MEOSAR MEDIUM EARTH ORBITING SEARCH & RESCUE

MEOSAR (Medium Earth Orbiting Search And Rescue) has helped save over 34,000 lives in the United States and around the world over the past 3 years. Whether that distress is a sinking ship, a downed aircraft or an injured mountain climber, if they carry and activate its COGNT SARAS distress beacons, we can determine their location. The MEOSAR distress beacons are currently in service in the United States, Europe, the Middle East, the Indian Subcontinent and South Asia. The United States contribution to the international COGNT SARAS programs is managed by NOAA in cooperation with the US Air Force, the US Coast Guard and NASA.

MEOSAR Satellite Constellations

The MEOSAR satellite constellations are designed to enhance the current satellite systems by providing additional coverage and precision. The MEOSAR system consists of two main components: the MEOSAR ground stations and the MEOSAR satellites. The ground stations are responsible for receiving and processing the distress signals, while the satellites are responsible for relaying the signals to the ground stations.

MEOSAR SATELLITE SYSTEM BENEFITS:

- New instantaneous detection & location
- Global coverage
- KS-7 system availability
- Specialized platform in COGNT SARAS
- Refuse-necessity response time
- constellation combination for highly redundant
- Satellite separation intentionally simple to allow for future beacon innovation

Other COSPAS-SARSAT Satellites

These satellites are currently in operation and provide additional coverage for MEOSAR and other COSPAS-SARSAT distress beacons. They are also used for other applications, such as weather monitoring and communication. The satellites are positioned in various orbits, ensuring global coverage.

COSPAS-SARSAT Distress Beacons

Distress Beacons are portable radio transmitters that broadcast an electronic distress signal when activated. These signals are detected by the COSPAS-SARSAT system, which provides real-time tracking and location of the distress. The system is designed to provide rapid and accurate assistance to people in distress, reducing the time it takes for rescue services to locate them.

Experimental MEOSAR Versus LEO/GEOSAR Performance Comparison

On May 4, 2010 at 2:28 UTC (Central Universal Time), a 40,000 lb. COSPAS SARSAT (EOSS) Emergency Position Indicating Radio Beacon (EPIRB) was activated on a recreational 747 jetliner off the coast of Santiago, Chile. The aircraft was later located and rescued within 30 minutes by the Chilean Air Force using MEOSAR technology. The rescue operation demonstrated the capabilities of each type of satellite and showcased the benefits of MEOSAR technology in enhancing rescue operations.

For More Information: COGNT SARAS