

BC HYDRO OPERATIONS - ICE OBSERVATION REPORT #19

Flight: Wednesday, February 25, 2009

Report: February 25, 2009

Report by Kerry Paslawski and Martin Jasek

The responsibility for ice observations on the Peace River passes to BC Hydro from Alberta Environment (AENV) when the ice front is upstream of Dunvegan. That responsibility was transferred on January 6, 2009. The numbering of reports is a continuation of the Alberta Environment reports.

Flight Observations by Kerry Paslawski

A flight observation was conducted out of the Beaverlodge Airport on Wednesday February 25, 2009. Air temperature at the Clayhurst Bridge was -23 °C and at Dunvegan it was -24 °C. Earlier that morning the minimum temperatures at the two locations reached -29 °C and -33 °C respectively. The weather was clear and sunny.

Ice Observations

Location of the Ice Front: The ice front had receded 3.3 km downstream from the last observation on Feb 21 and was located at **km 219.0 on Feb 25, 2009 10:36 MST**. This was approximately 77 km upstream of Dunvegan and about 55 km downstream of the Clayhurst Bridge near the BC/AB border. The average recession rate of the ice front between the last two observations was about 0.8 km/day. However, since the Feb 21 observation the ice front had receded further than this point and was now re-advancing. Based on aerial observations the ice front receded to **km 220.3** and based on air and water temperature data the ice front would have stayed more or less stationary for about a day and then it would have started to advance by about **Feb 24, 18:00 MST**.

Detailed Observations:

km 124	- frazil ice pan surface concentration 5%
km 135	- frazil ice pan surface concentration 10%
km 143.5	- frazil ice pan surface concentration 15%
km 147.5	- frazil ice pan surface concentration 5%
km 157	- frazil ice pan surface concentration 10%
km 170.5	- frazil ice pan surface concentration 10%
km 182.5	- frazil ice pan surface concentration 15%
km 200.5	- frazil ice pan surface concentration 20%
km 206	- frazil ice pan surface concentration 25%
km 212	- upstream end of backwater
km 212.5	- frazil ice pan surface concentration 25%
km 215.0	- upstream end of significant shore ice that was narrowing the exposed channel width
km 218	- frazil ice pan surface concentration 40%
km 219.0	- ice front at 10:36 MST
km 219 to 220	- juxtaposed
km 220.0 to 220.1	- slightly consolidated
km 220.1 to 220.3	- old brash ice from previous recession
km 220.3	- further downstream recession since the previous flight
km 220.4 to 221.0	- open lead that had filled in with slush from undercover transport from upstream

- km 221 to 221.7 - open lead
- km 222.1 to 223.8 - open lead
- km 223.8 - ice is mostly the same as the Feb 21 observational flight downstream of this point.



km 216, shore ice and frazil ice pans upstream of ice front.



Looking upstream at the ice front at km 219.0 on Feb 25, 2009 10:36 MST.



Looking downstream at the ice front at km 219.0 on Feb 25, 2009 10:36 MST.



Old ice front and brash ice at km 220.3. Lead filled in with bright white slush. Flow dir. L. to R.



Looking upstream at leads downstream of old ice front. Portion of u/s lead filled with slush.

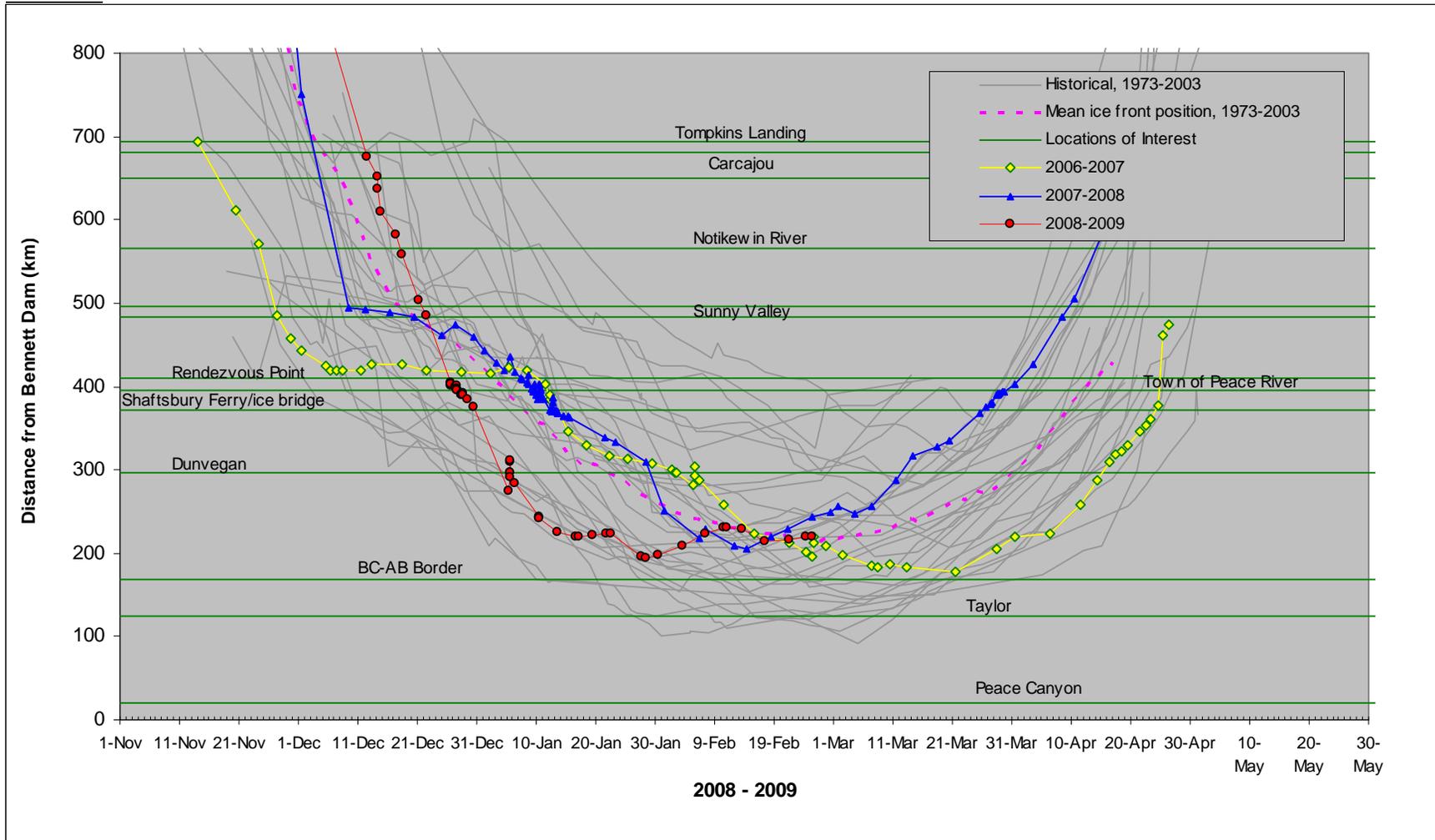


Looking upstream at leads downstream of old ice front.

Environment Canada Forecast Temperatures (°C)			
		Fort St. John	Town of Peace River
		Max/Min	Max/Min
Wed	25-Feb-09	-21 / -31	-19 / -30
Thr	26-Feb-09	-15 / -32	-18 / -32
Fri	27-Feb-09	-15 / -22	-12 / -24
Sat	28-Feb-09	-12 / -20	-13 / -24
Sun	01-Mar-09	-11 / -17	-10 / -20
Normal Max/Min		-4 / -13	-3 / -15

Continued next page.

Ice Front



The next ice observation flight is scheduled for Friday, February 27, 2009.