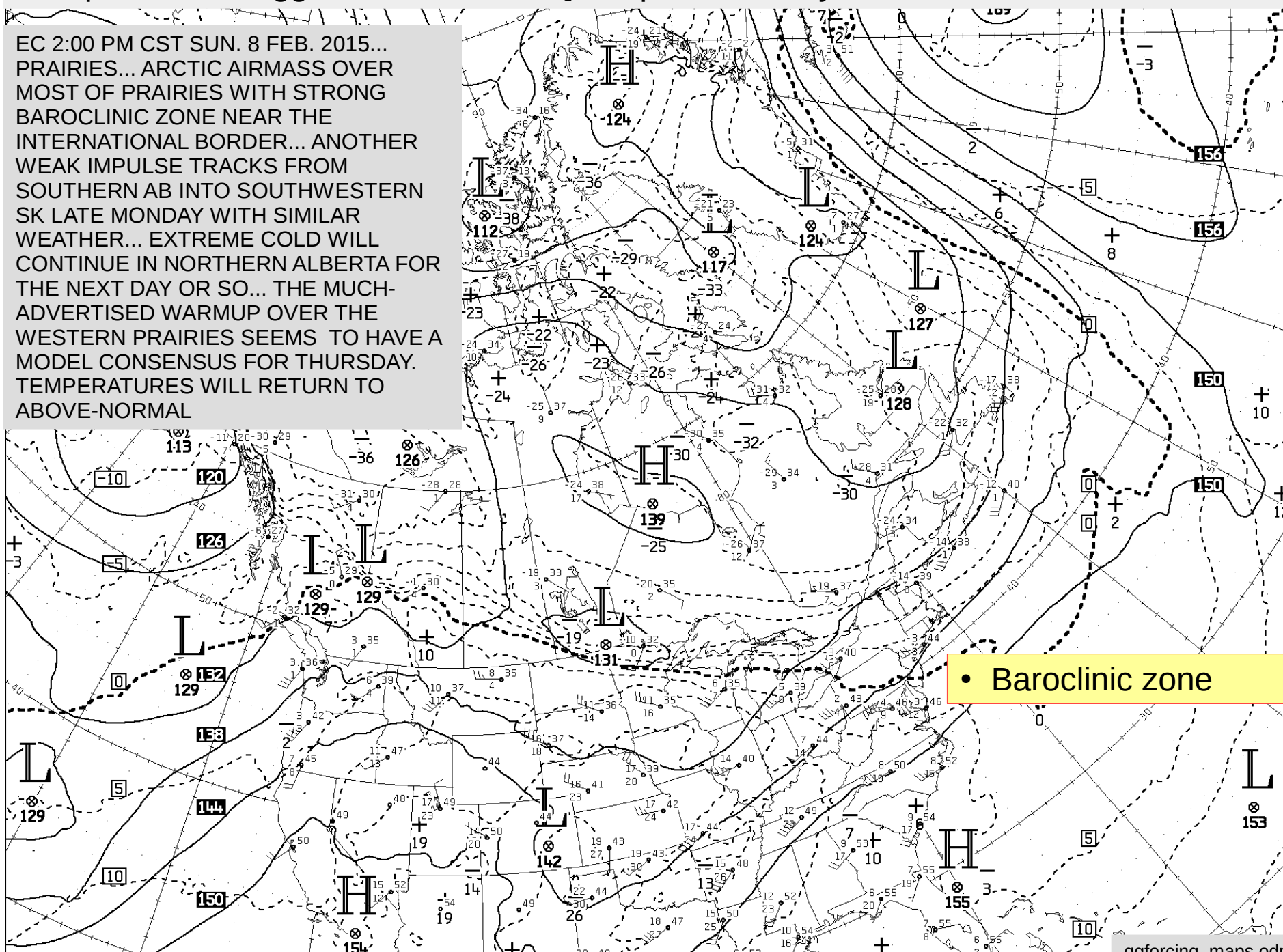


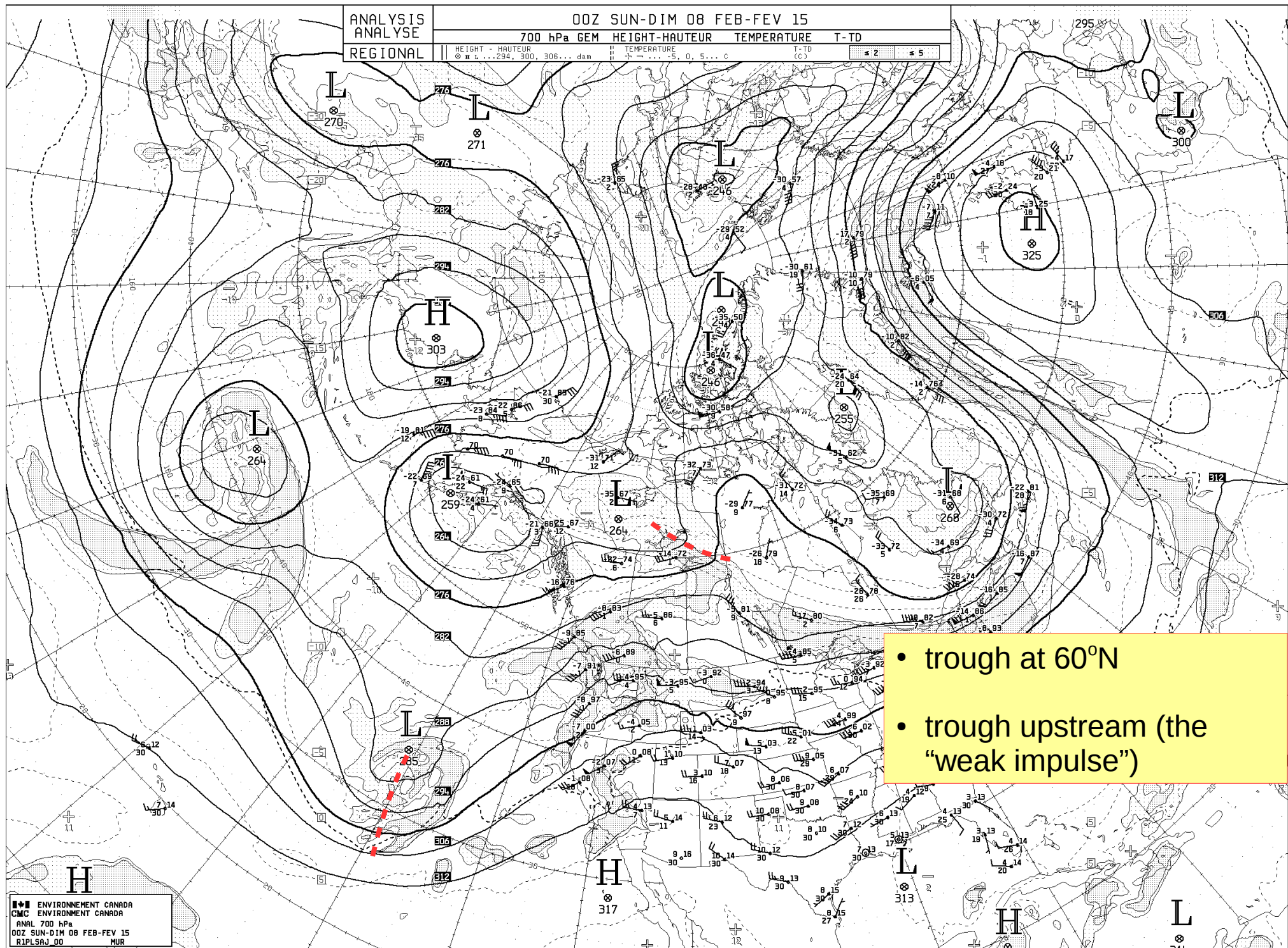
Comparison of suggestions from the QG eqns with analyses

EC 2:00 PM CST SUN. 8 FEB. 2015...
PRAIRIES... ARCTIC AIRMASS OVER
MOST OF PRAIRIES WITH STRONG
BAROCLINIC ZONE NEAR THE
INTERNATIONAL BORDER... ANOTHER
WEAK IMPULSE TRACKS FROM
SOUTHERN AB INTO SOUTHWESTERN
SK LATE MONDAY WITH SIMILAR
WEATHER... EXTREME COLD WILL
CONTINUE IN NORTHERN ALBERTA FOR
THE NEXT DAY OR SO... THE MUCH-
ADVERTISED WARMUP OVER THE
WESTERN PRAIRIES SEEMS TO HAVE A
MODEL CONSENSUS FOR THURSDAY.
TEMPERATURES WILL RETURN TO
ABOVE-NORMAL

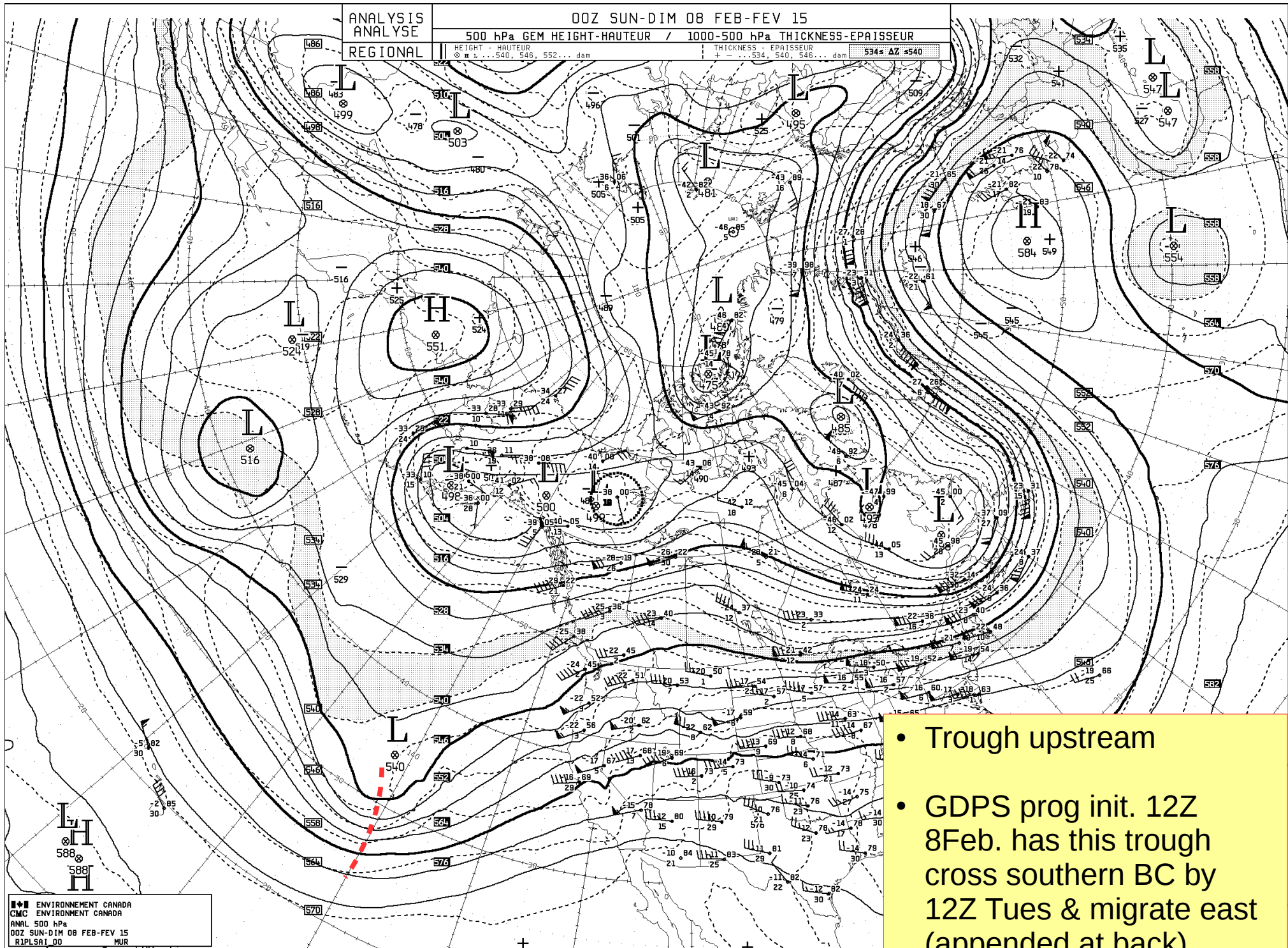


• Baroclinic zone

ANALYSIS ANALYSE	00Z SUN-DIM 08 FEB-FEV 15			
REGIONAL	700 hPa GEM HEIGHT-HAUTEUR TEMPERATURE T-TD			
	HEIGHT - HAUTEUR m 294, 300, 306... dam	TEMPERATURE °C -5, 0, 5... C	T-TD (C)	± 2 ± 5



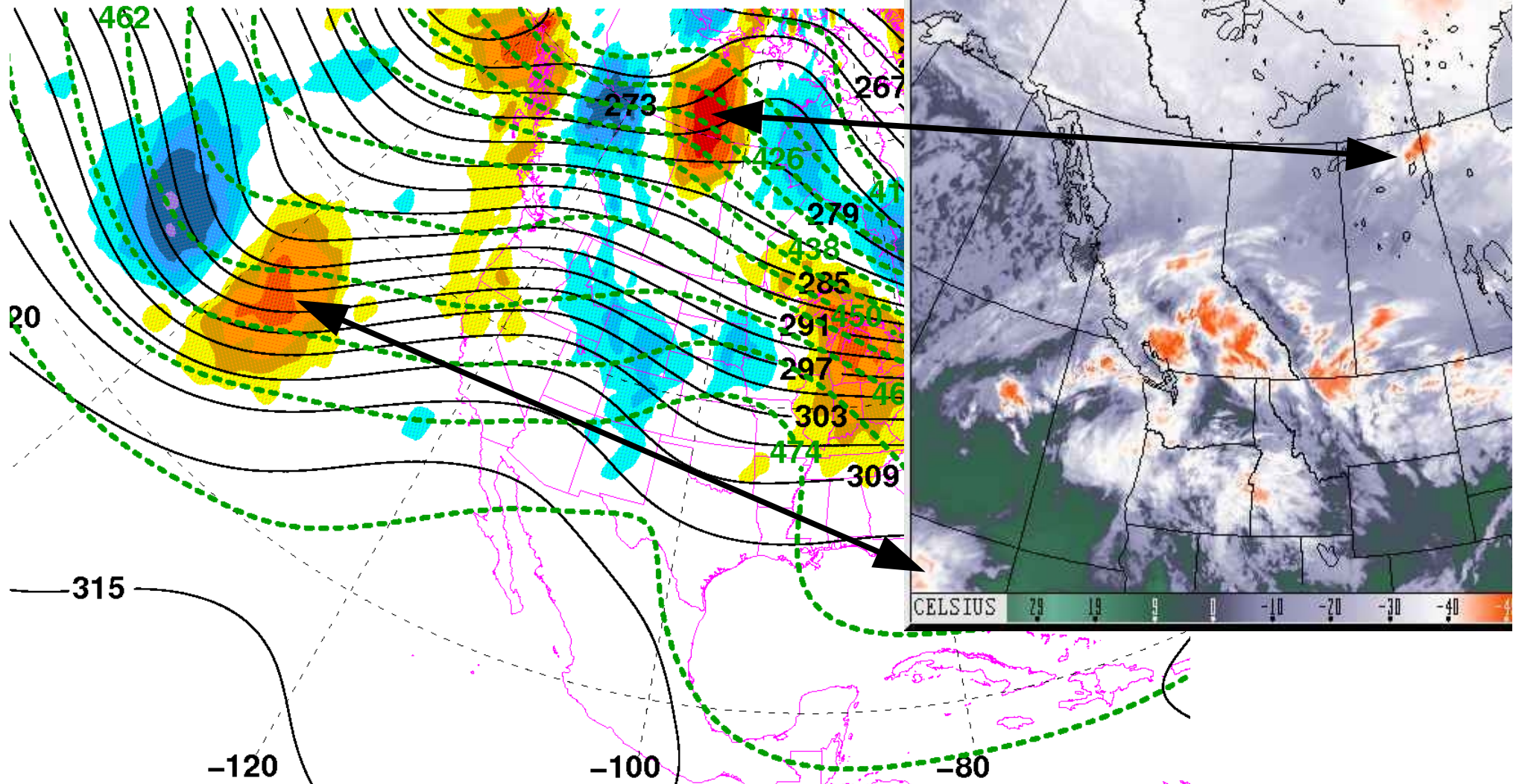
- trough at 60°N
- trough upstream (the “weak impulse”)



- Trough upstream
- GDPS prog init. 12Z 8Feb. has this trough cross southern BC by 12Z Tues & migrate east (appended at back)

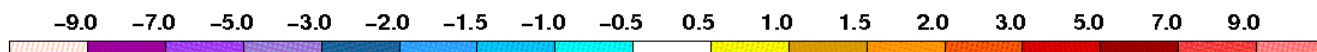
RHS of QG Omega eqn – positive correlates with ascent

- suggests ascent over N. Saskatchewan
- and ahead of the offshore trough



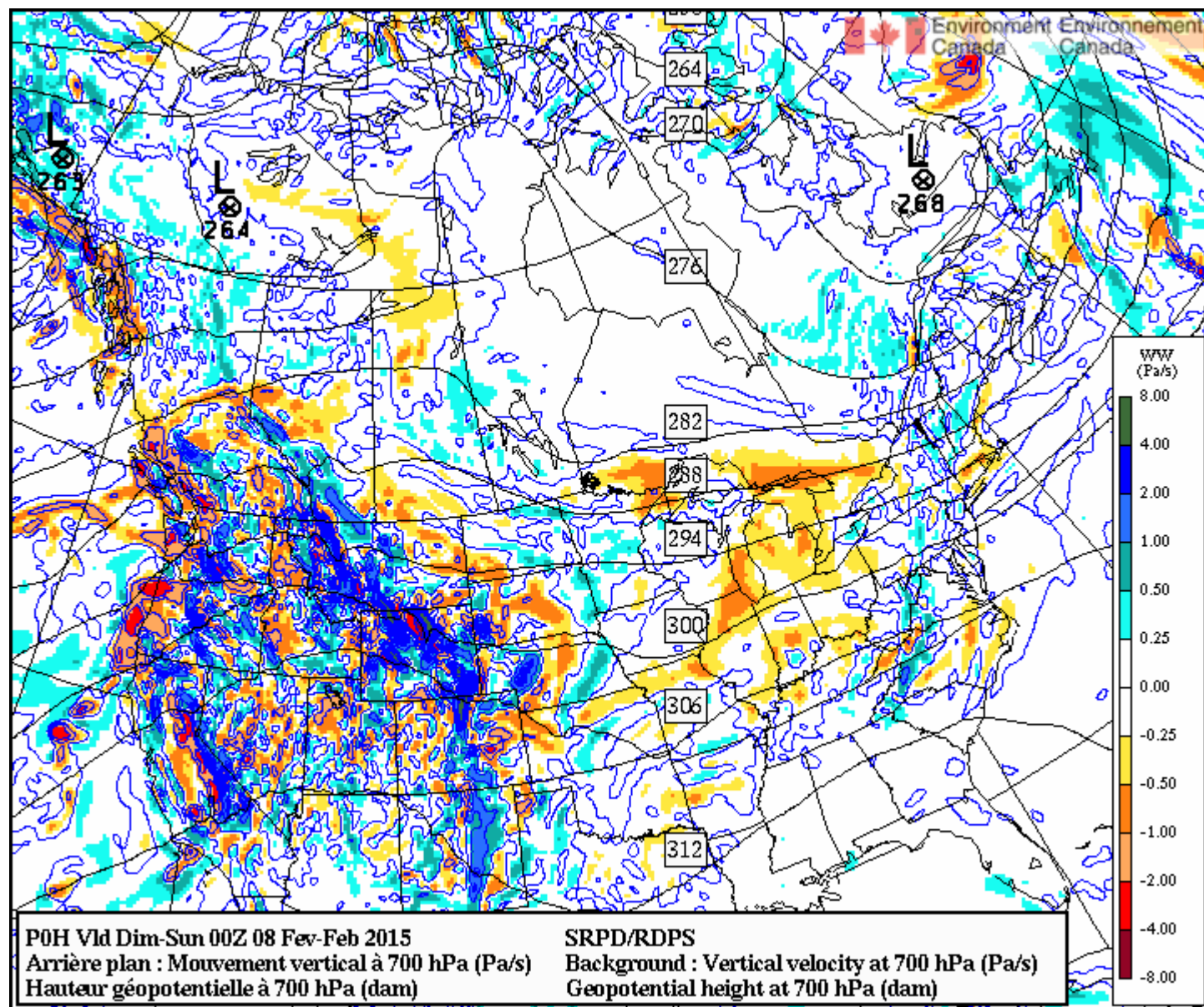
From <http://www2.mmm.ucar.edu/people/tomjr/files/realtime/diagnostics.html>

700 HGHT, 900–500 THCK, RHS Omega Eq at 150208/0000V012

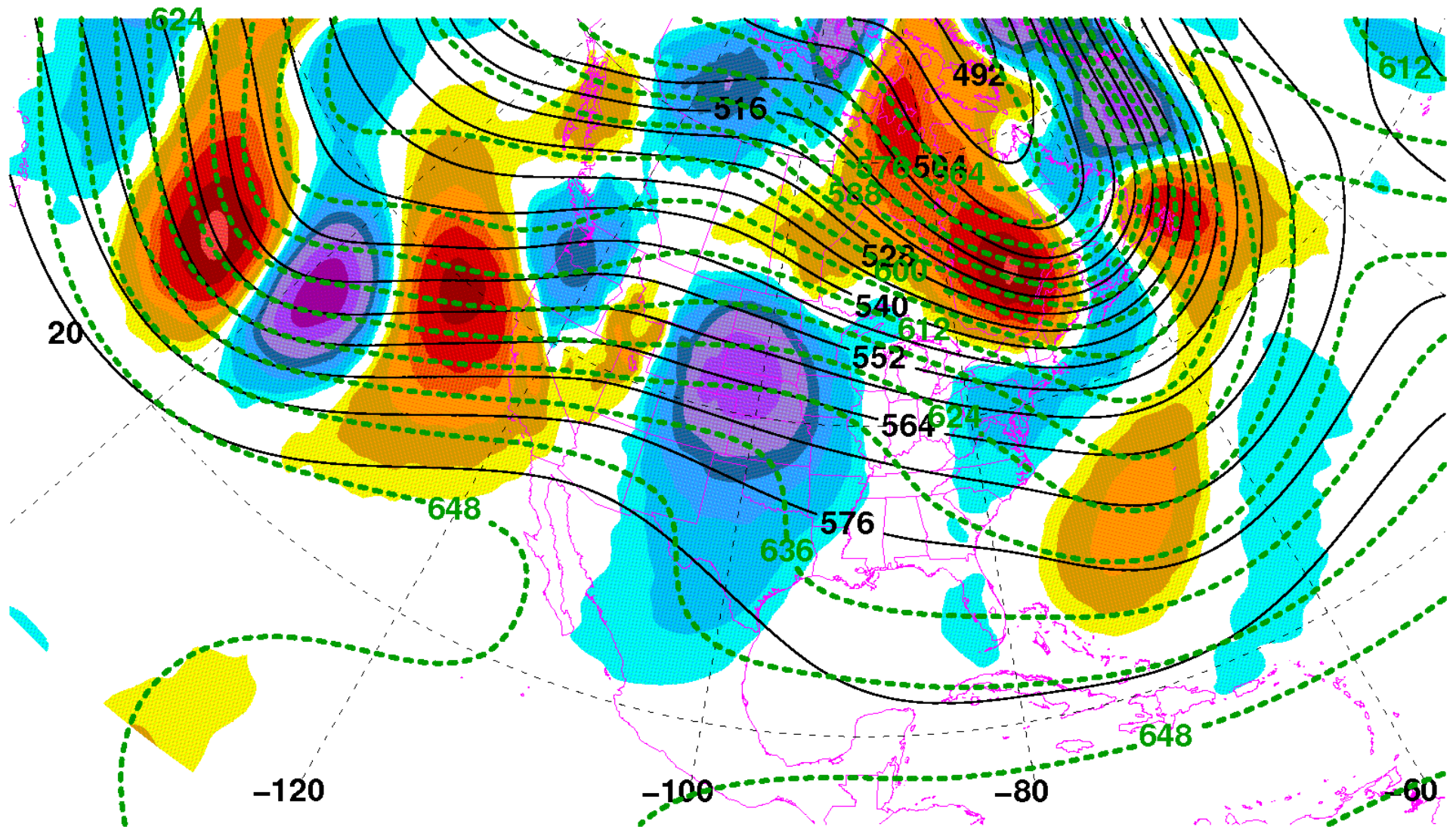


Omega at 700 hPa, RDPS 0h prog, valid 00Z 8 Feb.

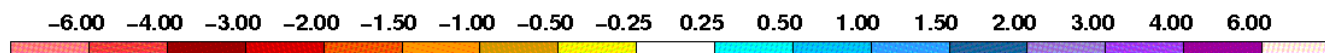
- GEM has indeed diagnosed ascent over N. Saskatchewan



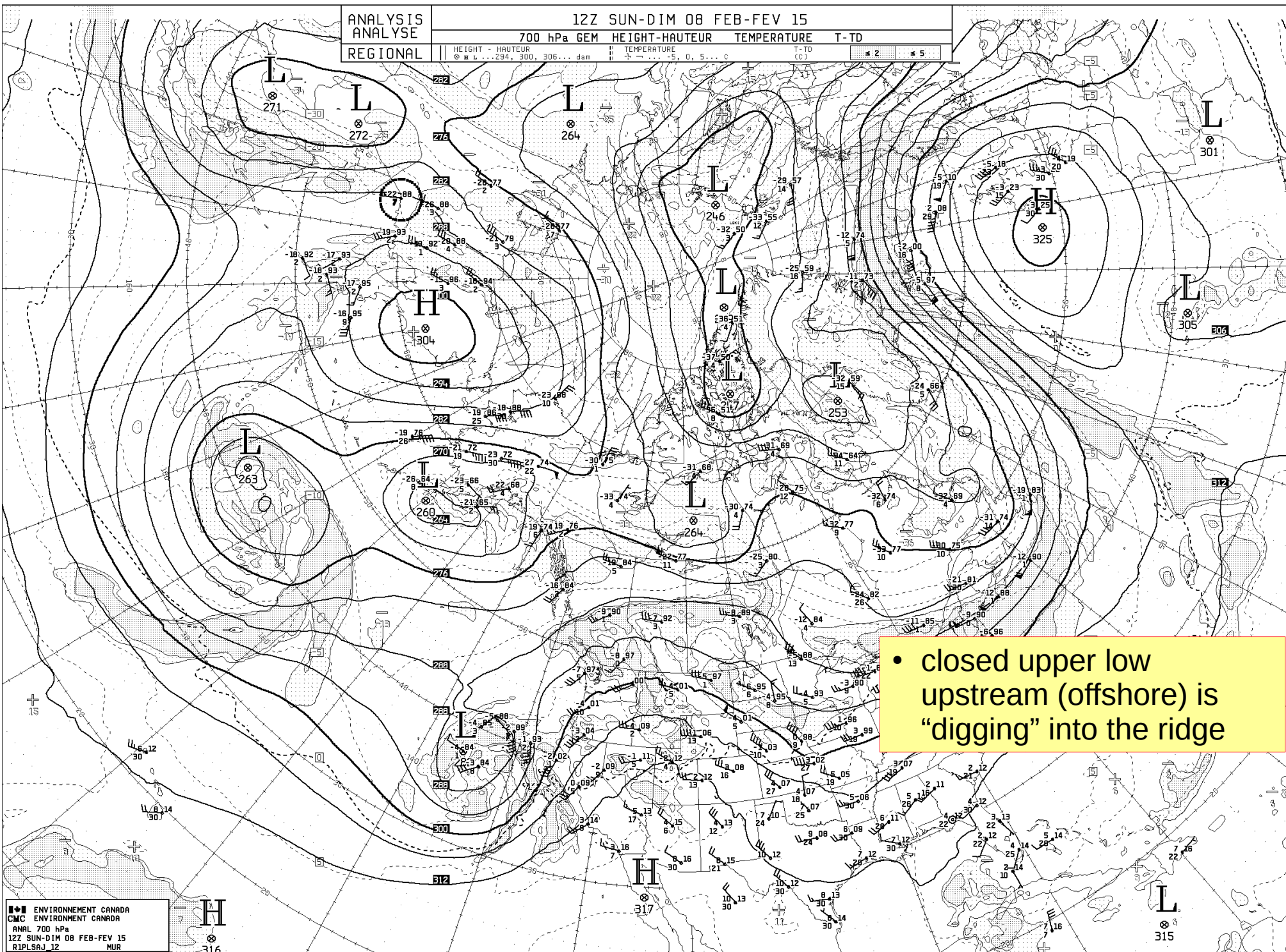
RHS of QG height tendency eqn – positive correlates with height falls



500 HGHT, 700-300 THCK, RHS Hgt Tend Eq at 150208/0000V012



ANALYSE CMC



ANALYSIS
ANALYSE
REGIONAL

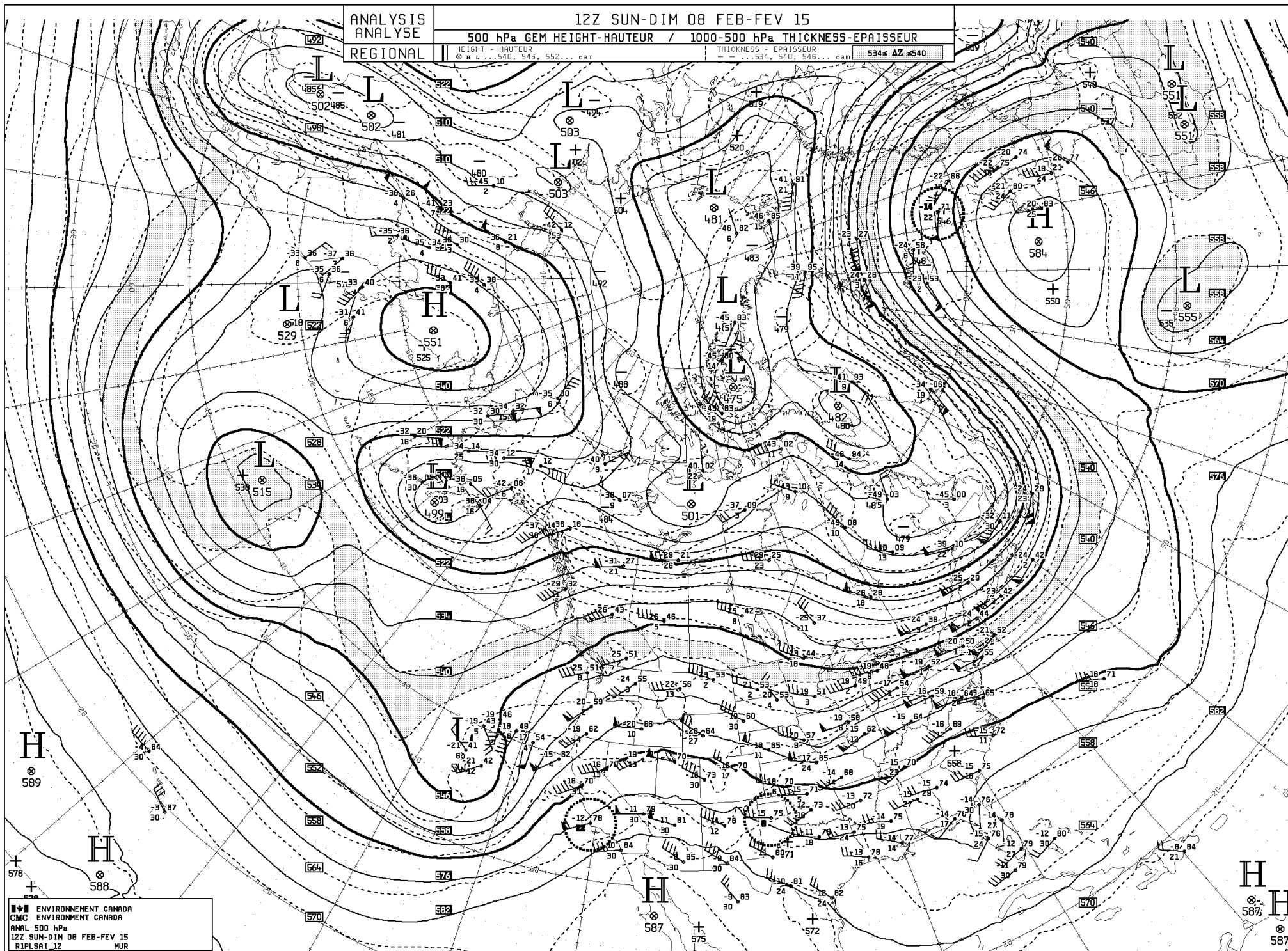
12Z SUN-DIM 08 FEB-FEV 15

500 hPa GEM HEIGHT-HAUTEUR / 1000-500 hPa THICKNESS-EPAISSEUR

HEIGHT - HAUTEUR
m - 540, 546, 552... dam

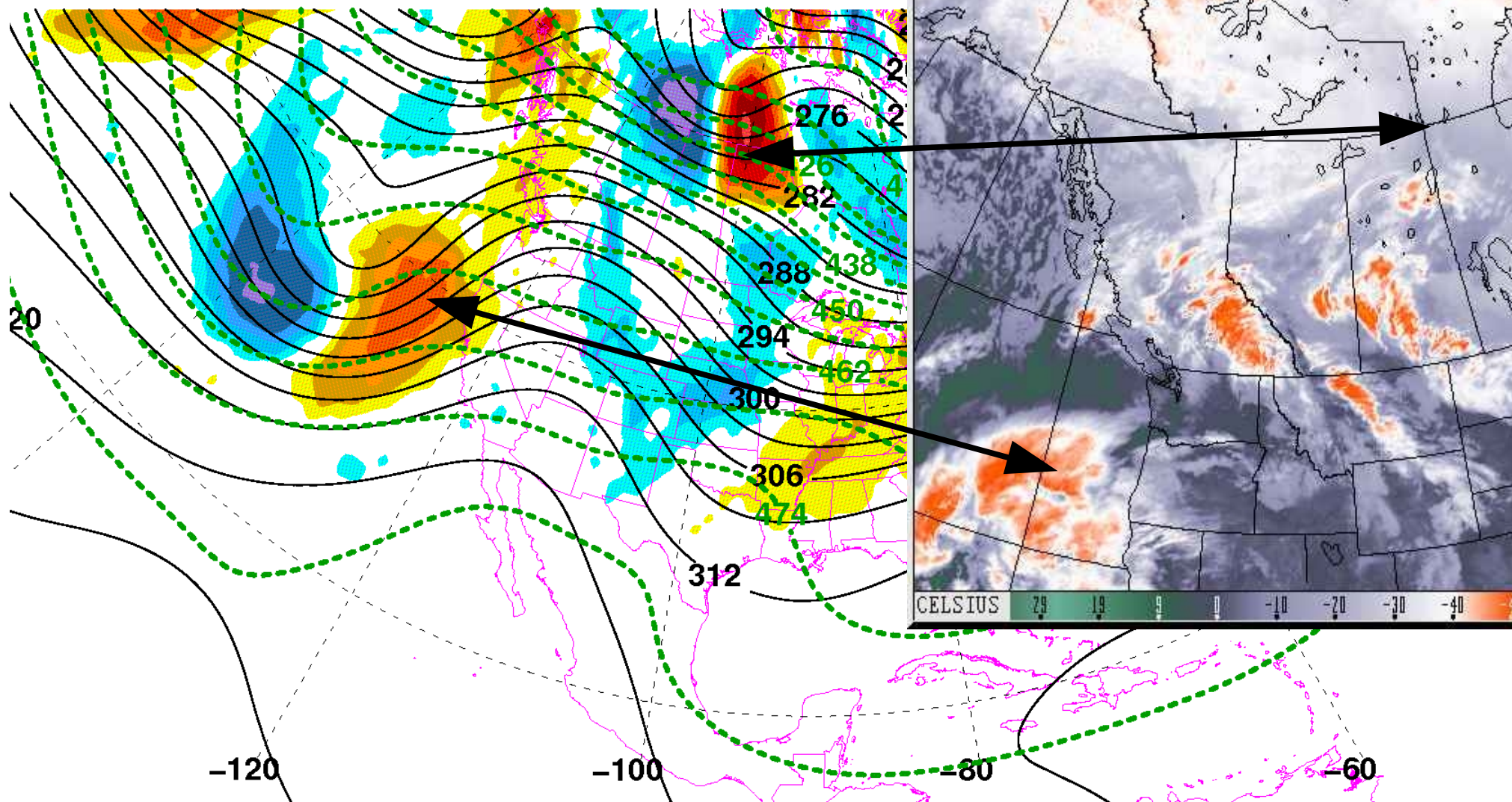
THICKNESS - EPAISSEUR
+ - 534, 540, 546... dam

534± ΔZ ±540

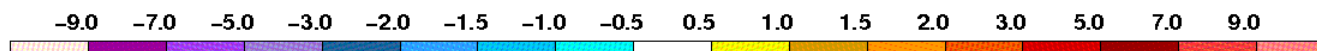


RHS of QG Omega eqn – positive correlates with ascent

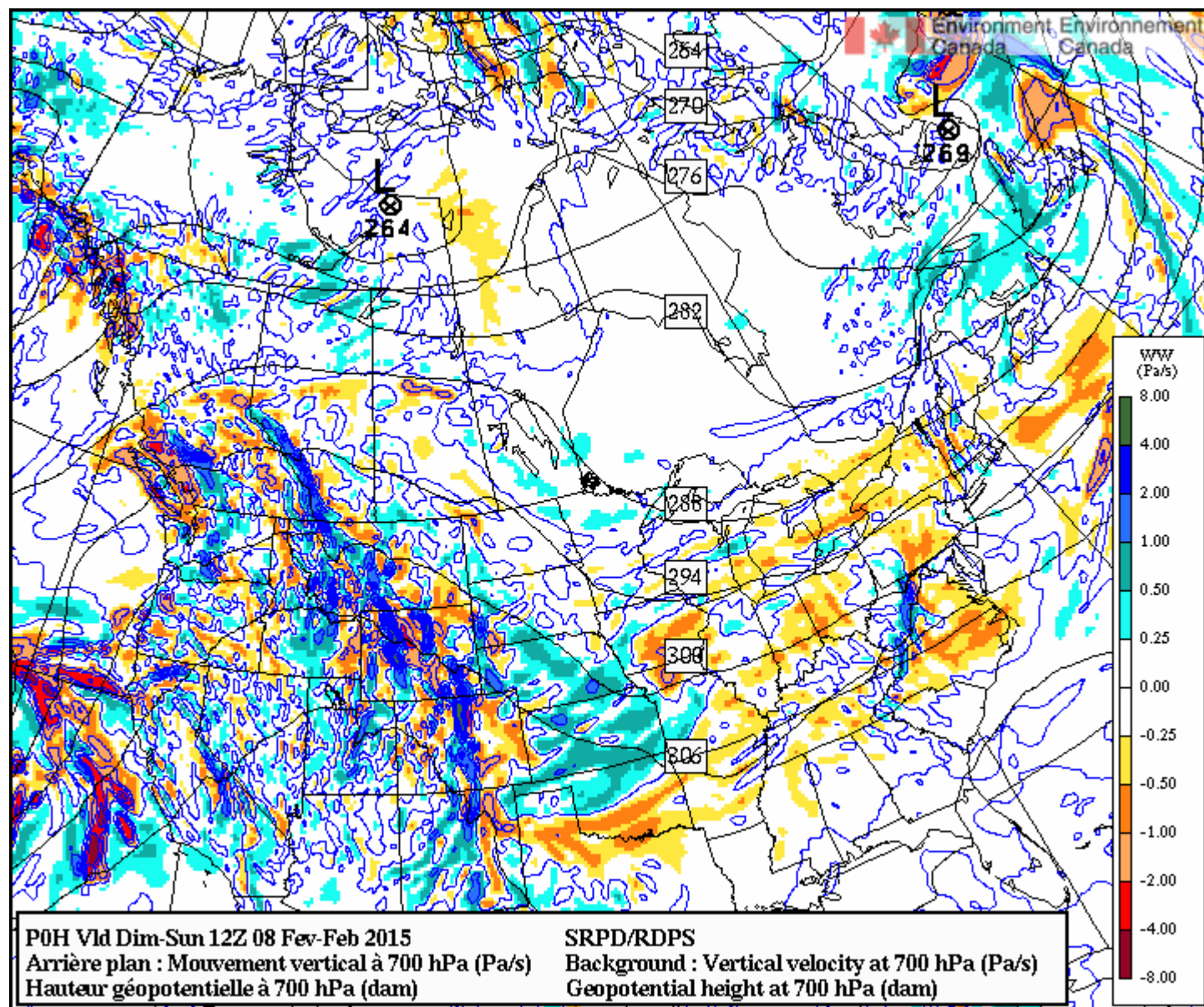
- suggests ascent over N. Manitoba
- and west of Oregon



700 HGHT, 900-500 THCK, RHS Omega Eq at 150208/1200V000

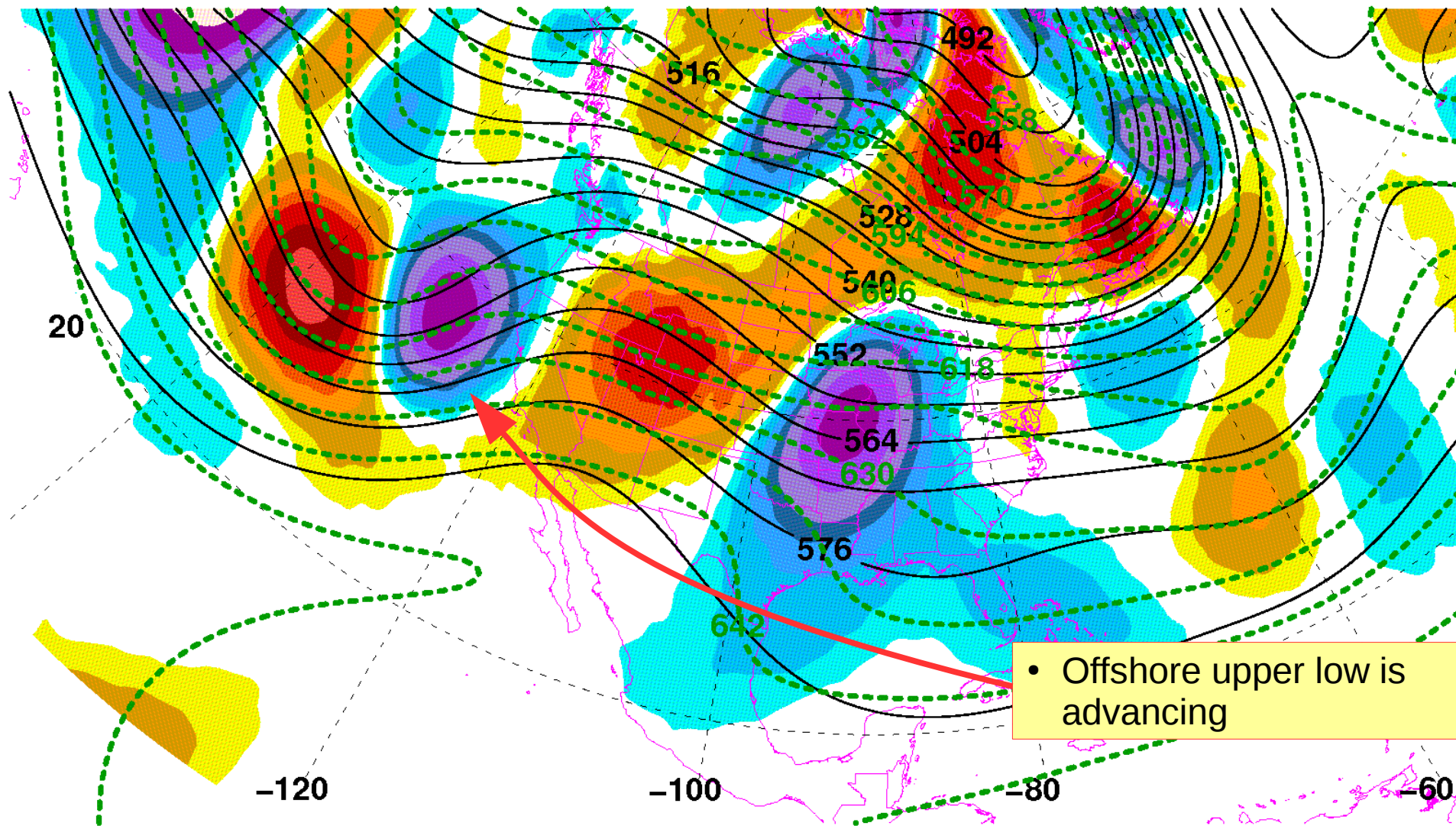


Omega at 700 hPa, RDPS 0h prog, valid 12Z 8 Feb.

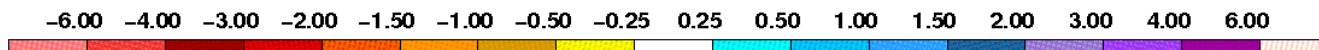


- GEM analyses vertical motion in N. Manitoba

RHS of QG height tendency eqn – positive correlates with height falls



500 HGHT, 700–300 THCK, RHS Hgt Tend Eq at 150208/1200V000



ANALYSIS
ANALYSE
REGIONAL

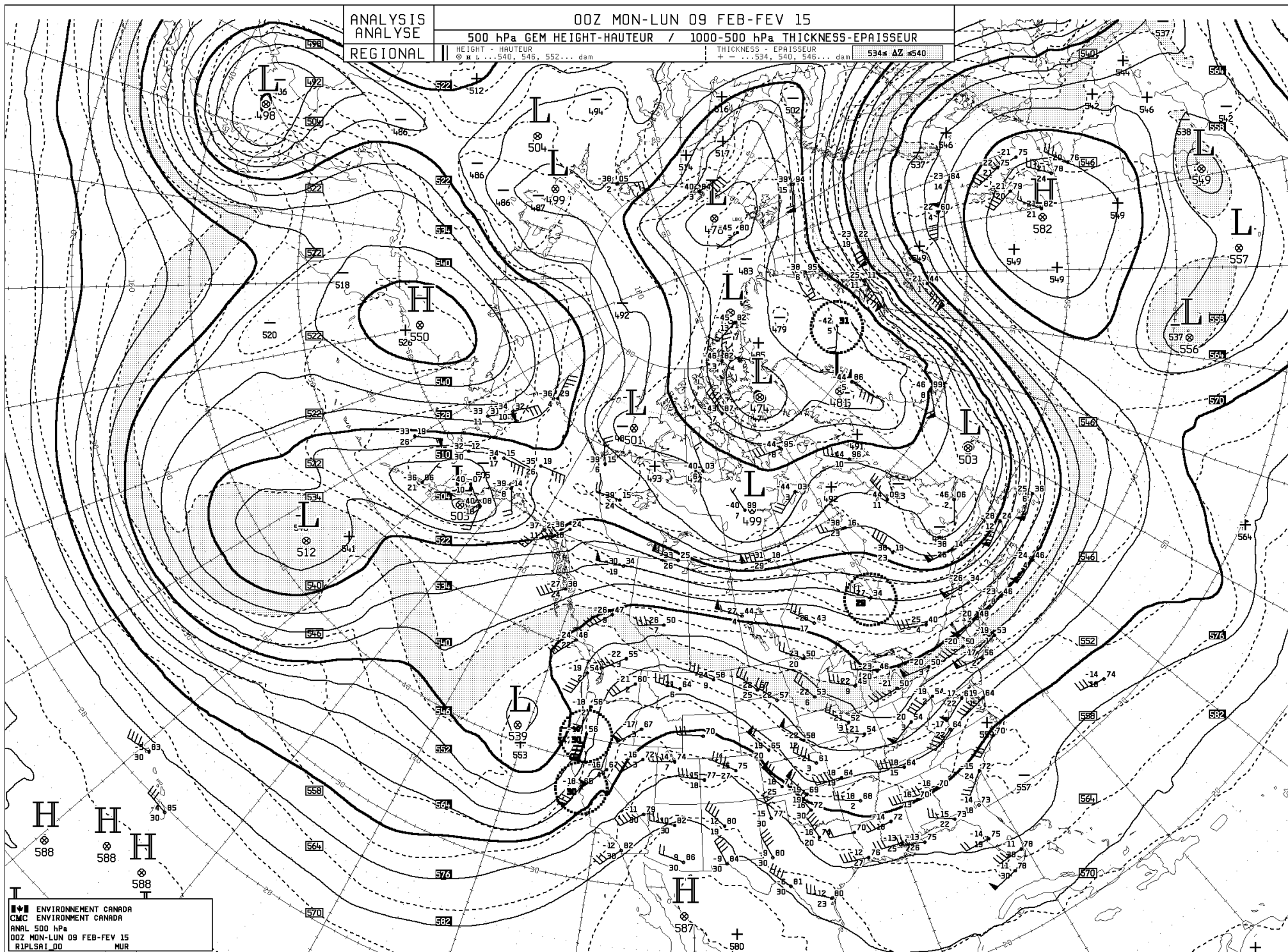
00Z MON-LUN 09 FEB-FEV 15

500 hPa GEM HEIGHT-HAUTEUR / 1000-500 hPa THICKNESS-EPAISSEUR

HEIGHT - HAUTEUR
+ ... 540, 546, 552 ... dam

THICKNESS - EPAISSEUR
+ ... 534, 540, 546 ... dam

534m ΔZ 540



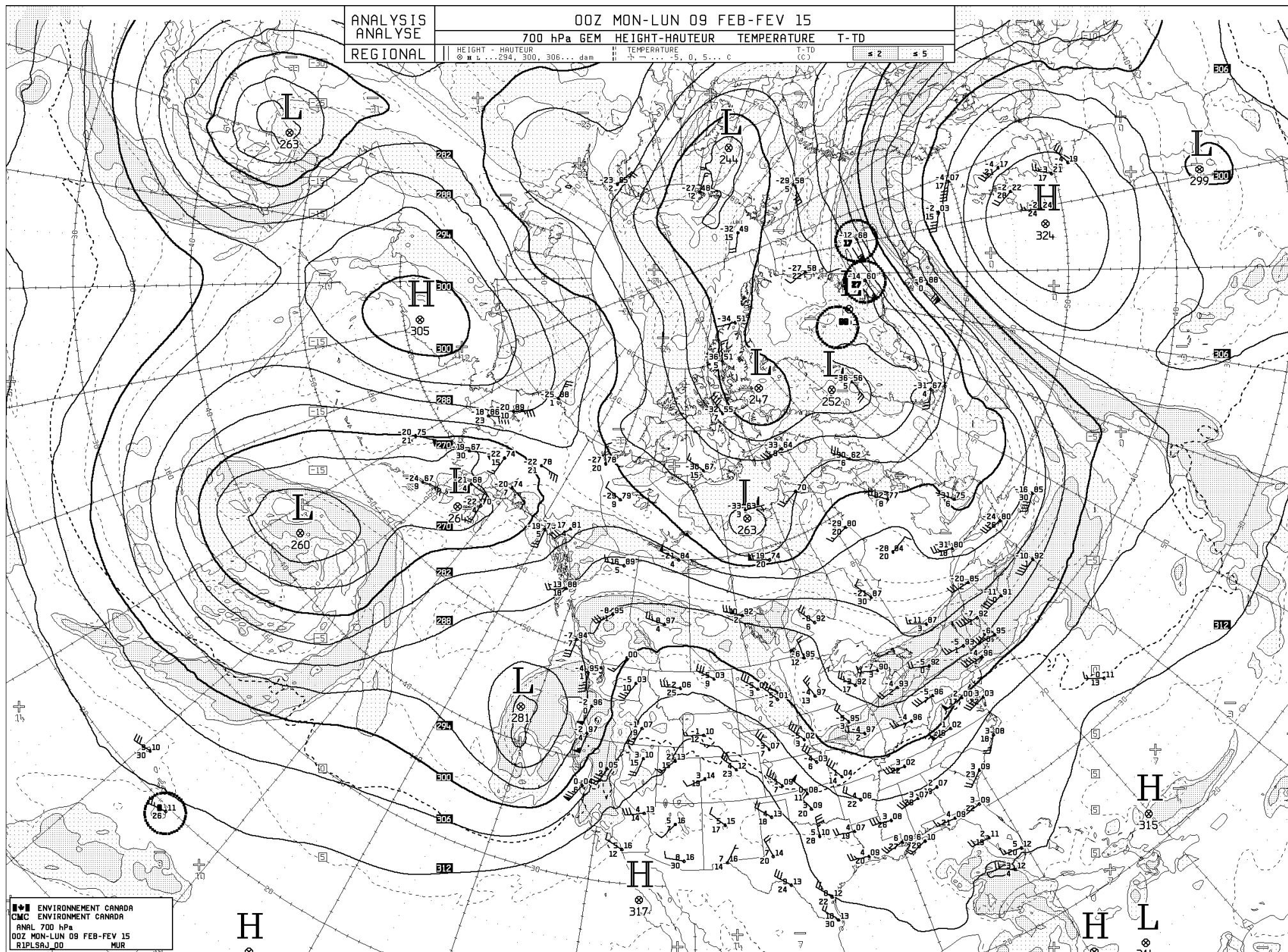
ANALYSIS
ANALYSE

00Z MON-LUN 09 FEB-FEV 15

REGIONAL

700 hPa GEM HEIGHT-HAUTEUR TEMPERATURE T-TD

HEIGHT - HAUTEUR 294, 300, 306... dam TEMPERATURE 5, 0, 5... C T-TD 2 5



ANALYSIS
ANALYSE
REGIONAL

12Z TUE-MAR 10 FEB-FEV 15

500 hPa GEM HEIGHT-HAUTEUR / 1000-500 hPa THICKNESS-EPAISSEUR

HEIGHT - HAUTEUR
+ 534 540 546... dam
THICKNESS - EPAISSEUR
+ 534 540 546... dam 534 ΔZ 540

