

Mission Statement

For more than 40 years our intent has been to provide our clients with information which characterizes the wellbeing of their assets. We do this via both numerical modeling and collecting operational data, or, ideally, a combination of the two.

Sometimes these projects are long term, such as the monitoring oil and gas pipelines, offshore production platforms or transmission towers. At other times the monitoring phase may last only a few milliseconds, as with a pipeline burst test.

In all cases, our mission is to provide the client with results which enable them to operate and react with greater safety, efficiency and understanding. We earn repeat business by protecting personnel, environment and assets.

Iain Weir-Jones, Chairman, Ph.D., P.Eng., FGS

Company Overview

The Company was founded in 1971 to provide specialized structural and geomechanical monitoring and testing services to the resource and transportation sectors. The Company's capabilities subsequently expanded into the areas of data processing and testing system design, and the application of this expertise has been extended considerably in the fields of structural integrity monitoring for heavy structural, energy, and offshore systems.

The Company has its headquarters in Vancouver and has been active in projects in 55 countries. We also maintain an office in Fort McMurray, Alberta, the heart of the oil and gas industry in Canada.

The Company offers comprehensive end-to-end solution planning, implementation, and analysis capabilities. 90% of our clients typically retain the Company on a project basis in order to characterize a problem, develop a solution, and evaluate its effectiveness.

Collision Avoidance



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RockFall™
Seismic Rockfall Detection System



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Introduction

Weir-Jones Engineering Consultants has developed the Seismic 'Rockfall™' Detection System (SRFDS) which is an evolutionary alternative to traditional slide fence technology. This revolutionary system relies upon acoustic signature recognition to determine if and when rocks or other hazardous debris fall onto the right of way. The exact size and location of the hazard is determined in real time by utilizing highly sensitive seismic sensors together with a 24-bit data acquisition system.

Once a valid event triggers the system, this information is immediately sent as a digital warning signal to the railway operator. The Rockfall™ system eliminates the high maintenance costs and continuous false alarms generated from slide fence systems.

Weir-Jones has over 40 years experience with rock fall and stability hazard monitoring systems. Our clients include railway companies, Provincial and Federal Ministries, Crown Corporations and mining companies.

Quality Built In

Repeatability

The solution relies on robust algorithms and high-quality sensor packs and installation procedures. Alarms, warnings, and notifications are produced with consistent precision and accuracy.

Serviceability

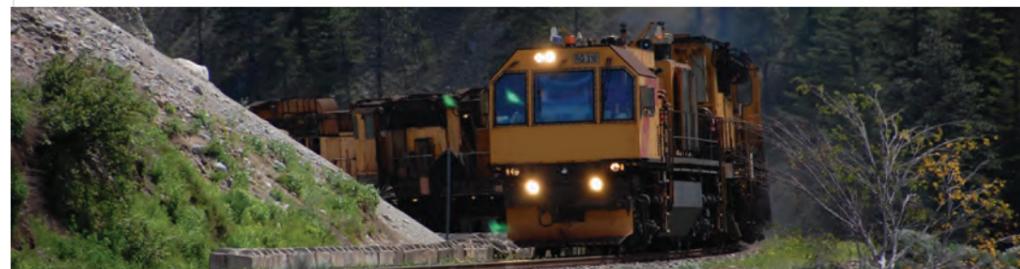
Weir-Jones maintains stock of all serviceable components for quick and efficient change out if required.

Dependability

Enclosures are engineered and constructed for long service in hostile environments. Aluminum sensor bodies and stainless steel computer racks are designed to last their service life with priority on ease of replacement if required.

Benefits

- Enhanced safety for train crews, passengers and trains
- Rapid response for ground crews to be able to clear track
- Less downtime for trains, better management of train lines
- Failsafe link with the to industry approved signalling system and the RTC office to warn approaching trains
- Automatic resetting after event detection
- Automatic monitoring of system state of health and the condition of each sensor
- Easy installation, away from track maintenance equipment
- Data collection and transmission capability after an event
- Low maintenance
- Built using proven, reliable technology



Deliverables

Stop costly collisions and downtime while improving worker and passenger safety by deploying Rockfall™ in high risk areas that are subjected to a wide range of falling debris. Rockfall™ is designed to introduce a cutting edge layer of safety for personnel and assets along with reducing costs associated with collisions, service stoppages, and deployment of repair and recovery equipment.

Rockfall™ consists of:

- Rockfall™ Field Sensors
- Rockfall™ Data Acquisition System
- Rockfall™ Operational and Data Management
- AUTOTAR™ system software

Methodology

Rockfall™ Proprietary algorithms provides an instantaneous, automated discrimination between falling rock and environmental noise. Parallel adaptive filtering ignores small non-threatening rock falls while maintaining 100% detection of hazardous rock fall events.

History

Weir-Jones Engineering launched and commercialized its Rockfall™ solution in 2008 for clients around the globe. Our ongoing R&D investments ensure the latest updates are available to every customer. Rockfall™ has been developed in conjunction with Canadian National Railways, CP Rail and Transport Canada.

Rockfall™ is exceptionally versatile and in addition to providing ongoing reliable data for train operators, the system can be used in open pit mining, as a perimeter security system in local or remote sites and in any instance where a concern for falling debris exists.

The Weir-Jones Group has been listening to acoustic transmissions since the early 1970s, and has tens of thousands of channels working reliably, enabling better analysis and response all around the world.



Rockfall™

is a part of the Weir-Jones Group's Reduced Carbon Footprint (RCF™) suite of solutions, since it helps reduce unnecessary train stoppages and track service dispatches while keeping the trains moving in areas where falling debris is an ongoing concern. This translates to less wasted energy and more financial and time savings for the operators.

