National Symposium on Latest Developments in Multifunction Phased Array Radar

Multifunction phased array radar, a promising technology that has the potential to scan the atmosphere more than five times faster and with higher spatial resolution than present systems, was the focus of a symposium held 10-12 October 2007 at the National Weather Center in Norman, Oklahoma. A pre-prototype of this type of radar is part of the National Weather Radar Testbed operated by NOAA's National Severe Storms Laboratory (NSSL). Researchers are currently testing the technology and preliminary results indicate the radar's rapid scanning capability will greatly improve decision support tools in a variety of hazardous weather situations (examples available at http://www.cimms.ou.edu/~heinsel).

Hosted by NSSL, the symposium was sponsored by the Office of Science and Technology Policy, Committee on Environment and Natural Resources, Subcommittee on Disaster Reduction, and the Office of the Federal Coordinator for Meteorology (OFCM). "The symposium aims to advance the state of MPAR research and development and to further document the needs of the radar user community," said Samuel P. Williamson, federal coordinator for meteorology. The agenda included formal presentations, senior-level panel discussions and exhibits of the latest phased array radar technology.

The capability of MPAR to provide weather and aircraft surveillance simultaneously makes this technology an attractive choice for replacing legacy radar systems. The Federal Aviation Administration (FAA) is interested in MPAR technology to provide weather and backup aircraft tracking information near major commercial airports. Mary Glackin, Deputy Under Secretary of Commerce for Oceans and Atmosphere noted, "Phased array radar has the potential to be the next and most significant technological advancement to improve our nation's essential weather, aviation, defense, and homeland security services."

The symposium also highlighted the social and economic benefits from MPAR risk reduction research. In particular, the need to improve peoples' capacity to adapt when exposed to weather-related hazards was discussed. The impacts of the weather on people and the economy (e.g., agriculture and energy resources) are escalating owing to exponential growth of the United States population along our coasts and in regions with limited water resources. The effective use of MPAR technology has the potential to address these issues by increasing lead-time and reducing the uncertainty of forecasts and warnings.

Additional information about the symposium and MPAR technology is available on the Web:

- Symposium information: http://www.ofcm.gov/mpar-symposium/index.htm
- NOAA National Severe Storms Laboratory: http://www.nssl.noaa.gov
- Office of the Federal Coordinator for Meteorology: http://www.ofcm.gov

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