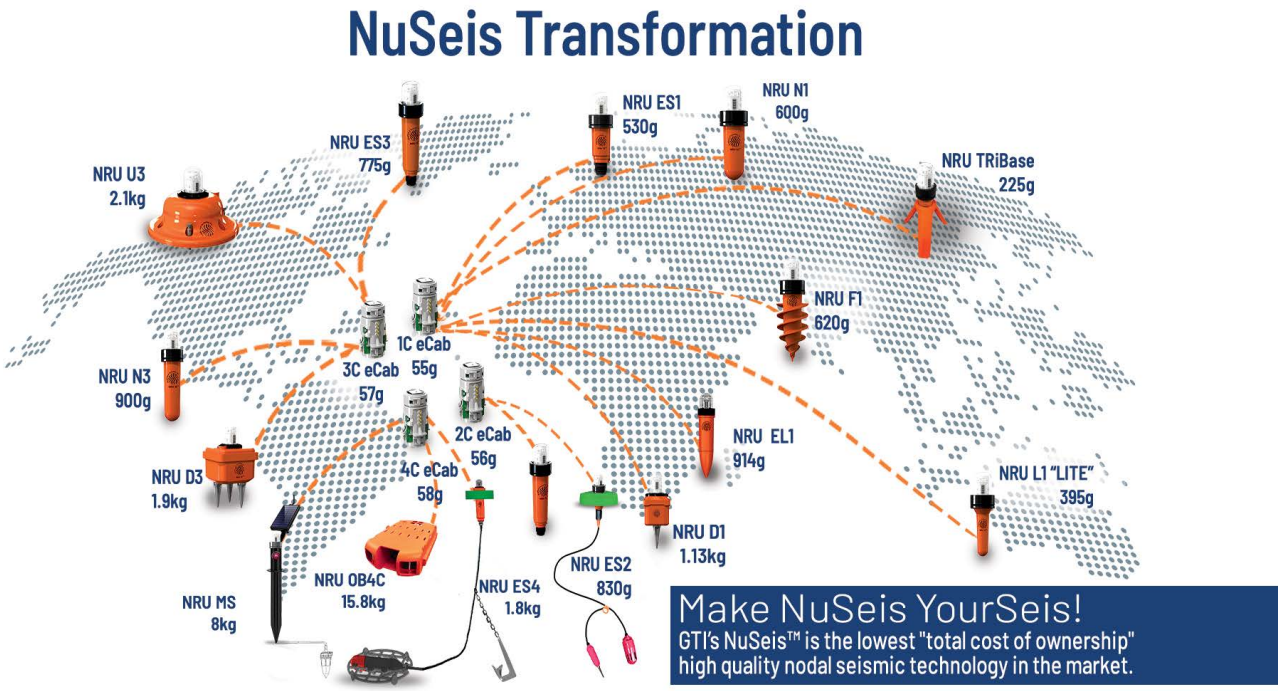
NuSeis Products Catalog

Next Generation Seismic Technology

Geophysical Technology, Inc.
GTI

Next Generation Seismic Technology

GTI's NuSeis™ autonomous nodal seismic recording technology enables data acquisition of the highest quality, with unprecedented operating efficiency, and optimal HSE performance, manufactured to the highest quality standards, available for lease or purchase at low cost.
GTI's commitment is to continually innovate and deliver highly differentiated geophysical technology that enhances seismic operational efficiency, cost effectiveness, and earth imaging quality for illuminating and monitoring the earth's subsurface.



Choose a NuSeis formfactor that is optimal for your upcoming project. The NuSeis modular electronic eCab inside our NRU weighs 55 grams 1C / 58 grams 3C and can be removed from one NRU and inserted into another formfactor in 2 minutes. This enables NuSeis operators to mechanically transform their NuSeis nodal technology on a project-by- project basis into the formfactor that enables peak operating performance in every terrain and optimal EarthGrip coupling in every surface environment.

This also enables our customers to maximize asset utilization, avoiding unnecessary shipping costs, and ensuring the optimal geophone, the optimal battery duration, and the Lexan NRU housing that optimizes ground coupling and delivers peak operating performance. Shipping only the 55 grams 1C / 58 grams 3C eCab also greatly reduces shipping cost for repair and return.

When you have a seismic project challenge, let GTI provide you a NuSeis custom solution for your specific project environment and operating methodology. Make NuSeis YourSeis!

NuSeis EarthGrip Coupling

Another extraordinary single attribute of the NuSeis technology is our amazing EarthGrip ground coupling. While our competitors lay their equipment on the ground or dig holes to place their nodes at or below the ground surface, with NuSeis you simply "Solution the soil" by laterally compressing the small ground cavity, and then you press the NuSeis formfactor into the ground! The lateral forces provide a tight frictional bond that enables more optimal signal (ground displacement) transfer into the geophone and prohibits mechanical resonance, so you record much less surface noises. NuSeis naturally and consistently provides exceptional data every time. NuSeis deployment is also perfectly environmentally friendly as the soil elasticity closes the hole back after removing the NRU, leaving no environmental disturbance.

Stealth Development

NuSeis Stealth. More and more customers want their nodes planted in the ground with little or no surface exposure. This stealth approach to receiver deployments can not only provide you better data because the node is not picking up any material surface wind or mechanical noise, it also enables the sensors to go undetected by local populations. Recently on a project in Europe, NuSeis nodes went undisturbed and unnoticed by villagers while the competitors' nodes were stolen, chopped up and vandalized, costing a great deal of data degradation, repair costs, and costly crew downtime.

With one eCab you can customize your enclosure to suit the needs of any environment, with NuSeis, we not only lock onto satellites when under heavy jungle cover, but also when buried a couple centimeters underground in stealth mode, AND, with NuSeis you can even capture health and status twice per second nodal QC transmissions with inexpensive drones, even when deployed underground in stealth mode!

For more information visit our website www.geophysicaltechnology.com and our YouTube Channel:

NuSeis Transformation https://www.youtube.com/watch?v=r7GzmQV9lJ0

NuSeis Transformation in less than 2 minutes https://www.youtube.com/watch?v=5DcKz-t8Q3Q

NRU N1

The NRU N1 is a 1C seismic recorder with an internal geophone (2Hz, 4.5Hz, 5Hz, or other), 13.2-amp hour internal battery, GNSS, BLE comms, 8gB data storage (expandable 16, 32, 64, 128), SEG standard Seg D, and Seg Y data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 600g w 5Hz phone
Battery Duration: 40 days @ 12 Hours

NRU EL1

The NRU EL1 is a 1C seismic recorder with an internal geophone (2Hz, 4.5Hz, 5Hz, 10Hz, or other), an "extended life" (EL) 26.8-amp hour internal battery, GNSS, BLE comms, 8gB data storage (expandable 16, 32, 64), SEG standard Seg Y, and Seg D data formats. The unit is wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 914g w 10Hz phone Battery Duration: 83 days @ 12 Hours

NRU ES1

The NRU ES1 is a 1C recorder with a lower end 2 pin all-weather connector that allows connection to external land, marsh geophones or hydrophones. The NRU includes the 13.2-amp hour internal battery, GNSS, BLE comms, 8gB data storage (expandable 16, 32, 64, 128), SEG standard Seg Y and Seg D data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 530g
Battery Duration: 45 days @ 12 Hours

NRU ES EL1

The NRU ES EL1 is a 1C seismic recorder with a lower end 2 pin KCK all-weather connector that allows connection to external land or marsh geophones or hydrophones. The NRU includes a 26.4-amp hour internal battery or "extended life", GNSS, BLE comms, 8gB data storage (expandable 16, 32, 64, 128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 810g
Battery Duration: 90 days @ 12 Hours

NRU L1 Lite

The NRU L1 is a 1C seismic recorder with an internal geophone (2Hz or 4.5Hz), 5-amp hour internal battery, GNSS, BLE comms, 8gB data storage (expandable 16, 32, 64, 128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 395g w 4.5 Hz phone Battery
Duration: 16 days @ 12 Hours

NRU F1

The NRU F1 is a flighted case 1C seismic recorder with internal geophone (2Hz, 4.5Hz, 5Hz, 10Hz, or other) designed to screw into soils, silts, and sands to improve coupling. The F1 has a 13.2- amp hour internal battery, GNSS, BLE comms, 8gB expandable (16, 32, 64, 128) data storage, SEG standard Seg Y and Seg D data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 620g w 10Hz phone
Battery Duration: 45 days @ 12 Hours

or

NRU D1

The NRU D1 is a 1C seismic recorder with an internal geophone (2Hz, 4.5Hz, 5Hz, 10Hz, or other), an extended life 26.4-amp hour internal battery, GNSS, BLE comms, 8gB data storage (expandable 16, 32, 64, 128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit. Available with spike or ice base.

Weight: 1100g w 5Hz phone
Battery Duration: 90 days @ 12 Hours

NRU ES2

The NRU ES2 is a 2C seismic recorder with a lower end 4 pin all-weather connector that allows connection to external geophones and hydrophones packaged together, ideal for transition zone operations. The NRU includes a 26.4-amp hour internal battery, GNSS, BLE comms, 16gB data storage (expandable 32, 64, 128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 830g
Battery Duration: 65 days @ 12 Hours

NRU N3

The NRU N3 is a 3-component seismic recorder with 3 Internal orthogonal geophones (2 Hz or 4.5 Hz) to record full wavefield 3C seismic data. The N3 has 13.2-amp hours of internal battery, GNSS, BLE comms, 8gB expandable (16, 32, 64, 128) data storage, SEG standard Seg D, and Seg Y data formats. The unit is a wireless, IP68 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit

Weight: 900g w 4.5Hz phone
Battery Duration: 30 days @ 12 Hours

NRU ES3

The NRU ES3 is a 3C seismic recorder with a lower end 8 pin all-weather connector that allows connection to external geophones. The NRU includes the 13.2-amp hour internal battery or "extended life" 26.4-amp hour EL battery, GNSS, BLE comms, 8 Gb data storage (expandable 16, 32, 64, 128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP68 rated watertight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 1.8kg
Battery Duration: 30 days @ 12 Hours

NRU D3

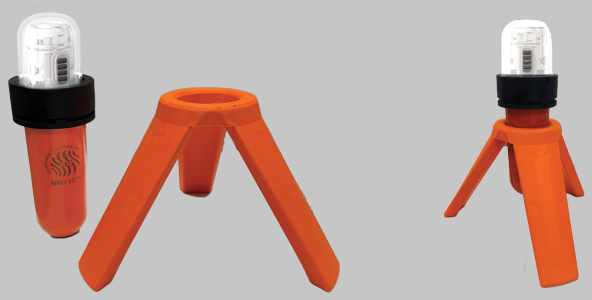
The NRU D3 is a 3C seismic recorder with an internal geophone (2Hz, 4.5Hz, 5Hz, 10Hz, or other), an extended life 52.8 amp hour internal battery, GNSS, BLE comms, 16gB data storage (expandable 32, 64, 128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP67 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 1900g w 2 Hz phone
Battery Duration: 120 days @ 12 Hours

NRU U3

The NRU U3 is a 3-component seismic recorder with 3 Internal orthogonal geophones (2 Hz,4.5 Hz, 5Hz, 10Hz, or other) to record full wavefield 3C seismic data. The U3 has 52.8-amp hours of internal battery, GNSS, BLE comms, 32gB expandable (64, 128) data storage, SEG standard Seg D, and Seg Y data formats. The unit is a wireless, IP67 rated water-tight, continuous or "epoch programable" autonomous nodal recording unit.

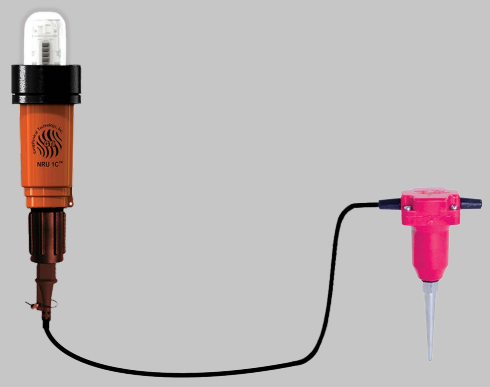
Weight: 2100g w 2 Hz phone
Battery Duration: 120 days @ 12 Hours



NRU TRiBase

The NRU TRiBase is designed as an NRU base to use on solid layer surfaces, whereby a N1 or EL1 node is inserted into the SL Base and the rigid unit is supported by its three tripod feet. A construction cone can be used to cover the TRiBase node, ideal for an urban environment and stealthy node deployment.

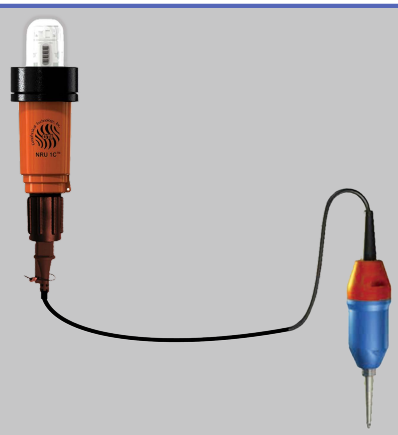
Weight: 225g
(875g including NRU N1 w 10Hz)



NRU ES with External Land Geophone

The NRU ES recorder can be attached to any external land phone or string of land phones and operates normally lying on the ground, floating in a buoy, or tied up above the ground as convenient for the operation. The sensor must be impedance matched for the NuSeis NRU, as with any recording system, see system specification for more detail or contact GTI.

Weight: 530g plus weight of sensor



NRU ES with External Marsh Geophone

The NRU ES recorder can be attached to any external marsh/swamp phone or string of marsh/swamp phones and operates normally lying on the ground, floating in a buoy, or tied up above the ground as convenient for the operation. The sensor must be impedance matched for the NuSeis NRU, as with any recording system, see system specification for more detail or contact GTI.

Weight: 530g plus weight of sensor

NRU ES with External Hydrophone

The NRU ES recorder can be attached to any external hydrophone or hydrophone string and operates normally lying on the ground, floating in a buoy, or tied up above the ground as convenient for the operation. The sensor must be impedance matched for the NuSeis NRU, as with any recording system, see system specification for more detail or contact GTI.

Weight: 530g plus weight of sensor

NRU ES with Float Collar and External Marsh Geophone

Our floatation device is an environmentally resistant polyethylene dense foam used to float an NRU ES node. Our ES unit can be attached to external Marsh phones to be used in swamps or areas prone to flooding. The Float collar will ensure the node remains vertical during deployment to achieve the best possible GPS signal.

Dimensions: 10-inch diameter / 2-inch thickness

NRU ES with Float Collar and External Hydrophone

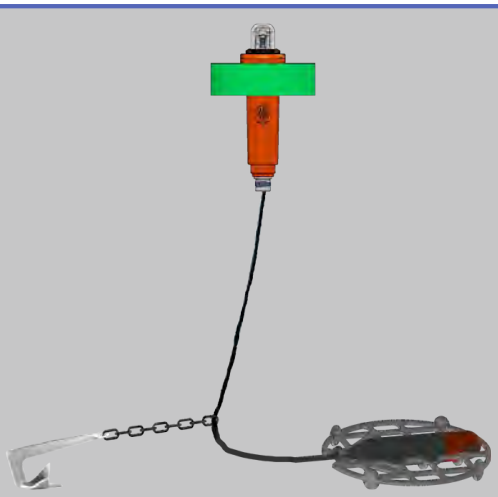
Our floatation device is an environmentally resistant polyethylene dense foam used to float an NRU ES node. Our ES unit can be attached to external Marsh phones to be used in standing water or lakes. The Float collar will ensure the node remains vertical during deployment to achieve the best possible GPS signal.

Dimensions: 10-inch diameter / 2-inch thickness

NRU ES2 with Marsh Geophone & Hydrophone

Our floatation device is an environmentally resistant polyethylene dense foam used to float an NRU ES2 node. Our ES2 unit can be attached to an external Marsh Case Geophone and an external hydrophone. Both recording 2 channels simultaneously for use in use in standing water or lakes. The Float collar will ensure the node remains vertical during deployment to achieve the best possible GPS signal.

Dimensions: 10-inch diameter / 2-inch thickness



NRU ES4 w/ Sensor Package

The NRU ES4 is a 4C seismic recorder with a lower end 8 pin all-weather connector that allows connection to external geophones and hydrophones packaged together, ideal for transition zone operations. The NRU includes a 22 Ah 3-Series Li-Ion (242 Wh) internal battery, GNSS, BLE comms, 64gB data storage (expandable to128), SEG standard Seg Y, and Seg D data formats. The unit is a wireless, IP68 rated water- tight, continuous or "epoch programable" autonomous nodal recording unit.

Weight: 1.8kg
Weight w/ Sensor Package & Tackle: 16.8kg
Battery Duration: 55 days @ 24 Hours

NRU OB4

The NRU OB4 is a 4-component seismic recorder with 3 Internal 14 Hz Omni-Directional orthogonal geophones and one internal hydrophone, to record full wavefield 3C seismic data and pressure waves under water. The OB4 has 55 amp-hours of internal battery, GNSS, BLE comms, 64GB standard, expandable data storage, SEG standard Seg D, and Seg Y data formats. The unit is rated to 200 meters depth, is continuous or "epoch programable" autonomous nodal recording unit.

Weight: 15.8kg
Duration: 125 days @ 24 Hours
Dimensions: 494 x 312 mm Thickness: 110mm

NuSeis NRU MS (Monitor Station)

The NRU MS is a single or multi component seismic recorder station with 1 to 4 external geophones, packaged to customer specification, 52.8-amp hours of internal battery, GNSS, BLE comms, 32 gB expandable (64, 128) data storage, SEG standard Seg D, and Seg Y data formats. The unit records continuous or "epoch programable" and communicates with external IOT hub via BLE 5.1 for real time data transfer.

Weight: 8kg

Battery Duration: 60 days @ 24 Hours (3C mode)

eCab 1C

The eCab 1C is the electronic brain of the 1C NuSeis NRUs. All the electronics including the GNSS, and comms and data storage are contained in the eCab housing. The eCabs can quickly be removed from one NRU housing and inserted into another formfactor in minutes, thus giving the seismic operator great operational, maximizing data quality and operational performance in each terrain. The eCabs are small and easy to remove and ship, facilitating logistics/mobilizations, including repair and return of field damaged units.

Weight: 55g

eCab 2C

The eCab 2C is the electronic brain of the 2C NuSeis NRUs. All the electronics including the GNSS, and comms and data storage are contained in the eCab housing. The eCabs can quickly be removed from one NRU housing and inserted into another formfactor in minutes, thus giving the seismic operator great operational, maximizing data quality and operational performance in each terrain. The eCabs are small and easy to remove and ship, facilitating logistics/mobilizations, including repair and return of field damaged units.

Weight: 56g

eCab 3C

The eCab 3C is the electronic brain of the 3C NuSeis NRUs. All the electronics including the GNSS, and comms and data storage are contained in the eCab housing. The eCabs can quickly be removed from one NRU housing and inserted into another formfactor in minutes, thus giving the seismic operator great operational, maximizing data quality and operational performance in each terrain. The eCabs are small and easy to remove and ship, facilitating logistics/mobilizations, including repair and return of field damaged units.

Weight: 57g

eCab 4C

The eCab 4C is the electronic brain of the 4C NuSeis NRUs. All the electronics including the GNSS, and comms and data storage are contained in the eCab housing. The eCabs can quickly be removed from one NRU housing and inserted into another formfactor in minutes, thus giving the seismic operator great operational, maximizing data quality and operational performance in each terrain. The eCabs are small and easy to remove and ship, facilitating logistics/mobilizations, including repair and return of field damaged units.

Weight: 58g

Carrying Bag N Model

The Carrying Bag holds up to ten NRUs, and is made from light weight, water resistant, nylon fabric allowing field operators to easily carry, transport and organize NRU's during projects. The bags also serve to facilitate shipping units, and they provide physical shock protection when handling the NRUs.

Dimensions: 38.1 x 15.24 x 25.4cm
Weight (empty bag): 1.1kg

U3 Carrying Case

U3 Carrying case fits 6 - 3 component U3 nodes, Hard molded case offers protection for your investment. Designed to be less than 25 kg at full capacity, allowing for standard airline luggage rates

D3 Carrying Crate

D3 Carrying Crate fits 6 D3 units. Made of lightweight plastic, this crate is stackable and easily pressure washed.

Weight: 3.1kg
Weight with 6 D3 nodes: 14.5kg
Dimensions: 610mm x 310mm x 280mm

D1 Carrying Crate

D1 Carrying Crate has a capacity of 10 D1 units. Made of lightweight plastic, this crate is stackable and easily pressure washed.

Weight: 3.1kg
Weight with 10 D1 nodes: 14.2kg
Dimensions: 610mm x 310mm x 280mm

NuScribe Computer Server

NuScribe Computer server comes with NuSuite™ software Windows based program that is used for NRU data download, storage, processing, high- performance data management and health monitoring. It delivers shot or receiver gathers in SEG Y, SEG D. Servers can be configured to the following specs:

50TB-Dual Xeon Processors 1TB RAM 50 TB SSD 100 TB-Dual Xeon Processors 1TB RAM 100 TB SSD 250 TB-Dual Xeon Processors 1TB RAM 100 TB SSD

NuScribe Laptop System

NuSuite i7 Laptop

Our NuSuite i7 Laptop comes as a 12th Gen Intel Core i7,or higher. It has a 64GB RAM with a 2TB or higher storage.

NuSuite i9 Laptop

The NuSuite i9 Laptop is an Intel 13th Generation or higher. CPU i9-13980HX with 24 TB M.2 NVMe SSD 128 GB.

All laptops come with Windows 11 Pro. Complete with NuSuite™ Software Package.

Data Management Panel (DMP3)

The Data Management Panel (DMP) charges, uploads or commissions up to eight NRUs at one time. Multiple DMP's connected to the NuSuite computer can upload or commission numerous NRUs simultaneously. These panels can be mounted to a wall, a rack, or in a portable case.

Dimensions: 63.5 x 13.97 x 11.43cm
Weight: 3.4kg

Data Management Panel (DMP4)

The Data Management Panel (DMP) charges, uploads or commissions up to ten NRUs at one time. Multiple DMP's connected to the NuSuite computer can upload or commission NRUs simultaneously. These panels can be mounted to a wall, a rack, or in a portable case.

Dimensions: 54 x 24 x 13.2cm
Weight: 3.6kg

Charging Panel (CP)

The charging panel (CP) can charge up to eight NRUs at one time. There are no data download capabilities in the charging panels, they are simply distribution points. The charge circuitry is contained within the NRU. Depending on scalability, several panels can be supplied by the same power supply.

Dimensions: 63.5 x 13.97 x 11.43cm
Weight: 1.8kg

Portable Charging Case

The Portable Charging Case is capable of holding and charging up to 24 nodes utilizing its 12V power source.

Dimensions: 79.5 x 61.5 x 44cm
Weight: 14.1kg

Portable Download Case

The Portable Download Case is capable of downloading data at a rate of 1GB per second. It has capacity for up to 20 nodes at a time.

Dimensions: 69.85 x 69.85 x 40.64cm
Weight: 11.92kg

Bump Tools

The Bump tool is used to "bump on" the NRUs during deployment. The cup and spring rings in the Bump Tool are the same parts used in the Charge Panels.

Each contains a standard 9V battery connected to the spring rings to power up the NRU.

NuSite Handheld Device with NuSite Software

NuSite Tablet is an Android-based application that uses GPS navigation for NRU deployment, pick- up automatic status collection, and sensor QC. It wirelessly exchanges information to and from NuScribe. This device may either be a Samsung S20, Doogee S96, or Google OnePlus product - client may request.

Juniper Geode

Easy to use, GPS receiver that connects to our handheld Android device via Bluetooth. The Juniper Geode provides sub-meter accuracy allowing you to discard conventional survey and receive accurate coordinates on the go.

Dimensions: 111 x 111 x 43mm
Weight: 360g

Manual Deployment Tool V1 (MDT)

The Manual Deployment Tool (MDT) is an easy- to- use slide impact device for creating a custom-fitted hole for the node. It operates as a slide impact device to laterally "solution the soil" creating the ideal shape ground cavity that the NRU is then press fit into. No digging, no net ground disturbance.

Dimensions: 126.52 x 36.51cm
Weight: 11.3kg

Manual Deployment Tool V2 (MDT)

The Manual Deployment Tool (MDT) is an easy- to- use slide impact device for creating a custom-fitted hole for the node. It operates as a slide impact device to laterally "solution the soil" creating the ideal shape ground cavity that the NRU is then press fit into. No digging, no net ground disturbance.

Dimensions: 116 x 36cm
Weight: 12.8kg

Wolverine Manual Retrieval Tool (MRT)

The Wolverine Manual Retrieval Tool (MRT) is used to remove a node safely and effectively from the ground.

Dimensions: 32 x7.62 x 131cm
Weight: 3kg

Standard Manual Retrieval Tool (MRT)

The Manual Retrieval Tool (MRT) is used to remove a node safely and effectively from the ground.

Dimensions: 22.2 x 10.2 x 92.2cm
Weight: 3kg

Custom NuSeis Trailers and Cabins

Cabins or Trailers can be provided by the GTI team to suit the operational needs and crew performance requirements, for lease or for sale. The 40-foot gooseneck includes a large server and all NuSeis Ecosystem racks to support 1500 NRUs rolled per day, and can by pulled with a gooseneck hitch fitted pickup truck, including 6000 NuSeis NRU's.

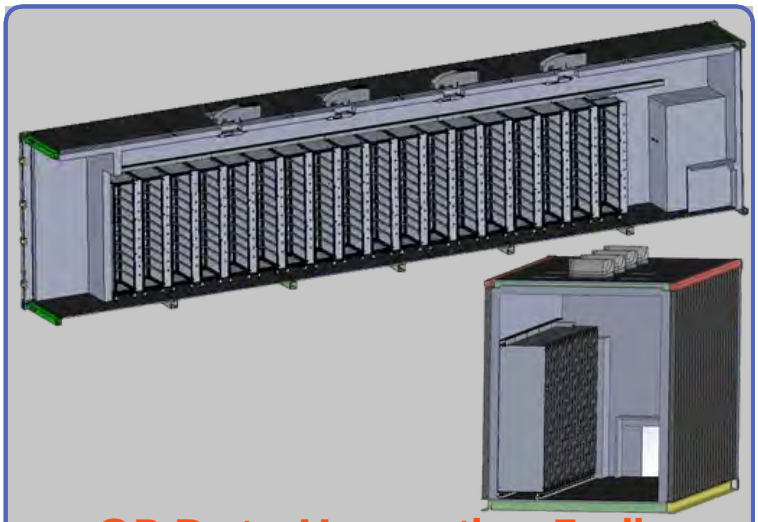
Custom NuSeis Gooseneck Trailer

This 40ft Single Wheel, Tandem Axle gooseneck flatbed can carry 9000 nodes and it can also be pulled with a gooseneck fitted pickup. It has Mega Ramps and Side Rails.

NuSeis Generator Trailer

This 20-foot generator trailer has twin Kubota SEP4-40.0 KW Generators. Output: 120/240 @ 60 Hertz. 333.3/166.6 Amps and 40,000 Watts.

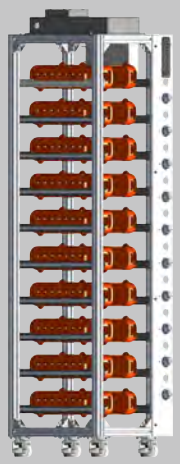
The trailer can be leased to power the NuSeis Trailer shown above, or as a stand-alone power source for your field needs.



OB Data Harvesting Trailer

40' NuSeis OB Data Harvesting Container feature 18 DMP racks - each with a 10 node capacity giving a total download capacity of 180 nodes per container. Equipped with a Dual Xeon computer boasting 1TB RAM, 250TB SSD, and a 264TB backup server, it ensures efficient data transfer and management for broadcasting needs.

40' High Cube Container
Length: 40' Width"8' Height:9'6"



OB Rack

NRU OB DMP Rack for harvesting data. Each has a 10 node capacity. Included also is the power supply and ethernet bridge for easy swapping.

Weight: 50.5kg
Height: 1656mm Width: 494mm
Depth: 583mm

ES4 Data Harvesting Trailer

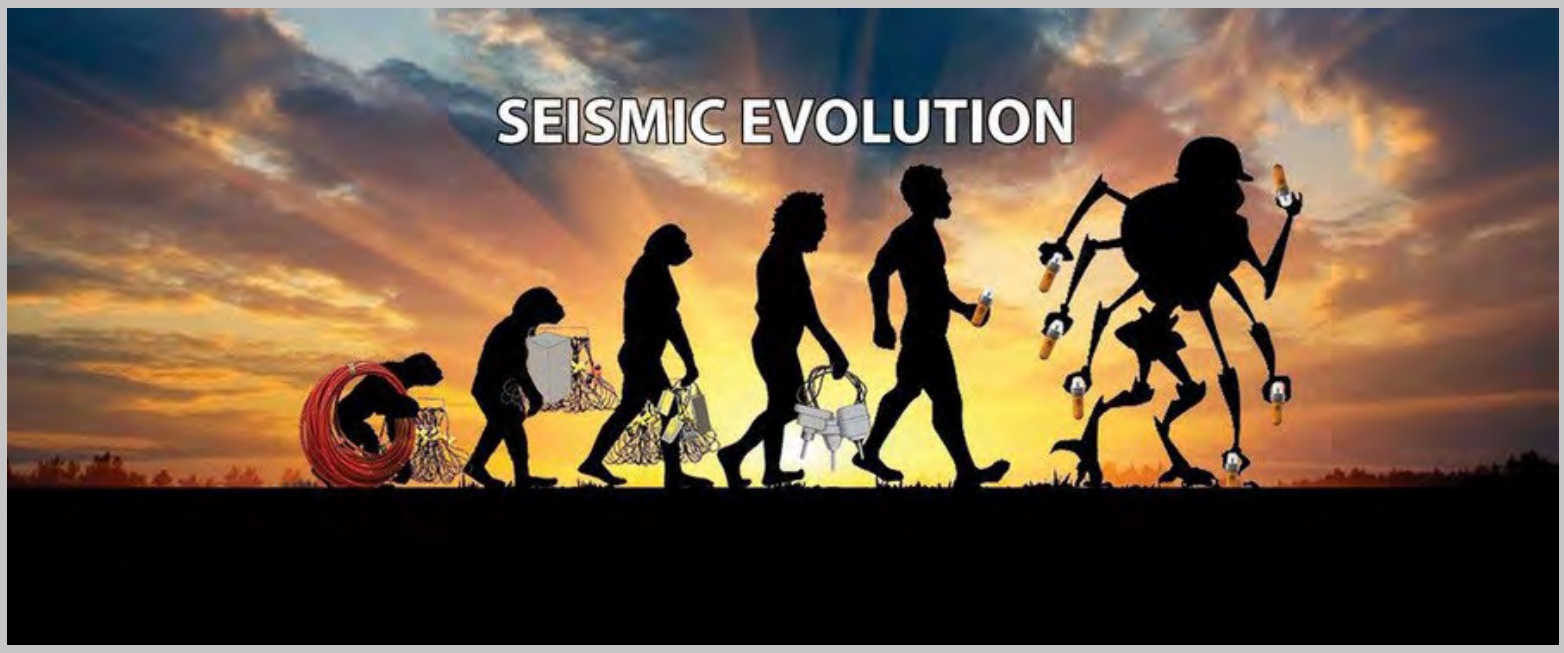
The ES4 Data Harvesting Container has two rows on either side of the trailer of 13 DMP racks giving a total of 78 DMPs in the trailer. Each DMP can download 10 ES4 nodes giving a total harvesting capacity of 780 nodes per container. Equipped with a Dual Xeon computer boasting 1TB RAM, 250TB SSD, and a 264TB backup server, it ensures efficient data transfer and management for broadcasting needs.

40' High Cube Container
Length: 40' Width''8' Height:9'6"

ES4 Rack

NuSeis ES4 rack has three DMPs, each with a capacity of 10 nodes, giving each rack a 30 node capacity for downloading data. Each rack comes equipped with a power supply and ethernet bridge.

Weight: 30.5kg
Height: 1656mm Width: 605mm
Depth: 254mm



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