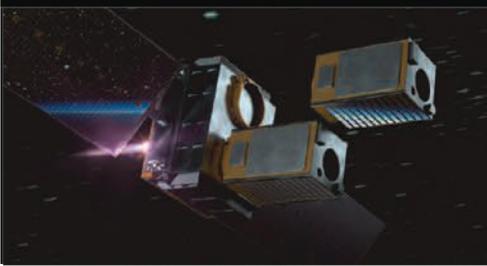


Worldwide Satellite Magazine

SatMagazine

Year in Review – December 2020



**INFRASTRUCTURE
SERVICES** FOR THE GROWING
SPACE ECONOMY



Despite the huge challenges of the pandemic this year, at W.B. Walton Enterprises, Inc. (Walton De-Ice), we have been inspired by the humanity and resiliency of our customers, partners, colleagues and families. We are grateful for the privilege of continuing our fourth decade delivering the most innovative and effective solutions to help protect critical satellite networks from degradation and outages due to weather.

The Leader in Antenna Weather Protection Systems

Our core business at Walton De-Ice has been keeping Earth station antennas snow and ice-free with **HOT AIR DE-ICE** systems. We also address more than de-icing weather challenges alone. The Walton **PORTABLE RADOME** protects antennas and equipment from high winds, sandstorms, intense sun and heat. Walton **RAIN DIVERTERS** keep signal-busting water out of antenna apertures. **RAIN QUAKE** systems reduce water sheeting and antenna wetting attenuation, boosting Ka-Band performance.

C-Band 5G Transition with US

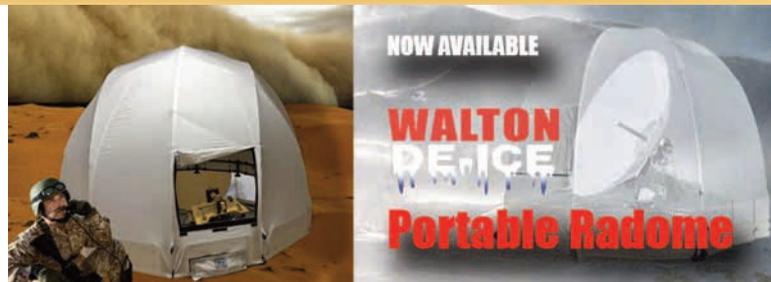
The FCC decisions around the C-band 5G transition this year have the company seeing requests for large projects and requirements for many de-icing systems to accompany retrofits of C-band ground infrastructure. C-band networks and affiliates should remember to include De-Icing in C-band antenna retrofit budgets in areas prone to snow, especially when FCC incentive funding is available.

Walton's Hot Air De-Ice, **ICE QUAKE** and **SNOWSHIELD** systems help maximize uptime for critical satellite signals at major TV broadcast centers for leading TV programmers, as well as DBS, cable, telco, and mobile network operator head ends.

For large uplinks, the original **WALTON PLENUM HOT AIR DE-ICE** design mounts behind C-/Ku-/Ka-/X-/L-band antennas in sizes from 3.7 to 32 meters. Unlike competing anti-icing solutions, such as electric pad systems that can cause reflector distortion and outages, Walton Hot Air De-Ice systems heat the entire antenna reflector and back structure uniformly, ensuring Ku-/Ka band uptime.

Walton systems also uniquely offer maximum flexibility with electric, natural gas and liquid propane gas heater options. For even the most demanding Ka-band tolerances, our Infrared testing of antenna heating distribution validate our products' optimal and superior performance.

Walton's energy-saving **SNOWSHIELD**, and **ICE QUAKE** systems for 0.6 to 6.3 meter antennas have been field-proven to deliver the most cost-effective protection from ice and snow for hundreds of major cable and broadcast affiliates' satellite antenna farms. The ICE QUAKE system, a super-low energy



consumption solution for shedding snow off antennas from 0.6 to 6.3 meters, can deliver up to 100X energy-savings when compared to traditional anti-icing solutions, which is why it has been adopted in teleports, and cable and broadcast facilities worldwide.

Ensuring Customer Service

In 2020, despite pandemic challenges, we have continued to provide field installation and support services at many customer sites. We implemented safety measures to protect our employees and customers while maintaining production and customer support.

Customers can also leverage remote control features such as IP monitoring and control of their Walton systems if required when teleworking, for example, while pandemic worker safety restrictions are in effect. In 2021, we aim to get the word out more about our latest monitoring and control capabilities.

Portable Radome Traction in Defense Markets

As a U.S. Veteran-owned small business (CAGE Code 5Z770) manufacturer, we remain committed to serving U.S. Government requirements, whether via any of our prime contractor/systems integrators, distributors, or directly.

This year, Walton began shipping its re-designed **PORTABLE RADOME** — see the sidebar on the following page.

The new design offers expanded, full satellite-arc, line-of-sight protection for ground antennas, such as LEO gateways and MEO terminals for HTS, in addition to GEO. The **PORTABLE RADOME** provides a uniquely deployable weather protection solution for applications such as military vehicular mount terminals, Coms-on-the-Pause (COTP) terminals, VSATs, Transportable uplinks, Enterprise terminals as well as LEO/MEO gateways.

In 2020, multiple major Department of Defense (DoD) contractors ordered these units, in sizes up to 18' x 12', and we supported installations in military facilities in CONUS for several systems. These 2020 customer wins are in addition to **PORTABLE RADOME** shipments during 2019 for the U.S. Air Force, as well as deployments with two other major U.S. Federal contractors, and a European defense agency in separate customer projects.

The Portable Radome Solutions

Traditional antenna radomes are not built for transportable operation. Yet many of today's military and first-responder applications on land require deployable systems where harsh elements demand radome-like protection. The Walton PORTABLE RADOME unleashes a whole new set of possibilities for operating transportable satellite terminals (TST) and VSATs in extreme and mobile conditions to support civil or military requirements for high capacity data, voice and video capabilities worldwide.

The Walton PORTABLE RADOME can protect transportable, trailer and flyaway antennas from extreme conditions — snow, ice, intense heat, gale force winds (e.g., 85 miles per hour), hailstorms, and sandstorms — for operation in climates ranging from alpine to desert. The PORTABLE RADOME can also be used for fixed site ground networks, and deliver gateway site cost-savings and other advantages. Lightweight and airline-shippable for rapid deployment, with easy setup in less than an hour by one person,

Walton's PORTABLE RADOME goes where no radome has gone before to help urgent mobile terminals and VSATs stay online. Unlike our RF-friendly radome, some proposed substitutes actually have to open up a flap to allow RF signals to pass with their solution.

The PORTABLE RADOME uses architectural PTFE fabric material proven to deliver "no-leak" protection under heavy sand-blast conditions, unlike proposed substitutes such as cloth tents. Walton radome material withstands fine sand concentration (0.1-20 g/m³) blown at up to 134 mile-per-hour intensity without damage. This ensures that antennas and electronics under the radome are protected, even in intense sand-blasting winds that can rip apart tents.

In burning desert sun heat conditions, an efficient forced air/HVAC system can be added to protect RF and electronics equipment underneath a Walton PORTABLE RADOME from overheating damage.

The PORTABLE RADOME, SNOWSHIELD, and ICE QUAKE all use unique PTFE architectural fabric that is permanently resistant to ultraviolet (UV) light and weather. As a result, Walton customers enjoy performance and total-cost-of-ownership advantages over antenna covers that use inferior materials, which degrade quickly unless removed and cleaned seasonally.

Looking Ahead

In spite of the very real challenges in our customers' markets, we are hopeful that the promise of vaccines and a general economic recovery in 2021 will restore industry demand with renewed vigor. Hunger for bandwidth will continue to drive the need for satellite capacity and services from traditional GEO and Ka-band HTS customers that demand our products today. We are excited about the prospects of LEO/MEO programs for the industry.

Constellations such as *Starlink*, *Telesat LEO*, and Amazon's *Project Kuiper* are making technical and business progress, despite *OneWeb*' setbacks this year. These systems will have ground antennas that require weather protection, which in turn creates demand from our customers for new solutions, an example being our radome products.

At Walton De-Ice, we look forward to partnering with our customers to develop and build even better ways to protect antennas and signals from the elements, whether for LEO, MEO, or GEO requirements.

de-ice.com

Author Ray Powers is Director of Sales & Marketing for W.B. Walton Enterprises, Inc. ("Walton De-Ice") the world's leading designer and manufacturer of satellite Earth Station Antenna (ESA) weather protection systems deployed globally. He has been with the company since 2010. Contact Ray at: sales@de-ice.com.



**Protect Your
Earth Station Antennas
from Ice, Snow, Rain, and more**

**WALTON
De-ICE**

WINTER IS COMING ARE YOU READY?

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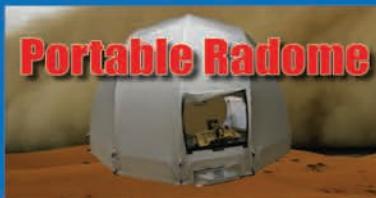


Ice Quake



Sheds off snow before ice forms. Huge — up to 100 X — energy savings compared to conventional systems. 0.6 to 6.3 meters.

Portable Radome



Protect LEO/MEO/GEO terminals from heat, sand, snow, ice & more. Operate in extreme conditions — up to 85 Mph winds. Rapid setup. Flyaway system.

Snow Shield



Heated or Non-Heated antenna cover options. Electric, Liquid Propane, or Natural Gas De-Icing.

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