



KEY FEATURES

- GSM 900 band communications
- Mobile phone detection and identification
- Accurate positioning for detected mobile phones
- GSM voice service capability
- Short message service (SMS) capability
- Mission Planning Software
- Software Defined Radio (SDR) core technology for easy scalability and upgrading
- Cognitive Radio techniques for dynamic spectrum allocation
- Conduction cooling
- Built-In-Self-Test capabilities

TECHNICAL SPECS

- 4 Rx RF channels (for phased array)
- 1 Tx RF channel
- 2 x RS-232 ports for datalink and AHRS interfacing
- Rugged 3U-VPX architecture
- Ethernet interface
- Reduced SWaP:
 - Size: 143x168x215 mm
 - Weight: <8kg
 - Power: 80 W
- Transmission power: 4W
- Frequency range: 890-960 MHz

LIFESSEEKER

Airborne Base Transceiver & Geo-localization System

LIFESSEEKER is an innovative on-board system capable of locating mobile phones accurately and without network coverage, which provides Base Transceiver Station (BTS) services 24 hours a day, even under adverse weather conditions.

PRODUCT OVERVIEW

LIFESSEEKER is a state-of-the-art radio system designed to locate missing people under extremely adverse conditions, leading rescue teams to the persons in danger.

LIFESSEEKER also acts as a communications relay for mobile voice and messaging services between the missing party and the rescue teams.

LIFESSEEKER comprises an on-board payload and an on-ground control console. The **on-board subsystem** detects GSM transmissions and uses a phased array antenna to locate the source of the transmission. The geographic coordinates of the signal source are communicated to the **ground control station**.

The **on-ground subsystem** serves as the operational and control station, from where the mission operator can coordinate **LIFESSEEKER** operations.

LIFESSEEKER supports both single-phone and multi-phone detection modes.





ABOUT CENTUM R&T

Founded in 2010 under the name of iQUBE research with the purpose of use knowledge to create social changes, we were acquired in 2012 by CENTUM Global Corporation and then assigned the role of payloads & sensors development center for the corporation.

Thus, our strategic intent nowadays is to design and create payloads & sensors for aerospace, land and sea vehicles, both manned and unmanned, being able to sense signals, perceive the context, make decisions autonomously, adapt to changes of the environment and communicate and interact with other systems.

Our aim is to excel in high tech product design and development for our three main markets, emergencies, homeland security and defense. And we achieve it with our own portfolio of products, and providing development services of tailor made products to our clients.



CONTACT

info@centum-rt.com

C/Fonte das Abelleiras s/n

36310 Vigo - Pontevedra - Spain

+34 986 120 460

ADVANTAGES FOR EMERGENCY OPERATIONS

Fast search

LIFESEEKER is an **autonomous system** that can operate around the clock in even the most extreme weather conditions, thereby saving valuable time and optimizing emergency resources.

Homeland Security, Police Forces and Civil Agencies

Using aerial facilities, manned or unmanned, enables search operations to be carried out over **inhospitable terrain**, making **LIFESEEKER** the perfect ally for successful emergency operations.

Real-time interaction

LIFESEEKER enables **mobile communications** with the distressed person's mobile phone via voice and SMS. Advance knowledge of the person's physical condition helps the rescue team to plan speedy delivery of the required medical assistance from the moment they make contact. **LIFESEEKER** also allows for SMS broadcasting, facilitating early warning and communication with civilians in potential danger during natural disasters.

Cost-effective

Faster search and location capability increases mission effectiveness and thereby **reduces related mission expenses**.

Reliable knowledge regarding the whereabouts of missing people allows for a **controlled deployment of resources**.

Relays on **widely-used** devices, such as a mobile phone, as a radio beacon.

Raising the success rate

Improve the probability of a successful rescue mission with an efficient search, early geo-localization and the missing party's status awareness.

Total integration

LIFESEEKER provides several interfaces to connect both the on-board and on-ground modules with aerial platform data links and control consoles as required.

LIFESEEKER PRODUCT FAMILY

Features	SR-100	SR-200	SR-300
Mission	Search & Rescue	Search & Rescue	Search & Rescue
GSM detection	yes	yes	yes
GSM identification	IMSI	IMSI and IMEI	IMSI and IMEI
GSM geo-location	AoA	AoA and RRLP	AoA and RRLP
	Single target	Single target	Multiple targets
GSM communication	SMS	SMS and voice	SMS and voice
2G network operation	no	yes	yes
3G network operation	no	no	yes