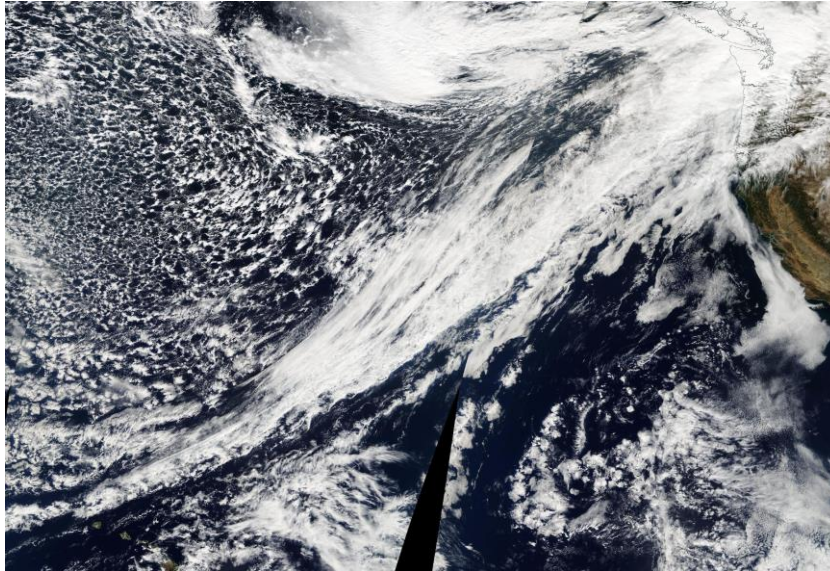
Seattle's Wettest Day on Record

October 20th, 2003

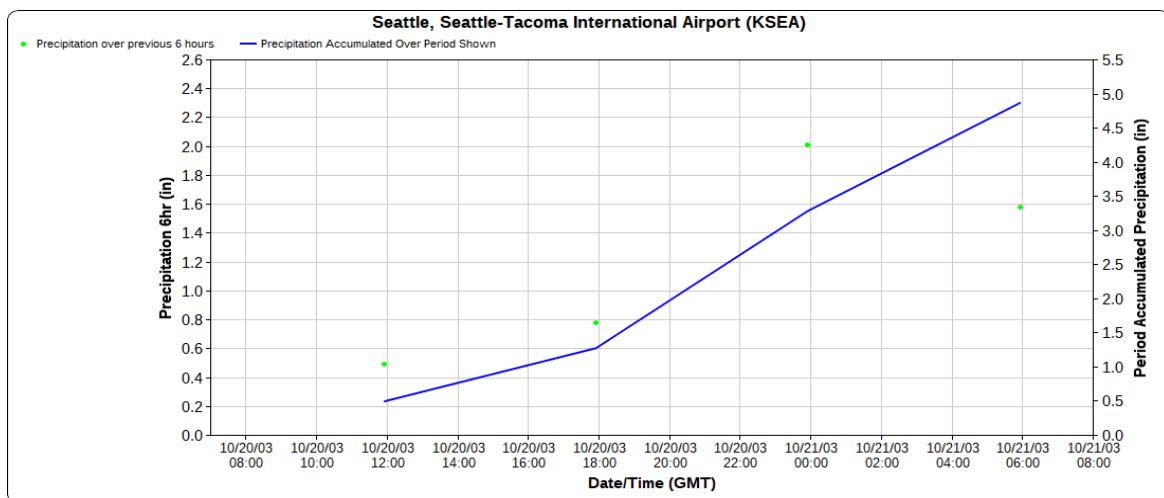
Western Washington's latitude and location relative to the Pacific Ocean lends itself to a wet season that typically begins in October and continues through spring before gradually dissipating into a summer dry season. Seattle's reputation as a rainy location is characterized by precipitation frequency as opposed to precipitation intensity. A series of weather systems typically bring rather light precipitation amounts on a frequent basis during the fall and winter months. This rainfall is usually what is known as "stratiform" precipitation. This is produced by a stable air mass and produces light precipitation that can last for hours. This is in sharp contrast to rainfall produced by thunderstorms in an unstable air mass which can be very heavy but usually short in duration.

A few times per year on average, the atmosphere taps into exceptionally moist, subtropical air in the region near Hawaii and funnels it into the Pacific Northwest. It is during these "atmospheric river" events that Western Washington's typically light precipitation becomes heavier and often leads to flooding and occasionally record rainfall. This scenario was the cause of Seattle's wettest day on record which took place on October 20th, 2003 when over 5 inches of rain was recorded at Sea-Tac airport. This broke the previous all-time record by more than an inch and a half!

In the visible satellite image below from that record wet day, one can see the “river” of moisture in the clouds stretching all the way down to around Hawaii.



The rain began rather light on October 20th 2003, but a warm front moved through the Puget Sound by mid morning. Temperatures quickly rose from the mid 50s to the lower 60s, a breezy south wind developed, and rainfall intensified. The plot below shows rainfall accumulation at Sea-Tac airport that day. Notice the spike during the afternoon and evening.



Here is a record report from our office showing some of the impressive records that were set that day:

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RECORD EVENT REPORT
NATIONAL WEATHER SERVICE SEATTLE WA
340 AM PDT TUE OCT 21 2003

...THE WETTEST DAY IN SEATTLE WEATHER HISTORY...SINCE 1891...

...RECORD RAINFALL IN WESTERN WASHINGTON ON MONDAY OCT 20TH...

NUMEROUS DAILY RAINFALL RECORDS WERE BROKEN ACROSS WESTERN WASHINGTON TODAY. SEA-TAC AIRPORT ALSO EXCEEDED ITS ALL-TIME DAILY RAINFALL RECORD. A SUMMARY OF RAINFALL RECORDS BROKEN FOLLOWS:

LOCATION	MONDAY RAINFALL	PREVIOUS RECORD / YEAR
SHELTON	7.20 INCHES	1.55 INCHES / 1966
HOQUIAM	5.39 INCHES	0.93 INCHES / 1956
SEA-TAC AIRPORT	5.02 INCHES	1.27 INCHES / 1956
OLYMPIA	4.12 INCHES	1.69 INCHES / 1956
NOAA SANDPOINT	3.59 INCHES	0.85 INCHES / 2000
PORT ANGELES	2.36 INCHES	1.67 INCHES / 1956
STAMPEDE PASS	2.28 INCHES	1.65 INCHES / 1946
BELLINGHAM	1.40 INCHES	0.55 INCHES / 1978

THE ALL-TIME WETTEST DAY AT SEA-TAC WAS 11/20/1959 WITH 3.41 INCHES.

THE ALL-TIME WETTEST DAY AT OLYMPIA IS 11/19/1962 WITH 4.33 INCHES...MONDAY RANKS AS THE SECOND WETTEST DAY IN HISTORY AT OLYMPIA.

THE GREATEST 24 HOUR PRECIPITATION AT SEA-TAC WAS 3.74 INCHES SET ON OCTOBER 5TH AND 6TH IN 1981.

THE GREATEST 24 HOUR PRECIPITATION AT THE FEDERAL BUILDING IN SEATTLE WAS 3.52 INCHES ON DECEMBER 11TH AND 12TH IN 1921.

OTHER NOTABLE RAINFALL AMOUNTS ON MONDAY...UNKNOWN AT THIS TIME IF THESE AMOUNTS ARE RECORDS.

RENTON	4.48 INCHES
FRIDAY HARBOR	1.77 INCHES
BOEING FIELD	4.04 INCHES
PAINE FIELD	1.79 INCHES

ROOD