

## DAY AND NIGHT OPERATIONS



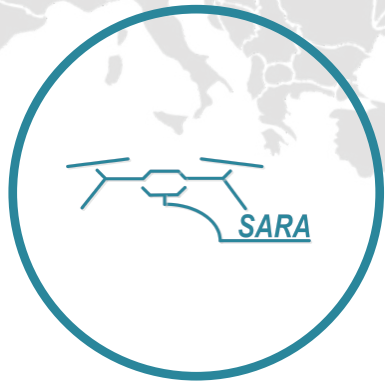
### Survivor swimming

Critical dimension: 0,5m |  
Optics: 13mm |  
Detection Range: 300m to 700m



### Vessel at the horizon

Critical dimension: 28,7m |  
Optics: 13mm |  
Detection Range: 5NM to 12NM



SARA (Search And Rescue Aid using high Accuracy GNSS) solution aims to build up an automated system for supporting Vessels in detecting people lost in the sea, especially during the hours of darkness. A such, SARA was meant to be a contribution to the need expressed by Italian Coast Guard in the last years, to be helped in the search and rescue.



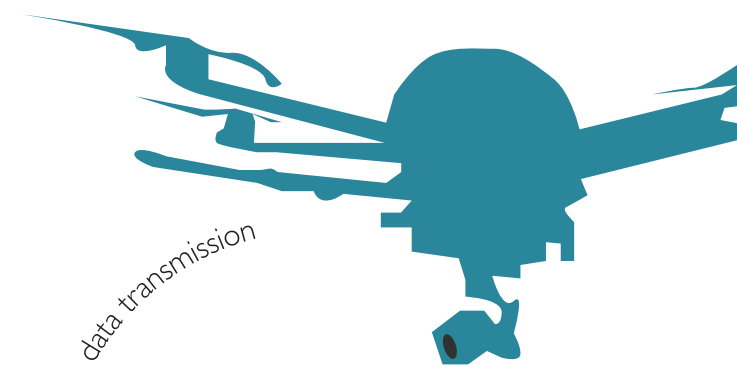
[www.thesaraproject.eu](http://www.thesaraproject.eu)

Via Giacomo Peroni, 400  
00131 Roma – ITALY  
Tel: +39 06 98261600  
Fax: +39 06 98261624

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HORIZON 2020



high endurance - night flight - data transmission

# SARA

Search **A**nd Rescue **A**id and Surveillance using High EGNSS Accuracy



European  
Global Navigation  
Satellite Systems  
Agency

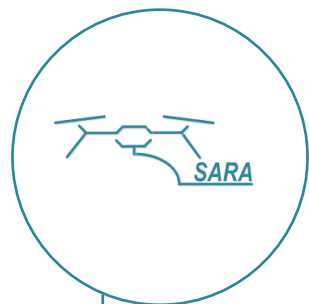
HORIZON 2020



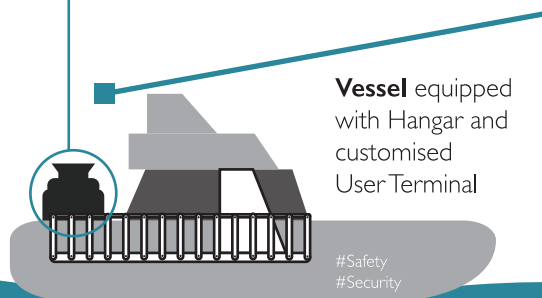
SARA surveillance approach presents an easier, faster, and cheaper method of data collection, and a number of other key advantages. SARA Drone can enter narrow and confined spaces, produce minimal noise, and can be equipped with **night vision cameras** and **thermal sensors**



The system is based upon a dedicated deployable RPAS (Remotely Piloted Aircraft System) which is tightly coupled with **ship** architecture through a cable (**tethered flight**): as soon as its function is needed, the aircraft flies from its home (a dedicated **hangar** on the top of the ship), and becomes a “virtual pylon” which elevates a VIS-TIR sensor (Visual Spectrum and Thermal Infrared), whose captured images are processed in real time by a local computer

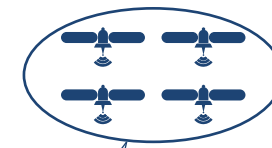


High **endurance**  
**Night** flight  
 Secure **Data** Transmission  
 Persistent **Surveillance**



**Vessel** equipped with Hangar and customised User Terminal

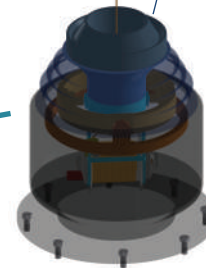
#Safety  
 #Security



SARA drone and hangar are equipped with **2 Galileo receivers** for accurate baseline measurement to avoid mechanical stress of the cable



Automated system with a tethered drone to support object **Detection** **Ranging** **Identification**, especially during the hours of darkness



Thermal and Optical imagery for Object **DRI**



Detection of people lost in the sea, especially during the hours of darkness