

BLACKCOMB GLACIER SNOW SAFETY PLAN

AUGUST 1989

Revised: September 1989
 October 1989
 August 1992
 October 1994
 November 1996

BLACKCOMB SKIING ENTERPRISES LTD PARTNERSHIP.

INTRODUCTION

The management plan for the Blackcomb Glacier and Blackcomb Creek Valley, as well as the ridges surrounding all sides of the glacier valley will be discussed in this paper.

Until the ski area expanded into the higher alpine regions in 1985 this terrain was used exclusively for helicopter skiing, hiking and backcountry touring. In the past two years, extreme skiers and the more adventuresome downhill skiers have experienced the vast skiing terrain in this area. To include designated runs through active management of the glacier, will provide a spectacular alpine experience to the skiing public.

Crystal Ridge forms the south and west boundary of Blackcomb Glacier separating it from the Horstman Glacier. There are several large bowls and steep chutes that can release avalanches to the valley floor. (Figure 1)

On the north and east boundary there is a long ridge that separates Spearhead and Phalanx Glaciers from Blackcomb Glacier. This ridge is a relatively consistent steep with vertical relief of up to 700 meters. The huge, open slopes along this ridge will occasionally release large avalanches crossing the glacier valley.

The head of the glacier is bordered by Blackcomb Peak and several minor slopes that will produce avalanches onto the glacier.

The magnitude and complexity of terrain in this region requires careful consideration to snow safety.

The plan is to operate the terrain as a glacier ski trail with no permanent structures or lifts servicing within the area. Given this operating plan, our focus for snow safety will be the protection of glacier slopes and creek valley from medium and large avalanches that may run from above.

All Rescue and Avalanche Control Procedures can be found in the Blackcomb Avalanche Control Plan and the Blackcomb Ski Patrol Manual.

OBJECTIVE

The objective of Blackcomb's Snow Safety Plan is to maximize skier safety from avalanches within the park use permit area on the designated runs. We wish to communicate to the skiing public, Government Ministries, and Workers' Compensation Board that every effort is being made to recognize and control avalanches that may occur

within or may effect the ski area. Also, where we are unable to control a recognizable hazard we will attempt to prevent skiers from

being exposed to such hazards by closures and the placement of warning signs.

In addition, we are prepared to respond quickly and efficiently should an avalanche rescue or conventional rescue be required in this area.

HAZARD EVALUATION & CLOSURE

The intent of Blackcomb's avalanche Control Plan is to provide for the safety of all operating personnel as well as skiers, vehicles and other property.

Every morning the Avalanche Forecaster will review the weather readings, snow profile observation, avalanche occurrences and other factors to develop a stability and hazard evaluation.

If the stability evaluation indicates any potential for significant natural or skier released avalanche activity, appropriate control will be done prior to the opening of Blackcomb Glacier.

HAZARD EVALUATION

The avalanche hazard will be monitored on a continuous basis by the Avalanche Forecaster and field observers. Other patrollers will provide assistance and input into hazard evaluation procedures.

AVALANCHE HAZARD TERMINOLOGY

The degree of avalanche hazard is determined from a number of factors which contribute to the likelihood of an avalanche occurring which could cause bodily injury or physical damage.

Instability in the snowpack as determined through:

- precipitation amount, type, duration and intensity
- temperature conditions and variations
- wind strength and direction
- storm profile analysis
- snow pack stratigraphy, shear tests, slope tests
- weather forecast
- observed avalanches in the vicinity
- slope tests
- terrain analysis - determining terrain with avalanche potential.

Risk or potential for injury or damage - In this discussion it is assumed that injury or damage could result in the event of an avalanche.

LOW AVALANCHE HAZARD

Avalanches are not expected to occur. Instability in the snowpack is low. Chance of injury or damage from avalanches is considered to be nil. Ski lifts and passengers under consideration are at low risk from avalanches.

MODERATE AVALANCHE HAZARD

Avalanches may be expected to occur in some isolated pockets and known start zones. These avalanches should be relatively small and would not be expected to run anywhere near their full potential length or to entrain large masses of snow. The threat of damage to lifts or injury to passengers is still considered to be nil. Skiers entering the start zones or tracks of these potential avalanches would be at some risk and would be cautioned against it.

Avalanche control procedures would be instituted prior to allowing public access to these avalanche areas.

HIGH AVALANCHE HAZARD

Avalanches may be expected to occur in many start zones and may be of significant size. Some avalanches would likely equal their full potential causing damage to forest and other structures at the limits of their run out zones. Lifts in the paths of such avalanches would be at serious risk of damage and would need protective engineering to sustain them. Lifts in or near such avalanche paths would not be operated until control measures had been instituted and conditions reevaluated.

BLACKCOMB GLACIER ACCESS & RESCUE TRAIL

The Blackcomb Glacier Access and Rescue Trail extension was completed in late September 1989 in accordance with the agreement between Blackcomb Skiing Enterprises and the British Columbia Parks Department.

GLACIER MAINTENANCE

Safety to the skiing public will also be enhanced by machine grooming a section of the glacier from the snow bridge to the rescue road when conditions on the glacier become difficult to negotiate safely (ie. large moguls, breakable crust, very heavy wet snow). This will also identify a designated run controlling the ascent of the skiers away from some of the slide paths. The Rescue Trail will be groomed each day from the bottom and the glacier depending on the conditions, relative to safety.

CLOSURE

Blackcomb Glacier is located geographically at the eastern extremity of the ski region. It is therefore furthest from the core of the ski area and will be the last region opened. Closure of Blackcomb Glacier will be effected by sign lines.

The common access across the skier bridge at Horstman Saddle will be closed by a sign-line extending from the top of the Showcase T-Bar across to Horstman Peak. This closure will be in effect at all times that Blackcomb Glacier is not open to skiing public. During periods of active Avalanche Control, the sign line will be manned with guards to ensure no entrance into the region while explosives are being used.

A second sign line will extend from the top of Showcase to the trail leading into the area service by the Crystal Ridge Chair. A gate will be installed at the top of Showcase Chute, the entrance into Ruby Bowl, and at the trail into the Crystal Hut. The closure in these areas will depend on the skiing conditions and avalanche hazard.

The intent of the sign line is to limit access into the hazardous terrain off the Crystal Ridge area.

A third fence will run across the top of Diamond Bowl with gates located at the skiers left entrance (Helter Skelter). Given a sufficient snowpack Diamond Bowl can be opened as an expert ski run similar to Ruby Bowl.

A fourth fence runs downslope from the bottom of Ladies First at the top of the Blackcomb Glacier. The intention is to notify skiers with signage at the gates that they are leaving the designated ski run on Blackcomb Glacier.

Two additional Permanent Fences will be required to eliminate access into the Emerald Bowl Traverse and the Opal Bowl Traverse. See Fig II.

Ruby Bowl will be designated as an expert ski run and managed closely due to the number of avalanche paths in the bowl. The fence on Diamond Bowl will direct skiers to Spanky's shoulder then down the lower slopes. When conditions are right skiers could access Spanky's Chute and traverse into the upper area of Ruby Bowl allowing a skiing experience similar to Blackcomb Bowl.

A designated run will be maintained from the snowbridge to the rescue trail by piste balls or signs to ensure that skiers proceed down the safest route of the glacier. (Figure III)

Due to the possibility of ski tourers entering the area through the Blackcomb Glacier East Col, several measures will be taken to warn them:

- 1) A sign at exit points from the designated ski area and at Russet Lake Hut stating to ski tourers that active control work may be encountered on their return to the ski area. A sign at the Singing Pass parking lot also stating the concerns of entering ski areas when potential avalanche control may be on going.
- 2) The Horstman Peak route will be making observations along their route for ski tracks etc. before initiating control in Blackcomb Glacier.
- 3) A fly pass of the area before initiating heli bombing in the area.
- 4) A visual sweep of the Husume/Corona area will be effected before firing of an avalauncher in this area.

SIGNS

The sign line from the snowbridge at the Blowhole to Horstman Peak will read:

CLOSED AVALANCHE DANGER - PASSES WILL BE REVOKED FOR VIOLATION

These signs will be hinged and when flipped will read:

AVALANCHE PRONE AREA

Further signage at the blow hole will read:

BLACKCOMB GLACIER MAY CLOSE AT ANY TIME OR MAY NOT OPEN AT ALL DEPENDING ON WEATHER, SNOW CONDITIONS AND THE TIME OF YEAR. BLACKCOMB GLACIER IS RECOMMENDED FOR ADVANCED SKIERS AND SNOW BOARDERS. STAY ON THE DESIGNATED RUN AS INDICATED BY THE MARKER DISCS. YOU MAY ENCOUNTER RAPIDLY CHANGING VISIBILITY AND SNOW CONDITIONS. PLEASE USE CAUTION - SKI OR RIDE WITH A COMPANION.

Also, two large photos of the area. On one picture it will state,

WELCOME TO BLACKCOMB GLACIER PROVINCIAL PARK.

Included aswell in this area is the Canada Avalanche Danger Scale Descriptors for the back country.

At the top of the rescue road, another sign will have the following information, photos of the area, elevation, distance to the lift, and some safety tips.

Except for the gates into the avalanche closure areas, all other signs will state:

**PERMANENT CLOSURE
AVALANCHE CREW ACCESS ONLY
PASSES WILL BE REVOKED FOR VIOLATION**

At the gates to access the designated runs signs will be mounted reading:

STAY ON DESIGNATED RUNS ONLY

Other signs will read:

CLIFF AREA STAY ON DESIGNATED TRAVERSE

At the Ladies first sign line signs will read:

YOU ARE ENTERING THE UNPATROLLED BACKCOUNTRY MOUNTAIN TERRAIN OF GARIBALDI PARK. BE PREPARED FOR HAZARDOUS TERRAIN AND WEATHER. THIS TERRAIN IS SUITED FOR EXPERIENCED BACKCOUNTRY TRAVELLERS ONLY. MOST AVALANCHE ACCIDENTS

ARE TRIGGERED BY THE VICTIM. MANY COULD HAVE BEEN AVOIDED HAD THOSE INVOLVED BEEN MORE KNOWLEDGEABLE AND BETTER PREPARED.

Signs posted at the East col, Russet Lake Hut, and Singing Pass Trail Head will read:

ATTENTION SKI TOURERS

ACTIVE AVALANCHE CONTROL MAY BE ENCOUNTERED IN BLACKCOMB GLACIER PARK OR OTHER AREAS WITHIN THE BLACKCOMB SKI AREA.

- 1. LISTEN FOR EXPLOSIVES**
- 2. IF CONTROL IS TAKING PLACE, USE ALTERNATE ROUTES SHOWN ON MAP.**

The sign line will consist of 3' galvanized pipe with one to three strands of three eighths inch rope depending on their location. Hose clamps and rings will serve to make adjustment of the ropes easy.

At known departure routes from the designated ski area signs will inform skiers and ski tourers about the avalanche hazard and stability evaluations.

All signs will be consistent with those in the ski area boundary and identified in the trail map.

Signage at the entrance to Ruby and Diamond Bowls will consist of a photo of the area with **CLOSED AVALANCHE DANGER- PASSES WILL BE REVOKED FOR VIOLATION** and when flipped will read, **AVALANCHE PRONE AREA** Included will also be some safety tips and a sign stating, **WELCOME TO BLACKCOMB GLACIER PROVINCIAL PARK**

ZONE "E"

This refers to Blackcomb Glacier and all of the surrounding ridges that may produce avalanches onto Blackcomb Glacier or the Blackcomb Creek Valley.

All of the terrain on Crystal Ridge, Top End and Phalanx Ridge must be evaluated and controlled as required before Blackcomb Glacier may be opened.

NOTE: Almost all of the avalanche producing slopes are either "Out of Bounds" or in "Permanent Closure". These areas will be controlled to prevent avalanches that would affect skiers within the designated open terrain. However, when a moderate hazard

exists, skiers entering areas outside the designated runs will be entering at their own risk and will be charged for any rescue.

Included in this category are:

AVALANCHE CLOSURE:

Area is closed due to Avalanche Hazard. After active control is completed the area may be opened.

- Blackcomb Glacier Run (Priority I) **Affected by:** all slide paths in the area when hazard is high.
- Opal Bowl (Priority I)
 - Ruby Bowl (Priority II)
 - Diamond Bowl (Priority III)

Emerald Bowl (Priority IV)

PERMANENT CLOSURE:

- Area is closed due to terrain and snow management problems. Ski patrol access for slope and snow observations only. The following areas are permanent closure:

-
- Cliff Bands above CBC Traverse
- CBC Traverse - Apocalypse
- Southeast ridge of Diamond bowl
- Emerald Bowl

Note: The northeasterly portion of Emerald Bowl has been opened to public skiing on a trial basis. To date the boundaries of this ski terrain has been defined by permanent closure sign lines on Diamond Bowl ridge and mid bowl in Emerald bowl. (see maps).

OUT OF BOUNDS! (Beyond the ski area boundary)

The area controlled when hazard is high by helicopter bombing only. Not controlled when small avalanches may be released without affecting the designated runs.

- Husumi
- Corona
- Spearhead
- Phalanx Ridge:

FIRST AID & RESCUE

Each patroller carries First Aid equipment to deal with most injuries. A cache of rescue gear is situated at the Alpine Maintenance Building, Horstman Hut, and Crystal Hut. Two taboggans will be situated at the top of Showcase T-Bar and an additional taboggan

at the top of Spanky's Chute. Any additional equipment can be dispatched from the Horstman or Crystal Huts.

CONTROL PROCEDURES

The following information is intended as a guideline for the Route Leader/Bombadier. Conditions will vary greatly from day to day due to changing storm characteristics. As a result, the Route Leader will be required to evaluate conditions as control proceeds. The use of radio communication with the Avalanche Forecaster is encouraged.

All of the "Zone E" Terrain will be controlled using helicopter bombing as per established heli-bombing procedures and conventional control techniques when conditions permit.

Blackcomb Glacier is the most remote region of the ski area and it will be controlled after the Horstman Region is open.

Extensive field analysis will assist the forecaster in determining stability and formulating a control plan.

AVALAUNCHERS

Avalaunchers in the Blackcomb Glacier (Husume/Corona) will be operated under the following conditions:

- 1) A complete visual sweep of the effected area prior to firing.
- 2) Avalancher rounds will be targeted in snow not rock to minimize damage to rock.
- 3) When not in use the gun will be removed from the gun platform to minimize visual impact.

These conditions will be posted at the gun site and in the Avalanche Control Policy Manual.

AERIAL BOMB TRAMS

At present, there are 11 bomb tram sites located in the Blackcomb Glacier region, traversing the following avalanche paths:

1. Showcas chute
2. Christmas chute
3. Boxing day
4. Haunaka
5. Sapphire chutes
6. Garnet Bowl
7. Spankies traverse pillow
8. Calvin
9. Hobbes
10. Mel's
11. KGB-Shredder

PROJECTED # OF MISSIONS PER SEASON

The trams will be used when necessary as part of the standard K2 and Xmas hand charge routes.

RUBY BOWL

Ruby Bowl is a steep open bowl with several potential start zones varying from North through to East North East aspects. Vertical relief is up to 455 metres with a secondary bench on the lower third of the track. Shots will be placed in the upper portion of the bowl as any medium size avalanche will run over the secondary bench and entrain the snow below. The exact location of each shot will depend on the snow distribution. However, heaviest loading is generally on the North exposure slopes, and seven shots should be adequate to cover the region under most conditions.

If avalanches do not run over the bench a second pass will be required to control the lower third of Ruby Bowl. Four shots placed just below the rock outcrops should be sufficient to release any hazardous slides.

APOCALYPSE AND PUPPY CHOW

Two steep, channelled chutes feed onto the Rescue road below CBC north. These chutes have a vertical relief of 205 metres with a Northerly aspect.

As the start zone inclines vary between 35 degrees and 42 degrees and the sides are steeply channelled, one or two shots in each chute should release any potential slide.

DIAMOND BOWL

Diamond Bowl is a steep open bowl with North North East exposure. The track is 350 metres in vertical relief with several small feeder chutes that may act as a catalyst for a large slide. Six well placed shots across the upper end of the bowl should release everything within the track. If conditions prove particularly active, two or three shots might be used in the short slopes that flank the bottom of Diamond Bowl.

EMERALD BOWL

Emerald Bowl is a concave shaped bowl with a North East aspect. Vertical relief is 225 metres with several steep start zones. Six shots placed across the upper wall should release any active slopes. It is likely that a medium size avalanche will run over into Sapphire Chutes and entrain snow right to the valley bottom.

SAPPHIRE CHUTES

Sapphire Chutes have a vertical relief of 230 metres with a North East exposures. Start zone angles of over 45 degrees are encountered on the Eastern end of the wall.

It has been observed that the snowpack remains relatively shallow in this region and may have a different profile than surrounding regions. If Emerald Bowl has been controlled and has not overrun into Sapphire Chutes, then five shots should be placed across the wall to release slides onto the Glacier.

DOUBLE RUBBLE

Double Rubble consists of a steep North facing wall with 385 metres of vertical relief. There is a small bench in the middle of the slope that would stop only small slides from overrunning to the valley bottom.

As there are several starting zones under the cliff bands seven shots may be required to control the entire slope. Four shots should be placed across the upper region and if the lower portion does not release then the three additional shots may be used for the lower breakover.

BLACKCOMB GLACIER TOP END

The head of the Blackcomb Glacier is surrounded by several minor peaks and short steep slopes of approximately 100 meters vertical relief. Each of the slopes must be controlled as even a small slide will reach onto the top of the ski terrain. A total of ten shots should ensure adequate control of the bridge flank. All of these slopes are North facing except the bridge flank which has a North East aspect.

SPEARHEAD

The Spearhead Region includes the Spearhead Flank, Husumi Chute and Corona Bowl.

The Spearhead Flank is a hanging snowfield of Westerly aspect and a vertical relief up to 200 meters.

Husumi Chute is a very steep channelled slope with 285 metres vertical relief and a North West aspect.

Corona Bowl is a broad snowfield that funnels to a narrow slope. The vertical relief is 420 metres with a Westerly aspect. Ten shots will address all of these slopes comfortably. As experience grows, the shot locations can be streamlined and six shots will likely be adequate.

Of particular interest is whether shots placed midslope of Husumi and Corona may prove most effective.

PHALANX RIDGE

Phalanx Ridge includes a large expanse of terrain. Huge slopes of West and Southwest aspect rise as much as 700 vertical metres from the valley floor.

This terrain has a well defined midline ridge and control must be effected in two stages.

Four broad snowfields and five narrow chutes make up the upper region of the ridge. Any movement of snow from these regions is sure to reach the valley floor and several large avalanches have been observed crossing the valley bottom and climbing up on the

Crystal Ridge side. It will likely take eighteen shots to test all the regions of these upper slopes. If there has been no activity on the upper slopes after the first pass it is very important to test the lower band with seven more shots.

Snowpack evaluation will play a key role in control decisions for this Ridge, as this aspect may have dramatically different snowpack than the North facing slopes. It is also important to note that explosive control may be ineffective during wet slide cycles and therefore closure of the region will be implemented.

Due to the magnitude of the potential avalanches in this region, it is important to recognize that initially caution will be the rule to a safe operation.

The control program may be streamlined as field experience is gained and local slope history and idiosyncrasies are noted.

CREVASSE HAZARD

There are a few small crevasses evident on Blackcomb Glacier. They are all narrow and can be filled in for skiing. The locations will be marked as they show up and a careful monitoring of snowbridge strengths will be maintained to prevent an unintentional collapse.

HAZARD EVALUATION

The avalanche hazard will be monitored on a continuous basis by the Avalanche Forecaster and field observers. Other patrollers will provide assistance and input into hazard evaluation procedures.

GLACIER MAINTENANCE

Safety to the skiing public will also be ensured by grooming a section of the glacier from the Blowhole to the rescue road when conditions on the glacier become difficult to negotiate. This will also ensure a designated run controlling the ascent of the skiers away from some of the slide paths.

A second sign line will extend from the top of Showcase to the trail leading into the area serviced by the Crystal Ridge chair. A gate will be installed at the top of Showcase Chute, the entrance into Ruby Bowl, and at the trail into the Crystal Hut. The closure in these areas will depend on the skiing conditions and avalanche hazard.

BLACKCOMB GLACIER RUN-OUT

To ensure a safe descent from Blackcomb Glacier a road was built to extend the present rescue road above the tree line into the Valley Floor. This helps ensure a faster descent through the narrow valley affected by the slide paths off Phalanx Ridge and ensure they remain in the designated run.

Region	Bundle	Park	Year	Month	Day Use FC BC People	Day Use B: Net Total (DU attendance (people)	DU attendance (people)
South Coast		Blackcomb	2010	Apr	37338	37338	37338
South Coast		Blackcomb	2010	May	0	0	0
South Coast		Blackcomb	2010	Jun	0	0	0
South Coast		Blackcomb	2010	Jul	0	0	0
South Coast		Blackcomb	2010	Aug	0	0	0
South Coast		Blackcomb	2010	Sep	0	0	0
South Coast		Blackcomb	2010	Oct	0	0	0
South Coast		Blackcomb	2010	Nov	0	0	0
South Coast		Blackcomb	2010	Dec	9429	9429	9429
South Coast		Blackcomb	2011	Jan	16303	16303	16303
South Coast		Blackcomb	2011	Feb	80566	80566.5	80566
South Coast		Blackcomb	2011	Mar	69786	69786.5	69786
South Coast		Blackcomb	2011	Apr	52321	52321.5	52321
South Coast		Blackcomb	2011	May	6650	6650	6650
South Coast		Blackcomb	2011	Jun	0	0	0
South Coast		Blackcomb	2011	Jul	0	0	0
South Coast		Blackcomb	2011	Aug	0	0	0
South Coast		Blackcomb	2011	Sep	0	0	0
South Coast		Blackcomb	2011	Oct	0	0	0
South Coast		Blackcomb	2011	Nov	0	0	0
South Coast		Blackcomb	2011	Dec	0	0	0
South Coast		Blackcomb	2012	Jan	0	0	0
South Coast		Blackcomb	2012	Feb	0	0	0
South Coast		Blackcomb	2012	Mar	0	0	0
South Coast		Blackcomb	2012	Apr	53611	0	53611
South Coast		Blackcomb	2012	May	6720	0	6720
South Coast		Blackcomb	2012	Jun	0	0	0
South Coast		Blackcomb	2012	Jul	0	0	0
South Coast		Blackcomb	2012	Aug	0	0	0
South Coast		Blackcomb	2012	Sep	0	0	0
South Coast		Blackcomb	2012	Oct	0	0	0
South Coast		Blackcomb	2012	Nov	0	0	0
South Coast		Blackcomb	2012	Dec	0	0	0
South Coast		Blackcomb	2013	Jan	0	0	0
South Coast		Blackcomb	2013	Feb	0	0	0
South Coast		Blackcomb	2013	Mar	0	0	0
South Coast		Blackcomb	2013	Apr	0	0	36180
South Coast		Blackcomb	2013	May	0	0	0
South Coast		Blackcomb	2014	Apr	35957		35957
South Coast		Blackcomb	2014	Dec	6370	0	6370
South Coast		Blackcomb	2015	Jan	33526	0	33526
South Coast		Blackcomb	2015	Feb	36911	0	36911
South Coast		Blackcomb	2015	Mar	51910	0	51910
South Coast		Blackcomb	2015	Apr	33979		33979
South Coast		Blackcomb	2015	Dec	45230	Variance of +610.05 %	45230
South Coast		Blackcomb	2016	Jan	53510	Variance of +59.61 %	53510
South Coast		Blackcomb	2016	Feb	66362		66362
South Coast		Blackcomb	2016	Mar	70201		70201
South Coast		Blackcomb	2016	Apr	18507		18507
South Coast		Blackcomb	2016	Dec	40480		40480
South Coast		Blackcomb	2017	Jan	52632		52632
South Coast		Blackcomb	2017	Mar	46665		46665

Blackcomb Glacier Report (april 2013)

2012-13 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 604-898-4171

*Average skiers counts for Blackcomb Glacier Weekday = 23601

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 12579

*Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
7	3	4	Ski testing - size 0 explosive - size 2

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	1			
04-Apr-13	Fracture	Multiple - Upper & Lower Body	s.22	
Rescue Road Upper	0			
Ruby Bowl	1			
07-Apr-13	Sprain	Knee		
Sapphire Bowl	0			
Swamp Thing	0			
Diamond Bowl	0			
Blow Hole	0			

Blackcomb Glacier Report (March 2013)

2012-13 Winter Season

(Park Use Permit G59710014)

As per Park Use Permit G59710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 604-898-4171

- *Average skiers counts for Blackcomb Glacier Weekday = 31611
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 21390
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
7, avg. results size 2	2, avg. results size 1	9	

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	3			
08-Mar-13	Dislocation	Shoulder	s.22	
09-Mar-13	Sprain	Knee		
11-Mar-13	Fracture	Shoulder		
Rescue Road Upper	0			
Ruby Bowl	1			
27-Mar-13	Sprain	Thigh		
Sapphire Bowl	1			
28-Mar-13	Sprain	Ankle		
Swamp Thing	1			
19-Mar-13	Sprain	Multiple - Lower Body		
Diamond Bowl	0			
Blow Hole	0			

Blackcomb Glacier Report (February 2013)

2012-13 Winter Season

(Park Use Permit G59710014)

As per Park Use Permit G59710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 604-898-4171

- *Average skiers counts for Blackcomb Glacier Weekday = 27371
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 22858
- *Total hours Blackcomb Glacier Open Weekday = 4.75 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 4.75 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
3	6	9	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>	1.34E+09
Blackcomb Glacier	7				
February 1, 2013	Fracture	Wrist	s.22		
February 6, 2013	Sprain	Knee			
February 9, 2013	Sprain	Neck			
February 11, 2013	Fracture	Knee			
February 16, 2013	Sprain	Shoulder			
February 16, 2013	Bruise	Wrist			
February 19, 2013	Sprain	Knee			
Rescue Road Upper	3				
February 14, 2013	Unrecorded	Knee			
February 16, 2013	Fracture	Clavicle			
February 22, 2013	Sprain	Ankle			
Ruby Bowl	1				
February 5, 2013	Bruise	Knee			
Sapphire Bowl	0				
Swamp Thing	0				
Diamond Bowl	1				
February 6, 2013	Fracture	Back			
Blow Hole	0				

Blackcomb Glacier Report (January 2013)

2012-13 Winter Season

(Park Use Permit G59710014)

As per Park Use Permit G59710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 604-898-4171

*Average skiers counts for Blackcomb Glacier Weekday = 28957 (1379/day)

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 10220 (1022/day)

*Total hours Blackcomb Glacier Open Weekday = 4.75 hours (10 am - 2:45pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 4.75 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
7	0	6	4 days avg size 1 2 days avg size 2

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier 01-Jan-13	1 Sprain	Wrist	s.22	
Rescue Road Upper 02-Jan-13	6 Multiple	Multiple - Upper & Lower Body		
13-Jan-13	Bruise	Knee		
14-Jan-13	Sprain	Knee		
15-Jan-13	Strain	Knee		
27-Jan-13	Fracture	Back		
30-Jan-13	Unrecorded	Lower Leg		
Ruby Bowl	0			
Sapphire Bowl 11-Jan-13	1 Sprain	Knee		
Swamp Thing	0			
Diamond Bowl	0			
Blow Hole	0			

Blackcomb Glacier Report (December 2012)

2012-13 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 604-898-4171

*Average skiers counts for Blackcomb Glacier Weekday = 891

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 1932

*Total hours Blackcomb Glacier Open Weekday = 4.25 hours (10 am - 2:15pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 4.25 hours (10 am - 2:15pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
5	5	10	3 days size 2 results 4 days size 1 results

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	1			
26-Dec	Strain	Unrecorded	s.22	
Rescue Road Upper	1			
13-Dec	Dislocation	Shoulder		
Ruby Bowl	2			
11-Dec	Unrecorded	Shoulder		
22-Dec	Strain	Knee		
Sapphire Bowl	1			
24-Dec	Strain	Knee		
Swamp Thing	1			
14-Dec	Strain	Knee		
Diamond Bowl				
N/A				
Blow Hole				
N/A				

MAR 13 AM 10:06

FAX

Sent March 12
9:20am

To: BC Parks From: Whistler Blackcomb
 Fax: 250-387-1695 Date: March 12.
 Phone: 604- Pages: 2
 Re: Blackcomb Glacier Couloir CC:

Urgent For Review Please Comment Please Reply Please Recycle

Please note that since we didn't receive snow until February, we weren't doing glacier counts until February - as the snow pack was low on the glacier road.

I will continue to do them for March & April.
 If you have any questions - please contact me.

Catherine Plautsch 604-938-7105

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whistlerblackcomb.com



Blackcomb Glacier Report (February 2014)

2013-14 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

*Average skiers counts for Blackcomb Glacier Weekday = 28497

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 14004

*Total hours Blackcomb Glacier Open Weekday = 4.75 hours (10 am - 2:45pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 4.75 (10 am - 2:45pm)

counts are done on Sunday, Wednesday and Friday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
8 days - size 2	2 days - size 1	10	size 2

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	6			
1-Feb-14	Strain	Back	s.22	
11-Feb-14	Strain	Lower Leg		
12-Feb-14	Fracture	Lower Arm		
22-Feb-14	Strain	Neck		
22-Feb-14	Sprain	Knee		
24-Feb-14	Sprain	Knee		
Rescue Road Upper	2			
17-Feb-14	Sprain	Knee		
20-Feb-14	Bruise	Hip		
Ruby Bowl	0			
Sapphire Bowl	1			
20-Feb-14	Fracture	Lower Arm		
Swamp Thing	1			
16-Feb-14	Sprain	Ankle		
Diamond Bowl	0			
Blow Hole	1			
4-Feb-14	Fracture	Lower Leg		

MAR 25 PM03:53

FAX

To: BE para From: Whistler Blackcomb
 Fax: 250-387-1695 Date: March 25th
 Phone: _____ Pages: _____
 Re: Biccomb Glacier count CC: _____

Urgent For Review Please Comment Please Reply Please Recycle

Please find the attached Glacier count for December and January.

Let me know if you have any questions.

Catherine

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whistlerblackcomb.com



Blackcomb Glacier Report (Dec 2013)

2013-14 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month, Fax 250-387-1695

BLACKCOMB GLACIER OFFICIALLY OPENED ON DECEMBER 19. ALL COUNTS ARE CONSIDERED HOLIDAY

*Average skiers counts for Blackcomb Glacier Weekday =

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 33150

*Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
X 1 day/avg result 0	Ski 3 days/avg result 1	Total 4 days	

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	2			
24-Dec	Sprain	Ankle	s.22	
28-Dec	Sprain	Wrist		
Rescue Road Upper	2			
20-Dec	Bruise	Hip		
31-Dec	Sprain	Shoulder		
Ruby Bowl	0			
Sapphire Bowl	0			
Swamp Thing	0			
Diamond Bowl	0			
Blow Hole	0			

Blackcomb Glacier Report (January 2014)

2013-14 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

*Average skiers counts for Blackcomb Glacier Weekday =35530

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 23526

*Total hours Blackcomb Glacier Open Weekday = 4.25 hours (10 am - 2:15pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 4.25 hours (10 am - 2:15pm)

courts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
X 3 days/avg sz 2	X 2 days/avg sz 1	Total 5 days	

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	5			
4-Jan-14	Dislocation	Knee	s.22	
6-Jan-14	Fracture	Lower Leg		
19-Jan-14	Sprain	Knee		
24-Jan-14	Wound	Lower Leg		
26-Jan-14	Fracture	Lower Leg		
Rescue Road Upper	2			
3-Jan-14	Fracture	Ankle		
19-Jan-14	Fracture	Wrist		
Ruby Bowl	2			
9-Jan-14	Wound	Buttocks		
22-Jan-14	Multiple	Shoulder		
Sapphire Bowl	0			
Swamp Thing	0			
Diamond Bowl	0			
Blow Hole	3			
25-Jan-14	Unrecorded	No Injury		
27-Jan-14	Unrecorded	Knee		

FAX

APR 03 08:10:48

To: BC Parks From: Whistler Blackcomb
 Fax: 250-387-1695 Date: Mar April 3
 Phone: _____ Pages: 2
 Re: Blackcomb Glacier Court CC: _____

Urgent For Review Please Comment Please Reply Please Recycle

Please find the Blackcomb Glacier Court for
 the month of March.

Let me know if you need anything else.

Catherine Hubickid

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whistlerblackcomb.com



Blackcomb Glacier Report (March 2014)

2013-14 Winter Season

(Park Use Permit 6S9710014)

As per Park Use Permit 6S9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

- *Average skiers counts for Blackcomb Glacier Weekday = 33090
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 33033
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
10 days of X tests, avg result size 1	3 days of ski tests, avg results size 1.	13 days	Largest result size 2.5

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	7			
1-Mar-14	Concussion	Head	s.22	
6-Mar-14	Unrecorded	Knee		
12-Mar-14	Sprain	Foot		
12-Mar-14	Sprain	Lower Arm		
12-Mar-14	Unknown	Back		
17-Mar-14	Fracture	Back		
21-Mar-14	Fracture	Lower Leg		
Rescue Road Upper	1			
4-Mar-14	Bruise	Lower Leg		
Swamp Thing	2			
9-Mar-14	Sprain	Knee		
14-Mar-14	Unrecorded	Knee		
Ruby Bowl	0			
Diamond Bowl	2			
10-Mar-14	Fracture	Ankle		
12-Mar-14	Unrecorded	Back		
Sapphire Bowl	1			
29-Mar-14	Bruise	Lower Leg		
Blow Hole	0			

Sent Mayloth

Blackcomb Glacier Report (March and April)

2014-15 Winter Season

(Park Use Permit G59710014)

As per Park Use Permit G59710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

- *Average skiers counts for Blackcomb Glacier Weekday = March 31403 April 19737 (closed April 19th)
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = March 20507 April 14242
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

e done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx**

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
3	2	5	1 (March)
3	2	5	1 (size 2.5 only once) April

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>		<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	7				Blackcomb Glacier	5			
2-Mar-15	Fracture	Wrist	s.22		4-Apr-15	Fracture	Face	s.22	
6-Mar-15	Sprain	Knee			6-Apr-15	Dislocation	Elbow		
7-Mar-15	Fracture	Wrist			6-Apr-15	Fracture	Chest		
10-Mar-15	Multiple Dislocation	Multiple - Upper & Lower Body Shoulder			11-Apr-15	Fracture	Multiple - Upper Body		
13-Mar-15					11-Apr-15		Multiple - Lower Body		
22-Mar-15	Sprain	Knee							
23-Mar-15	Sprain	Ankle							
Rescue Road Upper	1				Rescue Road Upper	0			
4-Mar-15	Unrecorded	Knee							
Ruby Bowl	3				Ruby Bowl	0			
20-Mar-15	Unrecorded	Multiple - Upper Body							
29-Mar-15	Sprain	Ankle							
31-Mar-15	Sprain	Knee							
Sapphire Bowl	1				Sapphire Bowl	1			
20-Mar-15	Wound	Face			5-Apr-15	Strain	Knee		
Swamp Thing	0				Swamp Thing	0			
Diamond Bowl	0				Diamond Bowl	1			
					14-Apr-15	Bruise	Thigh		
Blow Hole	0				Blow Hole	0			

Blackcomb Glacier Report (March 2017)

2016-17 Winter Season

(Park Use Permit G59710014)

As per Park Use Permit G59710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

- *Average skiers counts for Blackcomb Glacier Weekday = 28, 367 (1493/day)
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 18, 298 (2614/day)
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
16	22	22	1.5

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	5			
2017-03-05	Medical	OTHER	s.22	
2017-03-07	Strain	Knee		
2017-03-08	Concussion	Head		
	Sprain	Leg		
2017-03-12	Sprain	Leg		
2017-03-25	Strain	Knee		
Rescue Road Upper	4			
2017-03-12	Dislocation	Shoulder		
2017-03-18	Contusion	Chest		
2017-03-18	Strain	Neck		
2017-03-25	Separation	Arm/Shoulder		
Ruby Bowl	4			
2017-03-01	Fracture - closed	Wrist		
2017-03-20	Abrasion/Contusion	Leg		
2017-03-20	Abrasion	Calf		
2017-03-29	Dislocation	Shoulder		
Sapphire Bowl	0			
Swamp Thing	0			
Diamond Bowl	1			
2017-03-19	Sprain	Leg		
Blow Hole	1			
2017-03-19	Sprain	Ankle		
	Strain	Leg		

Blackcomb Glacier Report (February 2017)

2016-17 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

*Average skiers counts for Blackcomb Glacier Weekday = 33, 690 (2246/day)

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 22, 520 (2815/day)

*Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
5	5	10	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	5			
2017-02-06	sprain	leg/knee	s.22	
2017-02-13	fracture	neck/leg		
	concussion	head		
2017-02-18	sprain	leg/knee		
2017-02-24	separation	arm/shoulder		
2017-02-26	fracture	back		
Rescue Road Upper	0			
Ruby Bowl	1			
2017-02-19	N/A	N/A		
Garnet Bowl	1			
2017-02-04	strain	leg/knee		
Sapphire Bowl	1			
2017-02-05	N/A	N/A		
Swamp Thing	0			
Diamond Bowl	0			
Blow Hole	0			

Blackcomb Glacier Report - January 2017

2016-17 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

*Average skiers counts for Blackcomb Glacier Weekday = 31416 (1496/day)

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 21216 (2652/day)

*Total hours Blackcomb Glacier Open Weekday = 4.25 hours (10 am - 2:15pm)

*Total hours Blackcomb Glacier Open Weekends/Holidays = 4.25 hours (10 am - 2:15pm)

counts are done on Tuesday, Thursday and Saturday or Sunday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
5	2	7	size 1 We had two large natural avalanche cycles up to size three in January. One was during a multi-day closure and one occurred after operating hours; a post control avalanche that ran after hours

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	4			
2017-01-07	unknown	unknown	s.22	<input type="checkbox"/>
2017-01-07	Concussion	head/cheek		
2017-01-15	Fracture - closed	Arm		
	Sprain	Arm		
2017-01-30	unknown	unknown		
Rescue Road Upper	2			
2017-01-04	Contusion	Leg/knee		<input type="checkbox"/>
	Concussion	Head		
2017-01-06	Contusion	Head/Nose		
Ruby Bowl	0			
Sapphire Bowl	0			
Swamp Thing	3			
2017-01-13	Strain	Leg		
2017-01-20	Strain	Leg		
2017-01-27	Sprain	Leg/knee		
Diamond Bowl	0			
Blow Hole	0			

Blackcomb Glacier Report - January 2018

2017-18 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

Christmas holidays ended on January 8th. We had a minimum 11 closures due to avalanche conditions.

- *Average skiers counts for Blackcomb Glacier Weekday = 12529 (ave 1139/day)
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 19074 (ave 1734/day)
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 4.25 hours (10 am - 2:15pm)

unters are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx**

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
11	4	15	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	3			
2018-01-10	unknown	knee	s.22	
2018-01-14	Sprain, Strain, Twist	knee		
2018-01-23	Sprain, Strain, Twist	knee		
Diamond Bowl	1			
2018-01-02	unknown	knee		
Sapphire Bowl	1			
2018-01-14	Dislocation	Knee		

Blackcomb Glacier Report

(Park Use Permit GS9710014)

2017-18 Winter Season

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

**** we opened December 16, 2017 as marginal conditions and then opened December 23, 2017 for the season on the Blackcomb Glacier** these counts reflect Dec 23 - Dec 31 only. All counts are considred "holidays"**

- *Average skiers counts for Blackcomb Glacier Weekday =
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 1426/day = 12830
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 4.25 hours (10 am - 2:15pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
2	1	3	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	4			
2017-12-11	(Unknown, Fracture, Abrasion)	Face except eyes, Elbow, Thigh, Leg, Wrist	s.22	
2017-12-20	Sprain, Strain, Twist	Knee		
2017-12-18	Sprain, Strain, Twist	Ankle		
2017-12-29				
Sapphire Bowl	0			
Swamp Thing	1			
2017-12-30	N/A			
Diamond Bowl	1			
2017-12-03	fracture	leg		
Blow Hole	0			

Blackcomb Glacier Report - February 2018

2017-18 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

- *Average skiers counts for Blackcomb Glacier Weekday = 31840 (1592/day)
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 19959 (2851/day)
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 4.75 hours (10 am - 2:45pm)

units are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx**

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
5	9	9	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier	2			
2018-02-01	unknown	unknown	s.22	
2018-02-09	unknown	unknown		
Swamp Thing	2			
2018-02-08	unknown	unknown		
2018-02-26	unknown	unknown		
Sapphire Bowl	1			
2018-02-25	Knee	Sprain, Strain, Twist		
Ruby Bowl	1			
2018-02-19	Knee	Sprain, Strain, Twist		

Date Only	Location	Specific Area	Birth Date	Gender	Injury Location	Injury Type
2018-02-19	Ruby Bowl - Winter Trails	at the bench	s.22		Knee	Sprain, Strain, Twist
2018-02-08	Swamp Thing - Winter Trails	at the bench				
2018-02-26	Swamp Thing - Winter Trails					

Blackcomb Glacier Report - April 2018

2017-18 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

***We closed the Blackcomb Glacier on April 22**

- *Average skiers counts for Blackcomb Glacier Weekday = 20,355 (1357/day)
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 14,765 (2109/day)
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 4.75 hours (10 am - 2:45pm)

Tests are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx**

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
7	11	11	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Blackcomb Glacier 2018-04-01	1 Fracture, sprain, strain, contusion	Chest, including organs, Hip and hip joint	22	
Sapphire Bowl 2018-04-17	2 Fracture, Wounding	Other parts of the head, or no further details, Wrist, Ankle		
2018-04-21	Fracture	Ankle		
Ruby Bowl 2018-04-13	1 Abrasion	Elbow		

Date Only	Location	Specific Area	Birth Date	Gender	Injury Location	Injury Type
2018-02-19	Ruby Bowl - Winter Trails		s.22		Knee	Sprain, Strain, Twist
2018-02-08	Swamp Thing - Winter Trails	at the bench				
2018-02-26	Swamp Thing - Winter Trails					

Blackcomb Glacier Report - February 2019

2018-19 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

- *Average skiers counts for Blackcomb Glacier Weekday = 38,240 (1912/day)
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = 33, 554 (4194/day)
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
3	1	4	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
<u>Blackcomb Glacier</u>	5			
	Sprain, Strain,			
2019-02-17	Twist	Knee	s.22	
2019-02-23	Fracture	Leg		

2019-01-01 Blackcomb Glacier - Winter Trails	s.22	Knee	Sprain, Strain, Twist
2019-01-07 Blackcomb Glacier - Winter Trails		Knee	Unknown
2019-01-11 Blackcomb Glacier - Winter Trails		Knee	Sprain, Strain, Twist
2019-01-13 Blackcomb Glacier - Winter Trails		Knee	Sprain, Strain, Twist
2019-01-15 Blackcomb Glacier - Winter Trails	skier R of Winky Pop	Knee	Sprain, Strain, Twist
2019-01-18 Blackcomb Glacier - Winter Trails		Hip and hip joint	Fracture
2019-01-18 Ruby Bowl - Winter Trails		Shoulder and shoulder joint	Dislocation
2019-01-18 Diamond Bowl - Winter Trails			
2019-01-20 Blackcomb Glacier - Winter Trails		Ankle	Sprain, Strain, Twist
2019-01-20 Spanky's Chute - Winter Trails		Leg	Abrasion
2019-01-23 Ruby Bowl - Winter Trails	Art's Hole	Chest, including organs	Fracture
2019-01-28 Blackcomb Glacier - Winter Trails		Leg	Bruise

Blackcomb Glacier Report - January 2019

2018-19 Winter Season

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

- *Average skiers counts for Blackcomb Glacier Weekday = 1868/day = **41, 100**
- *Average skiers counts for Blackcomb Glacier Weekend/Holidays = **25, 706** (2856/day)
- *Total hours Blackcomb Glacier Open Weekday = 5.0 hours (10 am - 2:45pm)
- *Total hours Blackcomb Glacier Open Weekends/Holidays = 5.0 hours (10 am - 2:45pm)

counts are done on Tuesday, Thursday and Saturday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
6	2	8	1

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
12				
Blackcomb Glacier	8			
2019-01-01	Sprain, Strain, Twist	Knee	s.22	
2019-01-07	Unknown	Knee		
2019-01-11	Sprain, Strain, Twist	Knee		
2019-01-13	Sprain, Strain, Twist	Knee		
2019-01-15	Sprain, Strain, Twist	Knee		
2019-01-18	Fracture	Hip and hip joint		
2019-01-20	Sprain, Strain, Twist	Ankle		
2019-01-28	N/A	N/A		
Ruby Bowl	2			
2019-01-18	Shoulder and shoulder joint	Dislocation		
2019-01-23	Chest, including organs	Fracture		
Diamond Bowl	1			
2019-01-18	N/A	N/A		
Spanky's Chute	1			
2019-01-20	Leg	Abrasion		

Blackcomb Glacier Report - December 2018**2018-19 Winter Season**

(Park Use Permit GS9710014)

As per Park Use Permit GS9710014, stats should be forwarded to the Area Supervisor within the first 5 days of each month. Fax 250-387-1695

We opened the Blackcomb Glacier on December 28, 2018*

*Average skiers counts for Blackcomb Glacier Weekday = N/A

*Average skiers counts for Blackcomb Glacier Weekend/Holidays = 939/day = 3756

*Total hours Blackcomb Glacier Open Weekday = N/A

*Total hours Blackcomb Glacier Open Weekends/Holidays = 4.25 hours (10am - 2:15pm)

counts are done on Tuesday, Friday and Sunday from 12 pm - 1 pm approx

Avalanche Control performed in Blackcomb Glacier/Ruby/Diamond/Sapphires

Days of Explosive Control	Days of Ski Testing	Total Days A/C	Ave Size Results
6	6	6	2

Accidents (All serious accidents should include Occurrence Report)

	<u>Injury</u>	<u>Location</u>	<u>Age</u>	<u>Sex</u>
Spanky's Chutes 2018-12-22	1 Sprain, Strain, Twist	Back, including spine and dorsal vertebrae	s.22	
Diamond Bowl 2018-12-31	1 Internal Injuries, Sprain, Strain, Twist	Abdomen and pelvis, including organs, Knee		

Date Only	Location	Specific Area	Birth Date	Gender	Injury Location	Injury Type
2018-02-19	Ruby Bowl - Winter Trails		s.22		Knee	Sprain, Strain, Twist
2018-02-08	Swamp Thing - Winter Trails	at the bench				
2018-02-26	Swamp Thing - Winter Trails					