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### Validation of AMSR-E Soil Moisture Products Using In

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#### **Abstract**

Soil moisture is an important water cycle variable. The Advanced Microwave Radiometer for the Earth Observing System (AMSR-E) program was a soil moisture algorithm development and validation program that developed standard products. A key aspect of the program was the inclusion of algorithms with continuing evaluation. One approach is the single channel that utilizes the AMSR-E channel with maximum sensitivity in combination with data on vegetation conditions. Over the course of the AMSR-E program, algorithms have been developed and improved. A critical component of providing a product is its validation. As part of the AMSR-E validation program,

validation sites were developed. These networks provide estimates moisture over watersheds and surrounding areas that approximate footprint. Measurements have been made on a continuous basis since and JAXA standard soil moisture products were compared to the results along with SCA. The results indicate that each algorithm has differences that depend upon the site and that there is much room for improvement adopted by JAXA and NASA. They also illustrate the potential pitfalls without caution.

Keywords: [soil moisture](#), [passive microwave](#), [remote sensing](#)

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