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## ${\rm Ranger}^{{\rm \scriptsize C\!O}}$ - An Affordable, Advanced, Next-Generation, Dual-Pol, X-Band Weather Radar

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The Enterprise Electronics Corporation (EEC) Ranger<sup>©</sup> system is a new generation, X-band (3 cm), Adaptive Polarization Doppler Weather Surveillance Radar that fills the gap between high-cost, high-power traditional radar systems and the passive ground station weather sensors. Developed in partnership with the University of Oklahoma Advanced Radar Research Center (ARRC), the system uses relatively low power solid-state transmitters and pulse compression technology to attain nearly the same performance capabilities of much more expensive traditional radar systems. The Ranger<sup>©</sup> also employs Adaptive Dual Polarization (ADP) techniques to allow Alternating or Simultaneous Dual Polarization capability with total control over the transmission polarization state using dual independent coherent transmitters.

Ranger<sup>©</sup> has been designed using the very latest technology available in the industry and the technical and manufacturing experience gained through over four decades of successful radar system design and production at EEC. The entire Ranger<sup>©</sup> design concept emphasizes precision, stability, reliability, and value using proven solid state technology combined with the most advanced motion control system ever conceived for weather radar. Key applications include meteorology, hydrology, aviation, offshore oil/gas drilling, wind energy, and outdoor event situational awareness.