

Case Study

Structural Monitoring

Centre Block

Ottawa, Canada

GeoSIG
swiss made to measure

In Cooperation With
GeoSIG Partner

K *Kompass Geo*

Background

Located in Ottawa, the Centre Block is the main building of the Canadian Parliamentary complex on Parliament Hill. It is one of the most recognized buildings in Canada. The Centre Block is listed in the CRHP (Canadian Register of Historic Places) both as part of a National Historic Site of Canada and as a Federal Heritage Building. According to the Canadian Seismic Research Network, a significant earthquake is probably Canada's greatest potential natural disaster. For example, the 2010 Central Canada earthquake had a magnitude of 5.0, but because of its depth, the effects were more widely felt. People in Massachusetts, Michigan and Ohio in the United States reported feeling tremors.

Challenge

Due to the civic and historical importance of the Centre Block, the mandate was to deliver and install a seismic vibration monitoring solution to enable National Research Council Canada -- the Government of Canada's premier research and technology organization -- to monitor and record the seismic vibration of the Centre Block structure.

Solution

Our partner, [Kompass Geo-Equipment](#), with a wealth of experience in providing end-to-end customised solutions, successfully fulfilled the requirements of this highly prestigious project. The solution consists of one GeoSIG CR-6plus Multichannel Central Recording System and 10 highly-sensitive AC-73 triaxial force balance accelerometers, complete with GeoDAS communication and data analysis software. Due to the expert handling of the project, Kompass received a letter of commendation for their work.

The installed solution offers reliable and continuous monitoring, providing real-time data that can be recorded continuously as well as providing data based on event detection. With its enhanced capabilities, the system offers a comprehensive range of statistical data such as mean, max, min, and peak values, as well as many other useful data as may be required by the client. GeoDAS, a proven data acquisition and evaluation package developed by Geo-SIG, complements CR-6plus providing highly flexible user-friendly capabilities, and graphical, analytical and reporting tools with configurable automation. Another Solution using GeoSIG instruments and a capable Partner effectively showing that quality and reliability can also be cost-effective.

Product links

[AC-73 accelerometer sensors](#)

[CR-6plus central recorder](#)

[GeoDAS software](#)



The Centre Block on Parliament Hill.



The CR-6plus installed in the Centre Block, ready to record seismic data.

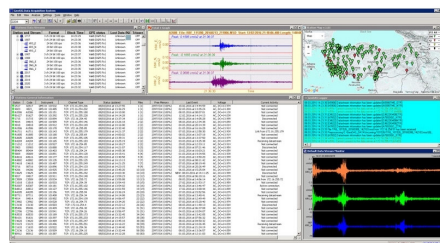


An AC-73 accelerometer in situ.



Accelerometer sensors AC-73

Maintained by GeoDAS software



CR-6plus Central Recorder