

SARPA

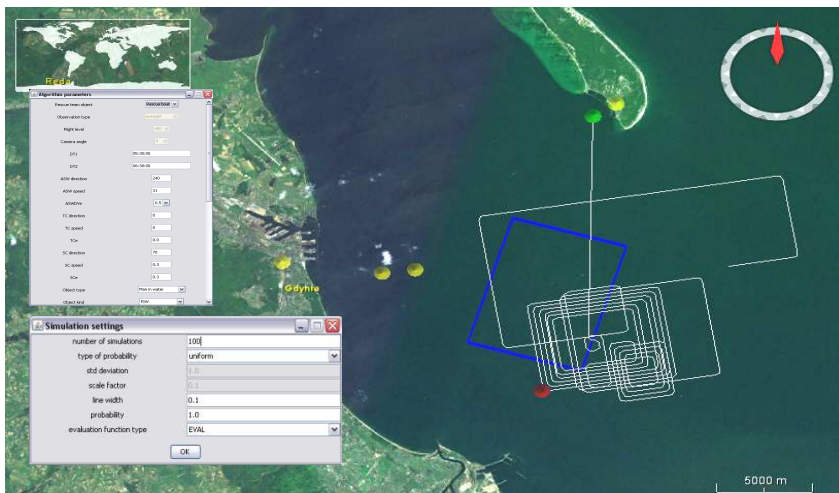
Search and Rescue Path Analyzer

Classical approach was based on obsolete procedures, because in 20th Century there was little technology support. Now we can benefit from advanced science. That is the reason why we can have SARPP.



The scope of configurability

SARPA was developed to support a number of data availability levels. Basically, one can use the system with public, on-line repository of digital maps, but local professional services can import own regional data (tides, depths, winds etc.). Moreover, a great number of parameters can be used to set desired conditions.



SARPA applicability

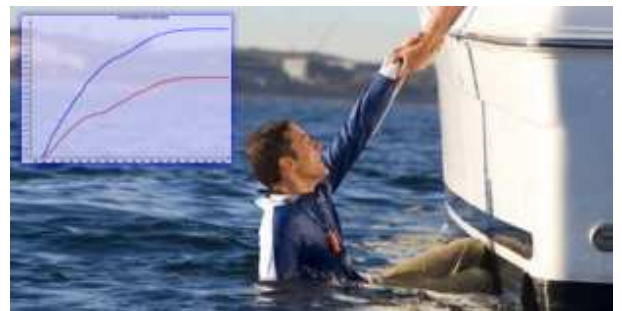
SARPA is specifically designed to support sea rescue operations, but its not the only area of its applicability. The system can be easily configured for disaster management or serious ecological event maintenance.

That way SARPA can be utilized by local government as well as by armed forces and coast guard.

SARPA vs Classical Path

During S&R mission time is essential. The more accurate path is, the chances of finding living survivors are higher.

The probability of success in a typical operation is shown in the figure below. Blue line shows SARPA efficiency in time, while red one reflects a standard solution.



Who are we

SARPA is developed as a joint effort of industry company and leading academic centers. The main stakeholders include:

- SolDevelo Ltd.
- IT Institute of Polish Academy of Sciences
- Polish-Japanese Institute of Information Technology (P JWSTK)
- Polish Navy Academy



Would you like to learn more?

www.sarpa.pl

Visit our website to find more details

SARPA

Search and Rescue Path Analyzer

SARPA is state of the art in search and rescue operations path planning. The innovative algorithm based on artificial intelligence beats the score of classical solutions by 40%.



What is SARPA

SARPA is a computer application designed to optimize search path during sea rescue operations. It uses sophisticated, advanced algorithms to develop best possible track, taking into account given weather conditions, sea current maps and specification of available resources.

How does it work

SARPA starts with location of event and forecasts the change in survivors' position basing on wind and sea currents map for the region. The next step utilizes available equipment specification (helicopters, coastguard boats etc.) and main goals of operation (e.g. time of finding or probability of quick success).



The actual path is optimized for given equipment. SARPA operator can (at any time) simulate the possible drifts of survivors to maintain the control of operation.

The algorithm can be tuned in many ways, including spotting range parameters, night and day operations, experience of rescue teams, fuel tanks limits etc.

The comparison between SARPA's paths and common, legacy tools proves the quality of advanced AI algorithms. The average gain in probability of success ranges between 30% and 60%.

Why SARPA

- search paths generated by SARPA are 40% better than classical approach
- reliable, advanced solution
- real-time processing and path construction
- easy scalable and configurable
- versatile, multiplatform, Java-based
- based on real search and rescue experiences of Polish Navy Academy

SARPA in use

SARPA can be interfaced to a number of modern devices and systems. It uses open format digital maps for better path finding and exports data in common waypoint standards. If the rescue management center makes use of GPS devices, SARPA will provide optimal real-time corrections if rescue team goes off

Power of distributed processing

SARPA runs on both Windows and Linux systems. The core capabilities can be easily enhanced thanks to distributed computation based on innovative DAC technology.

Would you like to learn more?

www.sarpa.pl

Visit our website to find more details