Spring Conditions Scenario 3:
All Melt, No Freeze

Weather
This spring scenario is defined by warmer than average temperatures and in particular, no overnight freeze. Typically, the upper flow bringing this kind of weather is from the south or southwest and the very warm air persists overnight and even alpine temperatures do not drop below freezing. Sometimes, cloud cover (especially thin overcast conditions) helps prevent radiation loss at night, keeping things relatively warm. While this kind of scenario is most likely to be associated with warm, sunny weather, a warm rainy spell could also lead to conditions described below.

Snowpack
Under this scenario, the snowpack becomes progressively weaker, wetter and less cohesive. In the absence of a thick, supportive, frozen crust developing overnight the upper snowpack will gain little or no strength, and stability will tend to deteriorate very rapidly with daytime warming.

At the start of a melt regime, surfaces become wet or moist but after prolonged warming, melt water can percolate deeper into the snowpack, potentially activating deeper persistent weaknesses such as crusts, deeply buried facet or surface hoar layers, or basal facets and depth hoar from the fall and early winter. When the snowpack is wet throughout its depth and all layers are at the same temperature (at 0 degrees C) it's referred to as an isothermal snowpack. At this point, full depth avalanches and reactivity on the season's persistent weak layers becomes more likely.

Avalanche Activity
Avalanche activity under this scenario is likely to be more intense with a higher likelihood of triggering large, destructive avalanches. While loose snow avalanches are the most common type, wet slab avalanches, deep persistent avalanches, glide avalanches and cornice falls are all possible.

As surfaces lose cohesion due to melting, loose wet avalanches become common in steeper terrain. Basically, the more the snow feels like a slurpy, the more likely loose wet avalanches become. Although they may initially involve only superficial amounts of surface snow, they can be pushy, entrain mass quickly and run long distances.

As loose wet avalanches increase in size and distribution, destructive wet slabs and deep persistent slab avalanches should be on your radar. These types of avalanches are much more difficult to predict than loose wet avalanches and involve deeply buried weak layers in the mid and lower snowpack. If deeply buried or basal persistent layers like surface hoar, facets, or depth hoar exist in the snowpack, deep persistent avalanches can run full path if triggered.

No-freeze scenarios can also initiate large and destructive cornice falls. Cornices can be destructive by themselves but also act as a trigger for destructive deep persistent avalanches.

Terrain and Travel Advice
- The more the snowpack warms-up and weakens, the more conservative you`ll want to be with your terrain selection. These are not the best conditions to test out your hill climbing ability in big mountain terrain.
- Reduce your exposure to overhead avalanche terrain. Large avalanches may reach the end of their run-out zones. Be alert to conditions that change with aspect, elevation and time of day. Rain or periods of intense solar radiation can rapidly enhance the effects of warming.
- It's especially important to give cornices a wide berth when travelling on or below ridges.