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## Cost-Efficiency UAV for OSI Trainings and Exercises

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In CTBT treaty and OSI Operation Manual, Initial Overflight and Additional Overflight would be arranged to provide IT opportunities to understand the overall situation of Inspection Area and conduct specific inspections such as visual observation and multispectral imaging. In the past exercises and training, manned helicopters have been used for a long period of time. With the development of unmanned aerial vehicles (UAV), and also the practical health and safety concerns for inspectors to be onboard the manned airplanes or helicopters in real OSI, the potential application of UAV to OSI trainings and exercises has its practical meaning. This work would propose a commercial cost-efficiency unmanned helicopter system, which could be designed to meet the requirements of OSI. The UAV flight height could be restricted within the scope of 1000 meters, the flight boundary could also be restricted within the inspection area taking into consideration of the managed access requirement proposed by the ISP. The flight routes, through programming the flight control software of the UAV, could be jointly worked out by the IT/ISP field teams every day to keep the balance of inspection sufficiency and intrusiveness. The UAV could carry both commercial optical or multispectral payloads.

### Promotional text

This work carried out a study on commercial cost-efficiency UAV for OSI, which would provide an option for OSI training and exercises, taking into consideration of health and safety concerns and also the balance keeping for mission efficiency and intrusiveness.

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