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Archive

Archive > October 2009, Volume 13, number 8 > Capacity Building for the Canadian North

Capacity Building for the Canadian North 05/10/2009

Gjoa Haven is a small Arctic hamlet located on the east side of King William Island in the Canadian Arctic Archipelago. It is a place made famous by Roald Amundsen, the first explorer to successfully transit the Northwest Passage in 1903-1905. The native Netsilik people guided Amundsen to a narrow passage, which would allow him to proceed further westward. The passage is known today as Simpson Strait and, in the summer months, is the only way westward to the open waters of Queen Maud Gulf and eventually the Pacific Ocean beyond.

Andrew Leyzack, chair of Commission 4, at sea aboard the icebreaker CCGS Sir Wilfrid Laurier, Gjoa Haven, Nunavut.



Simpson Strait is a rather tedious passage requiring numerous changes in course and is subject to strong currents in the narrows. Just over a decade ago, chart coverage of the strait was largely based on off-datum reconnaissance surveys but, following the 1996 grounding of the 8,400-tonne passenger liner M/V *Hanseatic* in Simpson Strait, a hydrographic survey programme was initiated by the Canadian Hydrographic Service (CHS) to complete a survey of a corridor through the Strait, validate and transform all existing data to produce "on-datum" nautical products, including a set of GPS waypoints to clear the Strait.

Greatest Increase

Since the publication of both the ENC and paper chart of Simpson Strait, commercial vessel traffic has increased throughout this part of the passage. Having led those surveys and calling into Gjoa Haven many times since, I would argue that, for at least today, Gjoa Haven has seen the greatest increase in vessel traffic out of any port in Canada. This is evident by the fact that, at the time of writing, there are two passenger liners (including the *Hanseatic*), three sailing yachts and an icebreaker in port.

Tomorrow, Gjoa Haven will be re-supplied by an ocean-going cargo ship M/V *Camilla Desgagnes* with roll-on-roll-off (RoRo) and self-unloading capabilities.

Economic Advantage

Last summer, this same ship was the first deep-draft cargo vessel ever to service the ports on this side of the Northwest Passage. Their passage was aided by the use of GPS waypoints derived from a recent large-scale provisional ENC of James Ross Strait. Prior to the advent of deep-draft access to these remote northern ports, both freight and fuel were shipped by either aircraft or by sea-going tug and barge. There is an economic advantage to having deep-draft access to northern ports in that shipping costs are significantly reduced.



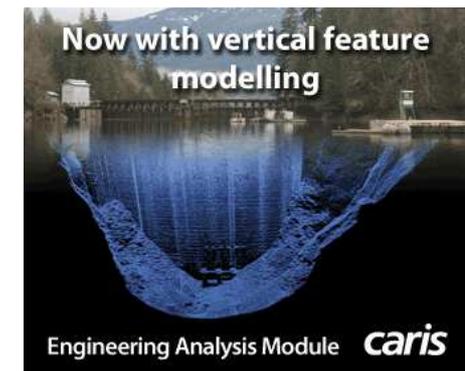
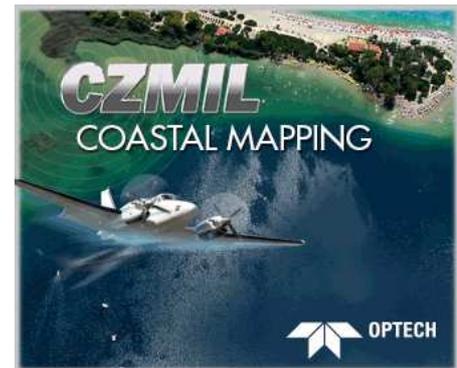
Alternative Routes

Additionally, improvements to nautical charting in the Canadian Arctic will enable vessels to find alternative routes to avoid ice, thus reducing the cost to the public purse for icebreaker escort. Simply stated, through modern surveys and charting, complementing modern aids to navigation and improvements to marine infrastructure, hydrographers are playing a significant role in attracting and enabling more cost-effective means of transportation to support freight, passenger traffic and tourism in the Arctic. Perceptions must change as the cost for modern hydrographic surveying and charting needs to be considered an investment in capacity building for the Canadian North as with other developing lands.

References

<http://www.fig.net/vietnam/>

• Stur



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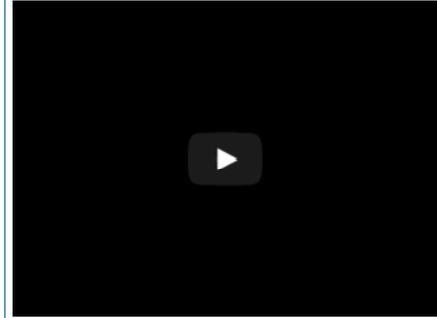
How to Use QPS' Qimera to Validate Processed Point Files

QPS Qimera processing software has been released earlier this year. To demonstrate the capabilities, this video shows how to load processed point files into a Qimera Project. It explains what processed point files are; how to specify the coordinate system of the project and the source files; how to create a Dynamic Surface from processed point files and

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how to change the dynamic surface and adjust the colour map to aid data editing and validation.



QPS Qimera on Geo-Matching.com

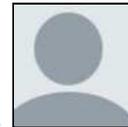
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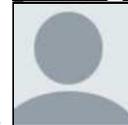
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Gallilao

OK, if you don't want to know, that is your prerogative. I am not here to tell you what to think, you have to do your own homework. You have to think for yourself, if you want to understand the...

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Gallilao

You are just being evasive!

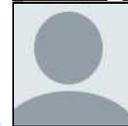
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Gallilao

Stop concentrating on the atmosphere and try looking at the whole picture. There is a thermal gradient within our planet. How is it affected?

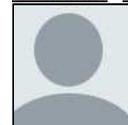
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Kevin A

I'm sorry too..I get heated because so many are deluded...its scary

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Kevin A

the ground air interface is in a constant state of spiracal movement which resembles that of the motion of a top wobbling...which defines the extents of the jetstreams. again this explains how the...

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