

BC HYDRO OPERATIONS - ICE OBSERVATION REPORT 33

Flight: Saturday March 10, 2007

Report: March 12, 2007

Report by Dale Bairstow 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 February 2, 2007. The numbering of reports is a continuation of the AENV reports.

Flight Observations by Dale Bairstow

A flight observation was conducted out of the Fort St. John Airport on Saturday March 10, 2007. Air temperature at the airport was: -19° C but it had been considerably warmer during Wednesday to Friday (highs around +3 and lows of -10° C). The weather during the flight was low overcast.

Ice Observations

Location of the Ice Front: The ice front had receded 2.1 km downstream since the last observation on Mar 7 and was located at **km 186.4 on Mar 10, 2007, 10:00 MST**. This was approximately 110 km upstream of Dunvegan or about 22 km downstream of the Clayhurst Bridge near the BC/AB border. The recession rate of the ice front between the last two observations was about 0.7 km/day. There was about 900 m of brash ice upstream of the ice front. Brash ice is defined as broken off shore ice that comes to rest against the ice front. When the ice front is in the recession mode the ice front is defined as the dividing line where the ice has been in place since freeze-up and where it has either moved or completely melted. Thus the upstream end of the brash ice is not counted as the ice front.

Detailed Observations:

km 164 to 185.5	- no fresh frazil pans, small amount of broken off shore ice floes
km 182.4	- most upstream extent of ice front since previous flight estimated from shore ice on photos. From previous advance rate and air temperature record this likely occurred some time on Mar 8.
km 185.5	- upstream end of brash ice
km 186.4	- ice front on Mar 10, 10:00 MST
km 186.4 to 189	- many small open leads caused by warm river water
km 189 to 193	- ice is consolidated
km 193 to 196	- 3 km open lead nearly bank to bank wide
km 196 to 197	- large rafts of broken ice with some open water voids
km 199 to 219	- ice the same as previous flight with some leads slightly larger (toe of a consolidation same as previous flight at km 202.8)



Looking downstream at ice front at km186.4. Upstream end of brash ice is at km 185.5



Deteriorated ice cover at km 188 downstream of the ice front at km 186.4 (photo taken looking upstream)



Open water lead from km 193 to 196. Large photo (looking upstream), inset photo (flow is right to left)

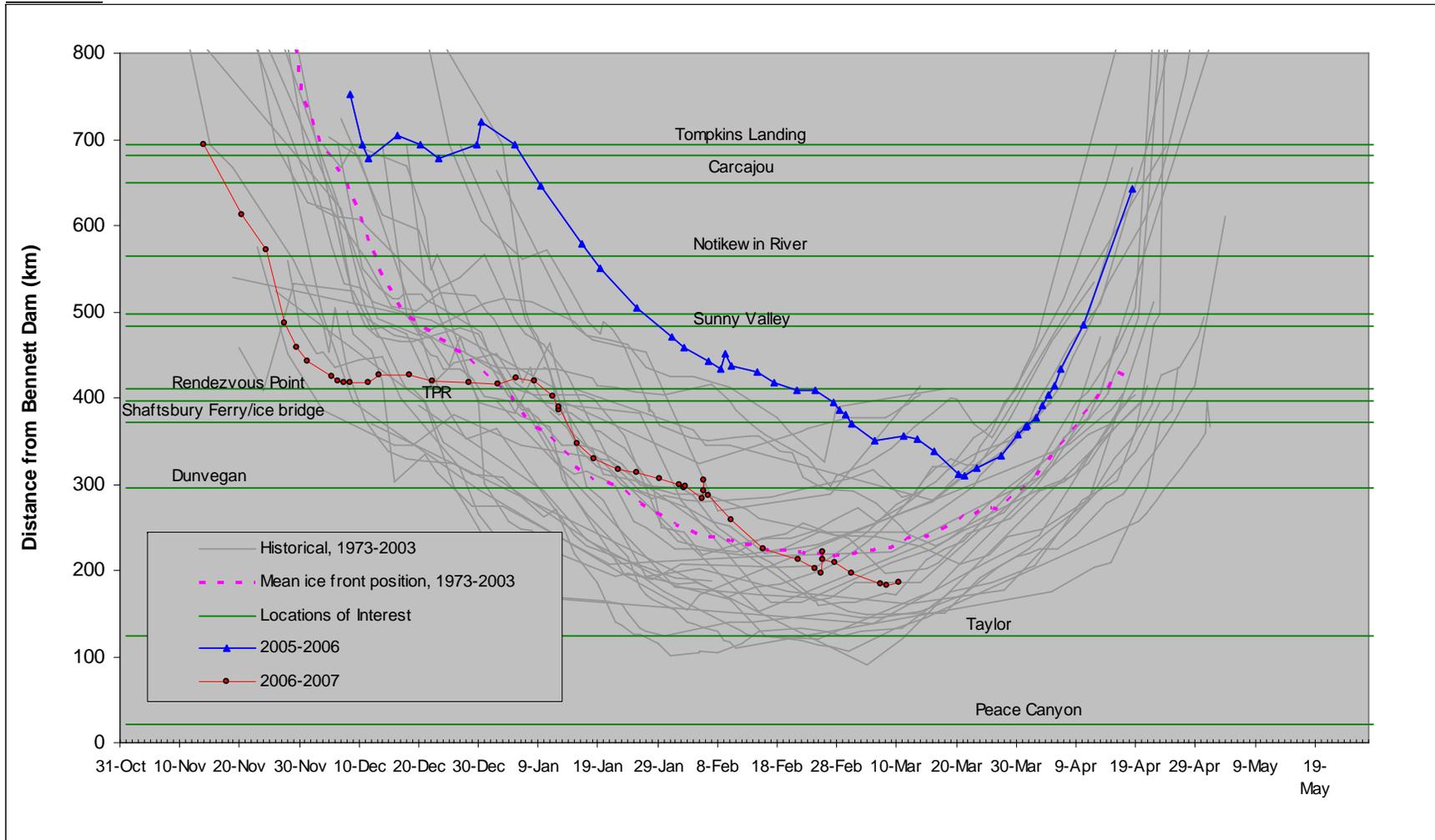


Shore ice at km 182.4 provides clue of most upstream extent of ice front since the last flight on March 7, probably occurred on March 8. (flow is from left to right)

Environment Canada Forecast temperatures (°C)		Fort St. John Max/Min	Town of Peace River Max/Min
Mon	12-Mar-07	-2 / -17	-4 / -14
Tue	13-Mar-07	-1 / -7	-1 / -10
Wed	14-Mar-07	-10 / -13	-4 / -15
Thr	15-Mar-07	-1 / -17	-2 / -15
Fri	16-Mar-07	6 / -8	2 / -7
Normal Max/Min		0 / -10	0 / -11

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Ice Front



The next ice observation flight is scheduled for Tuesday Mar 13, 2007.