

When are the salmon coming? This is the question that people in communities all along the Yukon River are asking at this time of year, as they gear up for another season of fishing. The timing of the year's first run, the Chinook salmon, can vary by as much as twenty days, depending on spring conditions. Over the past 50 years the first pulse of Chinook on the Yukon delta has occurred sometime between from the 6th and the 26th of June. In years when the first pulse comes late, it is reasonable for fishery managers to conclude that the run is very weak, perhaps so weak that fishing needs to be slowed or stopped altogether. At the beginning of the fishing season twenty days is can be a long time to wait to find out when the fish are actually coming and if there are enough of them to harvest. Traditional knowledge on the Yukon holds that spring weather conditions, including ice, temperatures and wind determine when the fish enter the river, but each spring brings a different combination of conditions, so pinning down a schedule for the arrival of the first pulse can be tricky. Researchers from NOAA Fisheries and the Alaska Department of Fish and Game, with the support of the Alaska Ocean Observing System, have identified a combination of spring conditions that is closely related to the timing of Chinook salmon on the Yukon delta. Using percent spring ice cover between St. Lawrence Island and the Yukon delta, April air temperatures in Nome, and marine surface temperatures just offshore of the delta in May, the members of the team predicted the timing of the run in the last two seasons to within three days of the actual timing before the start of each run. The forecast for 2012 is for a late run fairly similar to that experienced in 2010, the first year of the pre-season forecast. Point of contact: phil.mundy@noaa.gov