Baron has released its next generation of radar systems (Gen3) which incorporates improvements to the dual polarization design provided to the US National Weather Service, Department of Defense, and Federal Aviation Administration as part of the NEXRAD Dual Polarization Upgrade program. The system also incorporates Baron’s all new signal processor with four channel 16 bit IFD. The Gen3 radar is offered in multiple configurations including X, C, HiS and S band frequencies, peak output powers of up to 1000KW, using klystron, magnetrons, and solid state in single and dual polarization configurations. Fixed, transportable, and mobile solutions are also available. This presentation will provide an overview of the radar system, discuss the unique leaps forward in benefits and advantages of this new system including: 1) Baron patented dual pol calibration techniques that even takes into account weather over the radar which is a major advancement on the calibration system delivered to the US NWS. 2) CLEAN-AP© adaptive clutter suppression algorithm under an exclusive world-wide license agreement with Oklahoma University. 3) Baron’s Open Data System -- Baron’s architecture uses a publisher/subscriber data format to provide open data access for developers who want access to data at various points in the processing chain. and examine the improvement in data quality and product availability.