

Private Remote Sensing System License Public Summary
AstroVision International, Inc.

On January 23, 1995, the National Environmental Satellite, Data and Information Service of the National Oceanic and Atmospheric Administration, an agency of the Department of Commerce, granted a license to AstroVision International, Inc. ("AstroVision"), 11911 Freedom Drive, Suite 500A, Reston VA 20190, 240-395-2410, www.astrovision.com, to operate a private, commercial, space-based, remote sensing system named "AVStar".

The AstroVision system consists of two satellites in geostationary satellite orbit, two earth stations for data downlinks and telemetry, tracking, and command ("TT&C") operations, and one alternate earth station for contingency communications. The satellites will be located at 90° W.L. and 160° W.L. The satellite located at 90° W.L. will provide optimal views of North America, Central America and South America and the satellite located at 160° W.L. will provide optimal views of the Pacific region. The system will operate in the 8025-8400 MHz band for data downlink transmission, and the 2025-2110 MHz band for uplink TT&C operations. Each satellite will have at least one wide-field and two narrow-field cameras plus sensors for near-infrared observation and optical sensors for lightning observation. These cameras will be capable of providing a new image every few seconds, showing the Earth's full disk at a resolution of 5.5 kilometers, and close-up views at a resolution as good as 0.5 kilometer.

AstroVision's AVStar is a unique, patented satellite system for Earth Exploration-satellite Services (EESS), otherwise referred to as Remote Sensing Satellite Systems. These satellite systems will provide the capability for global, persistent surveillance, on demand, 24 hours a day, seven days a week because they are in geostationary orbit (GSO) and therefore provide a set of continuously staring sensors pointed toward any spot on the globe observable from GSO. Because AstroVision's systems will have multiple, independently pointable and steerable sensors on each satellite, they will monitor several, diverse points on the Earth with a single platform.

The systems' 500-meter resolution, coupled with live motion imagery available from sensors with frame rates up through 1 frame per second, will provide day and night persistent surveillance of natural and manmade phenomena. This availability and timeliness will contribute to a wide array of commercial, intelligence and homeland defense requirements and applications, including routine geophysical, meteorological and oceanographic monitoring. The AstroVision system will have five separate sensors on the first satellite and seven separate sensors on the second and subsequent satellites. These sensors will have frame rates as rapid as once per second per sensor and consequently raw, peak, uncompressed, aggregate imagery data rates of up to 1.85 billion bits per second (Gbps). Four of the five sensors aboard the first commercial satellite (and five of the seven sensors aboard the second and subsequent commercial satellites) will be independently pointable and steerable. The pointable and steerable sensors can be independently tasked at subscriber request. Four of the five sensors aboard the first commercial satellite (and six of the seven sensors aboard the second and subsequent commercial satellites) will be operated concurrently.

By exploiting geostationary orbit for our service, AstroVision will provide continuous coverage of the area viewed by the satellite and deliver the information in real time and in color. Our product is a fundamental shift – a disruptive technology – in the immediacy and accuracy of critical information regarding the weather and the earth’s environment.

For further information please contact, Charles R. Wasaff, Chairman, President and CEO, AstroVision International, Inc., 11911 Freedom Drive, Suite 500A, Reston VA 20190, 240-395-2410.