

Appendix A

Chugach Powder Guides GPS Monitoring Narrative and Forest Service Response (*in italics*) for the 2007 Season

1/30/07

3CH -

Summary: Day one of heli skiing. 3CH flew half day in the Glacier-Winner Area.

No data collected and map was not submitted.

1/31/07

Narrative not submitted for this day. Final use report showed 3CH – 3 groups/11 clients skied on FS (Forest Service land).

2/01/07

7CH -

Summary: Overcast Lead Guide, E. Glacier Winner-West Twenty mile region. Morning start dropping off repeater on Hendrix. Few runs made, day called off due to high winds. GPS NFZ's would not work for Pilot (Al) so we swapped GPS this morning with 7CH and he could not get the maps up on it as well.

Corrective: Looking into mapping overlays and correcting software.

Narrative not submitted for this day. Final use report showed 3CH – 2 groups/8 clients on FS.

2/3/07

Narrative not submitted. Final use report indicated 3CH & 295EW – with a total of 3 groups/10 clients on FS.

2/04/07

3CH –

Private Group, single group day, Full day in Placer Skookum Region.

Lead Guide: Mike Overcast.

Issues: GPS upload maps to GPS Unit successful, however may not be compatible with GPS Software. Ops manager has emailed Carl with Forest Service, and will continue to try to correct this problem. The guides have been provided with paper versions of the NFZ's and GPS units will continue to run. CPG Guides continue to be responsible and do their best to navigate outside of the NFZ's until this can be corrected. Regions include Placer Grandview and E Bench

No incursions noted.

7CH –

Private Group, two groups, Full day in Placer Skookum Region.

Lead Guide Greg Harms.

Issues: GPS upload maps to GPS Unit, successful, however may not be compatible with GPS Software. Ops manager has emailed Carl with Forest Service, and will continue to try to correct this problem. The guides have been provided with paper versions of the NFZ's and GPS units will continue to run. CPG Guides continue to be responsible and do their best to navigate outside of the NFZ's until this can be corrected.

Possible incursion into NFZ#10 for ~ (approximately) 630 ft, ~25 seconds, ~1,100 ft AGL. GPS data was mistakenly labeled 7C. The helicopter utilized by CPG from 2/3 thru 2/6 was actually 295EW.

2/05/07

7CH –

Private Group, two groups, Full day in Placer Skookum Region.
Lead Guide Dyer/ Harms.
Issues: No GPS Track Log today due to insufficient data maps for use.

No data collected and no map.

2/6/07

3CH –

Skiing in State Land. Lead Guides Fyans/Durnell/Tone.
Issues: No GPS Track Log today due to insufficient data maps for use.

Final use report indicated 3CH - 11 clients on FS.

7CH –

Private Group, two groups, State Land. Lead Guide Dyer/ Harms.
Issues: No GPS Track Log today due to insufficient data maps for use.

Final use report indicated 295EW – 7 clients on FS

2/12/07

3CH –

Skiing in Zone 1 and Zone 2, 4 groups.
Guides: Bill Dyer, Durnell, Maillot, and Hunt. Day 1 of regular season.
Runs included A1, Backside A1, Lost Shots, A1, Dendrite
Recorded log and printed to map, however unclear if track successfully logged through the duration of the day. No goat sightings.

Possible incursion into NFZ #3, ~ 26 ft for ~ 5 seconds & no AGL determined.

2/14/07

3CH -

Guides: Bill Dyer, Durnell-Welch, and Hunt. 3 groups.
Skiing in Zone 1. Runs included Hendrix, Mid Glacier, BS A1 and Reef.
Issues: Track log, however no NFZ maps available on GPS unit.

No incursions noted.

2/15/07

3CH -

Guides: Bill Dyer, Durnell-Miles, and Hunt. 3 groups
Skiing In Zone 1. Middle Glacier, High Five, High Five and Hendrix, Low Five, Grasshopper
Issues: Track log failure. GPS Unit shut off during flight, but no overlay. Batteries checked and replaced, however unit did no record.

GPS file submitted but it only contains 17 points at the Girdwood Airport.

Appendix A

2/20/07

3CH –

Guides-Dyer, Maillot, Welch, Durnell. 4 Groups.

Regions flown Zone 1.

Issues: GPS upload maps to GPS Unit, successful, however may not be compatible with GPS Software. Helicopter fuel gauge unit failed, so machine had to return to base. Maillot-Welch groups moved on to Zone 5 Placer Skookum with 3ch, and into 7ch.

7CH –

Guides: Overcast, Smart, Hunt, Maillot, Welch

3 Groups then 5 Groups in Zone 5, Placer Skookum region.

Issues: GPS upload maps to GPS Unit, successful, however may not be compatible with GPS Software. Group's skied zone 5 through morning, and then 7ch received Maillot and Welch groups and skied through with 5 groups.

No incursions noted for both 3CH & 7CH.

2/21/07

3CH –

Guides: Dyer, Maillot, Welch, Durnell. 4 Groups

Regions flown: Zone 5.

Issues: GPS upload maps to GPS Unit, successful, however may not be compatible with GPS Software.

No incursions noted.

7CH –

3 Groups then 5 Groups in Zone 5, Placer Skookum region.

Guides: Overcast, Smart, Hunt. Issues: GPS upload maps to GPS Unit successful, however may not be compatible with GPS software.

Incursions into NFZs #8, 10 & 12. (See appendix B)

Evening meeting with Carl the GPS tech for the gov, has looked over the files and the GPS Units. To summarize the meeting:

The GPS Units Conus vs. Alaska Nad 27 settings were set to Conus which will account for offsetting. As per the discussion Carl has identified that the GPS Cover maps were faulty for the units dating back to January 8th, and as of Feb 24, Carl will have new Cover Maps for NFZ's for the GPS Units. It appears that the units continue to revert to the improper settings which could be a default settings issue with the units. There will be a meeting on Friday between CPG Operations Manager and the USFS to update these issues, and try to solve any outstanding problems so that we can enter the second cycle of heliskiing operations (weeks 3-4) with proper equipment.

From guides and operational perspective it is near impossible to navigate NFZ's without proper function of cover maps in running time on the GPS Units. In addition without proper track logging settings, the data logging and review of daily flight paths may provide inaccurate map review once shape files have been produced. These issues are hindering

performance and until resolved, CPG guides will have more than a difficult time insuring pilots stay clear of NFZ' boundaries.

2/22/07

3CH –

Guides-Dyer, Smart, Durnell, Welch. Circuit route in Placer, Bench and Grandview regions.
Issues: GPS upload maps to GPS Unit, successful, however may not be compatible with GPS Software.

Incursions noted into NFZs #16 & 27. (See appendix B)

7CH –

Guides: Overcast, Oakes, and Hunt Circuit route in Placer, Bench and Grandview.
Issues: GPS upload maps to GPS Unit, successful, however may not be compatible with GPS Software.

Incursions noted into NFZs #10, 12, & 15. (See appendix B)

2/23/07

7CH –

Guides: Overcast, Dyer, Hunt, Durnell. Areas skied included; Lips, Frenchie, Aqua Vel, Comet. No Goats Sighted.

Issue 1: Skier triggered avalanche required two flights in no fly zone as marked on reference map included. These were due to safety and for potential extrication. No extrication or heli rescue was necessary, however for the purpose of speed and safety, the NFZ incursion was made.

Issue 2: Incursion 3 was made for the purpose of navigation and safety for a group negotiating a cornice. Also marked on map.

Incursions noted into NFZ #10. (See appendix B)

2/24/07

3CH –

Guides: Overcast, Welch and Hunt

Issues: No Issues. GPS Unit still not reading cover maps. We will meet with Carl Madson on Tuesday Feb 27 for tech assistance.

No incursions noted.

7CH –

Guides: Smart and Oakes

Zones 5 and 7, Runs Included Lips, Comet, Dead man, Bartlett, Hob Nob

Issue 1: 2 incursions, both to be reviewed with Carl on Feb 27, so we can possibly change a discrepancy in flight tactics vs. actual Goat Habitat.

Issue 2: GPS Tracks double logged from 02-23-07 when the 7ch GPS was used in 3 CH.

Issue 3: Incursion occurred on Dead man. 60 (Distance of incursion)

Issue 4: Incursion occurred on corner. 110.66 (Distance of incursion)

Incursions noted into NFZ #12. (See appendix B)

2/25/07

3CH –

Guides: Smart, Durnell, Oakes. Zones: 5 and 7

Issues: GPS Unit shut off part way through tracking during the day. Looking at setting to ensure this does not happen. Battery replacement daily has been protocol.

No incursions noted.

7CH –

Guides: Dyer, Maillot, Hunt, Welch Zones: 5 and 7. Issues: no issues, no goat sightings

Incursion noted into NFZ #10. (See appendix B)

2/27/07

3CH –

Guides: Smart, Hunt, Durnell, Maillot. Zones: 5

Runs: Lips Left, Lips, Frenchies, Byron Wall, Comet, Carpathian Col, Frenchies, Blue Velvet.

Issues: No Issues, No Goats.

No incursions noted.

7CH –

Guides: Harms, Dyer, Welch

Zones: 5 and 7, Lips, Deadman, 47 Mile, 47 Mile, Bartlett,

Issues: Obvious difficulties in navigating without GPS NFZ maps on the GPS units, have advised guides and discussed areas where repetitive issues occur in one day.

Incursions noted into NFZ #10 & 12. (See appendix B)

2/28/07

3CH –

Guides: Smart, Hunt, Durnell, Hoke,

Runs skied: Backside A1, Grasshopper Back, Little Tahoe, Moonscape, Luna, Sunny Side

Issues: No Issues, No Goats

No incursions noted.

7CH –

Guides: Dyer Harms Welch,

Runs Skied: Lips, Made in Shade, Carp Col, Bartlett, Deadman, Commet Valley, Deadman, Frenchies

Issues: Incursions over Bartlett area, with a direct flyover due to high winds and an ill passenger for a pick up and flight back to Big Came to drop off guest

Incursions noted into NFZ #12 & 15. (See appendix B)

3/01/07

3CH –

Guides: Smart, Oakes, Durnell Runs Skied: Frenchies, Carp Col, Bartlett, Frenchies, Zone: 5

Issues: No Issues, No Goats

Incursion noted into NFZ #10. (See appendix B)

Appendix A

7CH –

Guides: Harms and Hunt Runs Skied: Sunny side, Little t, A1 Backside, 20 Mile corner, Hendrix Backside Zone 1

Issues: No Issues, No Goats

No incursions noted.

3/02/07

3CH –

Guides: Harms and Durnell Runs Skied, Lips Carp Cole, Bartlett, Lips, Frenchies, Peppermint, Cinnamon Twist, Zone 5 and 6

Issues: No Issues, No Goats

No incursions noted.

7CH –

Guides: Dyer, Oakes and Welch Run Skied, lips, Aqua velvet, Carp col, Bartlett, Corn World, Dead man, Zone 5 and 6

Issues: No Issues, No Goats

No incursions noted.

3/03/07

3CH -

Guides: Overcast

Runs: E-20, Spine, Shoebox, A1 Backside, Middle Glacier, Modified 5

Zones: Placer Skookum, Glacier Winner, West Twenty Mile

Summary: Private Ship. No Incursions. Clip 1 and Clip 2 in Zone 9 Identified as under 100'

Incursion. Pilot reported Turning into zone to find perimeter while adjusting the zoom in feature on the GPS unit, and therefore calibrated a proper real time tracking setting on the GPS. This is evident in Zone 9. Issues: No Issues

Incursions noted into NFZ #9. (See appendix B)

7CH -

Guides: Harms / Durnell / Dyer / Davidson

Runs: Lip, Frenchies, Carpathian Col, Bartlett,

Zones: Placer Skookum, Bartlett, Grandview

Summary: Clipping of Zone 11, which pilots and guides report as a potential GPS Spike, and by way of the track map, it would appear to be a GPS Spike. The Maximum distance of incursion indicated by GPS track, is 67'. This zone was discussed with guides and pilots, as it is a very tight section, which we take great care in when "threading the needle". Issues: No Issues

Incursion noted into NFZ #8. (See appendix B). Possible incursion into NFZ #11 is most likely a GPS error.

3/04/07

3CH –

Guides: Overcast/Stoneman. Zones: Placer Skookum, East Bench, Grandview

Runs: Hanging Glacier, East Bench, 47, Bartlett, E Moose, Frenchy

Summary: Private ship. Clipping of NFZ 15 inside 7.9 feet.

Appendix A

A flyover above Zone 12 1,500' plus above ground level. A flyover above Zone 15, over 1,500 feet above ground level. A flyover of Zone 8 1,500 feet above ground level. Issues: No Issues

Incursions noted into NFZ #8, 12, & 15. (See appendix B)

7CH -

Guides: Fyans, Welch, and Hunt

Runs: Frenchy, Carpathian, Bartlett, Bartlett Wall, Ptarmigan Ridge

Zones: Placer Skookum and East Bench, Grandview

Summary: GPS Unit with obvious spike in the Zone 15 region. Issues: No Issues

Incursions noted into NFZ #s 11 & 10. (See appendix B) Possible incursion into NFZ #15 is an obvious GPS error.

4CH -

Guides: Smart Davidson and Hoke

Runs: Hanging Glacier, E Bench, Bartlett, Carp Col, Frenchy,

Zones: Placer Skookum, East Bench, Grandview

Summary: Clippings on Zone 10. Distance of proximity: 67'.

Discussed and identified with Guides and Pilots to account for more spacing.

Issues: No Issues.

Incursions noted into NFZ #10. (See appendix B)

3/05/07

7CH -

Guides: Fyans, Welch, Hunt,

Runs: Proud Papa, Frenchies, Made in the Shade, Carpathian Col, Frenchies, Lips,

Zones: Placer Skookum,

Summary: GPS Spike and Clipping of Zone 11. Maximum encroachment by spike at 32'. Close proximity flying to the NFZ has been discussed with Pilots and Guides to correct any further issues, as long as the flight route poses safe with low winds and visibility. This particular section has a tight slip for approach, and winds can make this a challenging section. There was also a fly over above zone 8 1500' above ground level.

Incursions noted into NFZs #8 & 10. (See appendix B)

4CH -

Guides: Davidson, Conway, Hoke, Smart. Runs: Lips, Strait Up, Byrons Wall, Frenchies.

Zones: Placer Skookum. Issues: No Incursion, No Issues

No incursions noted.

3/09/07

3CH -

Guides: Overcast, Davidson

Runs: A1, Hendrix, Middle Glacier, Back A1, Reef, A1

Zones: Glacier Winner

Issues: No Track Log. GPS Track log did not function due to poor GPS reception from Ship.

No incursions noted.

Appendix A

7CH -

Guides: Dyer, Welch, Miles, Harms,
Runs: Hob Nob, Comet, Comet, Lips, Low Lips, Frenchie
Zones: West 20 Mile and Glacier Winner
Issues: No Issues, No Incursions

No incursions noted. GPS spikes noted.

4CH -

Guides: Fyans, Hunt, Oakes, Durnell
Runs: WC 3, Reef, Shark Pit, A1, Hendrix, High 5, Middle Glacier,
Zones: Glacier Winner
Summary: GPS Unit Spikes and Possible track loss during logging. Clipping incursion in Zone 3 due to bank of Fog forced pilot to fly along NFZ 3, into a maximum of 270'. Old Track log on Map in to Placer Skookum.
Issues: Track Log Issue and GPS Spike. Corrective measures included cleaning out GPS and setting defaults-reloaded Cover Maps.

Incursions noted into NFZ #3. (See appendix B)

3/10/07

3CH -

Guides: Overcast-Stoneman
Summary: Private
Issues: No Issues-No Incursions

No incursions noted.

7CH -

Guides: Dyer, Fyans, Harms, Hoke
Runs: Hendrix, A1, High 5, Mid Glacier, Snow Cat Area,
Zones: Glacier Winner
Summary: Clipping of NFZ Zone 3, with a maximum incursion of 103'.
Issues: Discussed this particular turn with the Pilot and identified the zone and how to change patterns when flying this particular section.

Incursions noted into NFZ #3. (See appendix B) Huge GPS spike noted.

4CH -

Guides: Davidson, Welch, Maillot, Hunt. Runs: Reef, WC 2, WC 3, Peak 61, Hendrix, A1
Zones: Glacier Winner. Issues: No Issues, No Incursions

No incursions noted.

3/11/07

7CH -

Guides: Tone, Maillot, Smart, Oakes
Runs: A1, Backside, Lost Shots, Dendrite, Peak 61, Hi 5, WC 2,
Zones: Glacier Winner and West 20 Mile. Issues: No Issues, No Incursions

No incursions noted. Two files submitted not labeled correctly.

3/12/07

3CH -

Guides: Tone, Fyans, Conway, Hoke
Runs: Peak 61, WC 2, Reef, WC 3, WC 4, Shark Pit,
Zones: Glacier Winner
Issues: No Issues, No Incursions

No incursions noted.

4CH -

Guides: Dyer Smart Welch Hunt. Runs: Hendrix, Hi 5, Middle Glacier, A1,
Zones: Glacier Winner. Issues: No Incursions, No Issues

No incursions noted.

3/14/07

3CH -

Guides: Dyer Smart Conway Hunt. Runs: BS A1, Vertigo, PK 61, Vertigo, Moonscape, WC 2.
Zones: Glacier Winner. Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Fyans Welch Tone Hoke. Runs: Mid Glacier, Hendrix, Grasshopper, A-1,
Zones: Glacier Winner. Issues: No Issues, No Incursions, No Goats

No incursions noted.

3/15/07

3CH -

Guides: Smart Fyans Conway. Runs: Lips L, Aqua Velva, Carp Col.
Zones: Placer Skookum. Summary: 3 Groups
Issues: No Issues, Snow machines sighted in valley, No Goats, No Incursions

No incursions noted.

7CH -

Guides: Tone Darwin Welch. Runs: Lips, Lips Left, Lips Proper, Lubner.
Zones: Placer Skookum. Summary: 3 Groups
Issues: No Issues, Snow Machines Sighted in valley, No Incursions

No incursions noted.

4CH -

Guides: Smart Fyans Conway
Runs: Grasshopper, Sun BS, Peak 61, WC 2, WC 1, Vertigo, Notch BS, A1.
Zones: Glacier Winner
Summary: USFS Inspection runs today. See inspection report for detailed summary.
Issues: One non-serious shoulder injury, No Other issues, No Goats

No incursions noted.

3/16/07

3CH -

Guides Dyer Hunt Harms

Runs: Lips Left, Lips, Made in the shade, Carp Col, Ice Monkey, Jager, Frenchies.

Zones: Placer Skookum. Summary: 3 Groups

Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides Fyans, Stoneman, Welch. Zones: West, North and East Bench (in the vicinity)

Runs: Ptarmigan Ridge, Hanging Garden, Bermuda Triangle, E Bench, Flu Shot, N Bench, Stolen, Hanging Glacier,

Summary: 3 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

4CH -

Guides: Smart Conway Tone

Runs: Lips Left, Hob Nob, Dead Mans, Bartlett. Zones: Grandview

Summary: 3 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

3/17/07

3CH

Guides Dyer Hunt Harms. Summary: 3 Groups

Runs: Comet, Deadmans, Bartlett, Bartlett North Face, Hob Nob. Zones: Grandview

Issues: No Issues, One Incursion, in NFZ Zone 15, due to Glare, and low visibility. Pilot came in to identify this incursion to me when handing in the GPS unit. On approach he had to inevitably fly further in to approach landing because of the glare and bad visibility. He understands that he was in a no fly. No Goats sighted. Corrective measures for this Incursion, is difficult to produce other than to divert approach, but the pilot indicated this really was the only possibility in particular scenario, from a flight safety factor. Other High Flyover 1500agl in NFZ's include the following: Zone 8, Zone 10, and Zone 11. All of which were high.

*Incursions noted into NFZs #10, 11 (both above 1,500 ft AGL) & 15. (See appendix B)
Possible incursion into NFZ #8 was straight line GPS error.*

7CH -

Guides: Maillot, Welch, Hoke, Conway

Runs: Lips High, Byron Wall, Frenchies, Aqua Velva, Byron knob, Proud Papa, Strait Up

Zones: Placer Skookum. Summary: 3 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

3/18/07

3CH -

Guides: Fyans, Dyer, Harms

Runs: Vertigo, Peak 61, WC1, WC1 West, Grasshopper, A2, Field Of Dreams, Gold Pan, Moonscape, WC-3. Zones: Glacier Winner

Summary: 4 Groups

Issues: Incursion in NFZ Zone 3. This particular run LZ has been of questionable incursion in 2006. The pilot has experienced this incursion a few times and it is absolutely not correct. We can call this a GPS Spike or a track log failure, but the bottom line, this log is obviously not a flight pattern. I have discussed this with the pilot (Glenn) who is experienced in this region and has seen the logs from last year where they literally show him landing on a vertical cliff. This is a similar track pattern and likely not any physical incursion at all, due to the history of this path being logged with spikes and inaccuracy in the past.

Possible incursion into NFZ #3 is an apparent GPS error. This particular LZ is in a steep valley bottom which restricts reliable GPS coverage.

7CH –

Guides: Tone, Conway, Welch, Hoke

Runs: High 5, Hendrix, Grasshopper, A-1, Moonscape, Peak 61. Zones: Glacier-Winner

Summary: 3 Groups

Issues: No Issues, No Incursions, No Goats, GPS track log failure. No files downloaded.

No GPS data submitted – CPG noted GPS track log failure for the day.

3/19/07

3CH -

Guides: Dyer, Fyans, Welch, Hunt

Runs: Lynx, East Bench, Bench Peak, Kingdom, Bench, Big Blue, Skywalker, Hanging Garden, Stolen Chute, Skywalker,

Zones: West, East and North Bench

Summary: 4 Groups

Issues: No Issues, No Incursions, No Goats Sighted

Incursion noted into NFZ #13 for ~28 ft for ~5 secs, no AGL calculated. Not noted on CPG's narrative.

7CH -

Guides: Tone, Vallone, Harms, Hoke. Summary: 4 Groups

Runs: Lips, Aqua Velva, Carp South, Made in the Shade, Frenchies, Carp South, Thunder dome, Byron's Wall. Zones: Placer Skookum and Grandview

Issues: No Issues, No Incursions, No Goats, GPS track log failure. No files downloaded.

Resolution; Reset GPS unit, and problem solved.

No GPS data submitted – CPG noted GPS track log failure for the day.

3/20/07

7CH -

Guides: Tone, Conway, Harms, Hoke

Runs: Peak 61, WC 1. Zones: Placer Skookum and Grandview

Summary: Weather day, 1 ship lead out was able to ski two runs.

Issues: No Issues, No Incursions, No Goats Sighted.

No incursions noted.

3/22/07

3CH -

Guides: Dyer, Fyans, Welch, Hunt. Runs: A1. Zones: Glacier Winner

Summary: One Run- No Fly Due to Weather.

Issues: No Issues, (Besides weather) No Goats, No Incursions

No GPS data submitted.

7CH -

Guides: Tone, Conway, Harms, Hoke. Runs: WC 2, Wc1, Reef. Zones: Glacier - Winner

Summary: 3 Runs, then return due to weather. Issues: No Issues, No Goats, No Incursions

No GPS data submitted.

3/25/07

3CH

Guides: Dyer, Hunt, McBride, Durnell

Runs: Lips, Aqua Velva, Carp Col, Ice Monkey, Tentacles, Hob Knob,

Zones: Placer Skookum, Grandview

Issues: Reported ski cutting avalanche activity, skier trigger. Phone call from snow machine user, indicating that he was observing avalanches overhead, and wondered why CPG was heliskiing there. The observations that he was seeing were in fact the day prior activity, and no avalanche were cut out in the near vicinity of the Ice cave on March 25.

Obvious GPS error (spike) into NFZ #10.

7CH -

Guides: Smart, Tone, Vallone, Hoke. Runs: E. Seattle Creek. Zones: Seattle Creek

Summary: Skiing in the Seattle creek zone. Avalanche instability was prevalent and guides skied accordingly

Issues: Post storm cycle, leading into 3-4 days of significant instability. Reports of multiple skier trigger/ski cut trigger avalanche activity in the region, and beyond into other regions such as Placer Skookum.

One incident included: Vallone group, 4th skier trigger class 1, slough buried up to mid leg level. No Injury. No Burial.

No incursions noted.

3/26/07

3CH -

Guides: Dyer, Welch, Darwin, Durnell

Runs: Lips, Hob Nob. Zones: Placer Skookum

Issues: No Goats, No Avalanche, No Issues

No incursions noted.

7CH -

Guides: Maillot, McBride, Vallone, Hoke

Runs: A1, Peak 61, WC2, WC4, Reef. Zones: Glacier Winner

Issues: No Goats, No Avalanche, 1 Incident on Reef, Guest Twisted Knee, required medical treatment after being shuttled out with group at the end of day.

Incursion noted into NFZ #22 ~85 ft.

3/27/07

3CH -

Guides: Dyer, McBride, Darwon, Durnell,

Runs: E. Bench, Big Blue, Deadmans, Bartlett, Hobnob, Stolen. Zones: Bench, Grandview

Issues: GPS Files deleted prior to downloading. No incursions, No Goats, No other issues

No GPS data submitted.

7CH -

Guides: Tone, Smart, Vallone, Hoke

Runs: A1, Grasshopper, WC 3, WC 4, Reef, Peak 61, Wc1, WC 2

Zones: Glacier Winner

Issues: One issue: Guest skied into minor Bergschrund, twisted knee. Minor Sloughing from slope above buried gust up to knees. No Goats, No Incursions

No incursions noted.

3/28/07

3CH -

Guides: Dyer, Welch, Vallone, Hoke. Runs: Lips, Lubner, Spenser, Bartlett, Carp Col, Lips.

Zones: Glacier Winner, Grandview. Issues: No Goats, No Issues, No Incursions

No incursions noted.

7CH -

Guides: Smart McBride Durnell. Zones: Glacier Winner, Grandview

Runs: Lips, Aqua Velva, Made in the Shade, Carp Col, Lubner, Deadmans

Issues: No Goats, No Issues, One incursion-see map attached. 22 Feet inside NFZ.

Incursion noted into NFZ #11 ~27 ft.

3/29/07

3CH -

Guides: Dyer, McBride, Welch, Hoke

Runs: Spine Cell, Hob Nob, Jagers Lips, Aqua Velva, Emotional Rescue, Frenchies, Made in the Shade, Strait Up. Zones: Placer Skookum

Issues: No Issues, No Goats, No Incursions

No incursions noted.

7CH -

Guides: Smart, Durnell, Vallone, Oakes. Zones: Placer Skookum

Runs: Lips, Made in The Shade, Aqua Velva, Strait Up, Jagers lips,

Issues: No Goats, No Incursions, GPS Track Log Failure

No GPS data submitted.

3/30/07

3CH -

Guides: Maillot, McBride. Zones: Placer Skookum

Runs: Lips, Frenchies, Aqua V, Carp Col, Frenchies, Thunderdome, Lubner

Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Smart, Sharaf, Vallone. Zones: Placer Skookum

Runs: Strait Up, Lubner, Hob Nob, Deadman, Spencer Corner, Lips

Issues: No Issues, No Incursions, No Goats (GPS Failure-Track Log Did not save to computer)

No GPS data submitted.

3/31/07

3CH -

Guides: Smart, Welch. Zones: Placer Skookum.

Runs: Lips, Frenchies, Byron Wall, Jager Lips, Strait Up, Thunderdome, Mane In the Shade

Summary: 2 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Tone, Davidson, Oakes,

Runs: Hob Nob, Leubner, Strait Up, Jagers Lips, Frenchies, Aqua Velva

Zones: Placer Skookum

Summary: 3 Groups

Issues: No Issues, No Incursions, No Goats

No incursions noted.

4/01/07

3CH -

Guides: Harms, Welch, Sharaf

Runs: WC 3.5, WC 2, WC 1, Vertigo, Peak 61, Hendrix, A1, Grasshopper,

Zones: Glacier Winner. Summary: 3 Groups

Issues: No Issues, No Incursions, No Goats

No incursions noted.

4/02/07

3CH -

Guides: Fyans, Tone, Harms, Vallone

Runs: Shark Pit, 20 Mile Corner, Dendrite, Million Dollar Saddle, Stellar, Lost Shots, Peak 61,

25 Seconds, Vertigo, Your Mama, Reef. Zones: Glacier Winner, West 20 Mile

Summary: 4 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Smart, Welch, Sharaf, Oakes

Runs: A2, Hendrix, Peak 61, Vertigo, Dendrite, Lost Shots, Stellar, Little Tahoe,

Zones: Glacier Winner, West 20 Mile

Summary: 4 Groups

Issues: No Issues, No Incursions, No Goats

No incursions noted.

4/03/07

3CH -

Zones: Glacier Winner,

Summary: Single Flight, No Ski.

Issues: No Issues, No Incursions, No Goats

No incursions noted. Final use report showed 5 clients on FS

7CH -

Guides: Smart, Welch, Sharaf, Oakes. Runs: Hendrix, Grasshopper, Goldpan, Middle Glacier, Hendrix. Zones: Glacier Winner. Summary: 4 Groups

Issues: No Issues, No Incursions, No Goats

Incursion noted in NFZ#3 ~53 ft.

4/04/07

3CH -

Guides: Fyans, Tone, Harms, Sharaf

Runs: Reef, Lost Shots, Dendrite, Your Mama, Million Dollar Saddle, Yesterdays Wine, WC 3, little Tahoe, Vertigo, WC 4. Zones: Glacier Winner. Summary: Single Flight, No Ski.

Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Smart, Oakes, Vallone, Welch

Runs: Hendrix, Goldpan, Ice Nose, Dendrite, Steller, Peak 61

Zones: Glacier Winner. Summary: 4 Groups

Issues: No Issues, No Incursions, No Goats GPS Download Failure.

No GPS data submitted.

4/06/07

3CH -

Guides: Tone, Harms, Welch. Runs: A1, Hendrix. Zones: Glacier Winner

Summary: 3 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

4/11/07

3CH

Guides: McBride, Sharaf, Vallone

Runs: A1, Reef, WC4, WC3, 20 Mile Corner, Vertigo, Field Of Dreams

Zones: Glacier Winner, West 20 Mile. Summary: 3 Groups

Issues: No Issues, No Incursions, No Goats

No shape file submitted.

4/12/07

3CH

Guides: Tone, Vallone, Welch, Fyans

Appendix A

2007 Monitoring Analysis Narrative Report

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Runs: Peak 61, WC 1, Shark Pit, Backside A1, Field Of Dreams, Shark Pit, WC3.5,
Zones: Glacier Winner, West 20 Mile. Summary: 4 Groups
Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: McBride, Sharaf, Oakes, Durnell
Runs: Hendrix, Dendrite, Stellar, Yesterdays Wine, Wall Street, Middle Glacier, Peak 61, Hi 5,
Million \$ Saddle. Zones: Glacier Winner, West 20 Mile
Summary: 4 Groups. Issues: No Issues, No Goats, No Incursions

No incursions noted.

4/13/07

3CH -

Guides: McBride, Sharaf, Vallone, Welch. Zones: Glacier Winner, 20 Mile
Runs: Mid Glacier, Check it out, Grasshopper, Goldpan, Middle Glacier, Ice Nose,
Summary: 4 Groups. Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Maillot, Durnell. Runs: Private. Zones: Glacier Winner, West 20 Mile
Summary: 1 Private Group. Issues: No Issues, No Goats, No Incursions

No incursions noted.

4/15/07

3CH -

Guides: McBride. Runs: Peak 61. Zones: Glacier Winner
Summary: 1 Run-Due to Weather. Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Maillot, Durnell. Runs: Private. Zones: Flight Seeing
Summary: 1 Private Group. Issues: No Issues, No Goats, No Incursions

No incursions noted.

4/16/07

3CH -

Guides: McBride, Sharaf, Welch. Zones: Glacier Winner
Runs: Middle, A1, Goldpan, Grasshopper, Hendrix. Summary: 3 Groups
Issues: No Issues, No Incursions, No Goats

No incursions noted. Obvious GPS error (spike) into NFZ #3.

4/17/07

3CH –

Guides: Smart, Welch, Vallone, McBride. Zones: Bench, Grandview. Summary: 4 Groups.

Runs: E Bench, Bench Peak, Bermuda Triangle, 47 Mile, Corn World.

Issues: No Issues, No Incursions, No Goats

No incursions noted.

7CH -

Guides: Maillot, Durnell. Runs: Private. Zones: Bench and Grandview Glacier Winner

Summary: 1 Private Group. Issues: No Issues, No Goats, No Incursions

No incursions noted.

4/21/07

3CH –

Incursion in Zone 3 due to down drafting winds on helicopter through the Glacier routes. Poor visibility contributing to pilot resorting to one path of least resistance from down winds and hard climbing. Pilot was aware, and turned out of NFZ when he realized he could not clear the Zone without significant impact of flying through it. This was discussed with Operations Manager in a de-briefing, and all decided it was an issue of safety and the right decision to make the attempt to find a safe climb to gain elevation. There was a minor incident on A1, where one guest was injured while skiing, and broke his leg. Guest was extricated from a 30 degree slope with no issues or incident. Guest was in group 1.

Incursion noted in NFZ #3 for ~440 ft for ~35 seconds at less than 1,500 ft AGL. Final use report showed 27 clients using 7CH.