Date: Dec 08, 2020
Name: Spencer Robertson

# Pieps DSP – A Beacon of Failure

An investigation into the events and repercussions of the failure of the Pieps locking mechanism: real life consequences and how it affects us as guides.

# Introduction

Avalanche transceivers are simple electronic devices, which send and receive an electronic signal. The transceiver is normally worn on the body, under exterior layers, and is set to transmit mode while traveling in avalanche terrain. If a member of the group is buried in an avalanche, all the other parties switch their devices to search mode and they are able to hone in on the buried skier.

Pieps, founded in 1967, has a long and respected history of selling avalanche transceivers. Black Diamond Inc. successfully purchased Pieps from their original Austrian owner SEIDEL Group, in 2012.

The Pieps DPS which began production in 2014 is a device designed for "fast, accurate searches in the event of a slide". Throughout the backcountry, the DPS and related models began to have problems but the failures were disparate and no connections between near misses were made. More serious incidents occurred as time went on and in 2017, Corey Lynam of Whistler, died as the result of being buried in an avalanche while backcountry skiing at Hanging Lake near Whistler. Lynam was wearing a Pieps DPS transceiver.

In March 2020, Nick McNutt – a professional skier, was buried in an avalanche while filming a segment for Teton Gravity Research. His transceiver was not transmitting but he was successfully rescued after a team member located him with a lucky probe strike. McNutt was wearing a Pieps DPS transceiver.

The push back from the ski and snowboard community began in earnest after a video of McNutt's accident was posted on social media. With a striking video of the McNutt burial and lucky recovery, concern grew. More and more members of the ski community began to come forward with stories and anecdotal evidence of their incidents. More videos were uploaded and each demonstrated the ease with which it was possible to inappropriately change the modes of the transceiver.

Initially Black Diamond resisted any responsibility and claimed any problems arose from improper maintenance and user error. On Oct 16th, 2020 Rice Harbut Elliott LLP launched a class action lawsuit in the British Columbia Supreme Court against Black Diamond. In addition to the lawsuit, Black Diamond quickly met a consumer backlash. Black Diamond released a new statement on Oct 20th, 2020: they did not accept any new responsibility related to their design flaw, but did "offer you an upgrade to the latest generation of our avalanche transceivers."

The court case is proceeding and Black Diamond has chosen to offer replacement transceivers but have not initiated any official recalls. This report will examine the device itself, the real world consequences, how the incidents played out in social media, how Black Diamond has acted, how it affects us as guides, and what happens moving forward.

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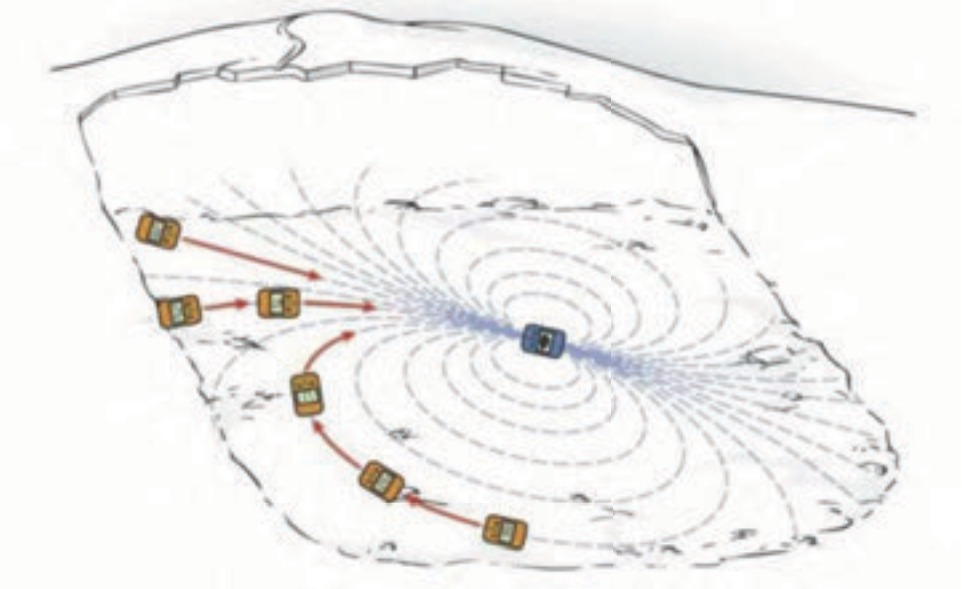
# Timeline

2012 – Black Diamond purchases Pieps
2014 – Pieps DPS and similar models released
2017 – Corey Lynam dies in avalanche while wearing Pieps DPS in off setting
2020 – March – Nick McNutt is buried in avalanche while wearing Pieps DPS, no signal
2020 – October 13th – Black Diamond releases statement
2020 – October 16th – Class action lawsuit launches
2020 – October 20th – Ian McCintosh uploads a YouTube video criticizing Black Diamond
2020 – October 20th – Black Diamond releases new statement: will 'upgrade' device
2020 – October 29th – Teton Gravity Research uploads video of McNutt's incident to YouTube

## Transceiver Overview

Wearing a properly functioning transceiver is an incredibly important when buried under avalanche debris: by continuously sending out a signal, your rescue party can locate you in a short time frame. Without a signal, the chance of recovery is significantly lower. Transceivers are truly a lifesaving devices.


The Skadi - 1968
First effective electronic avalanche rescue beacon
(radio transceiver)
*Cornell University*



*avalancheinfo.net*

"The basis of the induction-line technique is that an avalanche transceiver actually has an electromagnetic field that surrounds it each time the transceiver transmits. The field has a three-dimensional shape somewhat like an apple and can be seen represented (two - dimensionally) in the diagram [above]." *avalancheinfo.net*

"The width of the coarse search strip that is applied when scanning an avalanche is a major factor influencing the time to locate buried victims. Wider search strips help in reducing this time." *felmeier.com*

**Search Strip Widths**

| Transceiver | Measured Range | Search Strip Calculated | Search Strip Published |
|---|---|---|---|
| Tracker DTS | 34 | 48 | 40 |
| Ortovox Zoom+ | 31 | 43 | 40 |
| Ortovox 3+ | 36 | 50 | 40 |
| Tracker2 | 38 | 53 | 50 |
| Tracker3 | 39 | 55 | 50 |
| Pieps DSP Sport | 41 | 57 | 50 |
| Pieps DSP Pro | 42 | 59 | 60 |
| Mammut Pulse | 54 | 76 | 50 |
| Ortovox S1 | 50 | 70 | 50 |
| Arva Neo+ | | | 70 |
| Mammut Barryvox | | | 70 |
| Mammut Barryvox S | | | 70-100 |

*williamskeaclimbingphotography.com*

Looking at the results in the table above, we see that the Pieps DPS measured search strip range is 41-42m, which places them in the upper end of the middle of the pack. This measurement is unrelated to the specific failure discussed in this report, but it shows that the transceiver was a seemingly quality choice for backcountry users.

## Locking Mechanism of Pieps DPS

See instructions below from the Pieps DPS user manual on the function of the secure slider switch mechanism:

- **SECURE SLIDER SWITCH MECHANISM**
  The switching from one position to another (OFF-SEND-SEARCH) is only possible with a secure 2-hand-activity. The two operating elements lock button (1) and slider (2) have to be forced at the same time and in different directions - only then a switching of the positions is possible.

*Pieps.com*

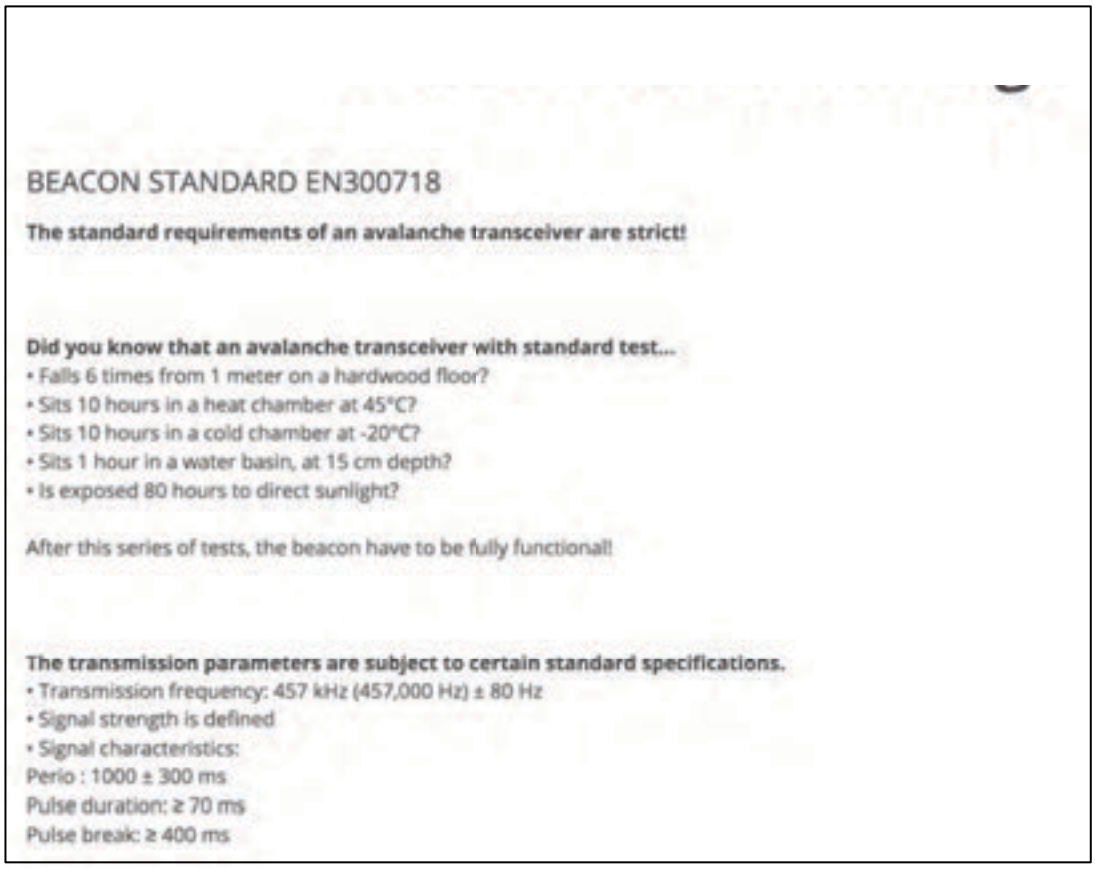
All avalanche transceivers must conform to standardized tests and meet safety minimums set under the *European EN 300718* standard.

EN 300718 tests:

- Modulation
- Frequency Error
- Output Field Strength
- Transmitter Spurious Emissions
- Radiated H-field
- Extreme temperature ranges
- Antennae test
- Power source

"European EN 300718 standard includes tests for durability, immersion, transmit power, receive range, and battery life." *backcountryaccess.com*

Below is taken from the Pieps website boasting of many safety tests, but none relate to the locking mechanism.



BEACON STANDARD EN300718

**The standard requirements of an avalanche transceiver are strict!**

**Did you know that an avalanche transceiver with standard test...**
- Falls 6 times from 1 meter on a hardwood floor?
- Sits 10 hours in a heat chamber at 45°C?
- Sits 10 hours in a cold chamber at -20°C?
- Sits 1 hour in a water basin, at 15 cm depth?
- Is exposed 80 hours to direct sunlight?

After this series of tests, the beacon have to be fully functional!

**The transmission parameters are subject to certain standard specifications.**
- Transmission frequency: 457 kHz (457,000 Hz) ± 80 Hz
- Signal strength is defined
- Signal characteristics:

Perio : 1000 ± 300 ms
Pulse duration: ≥ 70 ms
Pulse breaic ≥ 400 ms

In no section of EN 300718 was there any mention of the physical user interface or any locking mechanisms. In the information taken from the Pieps website above, they list many safety tests, but none related to the operation of the locking mechanism.

There are these instructions in the manual on proper orientation of the device in the harness:

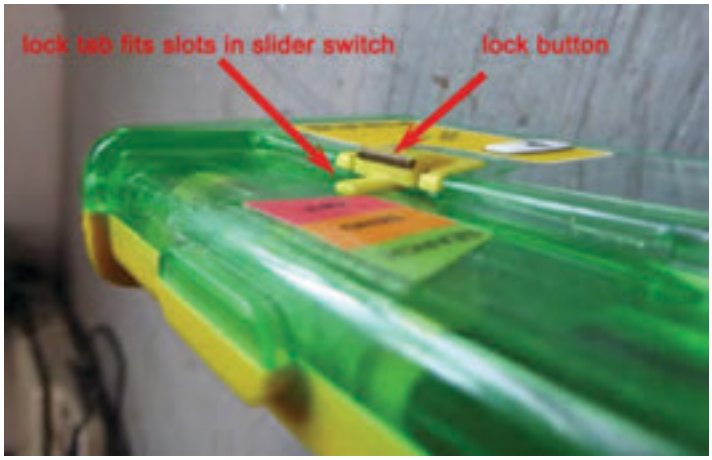
**"In order to protect the beacon's display, carry the beacon with its display facing inwards"** **Pieps**

## Lock Failure Analysis

Lou Dawson from *wildsnow.com* did an extensive analysis of the Pieps DPS Sport and found that when the transceiver is placed backwards (screen facing out) in the harness by the user, it exposes the locking mechanism to external forces which may cause the unit to be switched to off or search mode, rendering the unit useless for a buried skier.


*Wildsnow.com*

*Wildsnow.com*




*Wildsnow.com*


*Wildsnow.com*

*Wildsnow.com*

> "It took **1,798 grams of weight on the buckle** to overcome any resistance of the case and depress the lock. Also, with the unit in the case, sliding the switch required 1,440 grams of force-weight (and that force was noticeably reduced when I lubricated the slider with a spritz of water). Again, **not much pressure considering we're talking about a device designed for use by an avalanche victim doing things such as hitting trees at sixty miles per hour, not to mention being buried under thousands of pounds of snow.**" *Wildsnow.com*

Black Diamond (BD) did their own internal analysis and came to the conclusion that the current locking mechanism was adequate and safer than other existing solutions on the market manufactured by other companies. This is their analysis as follows:

> **"Pieps DSP Pro and Sport beacons change modes via a sliding switch on the side of the unit. To move the switch, a small button must be depressed to disengage the switch's locking mechanism. On a properly functioning beacon, the sliding switch should stay locked in whatever mode (off, transmit, search) is selected unless the button is depressed. These tests specifically looked at how well that locking mechanism worked in various situations.**
>
> The first mechanical test was performed on three separate batches of Pieps DSP beacons: units pulled from BD's warranty department of similar age to Nick's (3-5 years), units that had

been physically damaged in various ways, and units whose locking mechanism had been intentionally overridden by force.

On beacons that were damaged (including cracked or otherwise broken lock switches), Vance says BD found that, **"depending on the severity of that crack, the slider resistance is reduced by 50 to 100 percent."** In other words, if the lock is physically damaged, it can lead to the slider accidentally moving.

Finally, on beacons who had been overridden by force, Vance explains that, **"We've tested the life cycle of the lock button multiple times and found that in a lab environment that lock button survives more cycles than the crustiest ski patroller could put on it. We're talking on the order of 100,000 cycles. The lock switch can be forcefully overridden hundreds of times before it begins to show cracks."**

The goal of the second test was to evaluate how easy it is to inadvertently switch modes on a beacon, and BD compared the Pieps DSP Sport and DSP Pro to as many competitors' models as possible that all pass the same standards. Jerry Hicks explains the results of their findings, saying: "We looked at as many competitor beacons as we could to evaluate switch/mechanical security. They all pass the same standards. **And what we found is that there are actually beacons with designs that are more susceptible to that inadvertent mode switch. That's primarily based on assembly of locking mechanisms.** There are mechanisms in the market without locks or unprotected by the harness." In other words, it is possible to inadvertently switch modes on all manner of avalanche beacons.

Nick McNutt says, **"After the incident, my beacon would pass the 'inspection instructions' in the video PIEPS posted with Rick Vance. This is after it had failed already."** *tetongravity.com*

## Deadly Consequences

### Corey Lynam – Fatality

Corey Lynam, a 32-year-old new father, died in the backcountry after he was buried under an avalanche and his ski partners could not locate him under the snow in sufficient time. The RCMP and coroner investigated and a report was sent to Black Diamond. During the investigation the beacon was tested by the RCMP and TUV (Technischer Überwachungsverein: a Germain safety company) and no damage to the unit was found.

> "Lynam was caught in an avalanche in Callaghan Valley near Whistler, British Columbia, while using that beacon. When a 150-meter-wide slab buried Lynam under 80 cm of snow on March 4, 2017, his five skiing partners found, to their horror, that Lynam's beacon was not transmitting a signal. They hadn't seen the events that triggered the avalanche, Howard said, so they didn't have a visual reference where he was likely to be buried. A long search started.

Corey & son

As the minutes, then hours, passed and the grim realization set in that their rescue mission was turning into a body recovery, Lyman's ski partners started asking themselves what happened with their friend's beacon." *adventure-journal.com*

"It was not extreme terrain and to a lot of folks it probably looked like great skiing, but it was just wind loaded enough and steep enough that it ended up causing a very serious accident."
*Grant Helgeson, Avalanche Canada - cbc.ca*

## Nick McNutt – Near Miss

On March 9th, 2020 Nick McNutt was filming a pillow skiing segment with Teton Gravity Research in the backcountry in the Pemberton, BC area. As he descended, his line cut off a segment of a pillow which ran down a natural feature parallel to McNutt, which ultimately collided with him. McNutt was struck by the moving mass of snow and forcefully slammed into a section of small treetops protruding from the snow. The avalanche continued to the base of the slope to the lake's surface, which was a natural terrain trap. His ski partners initiated a search, but quickly found that McNutt's transceiver was not transmitting. On a lucky probe stroke, the rescuers located and successfully extracted McNutt who recovered with no major physical repercussions. McNutt and the crew **were certain** they had performed safety checks in the morning together before commencing the day and they had function tested their avalanche transceivers.

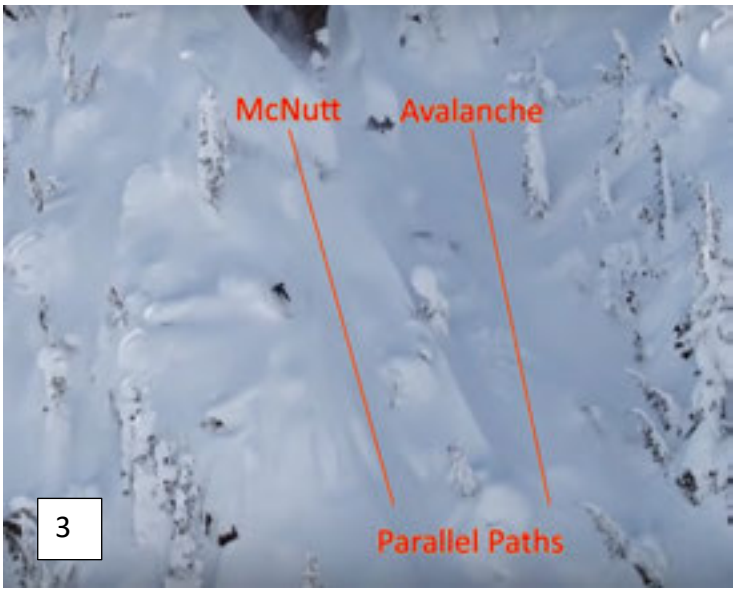
The push back from the ski and snowboard community began in earnest. With a striking video of the McNutt burial and lucky recovery, concern grew.

*Nick McNutt*

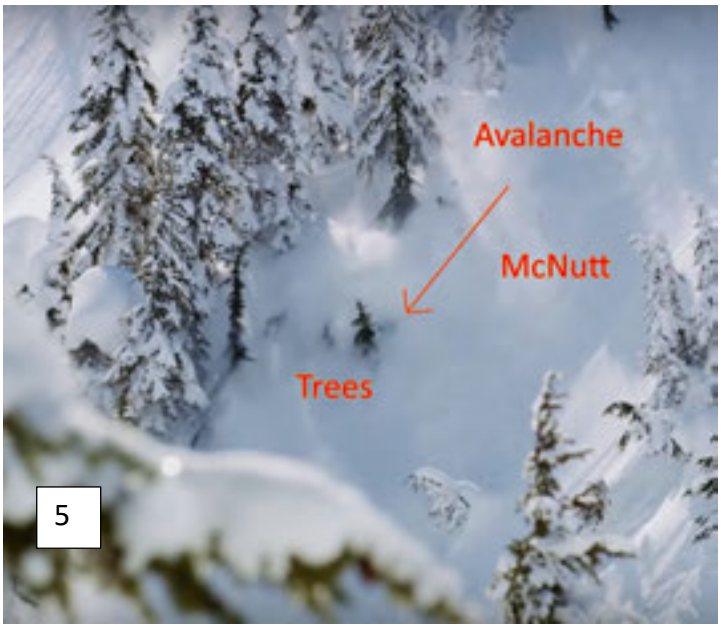
"The experience left me questioning the integrity of the Pieps DSP Pro… a few days after the incident I sent an email to the guiding community enquiring about similar experiences or issues with this device. I was surprised to see my email flooded with similar accounts, even dating back to 2017. The problem being it can switch modes easily without the user's knowledge, [d]ue to poor design the button wears out and no longer provides resistance allowing it to slide out of send mode."
*Lustenberge – a member of the McNutt rescue party - ACMG guide – cbc.ca*

The screen captures below are from a Teton Gravity Research video of McNutt's avalanche and burial:





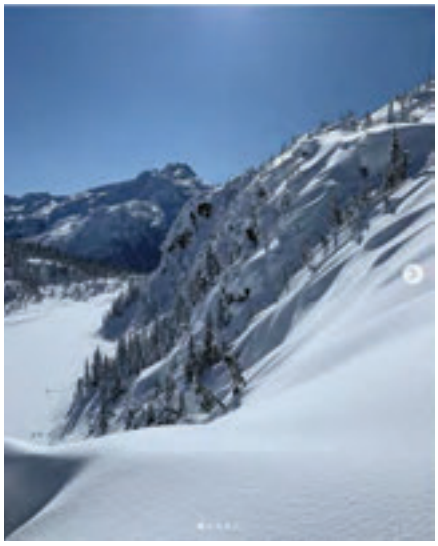





**1** – McNutt begins run
**2** – McNutt cuts large block of snow off top of cliff
**3** – McNutt and avalanche debris travel parallel
**4** – Avalanche debris catches McNutt and strikes his back launching him forward
**5** – McNutt is slammed into the trees by the snow mass and presumably the transceiver is switched off

*The Day Nick McNutt Nearly Died in An Avalanche*
*youtube.com*

On March 12th, 2020 McNutt posted the following from his hospital bed:



“Beautiful or deadly?
On Monday, March 9th I was involved in a serious accident near Pemberton. I’m writing this from the hospital in Vancouver (day 4) where I’m hoping I can leave soon. After a couple of great runs, I eyed up this nice-looking pillow rib line and to my misfortune, up high on the run, I broke a pillow off that sent hard chunks barreling down the gulley I was planning on exiting. As I finished the line, the chunks redirected me through trees and smashed me onto the lake, burying me 120cm down. For minutes I lied under the snow, holding on to faith that my friends who were close by would come to my aid. They prevailed through my beacon being smashed into the “off” position (no signal) and with a lucky probe strike, dug me out quickly.
Quickly realizing that I wasn’t ok, they called for Pemberton SAR and stabilized me, keeping me warm for 2 hours while we waited for rescue. My arm was the main concern, both bones in my forearm were shattered and displaced, as well as very unstable. I was coughing up blood and had chest pain. Hearing the helicopter come was an unexplainable wave of relief.
I escaped with multiple forearm breaks (repaired by surgery) and a bruised heart, and some minor bleeding inside my lungs. I can’t thank the @tetongravity crew enough who was there that day, @ianmcintosh @christinalusti @bdanncreative @samsmoothy @aronasaurus @eparkerphoto_
I owe you my life. I also owe a huge debt of gratitude to the Pemberton Search and Rescue for the swift ride to the hospital, thinking about making my way out under my own power and adding many painful hours to my ordeal makes me feel ill. And a huge thank you to the wonderful @kelirwin for taking such great care of me these last few days, bringing my spirit up and making sure I was well fed and comfortable. Thanks to all who reached out and expressed concern.

I’ll be back! In my opinion, a bit of a freak accident and I don’t think any poor decisions were made that day. A broken arm is a speed bump and I’m excited to heal up and ski again later this spring.”
*Nick McNutt*
*instagram.com*

## Black Diamond's Response

There was no public response from Black Diamond in relation to the death of Corey Lynam. But when the McNutt incident took place Black Diamond strongly resisted taking responsibility for the faulty product and denied there was a problem, and if there was an issue, they claimed it was user error. BD posted the following statement to Instagram on Oct 13th, 2020:

> "We have received inquiries about the design and safety of the Pieps DSP Sport and DSP Pro avalanche beacons.
>
> These beacons have **undergone vigorous testing and exceed all certification standards.** They have been sold globally since 2014 and used by countless backcountry travellers ever since.
>
> A beacon is a personal safety tool which must be properly used and maintained. **Any misuse may compromise its functionality.** Please refer to the video on the fourth slide for how to inspect your beacon.
>
> Your safety in the backcountry is our top priority. Please reach out to Black Diamond Equipment in North America and Pieps in Europe if you need further information or if you are unsure how to verify the condition of your beacon." *Pieps – Instagram.com*

Black Diamond's response to a warranty claim from Rafael Sola:

> "Thanks for your message.
>
> We have received several inquiries related to the security of the switch mechanism of the DSP Sport and DSP pro avalanche beacons. We have been in close contact and dialog with athletes and professionals on this issue since Nick McNutts accident in BC, Canada. In response to these requests, we have performed significant additional testing on these beacons in used and new condition. **The findings are simple and significant at the same time. The lock mechanism of the DSP Sport and DSP Pro is not in any way compromised due to design or production issues. Yet we all saw the Instagram posts over the last few days and the explanation is as simple. Avalanche beacons are products built for the extremes, still they need a certain amount of maintenance as all your outdoor gear does. The evidence suggesting the slider to be faulty by design was corroborated with a heavily damaged beacon. PIEPS encourages all users to inspect their beacons at least before and after the season for mechanical damage due to use or accidents. We urge you not to go out with a broken beacon as, like all beacons it can not guarantee its reliability and performance when broken.** Nevertheless PIEPS, in close cooperation with the Black Diamond quality lab has done extensive research and testing on this particular beacon, which we are happy to share.
>
> Switch Performance Testing
>
> Testing has shown no change in switch resistance for used DSP beacons with heavy use.
> **DSP beacons that have had their switch overridden (intentionally forced between modes without depressing the lock button), show a reduction in switch resistance which is further reduced after multiple cycles. The reduction in switch resistance due to override is variable, but not as severe as lock/switch mechanisms with visibly damaged lock buttons.**
>
> Different lock mechanisms
>
> Comparative evaluations were also made between the DSP lock/switch mechanism and lock mechanisms currently on the market. The purpose of this evaluation was to compare the likelihood of interference with various switching

mechanisms by determining the number of independent actions required to switch the designs evaluated on/off and between modes. While all mechanisms evaluated have strengths and weaknesses, and **met the EN 300 718-1 standard, the DSP lock/switch mechanism as found to be comparable in terms of security to other lock designs on the market.**

Conclusions

Perform beacon partner checks regularly when in avalanche terrain, ensure that your beacon is locked in the send mode, and carried in accordance with manufacturer's recommendation. **All beacons can be overridden and/or manually damaged.** Never intentionally force a beacon power or mode switch between positions and retire your beacon immediately if it has been damaged. Inspect your beacon regularly for signs of wear or damage (see below). Contact the manufacturer if you have any questions regarding proper use or inspection results
If you have any concerns, I can offer you a free of charge device service. Please use for that your device service form (https://my.pieps.com/de#deviceservice). Note in the comment field: "Free Device Service"

When your device works well, we will send it back to you. If we find any issue, we will let you know the further steps.

If you have any further questions please do not hesitate to contact me.

Mit freundlichen Grüßen
With kind regards

Doris Resch
Product Service
_____
Pieps GmbH
Parkring 4, A-8403 Lebring
T +43 3182 52556 – 30 I F +43 3182 52556 – 19
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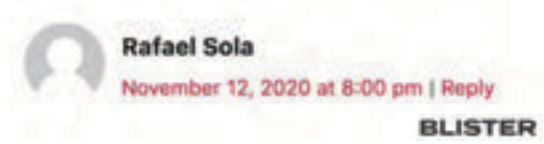
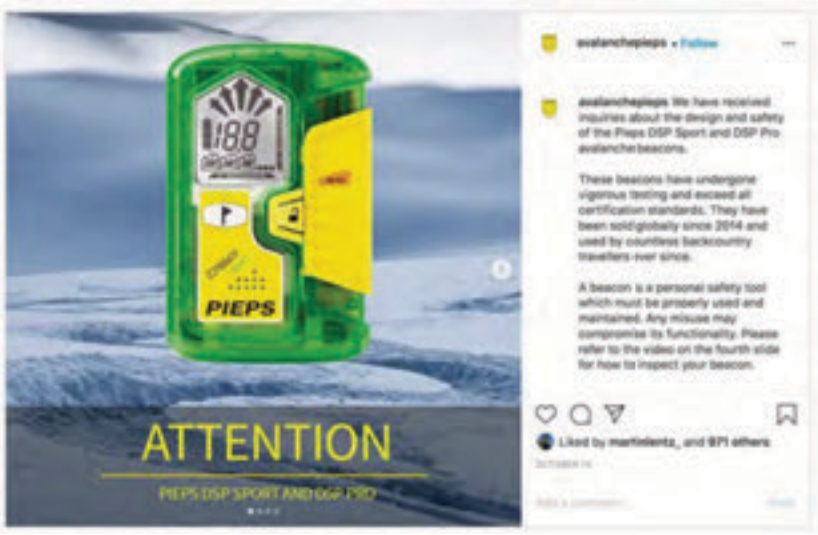
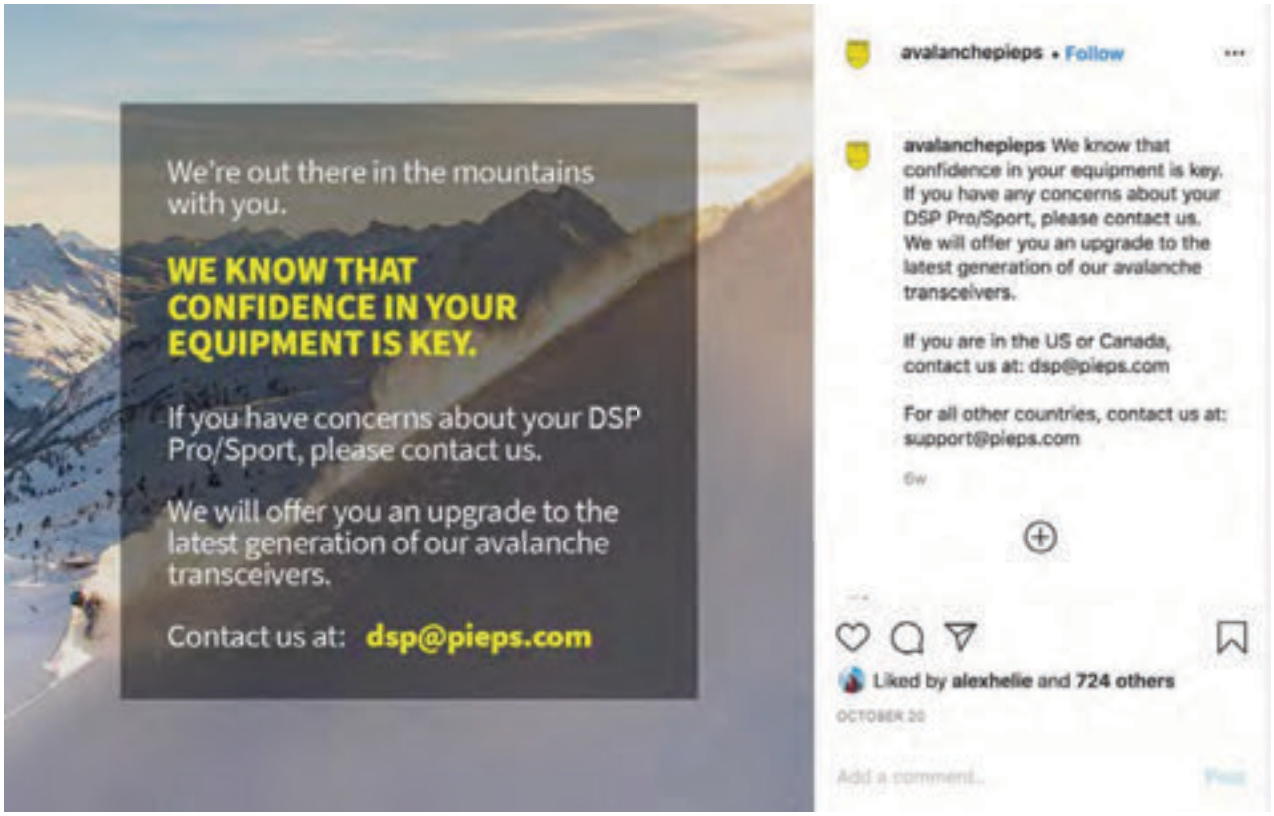



Black Diamond and Pieps posts on Instagram on Oct 13th, 2020:

Black Diamond and Pieps posts on Instagram on Oct 20th, 2020:




## Community Response

Ian McCintosh, a professional skier who was a member of McNutt's rescue party, took to social media to make a call to action. TGR, as well as other members of the ski community, had been in contact with BD. TGR was not satisfied with Black Diamond's response. McCintosh posted a 9min and 25sec video to Instagram's IGTV explaining his experiences with the rescue and exasperation at his interactions with Black Diamond. Cody Townsend, another professional skier who has a large social media gathering, also leveraged his audience to call for a better response from Black Diamond.

*Ian McCintosh*
*https://www.instagram.com/p/CGk2g_BnHhi/*

McCintosh also posted an additional video on October 20th, 2020 which demonstrated how easily the lock switch can be inappropriately moved even when inserted into the harness in the correct orientation.

In the video you can clearly see:

1. McCintosh setting the transceiver to send and testing the lock
2. McCintosh inserting the device into the harness correctly
3. McCintosh applying minimal force to the lock
4. McCintosh showing that the lock released


*Ian McCintosh*
*instagram.com*

## Class Action Lawsuit

The law firm of Rice Harbut Elliot LLP filed a class action lawsuit on October 16th, 2020 in Vancouver's Supreme Court: Case # S2010419 between Friedrich Klaus (plaintiff) and BLACK DIAMOND EQUIPMENT, LTD., CLARUS CORPORATION, PIEPS GMBH AND PIEPS CANADA (defendant). Their case is on the legal basis of: the Negligence and Failure to Warn, the Business Practices and Consumer Protection Act, and the Breaches of the Competition Act.

Below is an excerpt from the court papers:

The Defendants have represented in their communications to consumers that their Beacons are safe and effective. Misleading and/or deceptive statements, express and implied, made by the Defendants include the following:

- That their Beacons have "all the features needed for fast, accurate searches in the event of a slide";
- That their Beacons have "pinpoint search accuracy";
- That "The PIEPS DSP Sport Avalanche Beacon is the go-to beacon for the everyday backcountry traveler";
- That the Beacon "serves as an avalanche victim search device"; that
- That the Beacon "meets the current state of technology and the applicable health and safety regulations";
- "you have a product that is state of the art in terms of safety and user-friendliness";

- Such further representations about safety and efficacy in advertising, manuals and disclosure provided by the Defendants as will be proven at trial (collectively, the "Misrepresentations").

15. In addition, the advertising, manuals, and disclosure provided by Defendants do not warn of the Beacons' propensity to turn off unintentionally while being carried (collectively, the "Omissions").

16. The Plaintiff brings this action against the Defendants, and each of them, based on their negligent design, testing and/or manufacturing of the Beacons, their Misrepresentations and Omissions about the safety and efficacy of the Beacons, their disregard of the risks of using the Beacons, and their failure to adequately warn consumers of the risks associated with the Beacons.

The case seeks causation and damages as follows:

As a result of the Defendants' negligence and the Defendants' breach of the BPCPA and the *Competition Act*, the Plaintiff and class members have suffered and will continue to suffer loss and damage. Such loss and damage was foreseeable by the Defendants. Particulars of the loss and damage suffered by the Plaintiff and class members which were caused or materially contributed to by the aforementioned acts of the Defendants include:

- Special damages for out-of-pocket expenses including purchasing the Beacons and/or replacements that are safer and more efficacious;
- General Damages.

The conduct of the Defendants warrants a claim for punitive damages. They have conducted themselves in a high-handed, wanton, and reckless manner, and without regard to public safety.

This case raises issues of general deterrence. A punitive damage award in this case is necessary to express society's condemnation of conduct such as the Defendants', to advance public safety and to achieve the goal of both specific and general deterrence.

Rice Harbut Elliot LLP created a webpage with the following information:

## PIEPS/BLACK DIAMOND AVALANCHE BEACON CLASS ACTION

Rice Harbut Elliott LLP has commenced a claim in the Supreme Court of British Columbia against BLACK DIAMOND EQUIPMENT LTD., CLARUS CORPORATION, PIEPS GMBH and PIEPS CANADA in a potential class action lawsuit on behalf of all Canadians who have purchased one or more of the following Avalanche Beacon devices:

- Black Diamond Recon BT;
- Black Diamond Guide BT;
- Pieps DSP Sport;
- Pieps DSP Pro;
- Pieps Powder BT; and
- Pieps Pro BT.

The potential class action involves a claim of defective design and manufacture because the Avalanche Beacons in question have a propensity to turn off involuntarily while being used. If the beacon is in the "Off" mode, it makes it much more difficult for rescuers to locate the buried snowboarder or skier.

If the case is successful, claimants will be entitled to refunds among other potential remedies.

## DO YOU QUALIFY FOR THIS CLASS ACTION?

If you purchased one or more of the products listed above in Canada, you may be affected by this class action lawsuit.

Please fill out the form below to get in touch with us. Joining our contact list creates no financial obligation and we will keep all the information that you provide to us confidential.

Please retain any receipts relating to the purchase of your Avalanche Beacon device.

If you qualify, there is a form to fill out at:
https://rhelaw.com/class-action/pieps-black-diamond-avalanche-beacon-class-action/

## Effect on Guides

Guides should be aware of these faulty units and be able to recognize them when clients wear them. As a guide, it would also be helpful to discuss the issue with the beacons with your group in the morning to ensure no one is wearing one. If an accident does happen and a client is buried without a signal, a prudent guide would have documents supporting the details of the morning safety meeting, which would include discussions of the problems with the Pieps device and documents which detail your morning transceiver function tests.

## Solutions

From reading online forums, there are many arm chair critics offering solutions, but wildsnow.com instructs the public to simply apply duct tape to the device to ensure the lock stays in place. This appears to be an inadequate solution for such an important safety device.

Another option is to have the device replaced with a newer model by contacting dsp@pieps.com.

If you purchased your device from Guide's Hut, you can take it in and they will help you replace it.

To participate in the class action lawsuit, email: reception@rhelaw.com.

## List of Affected Transceivers

- Black Diamond Recon BT
- Black Diamond Guide BT
- Pieps DSP Sport
- Pieps DSP Pro
- Pieps Powder BT
- Pieps Pro BT

## Local SAR

The Fernie SAR uses Mammut transceivers and have not had any incidents related to the Pieps DPS or related models.

## Recalls in Canada

In Canada, there are two types of recall: voluntary and mandatory. Only the manufacturer can initiate a voluntary recall, which they have not called for. A mandatory recall can only be ordered by Health Canada and may result from the case currently before the courts.

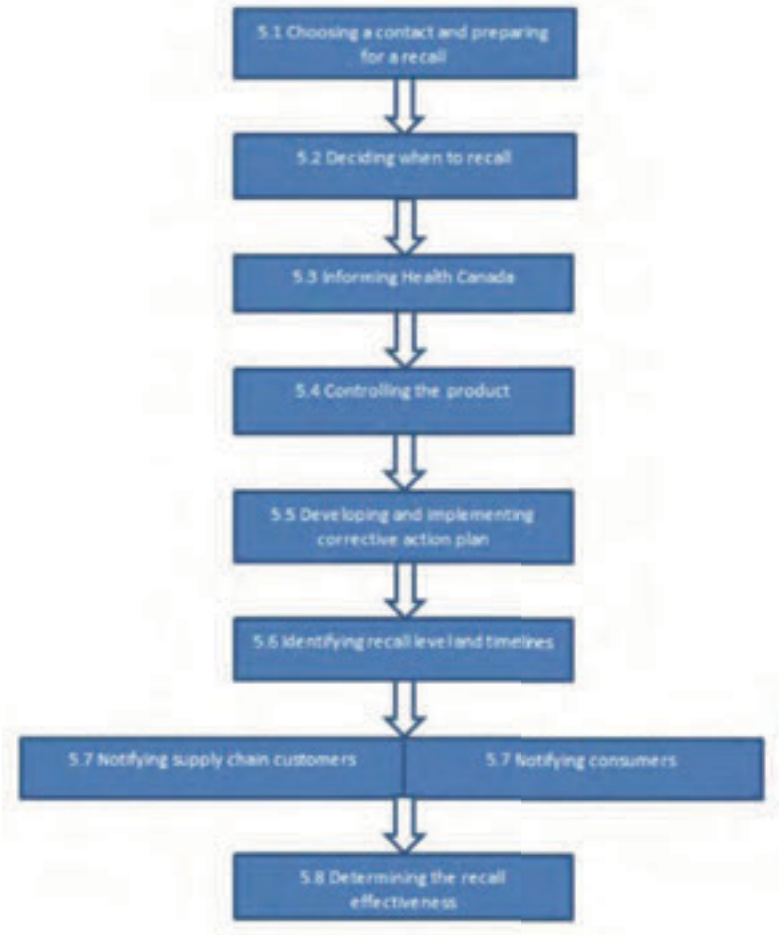
### 4.0 What is a voluntary recall?

Health Canada's CPSP defines a recall [1] as:

> Any corrective action, communicated to a consumer, taken post production to address consumer health or safety issues associated with a product.

As noted previously, a voluntary recall is a recall that is negotiated with Health Canada; in contrast with a mandatory recall, which is carried out following the issuance of a mandatory recall order by Health Canada. A regulated party might decide to initiate a recall because of a health or safety issue relating to

- their product;
- a part or component of their product, including its packaging; or
- warnings, instructions or labels that are associated with their product.



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