



## More on inversions

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Inversions are known to be important for the structure and magnitude of orographic flow disturbances. Several observational and numerical evidence of the impact of inversions is presented, ranging from gravity waves with extreme rotors to weak mountain flow. A preliminary attempt to map the climatology of inversions in Iceland is also presented.

The above studies indicate that elements of the flow may be very sensitive to not only the elevation, but also the strength or sharpness of the inversion. A temperature change of less than 2 K at the inversion may transform the downstream flow pattern, leading to an increased magnitude of vertical velocities by an order of magnitude, up to tens of m/s. Numerical weather prediction models tend to fail in reproduction of the inversions.