**Small Group Discussion Questions FYS 178**

3, 5 Nov 2020 (Wk#13) Society, Technology & Weather

Questions for **Chapter 10** of “Appropriating the Weather…”

[1] At the very end of Chapter 9 [p. 201], the author notes that Vilhelm’s progress in meteorology was jeopardized by conditions in Norway that developed in 1920. What were the conditions? The collapse of what market in particular triggered the downfall of Norway’s economy in the summer of 1920? In response, the “Bergen meteorologists had to integrate weather into the economic sphere yet further, especially into \_\_\_\_\_\_\_\_.” {Fill in the blank.}

[2] A business owner is keenly aware of her/his income and expenses. A significant expense for any fisherman is their fishing boat. What transformation in the Norwegian fishing fleet was accelerated by soaring fish prices during World War I? Contrast the number of each type of Norwegian fishing boat in 1910 and 1920. How were these fishing vessels purchased?

[3] Note the events described by the author [p. 206, 207] that impacted the income (fish prices) of the Norwegian fisherman from 1915 through 1921. Was this drop in income a significant issue for Norway’s population? What challenge does such a disparity between income and expenses cause for a business owner (see quote in the middle of p. 207)?

[4] How would improved weather observations and forecasts give a fisherman a “competitive edge”? Answer in terms of personal safety, fuel costs, and potential loss or damage of gear. How would improved weather observations and forecasts save the state (of Norway) considerable expense in terms of their various financial obligations for supporting the fishing industry?

[5] What event described by the author involving the “Fiskeristyret” implied that the Bergen meteorologists didn’t understand the need for weather information by the fishing industry late in 1919? What measures did Vilhelm and his students take to better understand and meet these needs? Why did the Bergen meteorologists need the support of fishermen after 1919?

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Questions for **Chapter 10** of “Appropriating the Weather…” (cont.)

[6] Descriptions of the polar front meteorology (Bergen school) development focus on analyses of single “snapshots” of cyclones before Chapter 10. How do the Bergen meteorologists (BMs) change their analytic approach of cyclones away from single snapshots in Chapter 10? How many times a day did the BMs make observations and create map analyses during the fall 1919? How did this increase in frequency help them to change their analytic approach of cyclones?

[7] What is “sammenklapping”? Which of the BMs discovered it and made it his research topic? How did he discover it? What is the name of the front associated with “sammenklapping”? How was this front different from that of warm and cold fronts (Figure 22)?

[8] What causes the “seclusion” in a cyclone? When in a cyclone’s life cycle (early, mid-life, late) does the seclusion process occur (Figure 23)? When in a cyclone’s life cycle (early, mid-life, late) does the occlusion process occur? How might knowing the stage of the life cycle for an individual cyclone help a meteorologist to predict what will happen with that cyclone?

[9] What is a cyclone “family” (Figure 24)? At which “end” of a cyclone family will one find a young cyclone and at which end of the family will one find an old cyclone? On what type of front does a cyclone family “live”? What was the time interval claimed by the BMs between the arrival of one cyclone family and the next? How would the cyclone family concept help a forecaster?

[10] What do we learn happened to the controversial scientific findings from Chapter 9 related to the BMs’ “findings” of (a) a continuous polar front circling the hemisphere and (b) secondary cold fronts? The formulation of what two concepts “became the capstones of the early Bergen school’s endeavors” around 1922?