Aoraki/Mt Cook

4 High

Heavy rain and snowfall should ease through the day on Monday - however the snowpack will take time settle. Be cautious traveling just after this storm. Loose Wet, Wind Slab, Wet slab and Persistent Slab are all current considerations. Any travel as the storm eases or clears should be approached very cautiously for the next 24 hours.

Issued

Sunday 10th September 2023 20:55

Valid until

Monday 11th September 2023 20:55

High Alpine Above 2000 meters		**4 High** Very dangerous avalanche conditions. Travel in avalanche terrain not recommended.
Alpine 1500 - 2000 meters		**4 High** Very dangerous avalanche conditions. Travel in avalanche terrain not recommended.
Sub Alpine Below 1500 meters		**1 Low** Generally safe avalanche conditions. Watch for unstable snow on isolated terrain features.

Avalanche Problem 1

Likelihood

Almost Certain

Unlikely

Size

Largest

Smallest

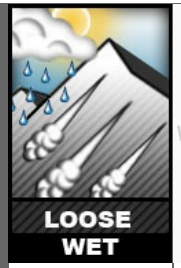
Trend
INCREASING

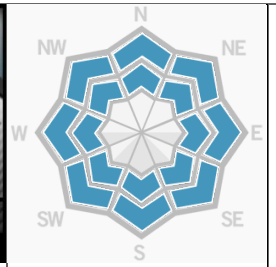
Time of Day
ALL DAY

Description
Slab will be forming on most aspects. Heavy snow and gale force winds will produced windslab lee the North West. These wind slabs may exceed 100cm thick.

Be cautious on all ridge crest entries or large convex rolls where you find stiff snow.

Avalanche Problem 2





Likelihood

Almost Certain

Unlikely

Size

Largest

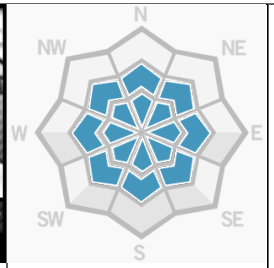
Smallest

Trend
INCREASING

Time of Day
ALL DAY

Description
Heavy rain will have soaked the snowpack again below 2000m - New snow may fall on this down to 1400m on Monday. This new snow will insulate the wet snow beneath.

Avalanche Problem 3



Likelihood

Almost Certain

Unlikely

Size

Largest

Smallest

Trend

NOCHANGE

Time of Day

ALL DAY

Description

The PWL is likley to have been overloaded again by loading from heavy rain and snowfall. Approach avalanche terrain / paths that does not already have avalanche debris with suspicion.
New snow loading and natural avalanching could be the trigger needed to produce a very large avalanche - once again watch out for overhead hazard and keep clear of avalanche pathways if you are travelling.

Recent Avalanche Activity

10th September observations have been limited due to the storm.
9th September Sz 2 Persistent slab was triggered by a party in the Liebig range at 2000m on NNW aspect. A single skier hear a whumpof as the snowpack settled and the Slab ran about 20m wide and approx 40 cm deep.
8th September Loose wet activity appears to have triggered either a Size 2.5 Persistent Slab or windslab high on the divide under the east ridge of the footstool. This appears to have occurred as the sun warmed the east facing slopes.
7th September A widespread Loose Wet, Wet Slab and Persistent slab and Windslab cycle has been observed throughout the park. On around midday a large event off the East Aspect of Mt Cooper was noted with a Crown Wall estimated at 1.5 km wide - trigger unknown. On the Tasman glacier loose wet and wet slab avalanches running from steep solar terrain seem to have triggered pockets of persistent slab. At 2000m, north of the Jollie valley a group reported a large settlement from flat terrain that did not produce any remote triggers.
6th September Widespread natural loose wet, wet slab and persistent slab cycle reported from the Cass Valley system. Visibilty is limited but reports of at least size 2 avlalanches running on all aspects and elevations visible up to 2100m during a reprieve in the storm cycle on the morning of the 6th.

Current Snowpack Conditions

There could be over 1m of new snow above 2200m tapering rapidly with elevation. This new snow will have been wind effected by NW gales. Solar W aspects likley to be stripped to old melt freeze crusts - East apects a mix of lite powder and windslab at ridge crest.
Below 2000m new snow will be falling on a wet moist snowpack - the new snow will insulate this new snow from freezing and will remain most and heavy.

On rain soaked snowpacks or solar aspects the PWL facets will have become moist - however the PWL structure remains and can still be overloaded and fail. Above 1600m on Polar aspects and where the snowpack is deeper closer to the divide the PWL will now likley be buried between 250 cm to 300 + cm deep.

Mountain Weather

Heavy rain, falling as snow to 1200 metres at first. Easing to showers or snow showers by afternoon.

WIND AT 1000 METRES
Northwest 40 km/h.

WIND AT 2000 METRES
Gale northwesterlies 70 km/h, easing to westerly 50 km/h early morning.

WIND AT 3000 METRES
Gale northwesterlies 85 km/h, easing to westerlies 55 km/h early morning.

FREEZING LEVEL
2000 metres, lowering to 1500 metres by dawn then 900 metres at night.

Sliding Danger

Wind will strip West aspect slopes - firm crusts are excepted. Ski and boot crampons are essential if you are forced to be traveling on these aspecst

2nd or 3rd September Natural Persistent Slab SE 2000m Sz 2. Cass valley system up valley from Lady Emily Hut. Likely triggered from Lw out of the rocks. Only just ran to the bottom of slope
30th August Size 2 persistent slab triggered by a loose wet natural avalanche during the heat of the day on ENE facing terrain at 2150m. The loose wet ran from steep rocks from a N-NE aspect. This was in the Cass valley region.
29th August Size 2 persistent slab was triggered remotely by a ski touring group in the Cass Valley system from shallow terrain, degrees ofor less on a SE Aspect at 2000m
26th August - Size 2.5 persistent slab was observed in The Needles in the central Gamack rangeâ€”SE aspect at 2400m. The trigger is unknown but potentially from warming.
25th August - The East / South East low shoulder of Mt Sefton avalanched to Size 4 - the trigger would likely have been serac collapse or rock fall
24th August Size 3 Persistent slab ran from 2600m on NE aspect above the Grand Plateau during the evening. Likely trigger was rock fall dislodged during the evenings refreeze. Another size 2.5 persistent slab was reported on high, steep east facing terrain at the head of the Jolie Valley system. The trigger was likely a rock or serac fall
22nd August Multiple remotely triggered avalanches have run in the park - the largest was a likely size 5 on Mt Phyillis above the Murchison Glacier, several size 1.5 were triggered by a group skiing in the Gammack range and a size 3 in the Ben Ohau range jut outside the edge of our southern forecast region.
20th Aug. Widespread natural avalanche cycles up to size 3.5 on E to S aspects either wind slab, persistent slab or deep slab during 19-20th.
19th Aug. Multiple loose wet avalanches up to size 1.5 were observed from Mount Cook Village. Some avalanches reached as low as 800m.

18th Aug. Size 2 persistent slab was

remotely triggered from about 300m away from a group of skiers on SE aspect 1950m in Gamack range on 18th Aug. **17th Aug**. Size 2 skier triggered an avalanche ran on the persistent weak layer on S aspect 2000m in the Liebig range on the 17th of August. **14-16th Aug**. A substantial natural avalanche cycle ran during the storm from the 14th to the 16th of August, with storm slab and persistent weak layer avalanches up to size 2 and 3 observed throughout the Burnett, Gammack, and Liebig ranges. Whumpfing and slope settlements were recorded in the Ben Ohaus. Large avalanches have run along the south-easterly side of the main Divide.			