

## **For Immediate Release:**

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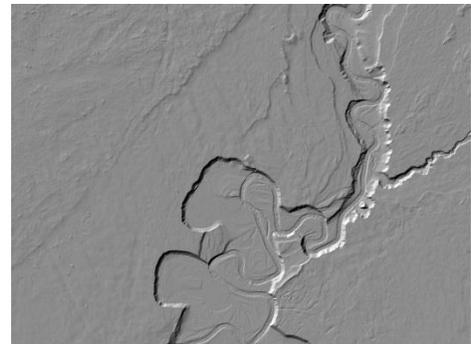
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## **Town of Canmore Contracts Advanced Aerial LiDAR Survey to Assess Damage from Southern Alberta Floods**

July 10, 2013 - Calgary, Alberta - The Town of Canmore, Alberta contracted LiDAR Services International Inc., (LSI), a Calgary based airborne LiDAR mapping company to mobilize their advanced helicopter equipped laser mapping system to conduct an aerial LiDAR and imaging survey of 54 square kilometers of the Bow River valley in the Canmore area to assess damage as a result of the 2013 Alberta floods.



The mountain town declared a state of local emergency on June 20 as over 220 millimeters of rain fell in 36 hours, nearly half of Canmore's annual average rainfall on already saturated ground, coupled with a steep mountain watershed, resulted in a rapid increase in the size and flow of several rivers. The normally tranquil Cougar Creek raged, spilling over its banks, washing away roadways, a rail line, pathways and destroying swaths of green space and creek side homes.

"A tremendous amount of material has been swept off the mountain ... rocks, dirt, soil, boulders and trees ...into Cougar Creek and depositing the material in the Town of Canmore causing several homes to be destroyed and taking out the Trans-Canada Highway and a CP Rail line," said Blair Birch, P. Eng., Municipal Engineer , Town of Canmore.

The flood initiated the need for the LiDAR survey ... the Town contracts the collection of aerial ortho photos every five years, however, the flood created the immediate need for accurate, detailed topographic data that LiDAR can provide.

"The LiDAR survey will capture where the water caused the greatest damage ...where water courses were rerouted, how the hydrology of the watershed has been altered. The survey's topographic data and imagery will assist in studying what happened and how to mitigate these events in the future," said Birch. "We need to establish how much debris came down from the mountain and was deposited in the Town. The LiDAR will help to reestablish new watersheds and hydrological assessments and will also be helpful in applying for relief funds from federal and provincial governments."

"We used a Bell 206B helicopter to allow us to fly low and slow over the survey area in mountainous terrain to provide a very high accuracy data set of both LiDAR and imagery data," said Tony Tubman,

president, LSI. “We are very pleased to be able to respond to the Town of Canmore and its residents on such short notice in their time of need ...there has been a lot of devastation as a result of the 2013 Alberta flood ...and we are happy to be a part of the relief effort.”

LSI has expedited processing of the LiDAR and imagery data to get it to the Town of Canmore as soon as possible. Turning around the delivery of such huge volumes of collected data which normally takes several weeks to days is a testament to the commitment LSI has made to Canmore.

The aerial LiDAR survey deliverables include LiDAR point clouds classified to Ground, DTM Keypoints, Low Vegetation and High Vegetation classes; Bare Earth and Full Feature grids at 1 m spacing; Greyscale hillshades of Bare Earth and Full Feature surfaces at 1 m pixel resolution; and Ortho-mosaicked color digital imagery mapped at a 10 cm pixel resolution.

The Town of Canmore has a full-time population of 17,000 but that can double during the winter ski and summer tourist seasons. The Town attracts world-class athletes to its Nordic Centre. Officials are now conducting an overall assessment in the area to determine the full extent of the damage. With the local state of emergency in Canmore lifted, attention is turning toward ways to fix up Cougar Creek — the small but powerful stream that has breached its banks for the second time in two years — as well as several other stream courses entering Town.

**About LiDAR Services International Inc.:**

LiDAR Services International Inc., is a Canadian, Calgary based airborne LiDAR provider that celebrates 11 years of airborne operations in 2013. LSI owns and operates a number of proprietary airborne LiDAR systems that have been used on projects throughout North America, Central and South America as well as Africa and Asia. What differentiates LiDAR Services International from other mapping companies is their single-minded commitment to their client’s project, their unequalled experience, technical expertise, innovation and customized survey solutions. For more information contact Art Silver, LiDAR Services International, 403-517-3130, art.silver@lidarservices.ca, or visit [www.lidarservices.ca](http://www.lidarservices.ca).

**About the southern Alberta floods:**

In June 2013, Alberta, Canada, experienced heavy rainfall that triggered catastrophic flooding described by the provincial government as the worst in Alberta's history. Areas along the Bow, Elbow, Highwood, Red Deer, Sheep, Little Bow, and South Saskatchewan rivers and their tributaries were particularly affected. A total of 27 local states of emergency were declared and 28 emergency operations centres were activated as water levels rose and numerous communities were placed under evacuation orders.

Situated east of the Canadian Rockies, southern Alberta is a semi-arid region that does not usually receive high amounts of rainfall. A high-pressure system in northern Alberta blocked the passage to a low-pressure area to the south. This blocked circulation and easterly winds pumped Pacific moisture on the rising slopes of the Rocky Mountains foothills, causing heavy rain into the province with rainfall amounts of over 100 millimeters (3.9 in) to fall in less than two days in many regions of the province, particularly west and southwest of Calgary

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