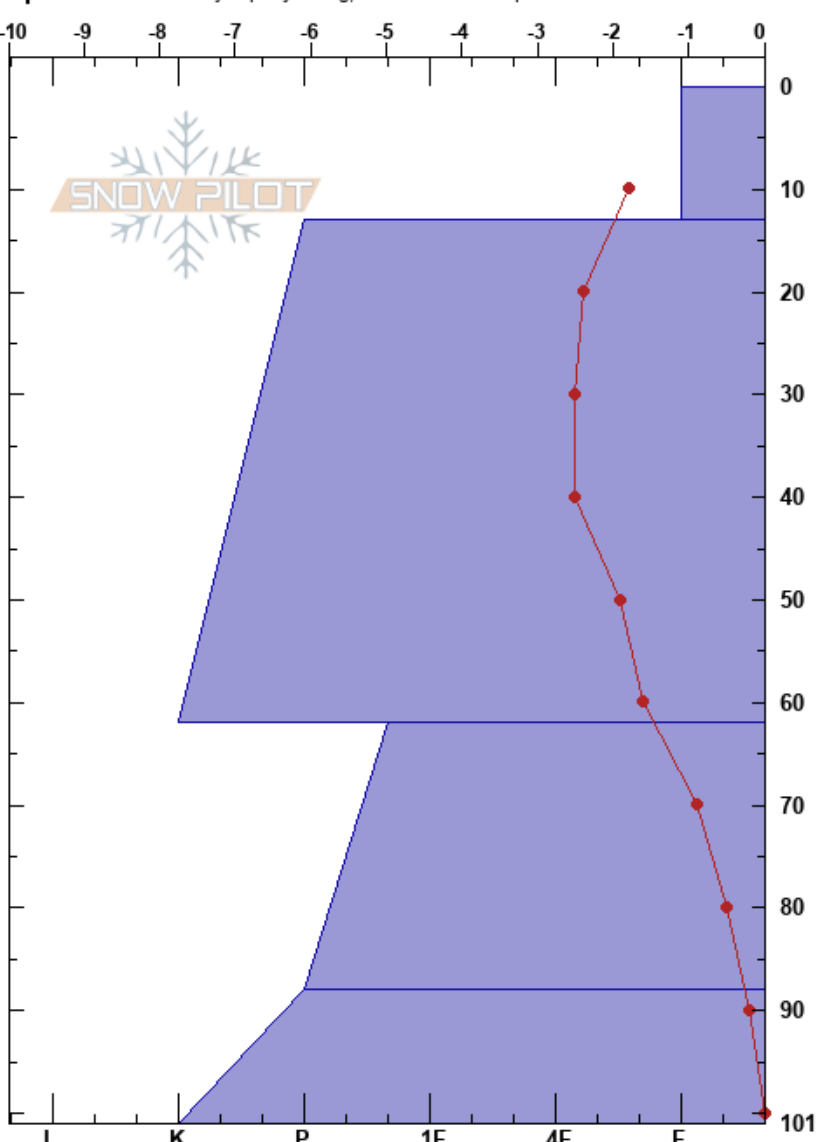


Echmishte Study Plot  
 Pirin  
 Bulgaria  
**Elevation:** 1952 m  
**Aspect:** N  
**Specifics:** Instability rapidly rising; Ski tracks on slope

Alexander Mihaylov  
 22/01/2021 - 16:45  
**Co-ord:** 41.76813N, 23.44935E  
**Slope Angle:** 5°  
**Wind Loading:** previous

**Stability:** Very Good  
**Air Temperature:** 1.1°C  
**Sky Cover:** OVC  
**Precipitation:** S-1  
**Wind:** S Light Breeze

**HS:**101  
**PF:**20  
**Layer Notes:**  
 0-13cm: potential future weak layer  
 0-13cm: Problematic layer  
 13-62cm: 7-11 Jan heavy rain cycle  
 62-88cm: rounding with neck bonds  
 88-101cm: no depth hoar



Form	Crystal Size	Moisture	$\rho$ kg/m <sup>3</sup>	Stability tests & Layer comments
☒	1			
☒	2-3	D		0-13cm: potential future weak layer
☉☉		D		13-62cm: 7-11 Jan heavy rain cycle
⊖	0.5-1.5	D		62-88cm: rounding with neck bonds
☉☉		D		88-101cm: no depth hoar

**Notes:** Our goal was to investigate snowpack development in treeline elevation band. More specifically the goal was to explore the evolution of the ice layers formed by the heavy rain cycle 2 weeks ago, followed by an arctic cold spell with min. temps of -22.

Summary of results: the rain cycle has helped the formation of a homogenous base of the snow pack at this elevation with almost a 50 cm thick laminated melt-freeze crust. The anticipation of sudden planar test results on top of that layer was not confirmed - both CT & ECT did not produce any results.

Concerning is the top layer of faceted crystals (near surface facets), that once buried may become a weak layer. We currently see this happening at higher elevations as a result of wind slabs forming strong and heavy layers on top of this low density and low strength (weak) layer.