

# BC HYDRO OPERATIONS - ICE OBSERVATION REPORT 40

**Flight: Wednesday April 11, 2007**

**Report: April 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. However, Alberta Environment has started flying the Smoky River and the Peace River between Dunvegan and the Town of Peace River due to the higher than normal snow pack and the threat of a dynamic break-up being triggered by the Smoky River. The report numbering will remain sequential but will be issued by both organizations. This is likely BC Hydro's last flight for the season as the ice front is projected to be close to Dunvegan by Saturday.

## **Flight Observations by Dale Bairstow**

A flight observation was conducted out of Ft. St. John Airport on Wednesday April 11, 2007 by BC Hydro. Air temperature at the airport was +5° C. The weather during the flight was clear and sunny.

## **Ice Observations**

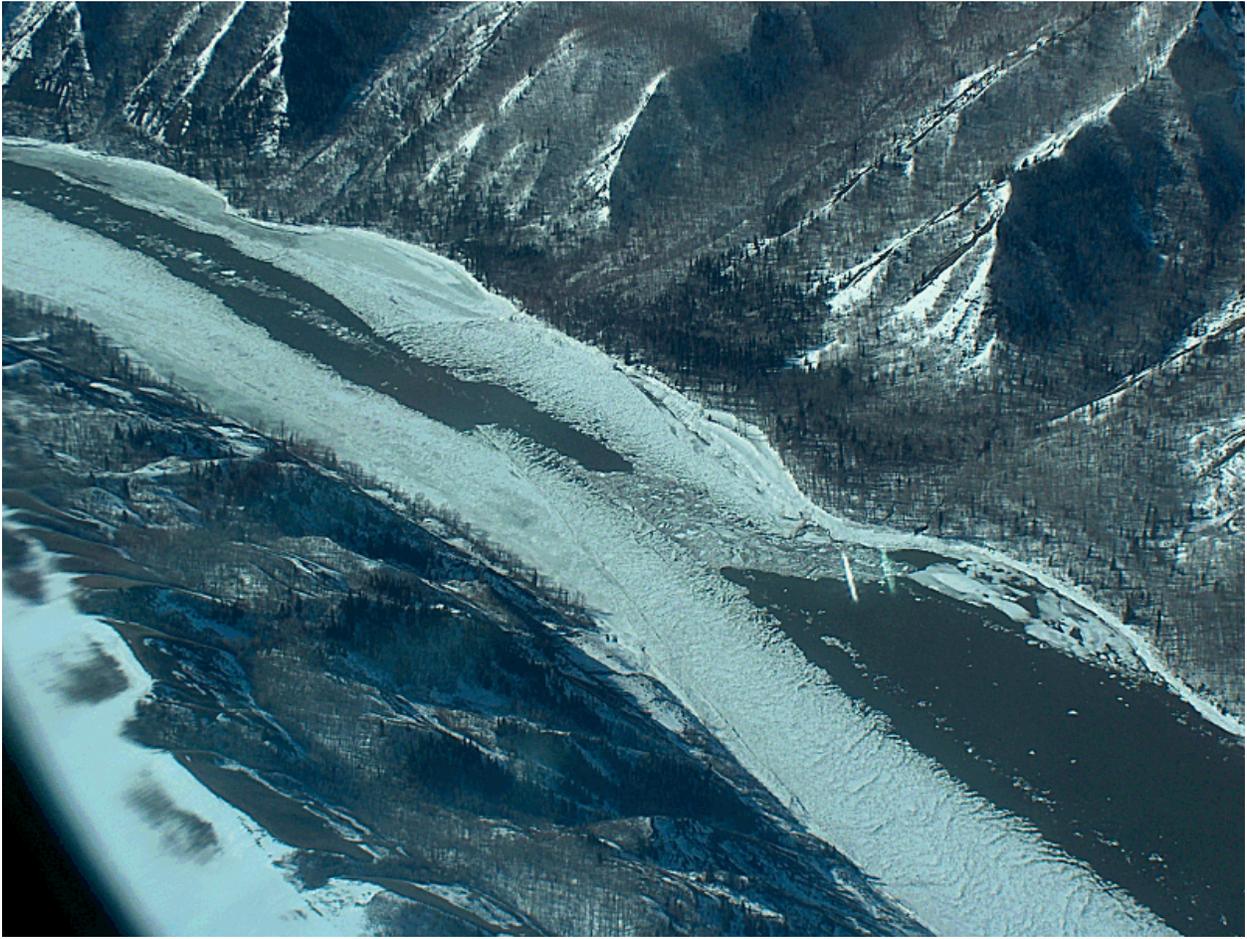
Location of the Ice Front: The ice front had receded 34.3 km downstream since the last observation on April 6 and was located at **km 257.8 on Apr 11, 2007, 10:20 MDT**. This was approximately 38 km upstream of Dunvegan, about 94 km downstream of the Clayhurst Bridge near the BC/AB border, or 137 km upstream of the Town of Peace River. The recession rate of the ice front between the last two observations was about 6.9 km/day. Since the last flight, daily low temperatures at the Fort. St. John Airport had been between 0 and +3 °C with daily highs between from +4 to +9 °C.

## **Detailed Observations:**

km 254.6	- there was at 200 m long "plug" of brash ice between the shore ice
km 257.8	- ice front on Apr 11, 10:20 MDT with only a few 10s of metres of in situ ice holding back another 200 m of brash ice
km 257.8 to 258.6	- 800 m long open lead with 50 m of brash ice at the downstream end
km 258.6 to 260	- smaller open leads and darker ice in narrow section of channel
km 261.4 to 262	- narrow open lead
km 262 to 303	- some darker areas of ice but mostly white
km 304	- open lead at toe of secondary consolidation elongated by about 400 m in the downstream direct and perhaps about 200 m in the upstream direction since its formation on Feb 5. The width of the lead is about the same as when it formed.



Shore ice at Many Islands at km 224 to 231. (Looking downstream).



A 200 m long “plug” of brash ice between the shore ice at km 254.6



Ice front and open leads as summarized below (flow is right to left)

- km 257.8 - ice front on Apr 11, 10:20 MDT with only a few 10s of metres of in situ ice holding back another 200 m of brash ice
- km 257.8 to 258.6 - 800 m long open lead with 50 m of brash ice at the downstream end
- km 258.6 to 260 - smaller open leads and darker ice in narrow section of channel
- km 261.4 to 262 - narrow open lead

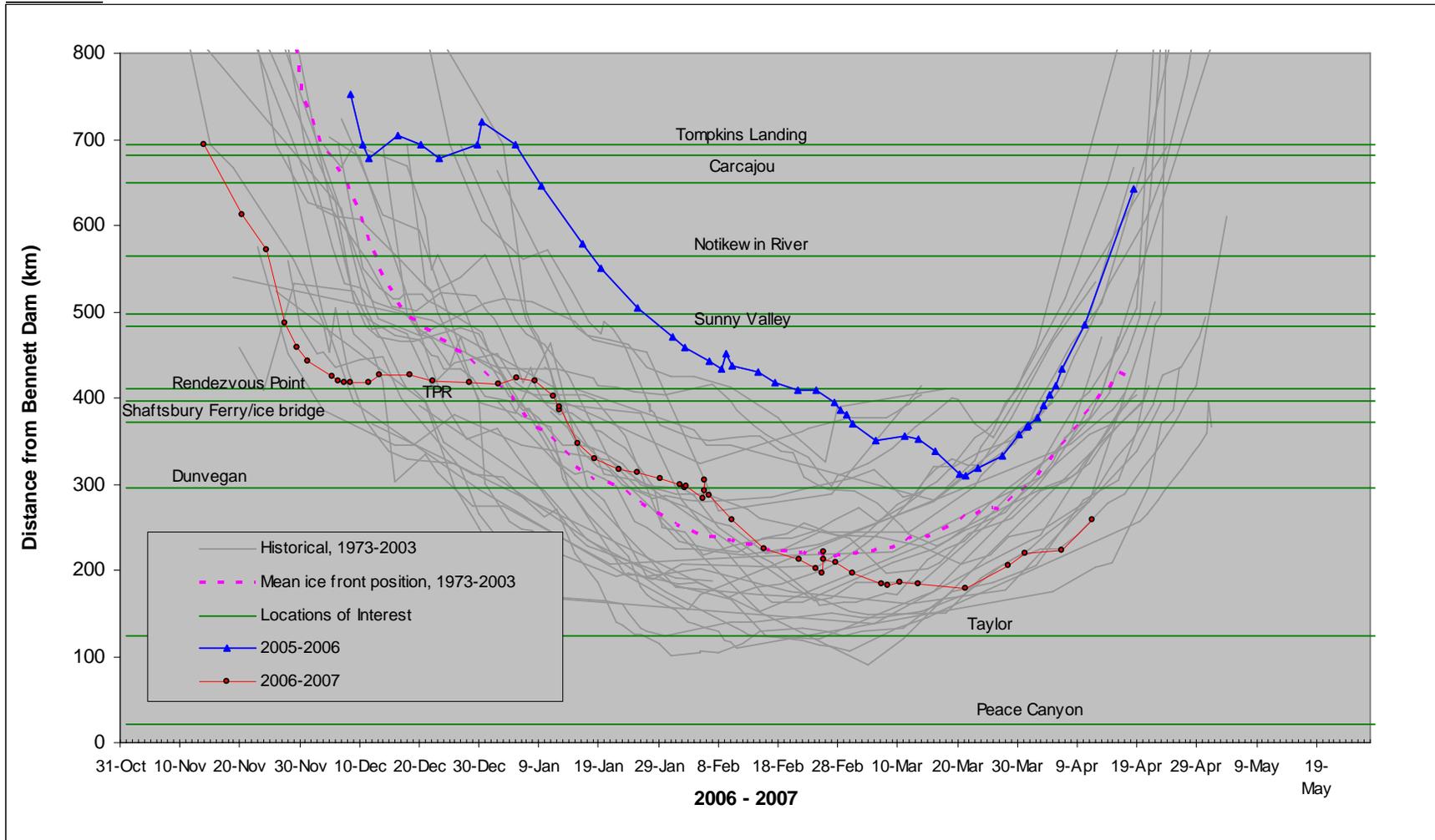


Ice front a km 257.8 (flow is right to left).

Environment Canada Forecast temperatures ( °C )			
		Fort St. John	Town of Peace River
		Max/Min	Max/Min
Thr	12-Apr-07	9 / -2	8 / -2
Fri	13-Apr-07	9 / 0	7 / -3
Sat	14-Apr-07	6 / 1	6 / 0
Sun	15-Apr-07	8 / -4	8 / -6
Mon	16-Apr-07	12 / -3	10 / -3
<b>Normal Max/Min</b>		<b>10 / -3</b>	<b>10 / -2</b>

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## Ice Front



**The next flight has already been conducted by Alberta Environment today. Alberta Environment will take over the remainder of the flights as the ice front should be close to Dunvegan by Saturday.**