Since its launch in 2009, STrructural Risk Assessment And Management (STRAAM) projects have spanned a wide variety of structures throughout the world, including the preservation of endangered buildings adjacent to excavations, dams, hyperbolic cooling towers, rail and roadway bridges, wind turbines, and ports (jetties, mooring dolphins, docks).

STRAAM’s technological advance, real-time dynamic structural monitoring, involves recording vibrational patterns made by structures as they move. Normal movement caused by wind, thermal expansion and contraction, earth movement or other causes is sufficient to set even massive structures in motion. Each structure has a unique ‘vibrational signature.’ This complex of patterns can be detected and recorded by STRAAM’s highly sensitive accelerometers. The process is called a “structurocardiogram” (SKG) because, like the electrocardiogram used to graph performance of the human heart, it reveals things that can’t be seen.

Vibrations from all parts of a structure are superimposed on one another, but they can be separated into their individual components by specialized computer analysis. They can then be compared with STRAAM’s large data-base of vibrational signatures of other structures. Using this data in conjunction with 3-D computer modeling, STRAAM can pinpoint where structural elements and connections are performing properly, where they are failing, and whether the condition is stable or changing.

STRAAM’s method is both faster and more economical than conventional structural monitoring methods using multiple sensor placements. Significant performance data can be collected in time-periods measured in minutes instead of weeks. Moreover, it delivers a much more detailed picture of the inner workings of the structure.

The technology can be applied proactively, to take a healthy-structure baseline reading that will enable faster and more accurate analysis in the event that problems develop, or after a traumatic event such as an earthquake or explosion.

STRAAM Corporation – Structural Risk Assessment And Management – is the only company worldwide offering real-time dynamic structural monitoring to diagnose the structural soundness and health of buildings, dams, bridges, towers, marine installations and other critical infrastructure. The STRAAM Protocols apply advanced, real-time monitoring to detect the natural vibrations of a structure. Using that data, STRAAM can quickly and efficiently pinpoint problems, assess damage, and predict risk of failure. STRAAM assessments provide owners, engineers, contractors and public safety agencies with detailed, reliable information that can lead to engineering solutions and cost-effective business decisions, restoring confidence in a structure’s integrity.

For more information, please visit www.STRAAM.com.

For high resolution images, to arrange interviews, or for more information, please contact Steve Miller, Chusid Associates, steven@chusid.com +1 818-774-0003
STRUCTURES TESTED

Brasilia TV Tower  Brazil
Paracata Mill  Brazil
Mosquitos Bridge  Brazil
Capivari Bridge  Brazil
Tubarao Iron Ore facility  Brazil
Castelao Football Stadium  Brazil
Gymnasium  Brazil
Cais 88  Brazil
Areal Dam  Brazil
Itaipava Dam  Brazil
Woodsville Flyover  Singapore
Bukit A condominium  Malaysia
General Electric Facility  Malaysia
Sime Darby Building  Malaysia
Guangdong International  Guangzhou, China
Guangdong TV Broadcasting  Guangzhou, China
Di Wang Tower  Shenzhen, China
Ronan Point  London, England
John Russell Court  Edinburgh, Scotland
Garibaldi College  Clipstone, England
People’s College  Nottingham, England
Priory Hall  Coventry, England
South Stoneham House  Sutton, England
B retreat  Watford, England
Leicester Univ. Tower  Leicester, England
Sutherland House  London, England
Exeter 6th form college  Exeter, England
Dunstan Flour Mill  Middlesbrough, England
National Westminster Tower  London, England
Sheffield Arts Tower  Sheffield, England
St Peter’s House  Oldham, England
British Rail Building  Plymouth, England
Civic Centre  Plymouth, England
Nautical College  Plymouth, England
Drax Chimney  Yorkshire, England
Pembroke Chimney  Wales
Fawley Chimney  Wales
Celyn Dam  Wales
Clywedog Dam  Wales
Contra Dam  Switzerland
Zervreila Dam  Switzerland
Lower Glendevon Dam  Sterling, Scotland
Upper Glendevon Dam  Sterling, Scotland
Emosson Dam  Valais, Switzerland
Wimbleball Dam  Somerset, England
Baitings Dam  Ripponden, England
Lyn Brianne Dam  Wales
Wimbleball Dam  Dorset, England
Kaoshiung Wharf  Kaoshiung, Taiwan
LIRR Viaduct  Brooklyn, NY - U.S.A.
Newark AirTrain  Newark, NJ - U.S.A.
High Rise Building  Indianapolis, Indiana - U.S.A.