

Doubtless, history will record 2020 as the year of Coronavirus, the year in which Covid wreaked havoc on communities, economies and the overall health of the world.

EM Solutions, although fortunate to have a large pipeline of product orders booked at the start of the year, was challenged by the international travel restrictions that began in March. The team had to fall back on the relationship credit they had built up with customers over many years, when freedom to travel was a right that was taken for granted.

Unable to meet in person, EM Solutions' customers throughout the world continued to trust us to build and deliver quality satellite terminals and subsystems to exacting military specifications.



Trusted relationships and proven commitment have been the keystones that have enabled EM Solutions to not only survive, but once again grow, during the Covid crisis.

EM Solutions' **Cobra** maritime terminals (*Figure 1, next column*) continued to underpin the company's growing business. Covering three frequency bands (military Ka-, commercial Ka-, and X-bands), and with superior tracking and pointing capability, these terminals are now on order or in use with six of the world's greatest navies.

These maritime terminals are **WGS** and **Inmarsat GX** certified and have been delivered for installation on the *Royal Australian Navy's* newest *Offshore Patrol Vessels*, having already proven themselves on their Cape, Supply, and Anzac class vessels.



Figure 1. EM Solutions Cobra terminals.

Others are on their way to some of the leading European navies, as well.

The company also released its new *Antenna Diversity System (ADS)* (*see Figure 2 on the following page*). The ADS enables single-look or dual-look operation to satellites from a pair of ground terminals, by switching between them when the ship or vehicle orientation blocks visibility from one of the pair.

The ADS is a highly sophisticated system that brings resilience in satellite communications to a new level.





Figure 2.

Reaching the final design stage of its new 2 meter Fleet maritime terminal— already pre-ordered by three navies, for build and delivery in 2021 — was another milestone for the company. This new terminal is unique; it is a full Mil-Spec satellite terminal that simultaneously covers both X-band and the entire (commercial and military) Ka-band spectrum.

With features such as optical fiber interconnect and built-in redundancy options, the Fleet terminal will be an exciting new addition to the communications portfolio of many naval customers.

EM Solutions is renowned for its technical expertise and the seamless, vertical integration of its terminals. In 2020, the company continued to develop and deliver its receivers (LNBS) and transmitters (BUCs) to various customer specifications, and with its new broadband Ka-band transceiver, won a several hundred-piece order late in the year for a US manpack terminal.

The frequency coverage and ability to meet demanding WGS specifications made EM Solutions a natural choice for this customer.

Two of EM Solutions’ biggest advantages have been its flexibility and innovation and these haven’t waned. Innovation occurs by building on the shoulders of giants that have gone before... The real giants in the innovation puzzle are those customers who embrace innovation and are prepared to fund its development. Such customers push the technology envelope and drive innovation by demanding specialized requirements, new features, and performance improvements.

As a difficult 2020 draws to a close, EM Solutions salutes its customers — they are the real heroes!



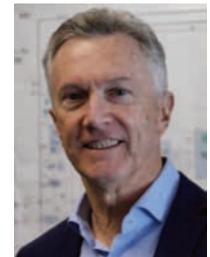
EMS Cobra Terminal.



EMS Taipan Terminal.



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Brisbane, Australian based technology developer of mobile satellite communications subsystems and terminals. Rowan graduated from the University of Queensland (UQ) and later earned his doctorate in electrical engineering from Washington University in St Louis, Missouri. Since joining EM Solutions in 2011, the company has quadrupled its revenues and won a number of prestigious awards, including the 2016 Brisbane Lord Mayor’s Business Award for Innovation and the 2018 Australian CASG Defence SME of Year Award. The company exports over half its products, which are in use by customers including six of the world’s leading navies in Australia, North America, and Europe.



EMS Taipan 48 Land Terminal.