

# SAFETY AND SECURITY USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES. RESPONSE AND RISK MITIGATION

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The paper presents the main global trends in the artificial intelligence (AI) technologies and their possible application in the security systems taking into account special requirements imposed on such systems, including requirements for reliability, information security, applicability of domestic hardware components as well as the legal aspects of using systems with AI elements.

The paper considers the company’s accumulated experience in implementing industrially elaborated AI technologies to increase the autonomy of different-type unmanned aerial vehicles [1], including hidden costs [2] for creating the necessary ground infrastructure [3, 4] to support AI operation, which is shown in Fig. 1.

The issues of possible adaptation of commercially available products with AI elements on behalf of the State Atomic Energy Corporation Rosatom, in particular, for solving such tasks as monitoring the progress of construction and operation of spatially distributed infrastructure facilities, analysis and forecasting of ice conditions based on the Earth remote sensing data as well as the formation of a territorially distributed bank of trusted data for the special AI systems [5].

The project on developing the software for intelligent processing of heterogeneous air monitoring data (see Fig. 2), carried out jointly with the FSUE «RFNC – VNIITF named after Academ. E. I. Zababakhin», shows how the use of AI elements can increase the readiness and responsiveness of emergency response centers, thereby reducing the risks in the security field.

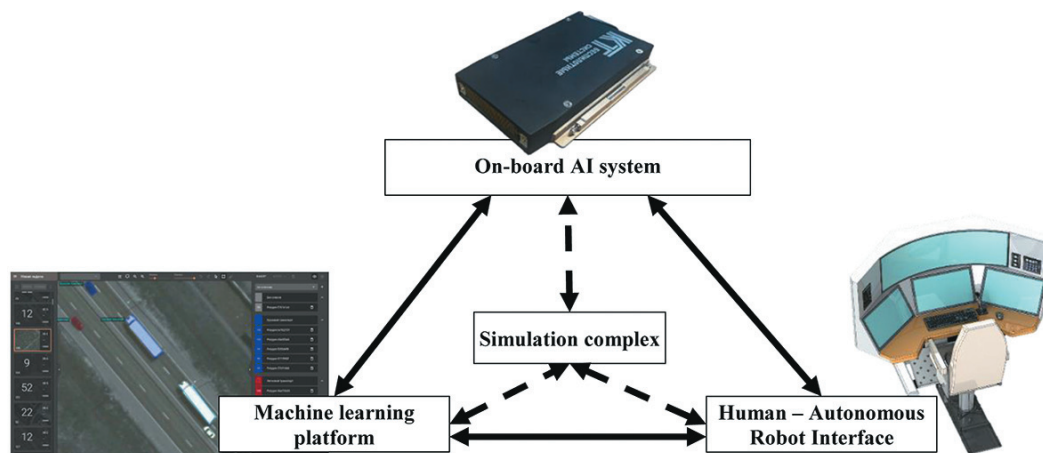


Fig. 1. Ground infrastructure required for operation of onboard AI system

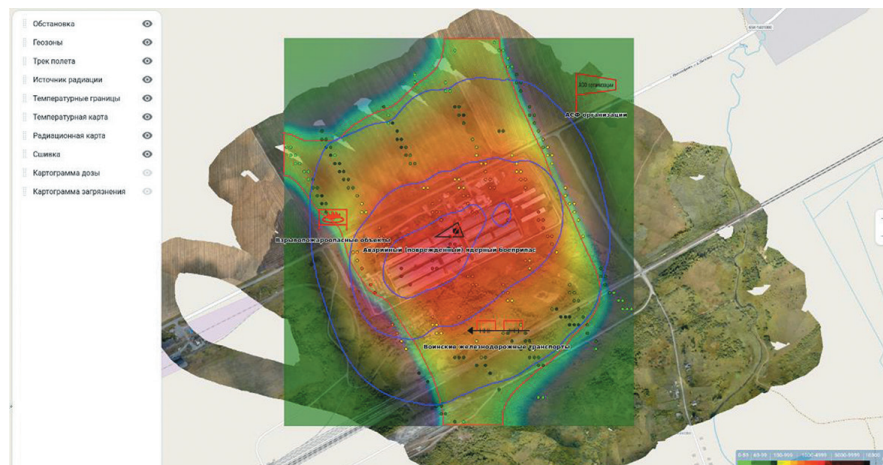


Fig. 2. Display of information on intelligent processing of air monitoring data

## References

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