Early in October, Cardion Electronics, Inc., a unit of General Signal Corp., along with a sister unit occupied a new plant in the Nassau Cardinal Industrial Park at Woodbury, Long Island, N. Y. The 50,000-sq-ft building has 10,000 sq ft of space for administrative, sales, and executive offices, 20,000 for the engineering area, and 20,000 for production space. By removing the rear wall the building can be expanded to a total of 110,000 sq ft. The building and parking area occupy 5 acres of a 10-acre site with the remaining acres intended for future expansion.

Current projects at Cardion include the design and manufacture of weather radars, air transportable radars for military air traffic control, runway visual range computing systems, temperature and dewpoint measuring equipment, and scan conversion radar display devices. Complete microwave and telephone communication systems are being designed and produced.

Beating the Department of Commerce by 12 days, the College of Agriculture, Rutgers University, changed its name to College of Agricultural and Environmental Science, thus giving better recognition to the Department of Meteorology within its compass.

International Symposium on Forest Hydrology
David H. Miller, University of Wisconsin-Milwaukee

A number of interesting meteorological questions were discussed at the recent International Symposium on Forest Hydrology, organized by the School of Forestry of The Pennsylvania State University, with the support of the National Science Foundation and the cooperation of the Northeastern Forest Experiment Station and the International Association of Scientific Hydrology of the IUGG. The length of the symposium, from 29 August to 10 September, permitted presentation not only of twenty national reports, but also of nearly sixty reviews and technical papers, and several discussion meetings that were sparked by the fine representation from abroad, which included Penman, van Wijk, Baumgartner, and others associated with radiation and evapotranspiration.

Among problems of meteorological interest that came up repeatedly were those of our ignorance of the radiation budget and aerodynamics of crowns and forest openings. The complex boundary layer formed by a forest is the locale of such atmospheric transports as those of vapor and intercepted snow from the foliage, and of microadvection of heat that brings energy for change of state of water, whether this be the melting of intercepted snow, vaporization of intercepted rainwater, or vaporization of water drawn through the trees from the soil. It became clear that our few measurements in the lower atmosphere above forest of delivery of water to it from above or of the turbulent flows of vapor and sensible heat into or out of it, need to be multiplied; measurements in open areas are not adequate substitutes. Hoover re-analyzed older measurements in the Rockies and found that creating openings did not change the gross delivery of snow to the drainage basin; it is impossible to measure delivery only by gages in the openings.

The advection of sensible heat and the large addition that it makes to the radiation budget, as it occurs both on a microscale within the foliage and on a mesoscale between tree groups and other land-use types, seems to be due to receive the attention that advection is receiving in agricultural situations. A great deal of interest was displayed in the puzzle whether intercepted rainwater replaces transpiration or not, and what might be the source of energy for its observed quick vaporization.

Related with these questions was concern about our relative ignorance of the dimensions and patterns of the exchange surfaces in experimental sites. A forest canopy presents a complicated boundary surface to the air flowing over it, and some understanding of its nature is necessary both to interpret experiments and to evaluate their meaning for large drainage basins, in which the cover may not be uniform but rather a complex mosaic of forest and lower vegetation. Pleas were made for better meteorological measurements in the simpler experiments with paired basins (one a control, one "treated"), in order to transfer results.

Forest meteorology is a smaller segment of science than forest hydrology, and it is interesting that most of the forest meteorologists outside the Soviet Union and France were present at the symposium, including Baumgartner, Knoerr, and Reifsnyder. As meteorology gives more attention to the underlying surface, the importance of arboreal measurements and research will increase. It is good to know that some of this concern is already being expressed by workers in hydrology.

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