

# Security Devices



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# HISTORY



The history of the LOGIS-GEOTECH Group of Companies dates back to 1989 when the leading designers of the V.V. Tikhomirov Scientific Research Institute of Instrument Design (Zhukovsky) began to develop and manufacture advanced geophysical and radar equipment for MIG helicopters.

In 1992, the key staff of the Institute founded the LOGIS Company (Ramenskoye, Moscow region), which commenced production on a series of georadars (GPR) and seismic equipment, while maintaining and continuing development of their explosives' detectors.

Active development of the LOGIS Company and the expansion of its activity resulted in the opening of a new direction: engineering surveys with geophysical equipment systems. The company was transformed into the LOGIS-GEOTECH Group of Companies, which enveloped the Scientific and Production Center of GPR Technologies.

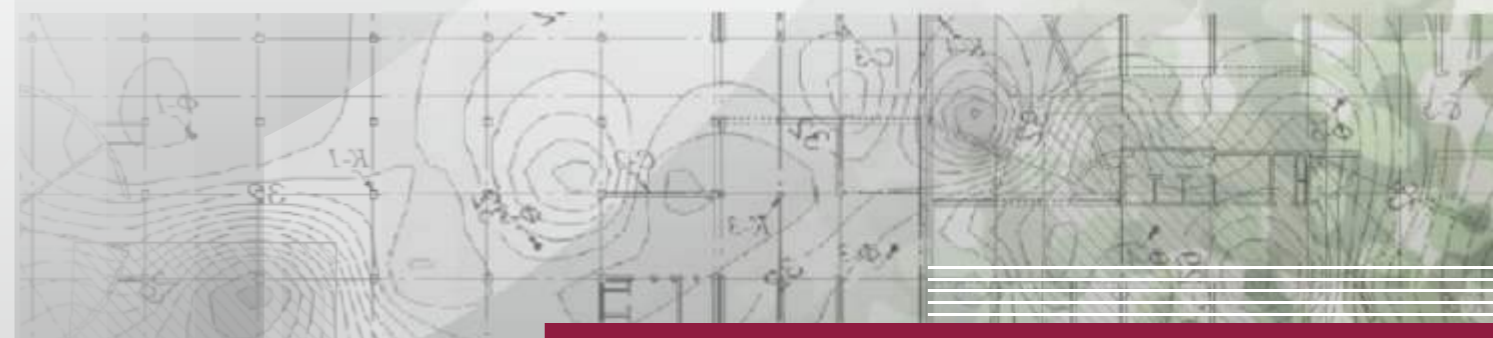
With twenty years of continued success, the Geotech-Logis Group of companies is Russia's leading manufacturer of geophysical equipment, providing high quality Ground Penetrating Radar, seismographs and geoelectrical instruments. The Company is involved in geophysical surveys using radar, resistivity and seismology methods, and provides high-tech solutions for engineering geophysics.

GEOTECH not only produces geophysical equipment, it also now develops safety equipment based on its GPR technology.

Over the last few years, the significance of providing safety equipment has been a steadily growing market, and the Company has paid particular attention to this segment. Logis-Geotech has launched a series of Through Wall GPR-Detectors, used for locating and spotting people through and behind walls. The GPR-Detector, which has proven to be a hugely valuable tool, is currently being utilized by the security services of the Russian Federation.

Our Customers range from governmental organizations to universities, from research institutions to environmental and engineering firms. Countless companies, such as "GasProm", "TransNeft", "Russia Railways" and Airports "Sheremet'ev" and "Pulkovo", utilize and depend on Logis-Geotech's geophysicists and equipment.

GPR "OKO" is the leader in the Russian geophysical market. In addition to controlling the Russian market, its products can be found in the CIS, South-East Asia and Latin America countries as well.



## THROUGH WALL GPR-DETECTORS

# RO-400 PO-900



The GPR-Detectors is a portable and easy-to use GPR security solution, designed for locating moving people behind reinforced-concrete walls and multi-layer building constructions in real time.

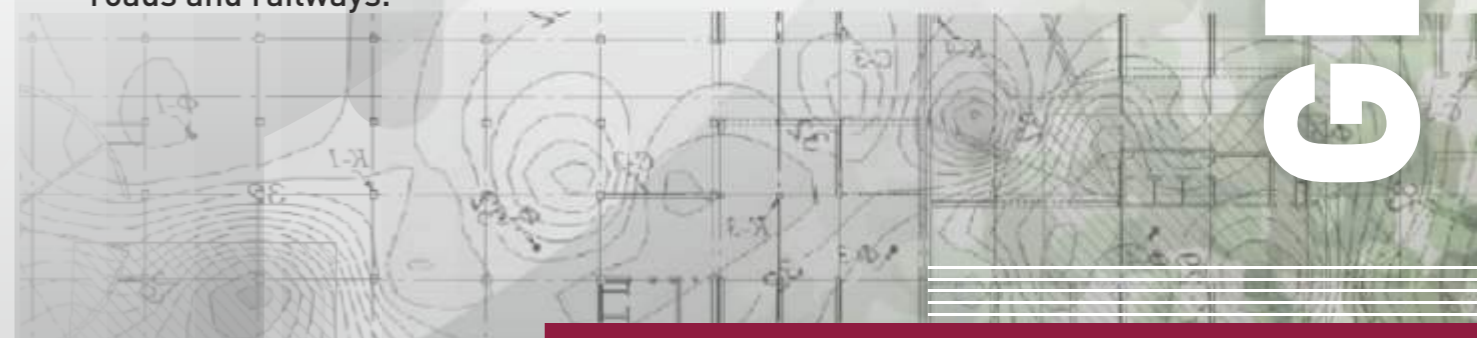
### FEATURES

- Locates people behind reinforced concrete walls up to 0.6 meters thick and multi-layer building constructions
- Detects movement of people through several walls or/and other types of obstacles in real time
- Up to 21 meter detection range
- Wireless video for remote display
- Operable at safe distance from a wall up to 100 meters
- Two operating modes (Moving Object Detection mode and Search GPR mode)

### APPLICATIONS

- Detection of moving people behind reinforced concrete walls
- Detection of caches
- Detection of holes, underground communication passes, hideouts
- Detection of contraband criminal disposals, etc
- Detection of mine-explosive devices, including uncased ones or those in non-metal cases, placed in building constructions as well as under roads and railways.

# GPR-DETECTORS





## THROUGH WALL GPR-DETECTORS

GPR-DETECTOR RO-400



**GPR RO-400 2D provides information about the presence of people behind brick, cement, concrete (including thick reinforced concrete) walls.**



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- 2D image
- Wireless video for remote display (optional)
- Operable at a safe distance from a wall (up to 100 meters within the line-of-sight coverage)
- Two operating modes (Moving Object Detection mode and Search GPR mode)

### Specifications

Resolution	0.15 m
Detection range	21 meter
Central frequency	400 Mhz
Dimensions	960x290x155 mm
Weight	5.8 kg
Running time:	4 hours
Temperature range	- 20°C ... +50°C
Environmental	IP66



**The device can be operated on a writing tablet via remote control. It can track the motion path and precisely determine the distance to a given object. The operator can see the 2D image in real time.**



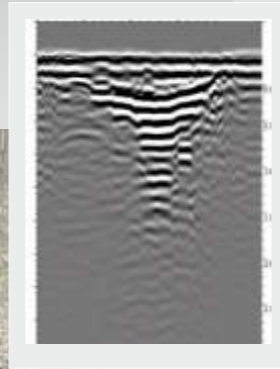
GPR-DETECTOR RO-400



## THROUGH WALL GPR-DETECTORS

GPR-DETECTOR RO-400

RO-400



The equipment can find the explosive devices, caches in the soil at depths up to 5 m.



- Detection of caches
- Detection of holes, underground communication passes, hideouts
- Detection of contraband criminal disposals, etc
- Detection of mine-explosive devices, including uncased ones or those in non-metal cases.



RO-400

GPR-DETECTOR RO-400



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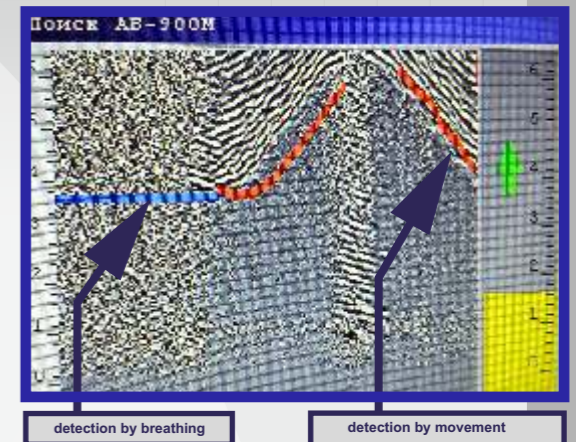




**RO-900 is a small, portable device designed to locate people hidden behind reinforced concrete, brick walls by breathing and by movement. The device allows its operators to quickly receive crucial information about location, distance and movement of a given target.**

### Features

- Locates people by breathing and by movement
- Locates people behind several reinforced concrete walls of up to 0.4 meters thick and multi layer building constructions
- Detects movement of people through several walls or/and other types of obstacles in real time
- Up to 11 meter detection range



**It can detect someone breathing, which makes it especially useful during search and rescue operations; for example in the case of an earthquake or other destructive natural disasters. GPR-Detector RO-900's portable and miniature size makes it highly functional and extremely easy to operate in almost any situation.**

### Detection range

The detection range by movement through a brick wall of up to 40 cm is up to 11 m.

The detection range by breathing through a brick wall of up to 30 cm is up to 5 m.

### Specifications

Detection range	11 meter
Central frequency	900 Mhz
Dimensions	245x104x78 mm
Weight	0.8 kg
Running time:	4 hours
Temperature range	- 20°C ... +45°C
Environmental	IP66



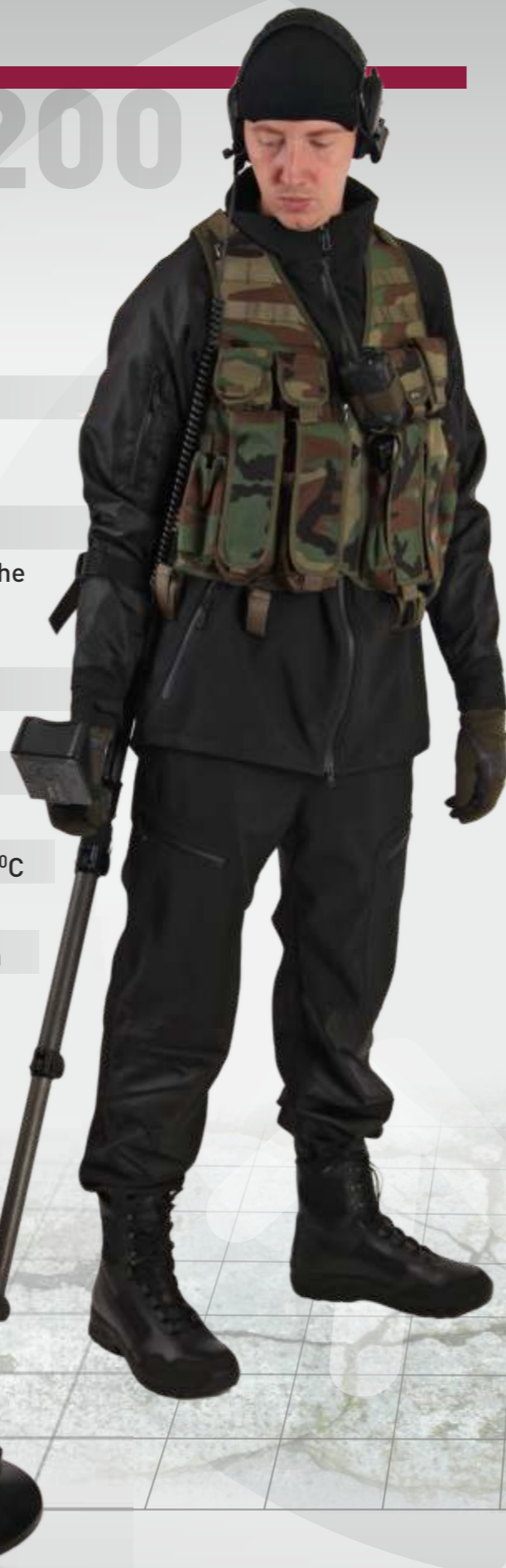


## Specifications

GRR: Investigation depth	1,0 m
Resolution	0,05 m
Frequency	1200 Mhz

MD: Investigation depth	
- steel disk (diameter is 180 mm, the thickness is 1.5 mm)	0,40 m
- cartridge 9mm (for gun)	0,20 m

Weight (operational mode)	2,8 kg
Power consumption	14 W
Power supply	Lithium, rechargeable
Running time	8 hours
Temperature range	-30°...+50°C
Environment	IP 65
Transport case	630x230x250 mm

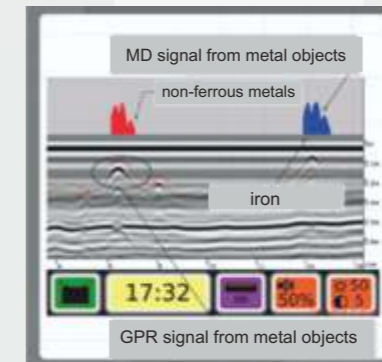


Search Head (GPR+MD)

## IED DETECTION

GMD-1200 is the dual sensor detector designed for detection of explosive objects located at depths up to 1m.

- Dual GPR ( Ground penetrating radar) and MD (Metal detection) technology
- Independent or simultaneous operation of both sensors
- An embedded odometer
- An audio and visual alarm signal
- Selection between non-ferrous metals and iron
- Visual display readable during day and night
- Lightweight, portable, foldable design
- Friendly interface
- Operable with either hand



Data at the screen







The MG-1 has both visual and audio detection alarms. If it detects an object, an audio signal goes off. If the equipment detects iron metal, a red light is indicated. If it detects a non-ferrous metal the operator sees a green light.



Indication and control unit

Transmitting antenna



METAL DETECTION

**MG-1 is designed for detection IED and metal objects at the depths up to 5 m.**

**MG-1 can recognize iron metal and non-ferrous metals.**

Weight	7 kg
Power Consumption	18 W
Running time	4 hours
Setting- up time	60 sec
Detection rate	1-5 km/hour
Temperature range	-30 <sup>0</sup> ...+50 <sup>0</sup> C
The length	
- in folded position	800 mm
- in operating position	1400 mm
Transport case	800x300x500 mm

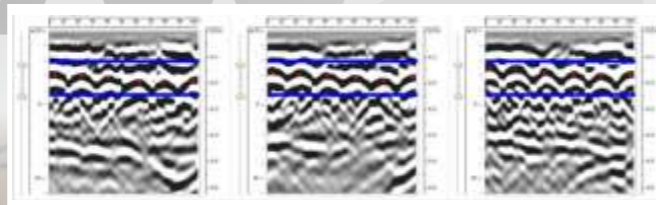
**Detection depth**

- Maximum detection depth 5,0 m
- large objects - 5 m
- steel sheet 50x50 cm - 3 m
- 120 mm projectile - 2 m





CS-1700



Automated location of reinforcement



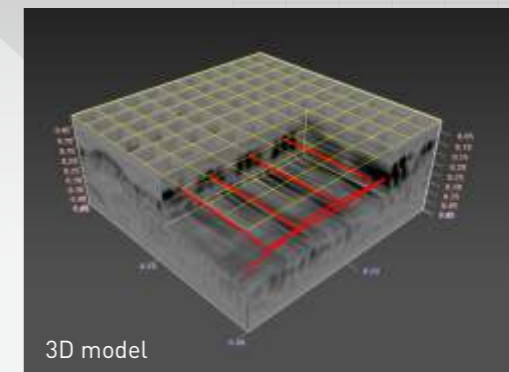
Construction Scan 1700 3D is a portable all-in one GPR solution designed for automated localizing defects in a wide variety of wood, brick and reinforcement concrete structures, at depths up to 1 m .



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**Features**

- All-in-one GPR system
- 3D visualization
- Built-in USB interface
- Internal 2 GB Flash memory card
- Detachable SD-card
- Guiding laser
- Data collection grids (3D system)



3D model

Specialized software R-scan 3D is a solution for automated location of reinforcement, cables, pipes. The software allows users to build the utilites (reinforcement, pipes, etc) in 3D. The user can locate defects, different anomalies and other objects.

**Applications**

- Detection and location of different defects in reinforced concrete
  - Cells, cavities
  - Foreign inclusions
  - Cracks, layering
- Detection of buried wiring, cables and communications lines
- Detection of plastic and metal pipelines
- Detection of heterogeneities, anomalies and other buried in solid environment (which wood, brick, reinforced concrete, building constructions, soil, etc)
- Discovering of ventilation and communication channels
- Detection of shelters and covered-up holes



CS-1700





Search Kit is GPR solution for detection of objects in soil, concrete structures, fill material (corn, flour, timber, etc) at depths up to 3 m.

The system includes control unit and two interchangeable antennas with the frequencies 700 and 1200 MHz.

**Search Kit is GPR solution for detection of objects in soil, concrete structures, fill material (corn, flour, timber, etc) at depths up to 3 m.**

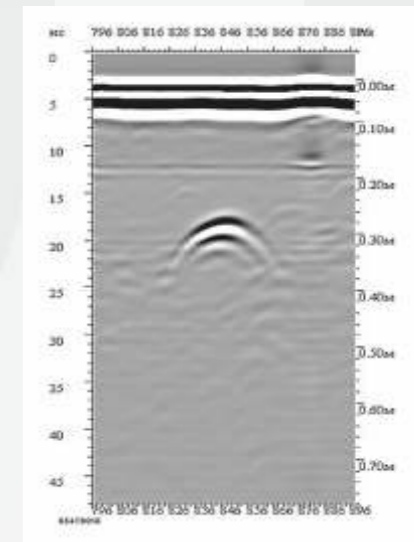
**The system includes control unit and two interchangeable antennas with the frequencies 700 and 1200 MHz.**

### Application

- Luggage checking for trafficking items
- Check up for hidings
- Finding shelters
- Detecting explosives including plastic explosives and frameless explosives
- Detecting hollows and inhomogeneities in walls of buildings and other structures
- Detecting for integrity violations, invasion zones, deconsolidations, dam cracks and other dam defects, road defects, etc



The depth is 25-30 cm

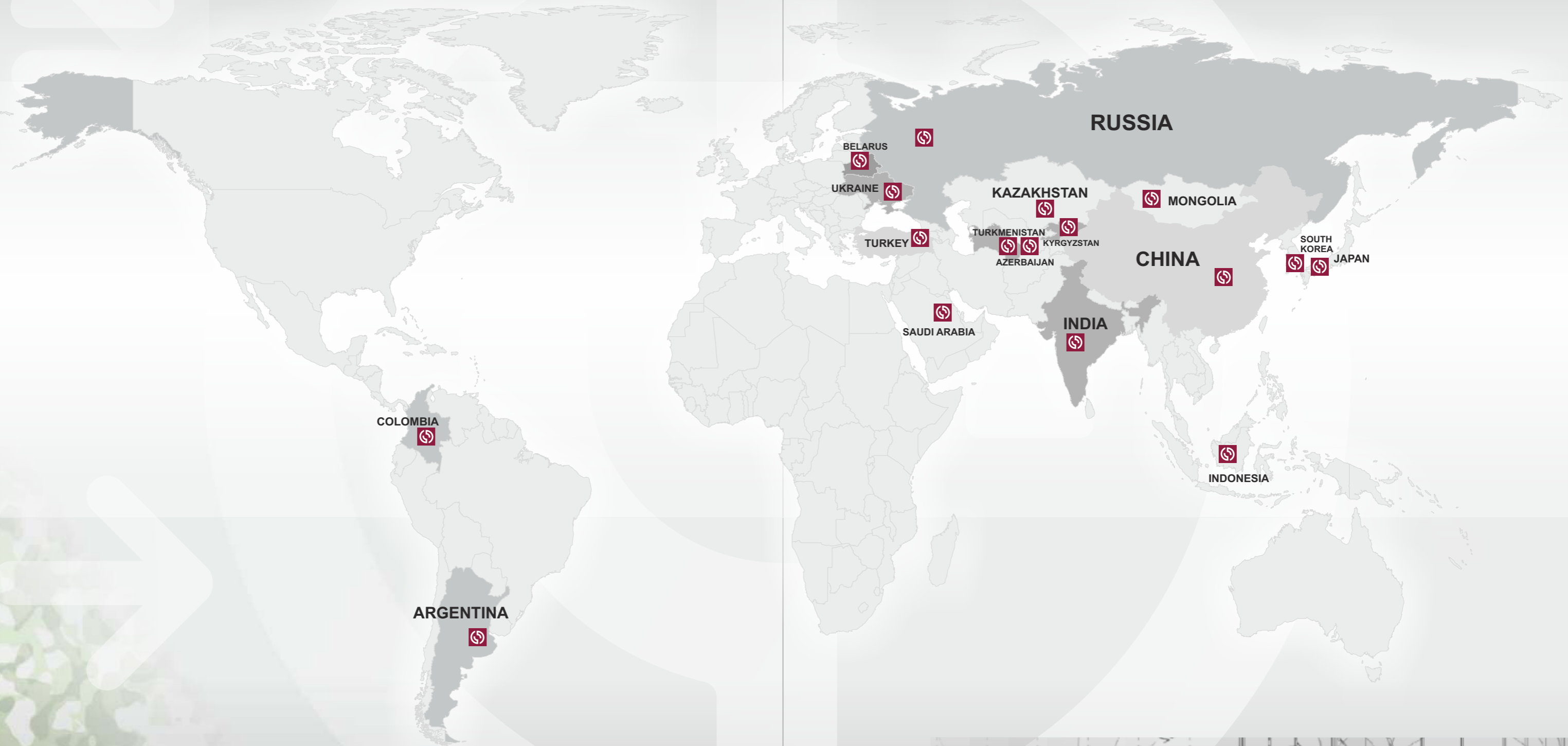


Reflected signal from landmine









# AROUND THE WORLD





# IN RUSSIA



-  Geophysical works
-  GPR equipment
-  Seismographs
-  Electrical exploration equipment