

2nd Review of 'Front-orography interactions during landfall of the New Year's Day storm 1992' by Spensberger and Schemm

General comments:

The interactions of the fronts of the famous "New year's day storm" from 1992 with the Norwegian orography is investigated in this paper through analysis of the NORA10 reanalysis data and three simulations with the WRF model (a control and two simulations with modified orography). The study is presented well with detailed analysis and should be of interest to readers of this journal. The authors have addressed my previous concerns about the paper and I have just a few minor additional comments.

Minor specific comments:

L153 Here you refer to Fig 2e,f as evidence that the "southwesterlies in the warm sector at 850 hPa are not evident in the wind field in the lee of the Scandes". However, this figure doesn't show wind field but instead shows θ_e and geopotential height. Are you inferring the (geostrophic) wind field from the geopotential height?

L215 Here you say that the θ_e gradient is less locally confined on the northern side of the seclusion *without* orographic influence. However, as you state earlier in the same sentence (and as shown in Fig 7), it is in the double orography simulation that the "bent-back front extends less far around the warm-air seclusion" (compared to the control and no orography (control) simulation). Hence you seem to be contradicting yourselves.

L230, 231 Here you refer to the "incipient" cyclone (in 2 places). This word doesn't really make sense though given that I think you're referring to the existing mature cyclone and incipient means beginning to happen/develop. Do you mean "existing" cyclone? Also in L282, do you really mean "incipient"?

Technical errors:

Abstract, L2 "Cost" should be "coast"

L216 "are" should be "is".

L353 "emerges to rapidly" should be "emerges too rapidly".