



# PACIFIC REGION TECHNICAL NOTES

79-038  
December 19, 1979

Snow Warnings for B.C. Interior  
Thursday, December 13, 1979

(Forecast Investigation #3)

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## INTRODUCTION

This note investigates the validity of the snow warnings issued at 11PM Wednesday, December 12, 1979 for the following day. The warnings included the Northern Mainland, Chilcotin-Cariboo, Central Interior and the Columbia-Kootenay regions.

## CHILCOTIN CARIBOO

Snow warnings for the Cariboo region were not warranted for the section centred near the Fraser River. However, the eastern portions near Wells probably had amounts comparable to that reported at Blue River. The Chilcotin region likely had very little precipitation being in the lee flow similar to the Okanagan.

## CENTRAL INTERIOR

Snow warnings for the Central Interior region were marginal for the reporting stations. However, the reports from Mackenzie indicate that total amounts near or in excess of 20 cm were likely. Certainly the Parsnip region would have had some sections with 20 or more cm.

## COLUMBIA

The reports from Revelstoke and Blue River confirm heavy snowfalls. The amount at Revelstoke of 33 cm suggests a 20 to one ratio that seems peculiar because the temperature was near freezing and most of the snow reported was only moderate. The amount reported (from SA's) suggest heavy snow and a possible problem in the observations program at that station.

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KOOTENAYS

The southern Kootenays had little snow because it changed to rain by afternoon. The northern sections may have had heavy amounts similar to Revelstoke.

COMMENTS

1. The warnings seemed justified for eastern sections of the Central Interior, Cariboo and probably all of the Columbia regions. Most of the Kootenay regions had little snow in the southern portions but the northern sections may have had more to justify a warning (See Table 1).
2. The western sections of the Central Interior were in the advisory category while the Chilcotin and western portions of the Cariboo region should not have had any warning at all. These last sections represent the severest departure from the forecast (See Table 1).
3. Prior to the warning issued at 0615Z the 0515Z GOES picture (Figure 2) showed a definite subsidence break in the overrunning clouds to the lee of the coast mountains. This should have suggested that a warning for the Chilcotin area was not warranted and perhaps for the western Cariboo as well.

TABLE #1 (a)		
36 HR QPF FORECASTS FOR B.C. INTERIOR FOR THURSDAY, DEC. 13, 1979		
<u>FROM</u>	<u>SPECTRAL</u>	<u>LFM</u>
12/00Z	5 mm	trace
12/12Z	10-20 mm	15-25 mm
13/00Z	15-20 mm	15-30 mm

TABLE #1 (b)			
REPORTED 24HR SNOWFALL ACCUMULATION AT 14/00Z			
YXS	12 cm	YQZ	3 cm
YYD	12 cm	YWL	1 cm
WPZ	12 cm	YR <sup>V</sup>	33 cm
YZY	17 cm	YXC	5 cm



Figure 1 - Snow warning issued 1015 pm  
Wednesday for Thursday,  
December 13, 1979.

WVCN1 CWVR 130615

SNOW WARNING FOR NORTHERN MAINLAND CHILCOTIN-CARIBOO CENTRAL  
INTERIOR AND COLUMBIA-KOOTENAY REGIONS ISSUED BY ENVIRONMENT  
CANADA AT 1030 PM PST WEDNESDAY DECEMBER 12 1979.

A DEEPENING LOW PRESSURE SYSTEM APPROACHING THE QUEEN CHARLOTTE  
OVERNIGHT IS RESULTING IN A STRONG FLOW OF MOIST AIR FROM THE  
SOUTH TO SPREAD SIGNIFICANT SNOWFALLS ALONG THE NORTH COAST AND INTO  
THE INTERIOR THURSDAY.

SNOW FALLING IN THE NORTHERN MAINLAND REGION WILL CONTINUE  
UNTIL THURSDAY EVENING GIVING ACCUMULATIONS OF 20 TO 25 CENTIMETRES.  
THE SNOW WILL SPREAD INTO THE CHILCOTIN-CARIBOO AND CENTRAL INTERIOR  
REGIONS THURSDAY MORNING TO GIVE ACCUMULATIONS BY LATE THURSDAY  
OF 20 TO 35 CENTIMETRES. THE SNOW WILL CONTINUE SPREADING EASTWARD  
TO THE COLUMBIA-KOOTENAY REGION BY THURSDAY AT NOON TO GIVE  
ACCUMULATIONS OF 15 TO 25 CENTIMETRES BY MIDNIGHT.

THIS WARNING WILL BE UPDATED BY 5AM THURSDAY DECEMBER 13.

0515 13DE79 35E-42A 00342 19221 UC2



Figure 2 - Satellite IR image valid  
0515 Dec. 13, 1979. Notice  
the subsidence area to the  
lee of the coastal mountains.