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HAIWANG-1'S PAYLOAD PERFORMANCE AND COMMERCIAL APPLICATION PRACTICE

**Abstract**

The paper provides an overview of the application results of the HWX-1 mission, which is part of the HWX constellation program. Following the successful launch and in-orbit commissioning of HWX-1 satellite in 2024, the project team has developed products for infrastructure construction monitoring as well as natural disaster investigation and monitoring. The satellite has two operating modes, Stripmap mode and Spotlight mode. In this paper, the data obtained in these two working modes are processed and analyzed, and the results show that when the satellite works in the Stripmap mode, the resolution is better than 2 meters (swath 8 to 16 kilometers). When the satellite works in the Spotlight mode, the resolution is better than 1 meter (coverage 64 to 80 km<sup>2</sup>). *Another part of this paper is to test and summarize several important performance metrics.*