

# The Simple Fact about De-Icing Systems for VSAT's and medium to large Earth Station Antennas

## HOT AIR DE-ICE SYSTEMS

# Heated

Walton Hot-Air De-Icing Systems (plenum closeout), along with our Snow Shield, either Passive, Heated or Ice Quake Systems are not only designed, manufactured, and supplied for the major antenna manufacturer's products, our products are the only De-Icing systems sold and installed by the major antenna manufacturers such as Kratos, CPI, GD Satcom, ViaSat, and Alpha-Satcom. So, while our competitors are trying to decide if they are "Anti-Ice or De-Ice", we are leading the way with our partnerships with the major antenna manufacturers in the technology of "De-Icing" both VSAT's and Satellite Earth Station Antennas.

#### Here's Why

The "Electric Pad De-Icing System" that was used by the major antenna manufacturer's during the C-band era was all but obsolete when the advent of Ku-band antennas came along in the early 80's. The pad technology would only heat the antenna reflector and not the reflector's back structure, causing movement in the alignment of the reflective surface causing attenuation in the signal and a loss of gain. This loss in performance was not acceptable for the antenna manufacturers or their customers, thus the Hot-Air De-Icing System became the accepted solution for evenly heating both the antenna reflector and reflector's back structure. The end users also enjoyed the aesthetically pleasing looks of the plenum (close-out) rather than thin aluminum foil, foam, and wires hanging from the back of their antenna.

### Why Walton Hot-Air?

The Hot-Air De-Icing System is playing even a more important role today with the advancements being made with Ka-band antennas where the alignment of the reflector and back structure is more important than ever. Why install an Anti-Icing System which the major antenna manufacturers would not even sell to you due to degrading effects on signal performance?

Visit our product pages to learn why Walton De-Icing solutions are the only systems on the market that antenna manufacturers rely on to meet their performance requirements.

#### Walton De-Ice, Hot Air De-Ice

The Walton Hot-Air De-Ice system is designed to prevent accumulation of snow and ice on the Earth Station Antenna. There is a plenum (enclosure) located at the rear of the antenna and heaters located on the antenna structure. The heaters provide hot air for inside the plenum, which heats the reflector surface to remove or prevent ice and/or snow from accumulating.

Unlike electric pad or heat tape anti-ice systems the Walton Hot-Air De-Ice System heats the entire antenna reflector and back structure uniformly. This minimizes the chances of reflector distortion which can cause signal problems caused by thermal expansion and contraction.

#### **Key Features**

- Prevents the accumulation of snow or ice
- Fully encloses the reflector back structure with aluminum sheet sided foam panels with an aluminum frame
- DS-4C Precipitation Detector and DP-7EX Remote Panel included
- Includes one hundred feet of IFL interface cable

\*Page from the ASC Signal ESA catalogue.