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## Application of visualized 3-D simulation platform to OSI operation management and decision making support

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An OSI could be conducted anywhere. Due to the concept of the comprehensive nuclear test ban, an OSI inspection area could be in an extremely challenging environment. A simulation platform could be a solution both from the perspective of health and safety and mission efficiency. This work would propose a compact transportable visualized 3-D simulation platform to provide decision making and management support to OSI operations. Based on personal and environmental interactive virtual reality technology, it would quickly create a virtual reality inspection area environment utilizing treaty-agreed commercial remote sensing images and terrain data. Different terrains and environments could be simulated and visualized, such as mountainous areas, the Gobi Desert, water-based areas and inhabited towns under different lighting and weather conditions. The base of operations setup and routine management, health and safety management, contamination area marking, managed access area marking, mission estimation, sub-team daily mission planning, inspection routes planning, search area management, ground inspection and overflight simulation could be achieved. Holographic visualization could also be achieved through holographic goggles to realize immersive visualization. The system is compatible with popular international GIS platforms. During overflight simulations, an external joystick can be used to achieve a more vivid simulation effect. A touch screen has been used for better handling.

### Promotional text

This work would propose a commercial compact transportable visualized 3D simulation platform to provide decision making and management support to OSI operations.

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