

[Print](#)

SatMagazine.com : December 2010

Year In Review... ASC Signal



With a heritage of more than 40 years in the development of satellite antenna systems, ASC Signal Corporation (which used to be the SATCOM division of Andrew Corporation) designs and manufactures cutting-edge satellite Earth station systems used by broadcasters,

enterprises, and government customers worldwide.

These users actively need very high-quality products that are flexible and capable of being uniquely tailored to meet their specific application requirements. Most importantly in today's environment, ASC Signal's solutions must support the long-term financial and business goals of its clients. ASC's satellite Earth station antenna business offers Earth station antennas ranging in sizes from 3.5 to 9.4 meters, available in every frequency band used in the satellite industry today.

The market depends on ASC's highly engineered systems to fulfill long-standing applications such as satellite-based broadcasting, VSAT networking, and other traditional telecommunications services. At the same time, ASC is also committed to supporting the growth of newer commercial and government/military applications, including Ka-band services and highly mobile communications systems.

One recent trend has been the need for multi-band capable antenna technology, driven by customer demand for flexibility in accessing multiple, recently-adopted frequency plans. ASC has built countless antennas that can be switched from band-to-band simply by changing the feeds. More recently, ASC has been creating products that are multi-band capable in a single feed, eliminating the need for operators to physically switch components. This type of technology differentiates the innovators in the market, as creating more specialized technology supports more efficient delivery of services by operators.

Higher gain is another trend that continues to be an important requirement in Earth station antennas. As customers serve more infrastructure-critical and power-sensitive applications, they require higher quality equipment in the smallest space possible. In-the-field performance tests show that the majority of ASC's antennas provide higher gain than comparably-sized antennas made by competitors.

While many manufacturers, especially in Asia, offer lower-cost alternatives, they do not meet the

quality standards and high-performance benchmarks that users demand today. Along with its line of fixed Earth station antennas, ASC Signal's Trifold™ transportable satellite antenna systems are well known for their high-gain, high-efficiency aperture design and versatility which can be configured for various commercial and military customer applications.



The Trifold™ system continues ASC's tradition of delivering industry firsts to its customers. Research and development has become an important value-added component to Earth station technology, and critical to the business. Investment in research and development helps ensure ASC's antennas perform at a higher level for specific applications.

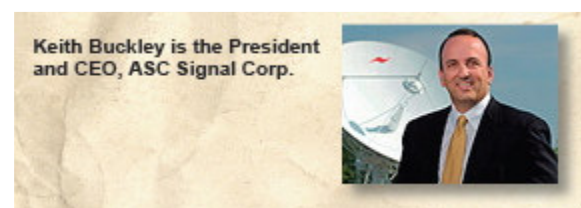
For example, by focusing on broadcasters' specific needs, ASC designed and introduced the 4.5m and 3.7m Earth station antenna products in the early days of the satellite network roll out to meet high-availability requirements across widely varying physical environments. These antennas soon became the industry standard in the entire North American broadcast market. To this day, every major broadcasting network in the U.S., as well as many in Canada and Mexico, use the ASC Signal 4.5m and 3.7m antennas, with ASC supporting thousands of these antennas around the continent.

ASC also makes very specialized equipment and antennas for certain other applications. The recently-introduced Next Generation Satellite Controller (NGC) was developed based on market demand for engineering flexibility and simplicity. The NGC is a satellite antenna controller which can manage all of the various sub-systems within an Earth station or a network of Earth stations. This small, (3RU) modular device provides a central control mechanism over an entire satellite transmission chain and enables monitoring, positioning, and tracking by one person at a single site, or centralized remote monitoring, coordinating and configuring complex user network environments.

The functionality of the NGC can be expanded by simply adding easy-to-implement optional features, either when the mission or the sophistication of the application changes. In addition, the controller can be used with essentially any antenna on the market today, whether from ASC Signal or any other manufacturer, making it available to as many users as possible.

Ka-band technology, one of the frequency bands being utilized more in recent years, has been proven to deliver many advantages to users. ASC Signal began focusing on this newly adopted spectrum more than eight years ago, at the earliest stages of its development. As a result, ASC Signal was selected to help build four of the largest commercial Ka-band infrastructure networks to date: IPSTAR, DirecTV, Wildblue and HNS Spaceway. In European networks, ASC Signal's Ka-band products are also currently in use on SES Astra and Eutelsat systems and the company is continuing to design and manufacture products for other newly-launching services.

ASC has developed many cutting-edge, high-performance features for Ka-band, including a patented sub-reflector tracking (SRT) technology that delivers superior satellite tracking performance. ASC has become a leader in the deployment of new technologies that continue to help build the global Ka-band footprint. ASC Signal will continue to develop and deliver highly-sophisticated antennas



and systems based on the ever-changing technical requirements of its commercial and government/military customers. By being an agile, engineering-focused company, ASC will anticipate and satisfy the demands of the satellite industry for newer, higher-performing antenna products.