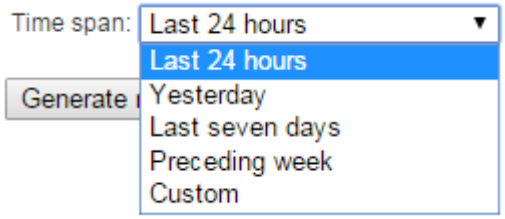
Why is my height not agreeing between my observations?	The most common performance issues encountered when performing Network Real-time Kinematic (NRTK) surveys are related to the local environment of the rover. Multipath, poor satellite visibility and poor satellite geometry can make it difficult for a rover receiver to achieve accurate results. In challenging GNSS environments, it may be necessary to establish survey control in a good GNSS environment and use a total station to work on site. Spikes in height values can also be caused by outages or issues experienced at the nearest ACS. Since the error in a NRTK solution increases with the distance from the reference station, an increase in positional error can be expected when an outage occurs at the nearest base and an alternative ACS is used to calculate your position. An ACS might experience issues by local internet connectivity issues, cellular outages or prolonged power outages. It is a best practice to verify the uptime of the ACS nearest your survey site after your work is complete. When using Differential GNSS, it is important to understand that only satellites commonly viewed between reference and rover stations contribute to your position solution. If your rover tracks 20 satellites and your reference tracks only 4 satellites because it is located under a tree, then the most number of satellites that can be used in your position solution is 4. All NSACS sites are located in favorable GNSS environments to maximize the chances of your rover getting a good position solution. For all GNSS surveys, it is important that you are aware of any transformations or geoid models that may be applied on the rover.
How do I check the uptime of the nearest ACS?	The previous day's data for ACSs are available on NRCan. You can view the RINEX file with a text editor to determine if gaps exist. Applications also exist for reading and displaying RINEX file gaps. Because the data the NRCan is stored locally on the receiver, it may not be a true indicator of station uptime. It is best to check what tools your service provider can offer to display station uptime.
What else can I do to minimize the chances of having NRTK errors?	It is a best practice to occupy a NSHPN to ensure the overall accuracy of your results. The NSHPN is being densified to facilitate field checks. A local check point can also be setup on site to verify solution integrity at regular intervals.

Why is my horizontal position out 2-3 cm?	In addition to the issues described above, a horizontal error of 2-3 cm could be caused by an NAD83(CSRS) epoch correction being wrongly applied. NAD83(CSRS) 1997.0 and NAD83(CSRS) 2010.0 have differences of approximately 2-3 cm in coordinates. The NSACS is currently broadcasting NAD83 (CSRS) 2010.0 coordinates. The correct settings should be applied in the field on your controller.
Related Technical Support Documents:	- Technical Report 0007 NAD83(CSRS)
Useful Links:	TEQC RINEX analysis tool: https://www.unavco.org/software/data-processing/teqc/teqc.html
Additional Illustrations:	



Built-in intervals for generating uptime report

Status	Start	Filename	Epochs OK	Epochs NOK	Availability	Avg. Satellites
🟢	26/10/2015 20:59:43	MMSQ299V.T02	3600	0	100.00%	24.73
🟢	26/10/2015 21:59:43	MMSQ299W.T02	3600	0	100.00%	24.47
🟢	26/10/2015 22:59:43	MMSQ299X.T02	3600	0	100.00%	22.74
🟢	26/10/2015 23:59:43	MMSQ300A.T02	3600	0	100.00%	18.82
🔴	27/10/2015 00:59:43	MMSQ300B.T02	1030	2570	28.61%	21.26
🔴	27/10/2015 02:59:43	MMSQ300D.T02	191	3409	5.31%	19.00
🔴	27/10/2015 03:59:43	MMSQ300E.T02	3222	378	89.50%	20.31
🟢	27/10/2015 05:59:43	MMSQ300G.T02	3600	0	100.00%	21.60
🟢	27/10/2015 06:59:43	MMSQ300H.T02	3600	0	100.00%	20.90
🟢	27/10/2015 07:59:43	MMSQ300I.T02	3600	0	100.00%	22.40
🟢	27/10/2015 08:59:43	MMSQ300J.T02	3600	0	100.00%	22.38
🟢	27/10/2015 09:59:43	MMSQ300K.T02	3600	0	100.00%	23.43
🟢	27/10/2015 10:59:43	MMSQ300L.T02	3600	0	100.00%	23.59
🟢	27/10/2015 11:59:43	MMSQ300M.T02	3600	0	100.00%	22.62
🟢	27/10/2015 12:59:43	MMSQ300N.T02	3600	0	100.00%	23.17
🔴	27/10/2015 13:59:43	MMSQ300O.T02	3402	198	94.50%	22.79

Sample Uptime Report