A New Integrated Sensor-Collected Intelligence Architecture Based on Satellite

Zhang Weiwei**\***，Zhang Qiuli，Zhang Qian，Cao guili，Yao Yigang

(Beijing Institute of Space Mechanics & Electricity, No.99 Zhongguancun East Road, Haidian District, Beijing, China, 100190, 86-10-62565888,wwlovelife@126.com)

With the rapid development of the aerospace technology, the number of sensors is dramatically increasing and the image resources which get from the remote sensing satellite are more and more. The number of images and signal intercepts are well beyond the capacity of the existing analyst community so there are huge backlogs for translators and image interpreters and much of the collected data are never reviewed. The broadband is the bottleneck of the data application. In order to increase the rate of the remote sensing data, a new integrated sensor-collected intelligence architecture based on satellite is proposed. In this architecture it mainly adopts to the multi-sensor intelligent integration, and the computer management control strategy is employed and the key element of this architecture is the separation of the data and its application. On the other hand, through the ubiquitous communications system and the strategy of the user interaction the effective information is acquired, and the amount of the transmitted data is dramatically decline. We get the data sharing network from the satellite to the ground. This strategy reduces not only the amount of the transmitted images, but the dependence on data transmitting technology, and it lays the foundation for the function expansion, the user increase and the information sharing. This strategy is convenient for the integrated service platform construction on which the data is accepted quickly, processed and applied based on remote sensing satellite, and conductive to the development and utilization of the overall service platform based on the satellite.

Key words: information sharing, information architecture, multi-sensor intelligent integration, computer management control strategy