

An aerial photograph of a vast, snow-covered mountain range. The terrain is rugged with deep crevasses and ridges. Two paragliders are visible: one in the upper left with an orange and yellow canopy, and another in the lower right with a bright red canopy. The sky is clear and blue.

# Winter weather

Przemek Marek  
LLSC club night, Feb 2018

# Coming up:



- What's different about winter?
- Weather forecasting for a hike and fly
- What to watch out for in big hills
- Example SkewT
- Scary/sobering stuff

# Why is winter “different”?



- The sun is lower above the horizon
  - There is less heat coming in
  - Hence more stability in the atmosphere

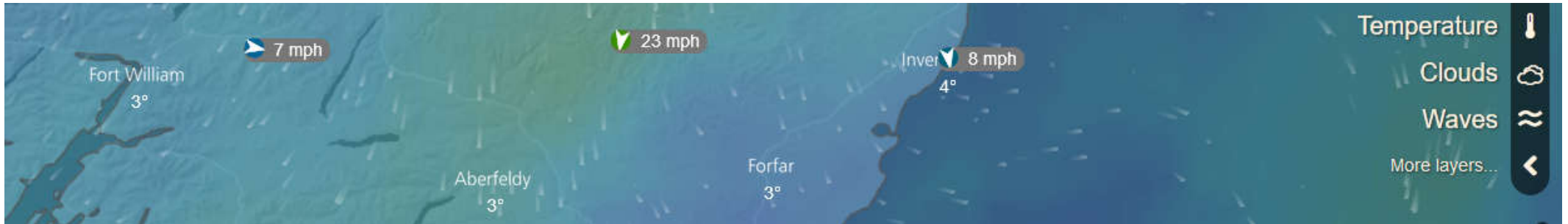
# Which means...?



- Stronger wind gradients
- Lee side rotors reaching further downwind
- Seriously strong capping inversions
- Very “layered” air
  - Strong shear layers
  - Air flowing in unusual ways

# Weather forecasting in winter

(is not black magic if you know what to look for)



1. Don't look at XCWeather
2. Check more height levels – both speed and direction
3. Check more forecasts – do they agree?
4. Check MWIS – does it tally up with our other sources?
5. Know your SkewT for the day!

Also: be sensible with snow: avalanches, hiking gear, sunrise/sunset times

# What do watch out for

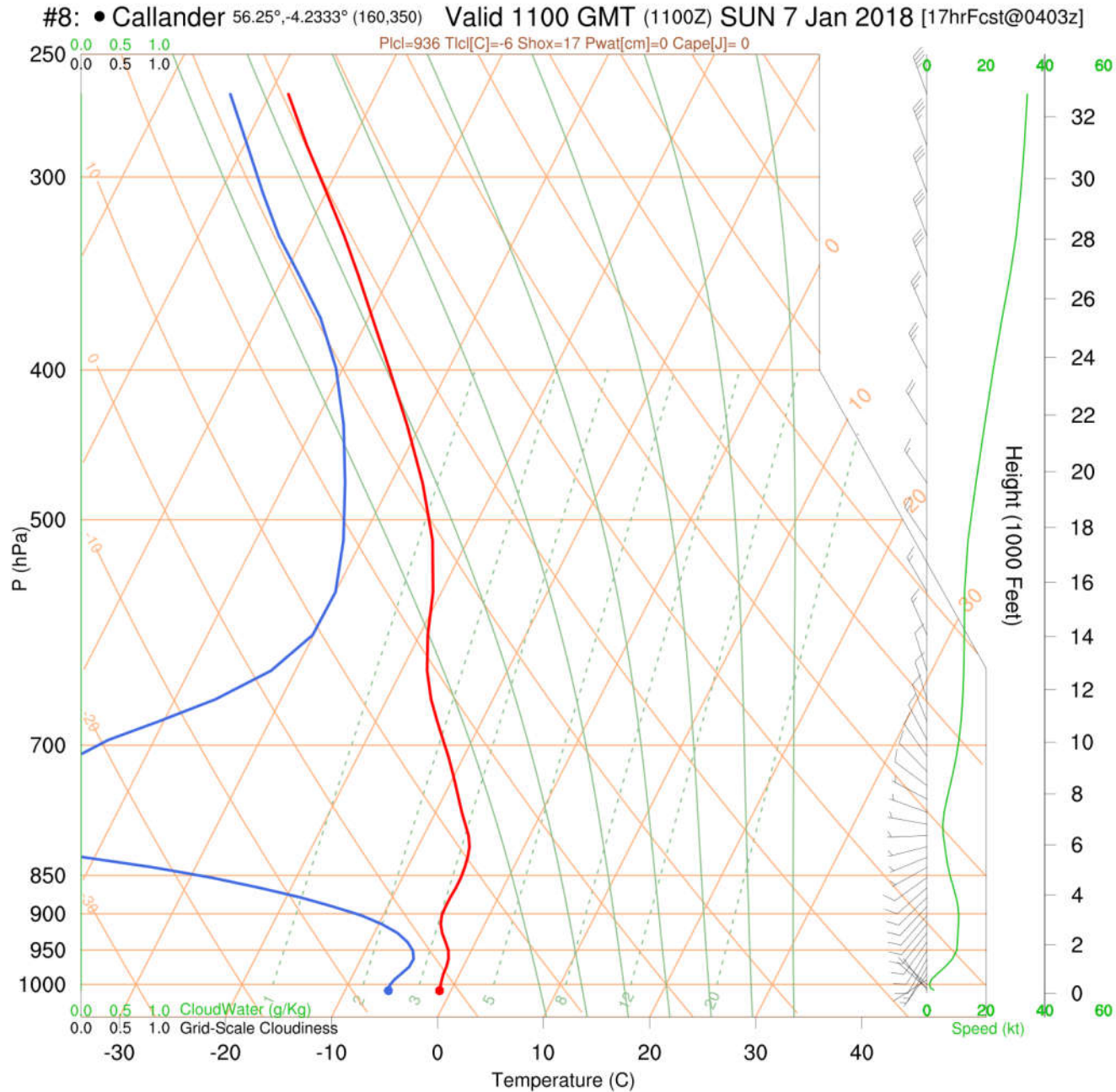


All the usual things, but often “turned to 11”:

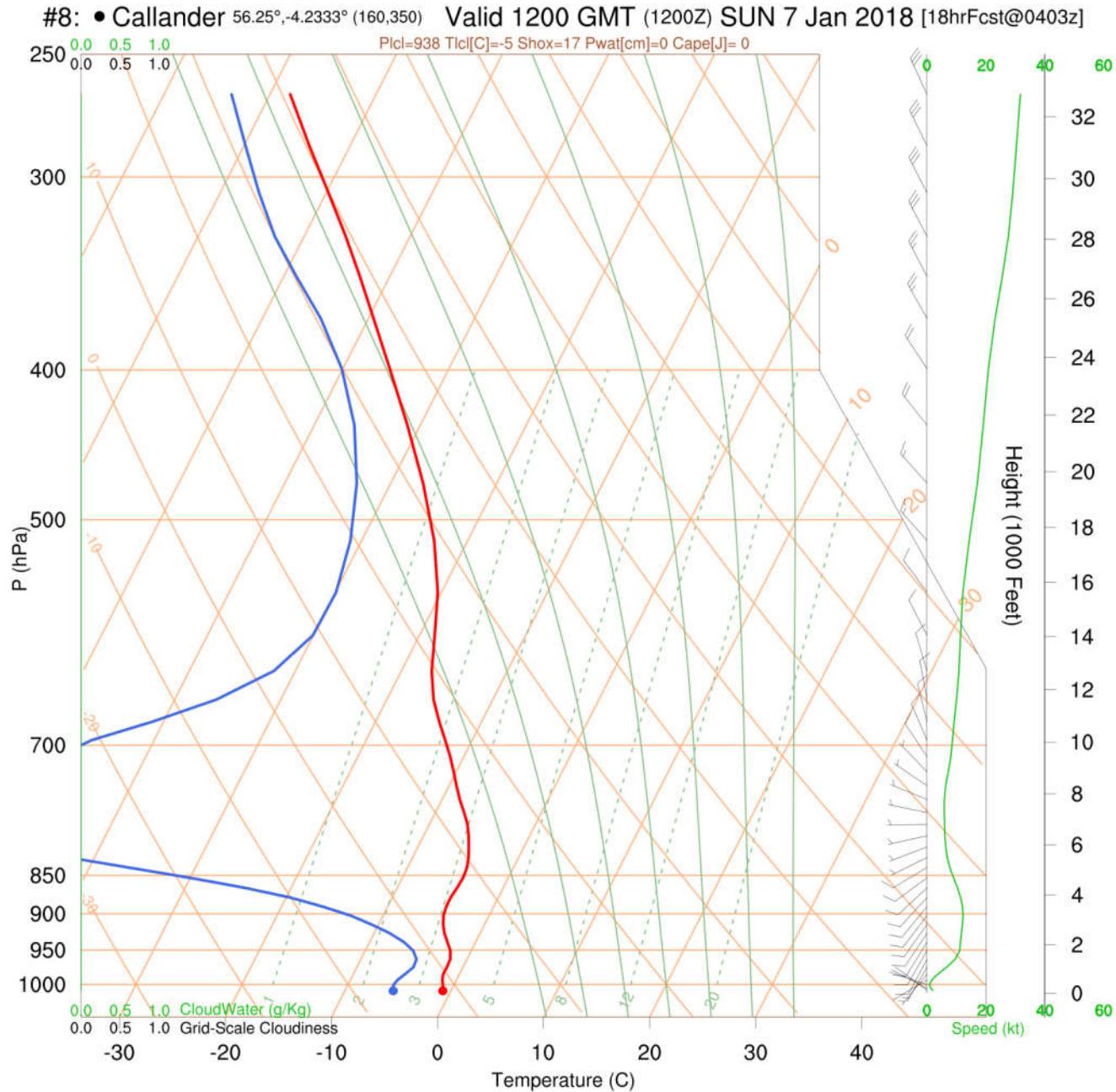
- Larger lee sides
- Stronger turbulence in shear layers
- Wind direction can change significantly across the face
- Gullies can suck more
- Increased “compression”, especially on stable days
- Valleys with trapped cold air

Hike and fly often involves new sites, so take a moment to ponder over what may be going on around.

# SkewT from Ben Ledi day

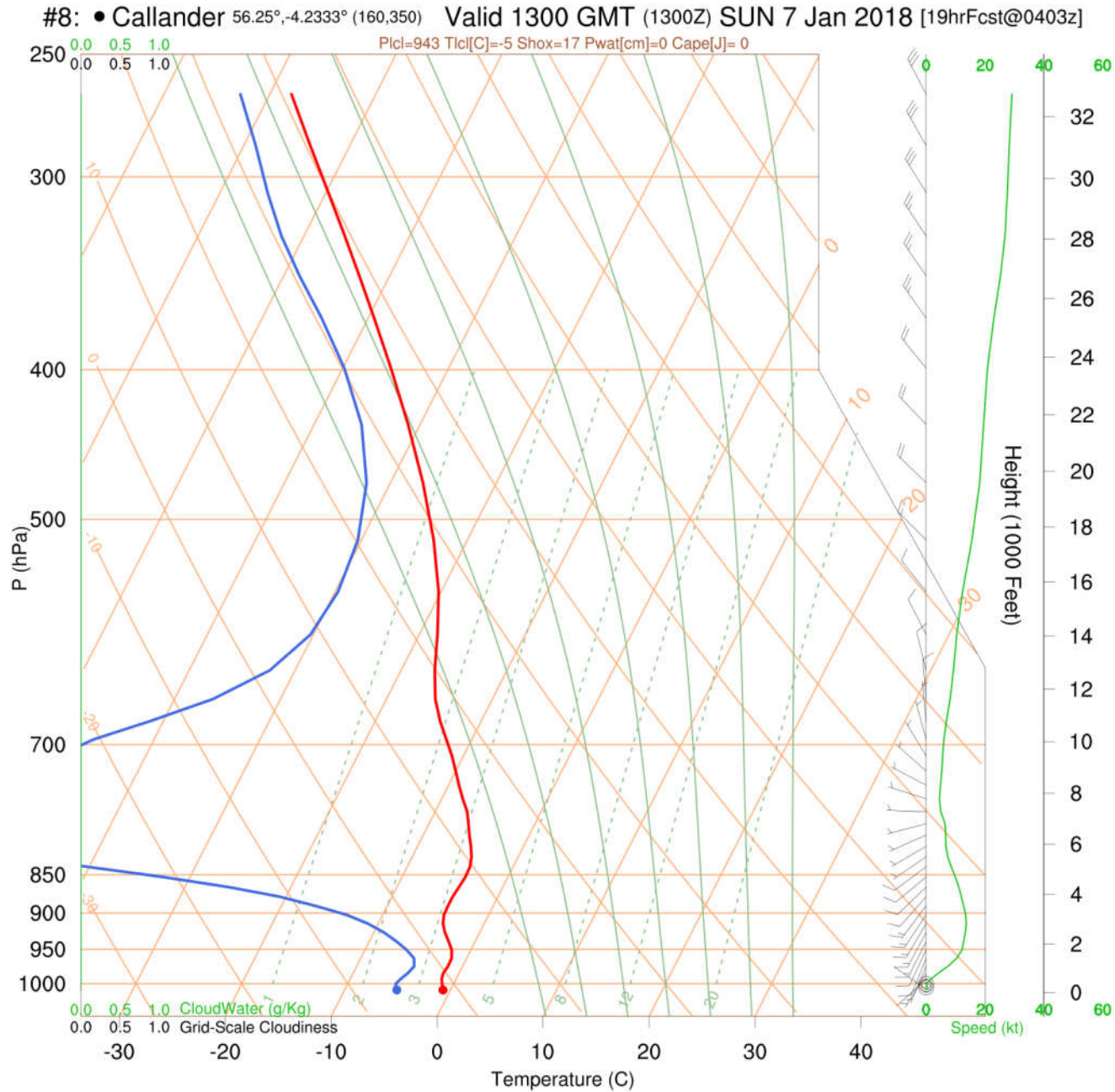


# SkewT from Ben Ledi day

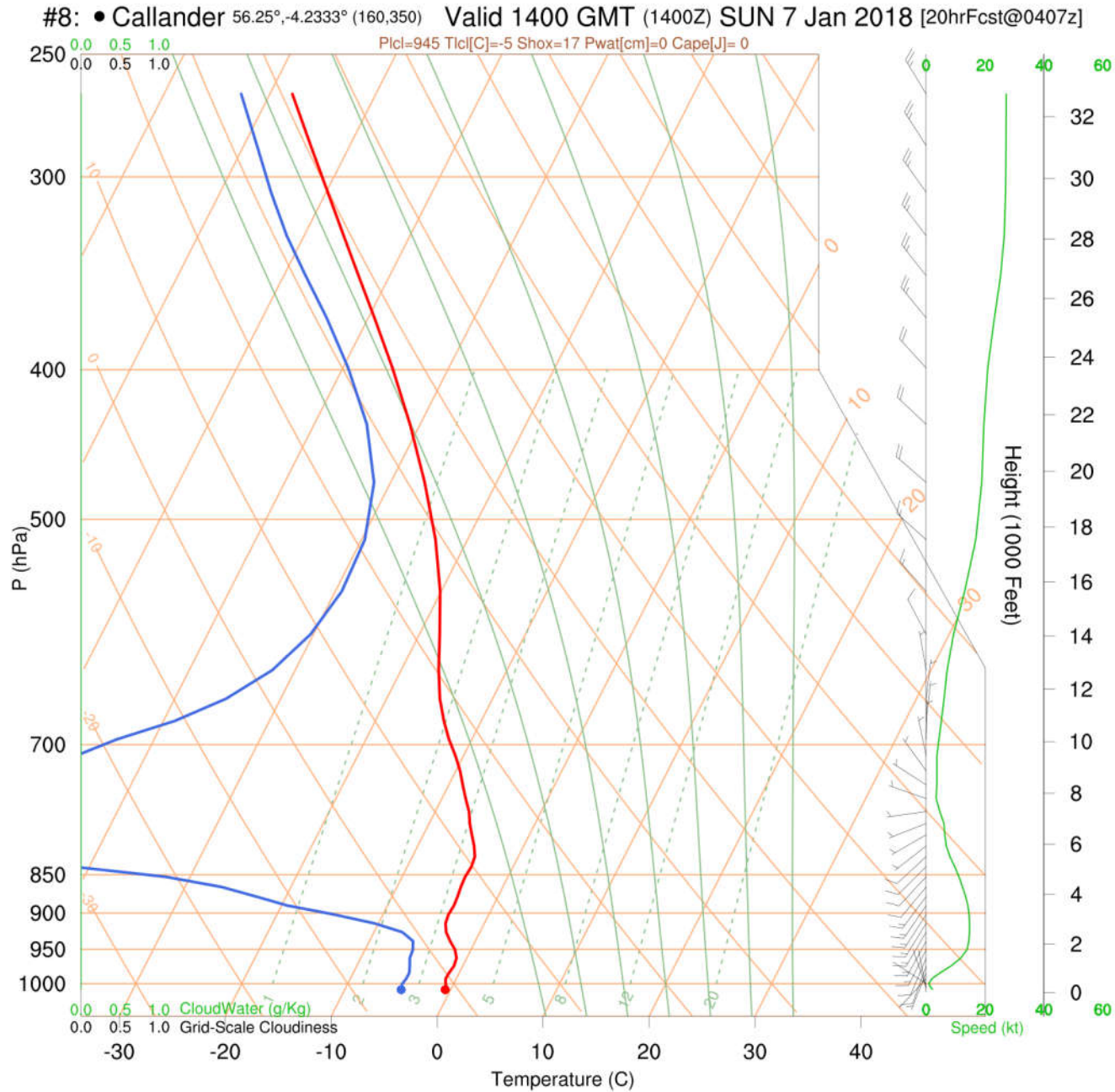




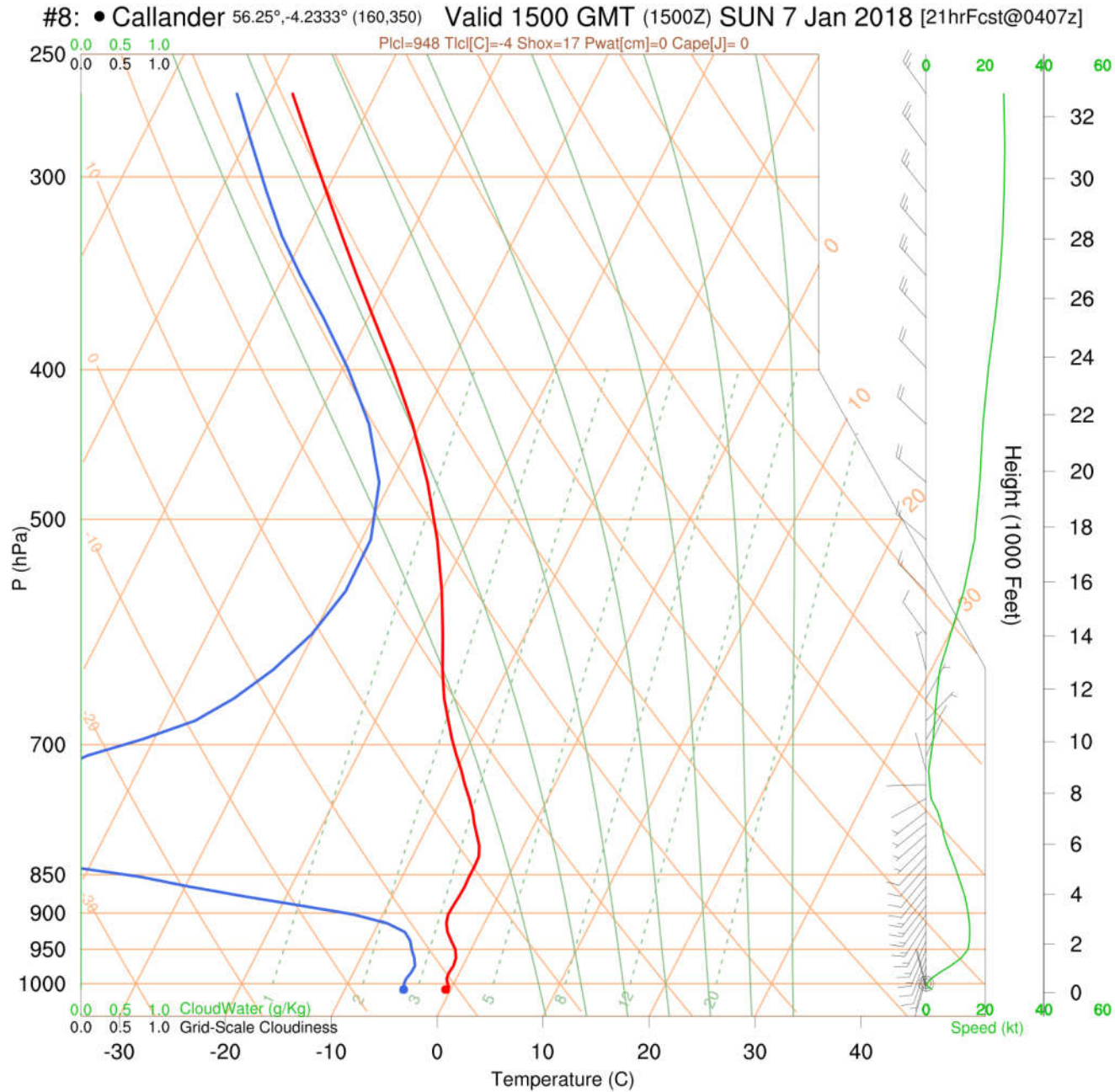
# SkewT from Ben Ledi day



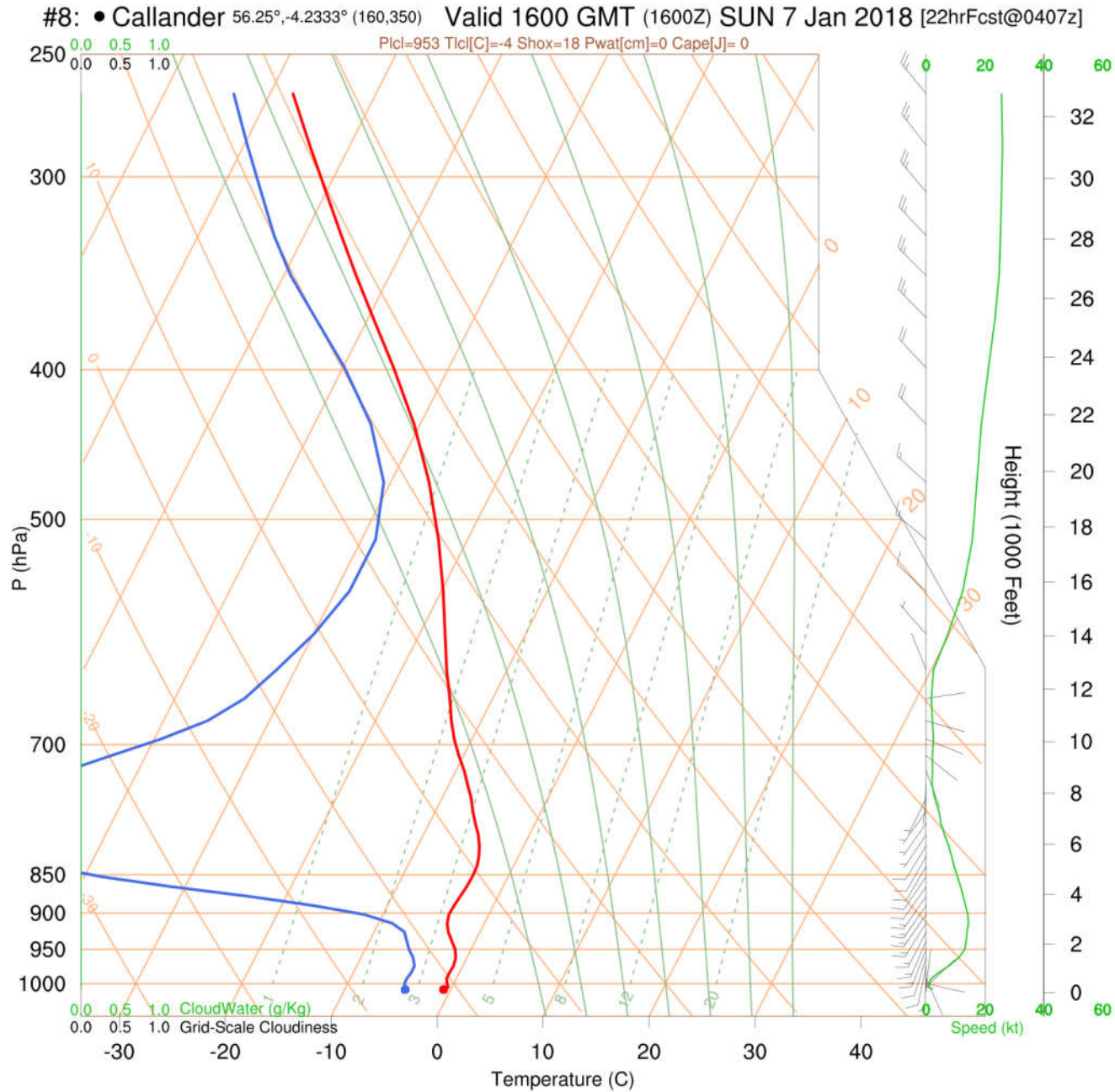
# SkewT from Ben Ledi day



# SkewT from Ben Ledi day



# SkewT from Ben Ledi day



# A word of warning



Winter flying can be great, but there are more unknown unknowns out there:

- We are keen to get out
- We are less used to winter air flow patterns
- Forecasts tend to be less predictable
- Experienced pilots get caught out: <https://goo.gl/R1PT4r>

# Have fun and stay safe

