

# Abstracts

## Historical perspectives on commercial and nonmilitary government space applications of microwave systems in the Baltimore/Washington area

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G. Hyde. "Historical perspectives on commercial and nonmilitary government space applications of microwave systems in the Baltimore/Washington area." *1998 Transactions on Microwave Theory and Techniques* 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2196-2201.

The Baltimore/Washington area has made significant contributions to commercial and nonmilitary government space applications of microwaves. These cover a wide swath extending from R&D laboratory items, basically experimental/proof-of-concept, to space-qualified microwave hardware, subsystems, and systems that were launched and operated in space, to operational Earth terminal subsystems. Microwave efforts also included elements in the design of communications satellite systems, satellite payloads and hardware, and satellites for remote sensing, their payload and some hardware, and radiowave propagation on the slant (Earth-satellite) path. Unique contributions include the Applied Technology Satellite-6 (ATS-6), the discovery and characterization of gigahertz ionospheric scintillation, possibly the first electronically steerable phased array and the invention and implementation of the waveguide multimode filter, the first space-qualifiable monolithic-microwave integrated-circuit chips and subsystems, state-of-the-art altimeters, possibly the first Cesium clock for space and the first high Tc microwave filter.

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