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NEXRAD In Space (NIS): An update concerning hardware development

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The proposed NEXRAD in Space (NIS) satellite is a geostationary platform carrying a Ka-band Doppler radar designed for monitoring hurricane behavior at sampling times of up to 15 minutes. An overview of the proposed system was presented at the 2007 Precipitation Science Symposium in Vienna, at which time a number of concept, software, and hardware elements of the study program had been completed – including prototyping of various of the hardware elements. The project is now developing prototypes of various advanced engineering components, particularly associated with the very large antenna system (35 m diameter) required for obtaining useful spatial resolution from geostationary satellite altitude. These latest hardware developments will be presented.