

## **TARGET:SAT History**

The concept of TARGET:SAT was derived from the need for a satellite antenna installation instrument that will accurately locate a satellite spacecraft's position in outer space with respect to the proposed antenna's site location. Consumers have a need for an instrument that will allow them to perform this location task independently, without the need for assistance from a professional installer. In addition, professional installers need a simple instrument to help them install antennas for their customers more quickly and more accurately.

Satellite reception requires a line-of-sight location free from obstructions. The satellite electronics of today have tuning meters built inside them to locate the spacecraft's signal, but the unit must be installed completely before this tuning process can begin. All too many times the installer realizes that a location is inadequate for good reception due to obstructions. This requires that the unit be disassembled and reinstalled elsewhere, a time consuming and costly procedure. This trial and error method has proven so costly and frustrating to installers that employee turnover rates are high. In addition, improper installation has resulted in unnecessary consumer dissatisfaction, TARGET:SAT, which has global accuracy, addresses these problems by providing consumers and professionals alike with an easy to use instrument that quickly determines the satellite's location with respect to the proposed antenna site and ensures a clear line of site before attempting installation.

SPACECRAFT TARGETING PLATFORM, accessed from the Alien Works home page, helps you determine the longitude, latitude and magnetic variation of your proposed installation site and calculates the azimuth and elevation needed for proper antenna alignment. A tripod with built-in levels ensures an accurate starting point. State-of-the-art laser manufacturing, along with friction reducing surfaces such as Teflon\* and Nylon\*, allow easy alignment of each coordinate. Using the information obtained at the web site, the angle finder lets you set the elevation and the azimuth dial helps you set the east-west coordinates. The declination adjustment allows the TARGET:SAT to follow the arc of the Clark Belt (where all of the geo-stationary satellites are located) by panning the azimuth pointer from east to west. Dual color graphics on the graduated scales provide precise positioning of each coordinate and a viewing lens allows you to determine whether you have a line of site to the spacecraft free from obstructions. Completing the package is a base that universally accepts all camera and video tripods. A weapons grade laser attachment provides precise ground placement of the antenna mast. Satellite antennas can now be quickly and accurately installed, optimizing reception and eliminating the need for disassembly and reinstallation.