

## **TWINSAT PROJECT: DEVELOPMENT OF INTEGRATED AEROSPACE AND GROUND TECHNOLOGIES FOR EARLY DETECTION AND MONITORING OF PRECURSORS TO LARGE SCALE NATURAL DISASTERS**

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**Abstract.** Reasons and the short description of the innovative project directed to development and practical use of effective space, aviation and ground technologies of early detection and monitoring of strong earthquakes for the purpose of increasing the accuracy and reliability of short-term forecasting of time and the place of catastrophic crashes are presented. The innovative scheme providing use of paired spacecraft with the managed distance and data exchange between them will provide data acquisition related to spatial structure and dynamic characteristics of the phenomena under study considerably increasing reliability of allocation of the signals connected with earthquakes from a set of other natural phenomena. Distinctive feature of the project is the three-level system and the multiple parameter analysis of a wide set of signals — the precursors revealed at the same time by various methods in various environments that significantly increases the accuracy and reliability of short-term forecasting of earthquakes. The scheme of step-by-step practical implementation and a business model which provides fast return of invested funds and economic feasibility of the project in general is provided.

**Keywords:** aerospace and ground technologies, earthquakes, short-term forecasting.