Skiing & Snowboarding on Pu'upoli'ahu—2019

Event

On or about 31 January 2019, two skiers and one snowboarder "skied" the snow-free cinder of Pu'upoli'ahu. Based on the participants' video documentation and site investigation, the activity also likely involved two additional people, who operated a drone and drove the vehicle. The most likely sequence of events included parking at the north side of Pu'upoli'ahu, hiking up the trail to the summit; starting skiing from near the summit (~13,620 ft above sea level); down the south-facing slope; stopping where the slope lessens at approximately 13,140 ft above sea level; and hiking out the Batch Plant (aka Park 3 or Lake Waiau trailhead) where they were picked up by the vehicle operator. Total elevation change of the skiing activity was approximately 480 feet and the distance skied was approximately 1,000 feet.

The event was not observed by Maunakea Ranger staff or other management. It was recorded by the participants and posted on social media. The posting on social media received substantial and swift news coverage. Most social media postings were deleted within 24 hours of the initial news coverage.

The remainder of this document is a record of OMKM's investigation and information gathered, brief analysis of impacts, with discussion for options of additional data collection, if desired. This summary does not address legal ramifications of the events.

Documentation

The Office of Maunakea Management's (OMKM) office staff, Rangers, Visitor Information Station staff, and (select) Astronomical Observatory staff were queried for documentation, sightings, or any other pertinent information. A site visit was also conducted by OMKM staff on the morning of 8 February 2019. This site visit included retracing the most-likely route used – from exiting the vehicle at the start to re-entering a vehicle at the finish—as well as hiking the east and west ridges of Pu'upoli'ahu extending several hundred yards in either direction from the summit to ensure no additional ski routes were created or used.

OMKM/Maunakea Ranger Reports

27 – 31 Jan 2019

No reports of skiers or skiing

01 -06 Feb 2019

No reports of skiers or skiing

07 Feb 2019

Ranger Oscar

06:15 - 06:45 Spoke to Don from Keck about the skiers on Pu'upoliahu. Don related that he and Steve Milner had observed 3 males, 2 with snow skis, were walking around on the summit at around 5 pm last week. Don could not recall which day of the week the skiers were seen but he would confirm more information with Steve.

1340-1720 I asked Phil from the VIS about the skiers on Poliahu. Phil mentioned that he had talked to the individuals carrying the skis last week when they were at the VIS. I advised Phil to pass on this information to Janno.

Visitor Information Station Staff

Phil (referenced in Ranger Report above) interacted with several skiers at the Visitor Information Station parking lot on either 30 January or 31 January 2019. The group was acclimating and heading up the mountain. The party was informed that the entire mountain was sacred and they were discouraged from skiing. The group replied that others had skied on the mountain before and departed shortly thereafter. No additional follow-up occurred.

Original News Story-5 Feb 2019

Hawaii News Now: Three professional athletes from Europe on snowboards and skis carve paths down the [snow-free] rocky mountains side of Mauna Kea. http://www.hawaiinewsnow.com/2019/02/06/video-european-athletes-skiing-down-snow-less-mauna-kea-draws-criticism/

Social Media Posts

Victor de Le Rue – as of 6 Feb 2019

All items have been deleted from Instagram and Facebook as of 8 February 2019. Below is an example of one of their links which was subsequently deleted: <u>https://www.facebook.com/victordelerue/videos/330955324186824/</u>.

As of the morning of 6 February 2019, the following items were retrieved from Facebook. No Instagram postings were obtained from this account.

Post A: Instagram video posted to Facebook on Feb, 2 at 8:09 am by Victor de Le Rue (apparently a French snowboarder supported by: The North Face, Oakley, Nitro, Vans, Buff, Blue Tomato - per his Instagram profile). Shot around sunset on Pu'upoli'ahu and shows three individuals snowboarding and skiing down Pu'upoli'ahu, which does not have snow.

Post B: Same wording for post, but video is from a GoPro perspective.

Attached documentation includes:

- Screenshot of Facebook page: "VictordeLeRue Videos _ FB.pdf"
- Facebook Post A: "2019-02-02 Victor FB post_A.pdf"
- Facebook Post B: "2019-02-02 Victor FB post_B.pdf"

- Post A video: "VictordeLeRue_FB_A.mp4"
- Post B video: "VictordeLeRue_FB_B.mp4"

Others

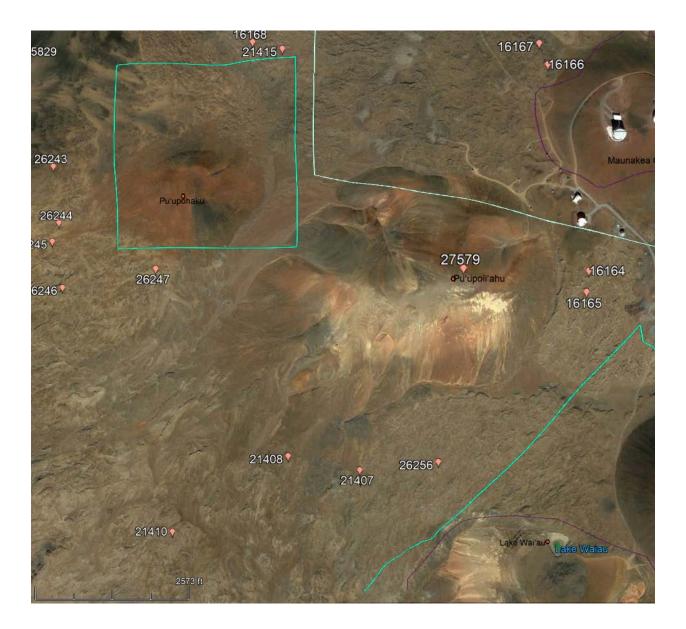
No postings related to this event were found in a review of the Instagram or Facebook accounts of Markus Elder, Fabio Studer, Alex Meliss, and Antoine Truchet (all individuals tagged as participants in Victor de Le Rue's posts). No postings were found in the RedBullSnow account which was also tagged.

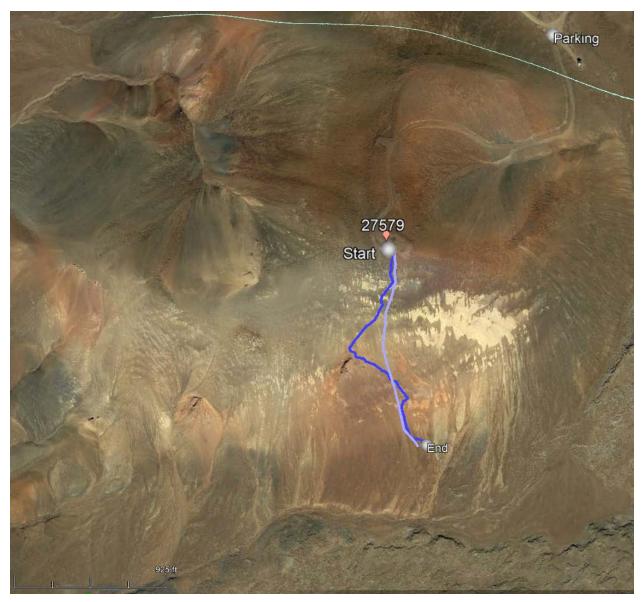
A now-deleted Instagram re-posting by Maunakea Tour guide Mike Sessions expressed dismay and concern over the activity. This re-posting identified an affiliation with @RedBullSnow in the Instagram image. Mr. Sessions contacted OMKM on the morning of 6 February to express concern over the activity and criticism he was receiving that his statement the activity was illegal was inaccurate.

https://www.instagram.com/p/Btgy4tkAP8L/?utm_source=ig_embed&utm_campaign=e mbed_video_watch_again (deleted link)

Maps

Area Overview. Numbers are State Inventory of Historic Property (site) ID #s (SIHP 50-10-23-____). Purple is also historic properties, "areas", under HRS 6E-3. Dark green is Natural Area Reserve boundary. Light green is Astronomy Precinct boundary. The remaining background is the Maunakea Science Reserve, TMK (3) 4-4-015:09.





Pu'upoli'ahu showing mapped route (dark line) and approximate 2nd route (light line). The 3rd route was in the same general vicinity of the first two.

Elevation profile of light colored route.

	Graph: Min, Avg. Max, Elevation: 13137, 13363, 13613 ft				
	Range Totals Distance: 1272 ft	Elev Gain/Loss: 4.35 ft, -477 ft	Max Slope: 15.2%, -71.4% Avg Slope: 61	6%, -38.4%	
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Photo Documentation

Areas affected by the skiing and snowboard activity are circled. As both the skis and snowboard distributes weight across a surface area much larger than a footprint, and turning (changing direction) is challenging on cinder substrates, the majority of visible impact consists of subtle compaction or broad arcs where turns were initiated.

Solifluction and other natural geomorphic and hydrologic activity create linear features that may resemble these impacts – such natural features are NOT circled.

Parking area at base of Pu'upoli'ahu. Most likely starting point for skiers/snowboarder to hike to summit.



Sign at parking area.



Start of Pu'upoli'ahu trail.



Sign at Pu'upoli'ahu trailhead



Start of skiing, eastern-most starting point.



Start of skiing, 2nd skier, middle starting point.



Start of snowboarder, western-most starting point.



Initial start of snowboard path—evidence is subtle.



Continued snowboard path, evidence is subtle.



Ski path, evidence is intermittent and subtle.



Snowboard path.



Ski path.



Bottom of area skied, lowest visible evidence.





Ending point—no further impacts below besides occasional footprints in ash.

View back towards summit of Pu'upoli'ahu, just below approximate stopping point, showing approximate routes taken.



View back towards summit of Pu'upoli'ahu, just below approximate stopping point, no markings..



Physical Damage Assessment—Non-Quantitative

A brief review of potential impacts to selected resources follows. This review is based on the existing Comprehensive Management Plan (2009) and subplan(s) characterization of resources, inventory and monitoring results and publications sponsored by OMKM, available research results, as well as a site visit conducted by OMKM staff on 8 February 2019.

Geology

Pu'upoli'ahu is characterized by unusual colored cinder/ash surfaces (unusual for the Maunakea summit region), areas of stone striping, and steep slopes subject to natural erosion processes. Many of these features can be seen in the images from 8 February 2019 (above). Limited areas of compaction by the skiing and snowboarding activity are present. Except for isolated areas where impacts are obvious, these areas are typically difficult to identify on the ground and even more difficult to identify from photography. Low sun angles, shortly after sunrise or shortly before sunset, would likely increase the ease of identifying affected areas. The area is also subject to ground freezing, especially prominent in winter months. During the 8 February 2019 site visit, which occurred from approximately 11:00am – 12:00, most areas were frost free but the

substrate was frozen only 2-3 inches below the surface—thus limiting the potential for cinder/ash compaction and long-term concerns over erosion.

Natural freeze-thaw and solifluction processes will likely remove physical evidence of the activity over the course of time.

Historic Properties

No historic property "sites" (per §6E-2 Definitions) appear to have been directly affected based on the following:

- Field visit from 8 February 2019,
- Review of the 2010 "Final Report—Archaeological Inventory Survey of the Mauna Kea Science Reserve —Ka`ohe Ahupua`a, Hāmākua District, Island of Hawai`i TMK: (3) 4-4-015:09. Volume 1: Inventory Survey Report"
- "Review of the 2010 "Final Report—Archaeological Inventory Survey of the Mauna Kea Science Reserve—Ka`ohe Ahupua`a, Hāmākua District, Island of Hawai`i TMK: (3) 4-4-015:09. Volume 2: Site Descriptions",
- Review of the 2012-2018 "Draft Report[s] Long-Term Monitoring of Historic Properties Within Three University Management Areas on Mauna Kea, Ka'ohe Ahupua'a, Hāmākua District, Hawai'i Island, Hawai'i:...", and the
- Review of the 2009 "A Cultural Resources Management Plan for the University of Hawaii Management Areas on Mauna Kea, Ka`ohe Ahupua`a, H!m!kua District, Hawai`i Island, State of Hawaii.

The nearest historic property site is # 27579 located at the summit of Pu'upoli'ahu. This site does not appear to have been impacted. See maps above for locations of documented historic property sites. The general area has been repeatedly surveyed and unanticipated findings of previously unknown historic properties are not likely.

The area is within the boundaries of the Mauna Kea Summit Region Historic District (as defined per §6E-2), SIHP site id # 50-10-23-26869.

Habitat

Arthropods are the taxa most likely to use the slopes of Pu'upoli'ahu as habitat. No seabird activity was documented during the site visit and there is no past documentation of habitat use (conducted as part of Astronomical Observatory environmental reviews). An ongoing radar and acoustic bird inventory has not (to date) documented habitat use in this area. Arthropods are likely to use these cinder slopes. Arthropod species likely to be affected include wēkiu bug, *agrotis* moths, Hawaiian wolf spiders, and other lesser known native species.

No vegetation is known to colonize the area (see <u>Gerrish, 2011</u>) and none was observed during the 8 February 2019 site visit. No lichens were observed during the field visit, however in this habitat lichens are frequently found underneath rocks (as opposed to on exposed surfaces). A detailed search was not conducted.

Cultural Awareness

This group ignored the sign that Pu'upoli'ahu is a sacred site, hiked up to the top and skied/snowboarded down her slopes and hiked off trail on the way back to their pickup point. They did not seek permission to ski on snowless ground nor did not ask permission to use a drone in an area where drones are prohibited. Finally they did not obtain a film permit from the State Film office to film on State land. OMKM would never have allowed this type of activity, nor the filming of it, because it is not only disrespectful but also harmful to the cultural and physical landscape. Further, filming and showing the video clip would only encourage more of this type of behavior.

Additional Documentation Options

Dr. Ryan Perroy, UH Hilo Geography & Environmental Studies, and Principal Investigator for the Maunakea Erosion Baseline inventory has offered to collect highresolution aerial imagery and elevation data of the affected area. At this time we do not have a final recommendation on whether or not to collect such data, although given the apparent limited physical landscape alterations this data collection may prove to be of very limited utility.

Due to the steep, loosely compacted slopes, additional field (site) investigations are not recommended without first preparing detailed study plans which include addressing potential impacts from the site visit process.

Attachments

- 1. Screenshot of Facebook page: "VictordeLeRue Videos _ FB.pdf"
- 2. Facebook Post A: "2019-02-02 Victor FB post_A.pdf"
- 3. Facebook Post B: "2019-02-02 Victor FB post_B.pdf"
- 4. Post A video: "VictordeLeRue_FB_A.mp4"
- 5. Post B video: "VictordeLeRue_FB_B.mp4"