January Thaw Will Come Early But Won't Last

As I write this it is the coldest morning of the winter so far with single digit to sub-zero temperatures across the north from Iowa, Illinois and Missouri east to Pennsylvania, New York and New England. The coldest reading on the map appeared to be -20F in Saranac Lake, NY. The cold extended deep into the south with freezing temperatures to Fort Myers and a chilly 39 in Miami and 45 in Key West. Readings were in the high 20s to low 30s across the growing areas, likely doing some damage to vegetables but it appears damage to citrus was minimal.

After a frigid day, a moderation will spread from the central states where it begins tomorrow to the east coast this weekend. Temperatures for the early into the middle part of next week will be much above normal in the central and east. There could be some records set. In New York City, it will reach the 60s. The best chance of a record high will come at the end of the warm spell on Thursday where the daily record at Central Park is just 58. Note how most every day in January has had record highs in the 60s and even 70s (in 1932, 1950 and 2007).

January Daily Record Highs Central Park NYC



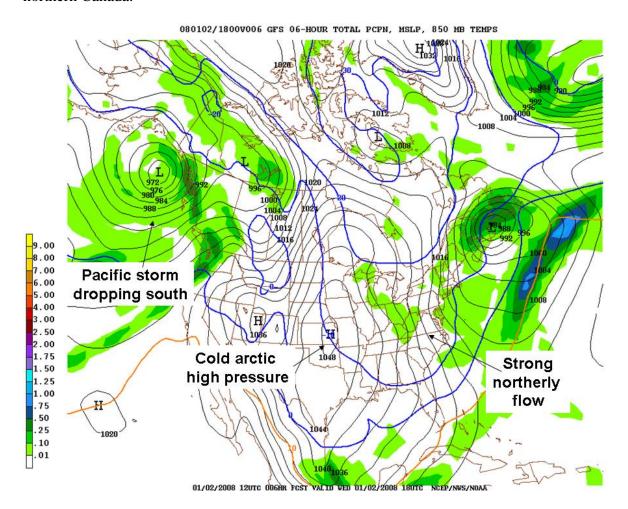
The greatest number of record highs came in the 2000s, 1990s and 1950s, as well as the 1930s and the 1870s.

Cold will start returning later in the week and gradually deepen with decreasing warmups through the rest of the month and probably February.

The reason for the cold spell today and then the warm-up and final cool down is a pattern evolution. In November a ridge off the west coast blocked Pacific air from entering Canada. Very cold temperatures developed there and infiltrated into the northern states through the first half of December. A trough gradually developed off the west coast and

began to feed a aeries of Pacific storms, which carried with them Pacific air into Canada and the United States, This air was quickly cooled over the snowcover but was not arctic and thus less frigid. It was cold enough to allow the storms to bring near record snows to parts of the plains and upper Midwest, Great Lakes and the northern half of New England.

That trough off the west coast strengthened and began dropping south the last few days and this pumped up a ridge to the east enough to bring down colder arctic air from northern Canada.



The trough and storm though will progress east and the cold air will move off the east coast the next few days. A strong southerly flow behind the cold high and ahead of the trough will cause the thaw.

Then ridging (high pressure) will replace the low near the west coast and again may cut off Pacific air from entering Canada and the United States. This would allow arctic air to build south again through Canada and into the United States by the end of next week.

The further north that ridge extends and the stronger it becomes, the colder the weather that would develop. Should it stay flatter and allow storms to ride over the top, it would

mean more of a roller coaster ride, with cold outbreaks like the one today but some intervening warm-ups. The key is where convection in the western Pacific near Australia and Indonesia concentrates itself in the next few weeks. The further east it comes, the more amplified and colder the pattern in the U.S. More to follow.