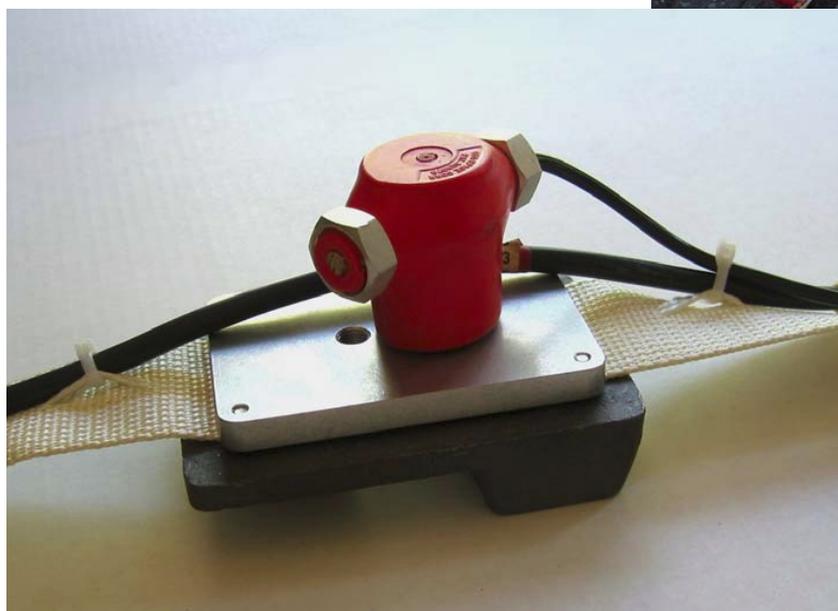


## Seismic Land Streamers

- Efficient, productive seismic exploration
- Reflection, refraction and MASW surveys
- Adjustable geophone spacing to fit the job
- Fits all popular geophones, even 3-component
- Abrasion-resistant steel tripod base for stability
- Kevlar®-reinforced webbing with cable tie points

A land streamer is an array of geophones designed to be towed along the ground. The name originates from marine streamers, which are strings of hydrophones towed behind ships. Land geophysicists have long envied the high productivity achieved in marine surveys. Now it appears that highly-productive reflection, refraction, and surface-wave surveys can be achieved on land.

As a general rule, geophones planted in the ground set the standard for data quality, but land streamer surveys are excellent in many applications, while making the survey economically feasible.



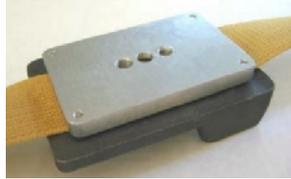
Streamers are ideal for reconnaissance surveys, with daily production rates of kilometers instead of meters.

We believe this commercial land-streamer system will provide better data, be less expensive, more reliable, and easier to use than individually constructed units.



The basic LS-1 system consists of a base plate, tow webbing, and top plate. It is designed to be used with your existing geophones and cables to quickly convert them to a low-cost land streamer.

The top plate is drilled and tapped for geophones from Geospace, Sensor, Mark Products, and others. Standard 5/16 and 3/8-inch male threaded geophone studs or a 3/8-inch screw can be inserted for female studded geophone cases, such as the 3-component Geospace GS-3C.



The 5-cm wide webbing is reinforced with Kevlar® for tensile strength and antistretch properties. It is firmly clamped between the top and bottom plates without perforating or damaging the webbing. This maintains the 2200 Kg tensile strength of the webbing and also allows arbitrary spacing and repositioning of the geophones as allowed by your spread cables.



The base plate is cast of a special Cr-Mn-Mo steel alloy developed for the hard-rock mining industry. Heat treated, it is highly abrasion resistant for long use.

The tripod support provides stability, even if the ground surface has loose material, so the sensor will respond properly to ground vibrations. The legs will tend to plow into soft ground for better coupling.

Loops are woven into the webbing at short intervals so that the geophone cables can be secured to the top surface with nylon cable ties, thus protecting the cables from dragging on the ground.



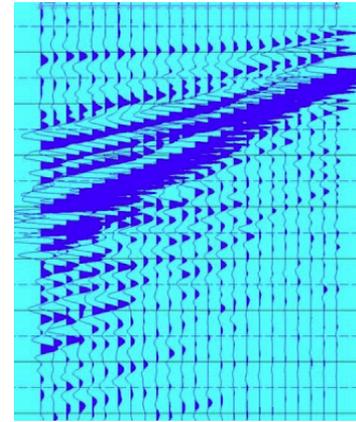
When land streamers are towed on rough ground with long geophone intervals, stations can tip over. In that case, attach the antirotation wing supplied with the system to add stability.

KCL or equivalent connectors (as shown here) are preferred, but Mueller clips and split-ring takeouts are acceptable.

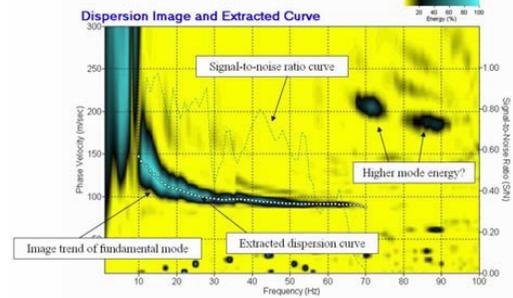


## MASW survey conducted with Land Streamer

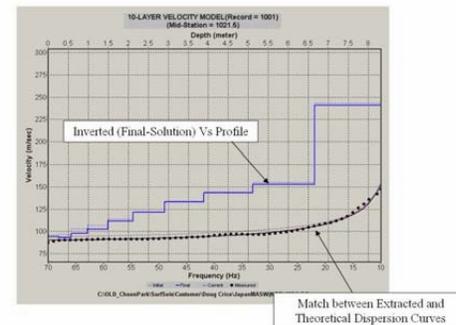
Typical surface wave data from one record



### Dispersion Imaging by using SurfSeis and Extraction of Fundamental-Mode Dispersion Curve



### Inversion of Extracted Dispersion Curve for Vs Profile



### Composite MASW section constructed with data from 18 records taken at 2 m intervals.

