



The University of Oklahoma

COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES

6 July 2011

Mark Paese, NPMC Chair
1325 East West Hwy, Rm 16208
Silver Spring, MD 20910

Dear Mr. Paese,

During its March 2011 meeting, the NEXRAD Technical Advisory Committee (TAC) was pleased to receive an update on the WSR-88D Dual Polarization (DP) Upgrade project. The TAC continues to be excited about the potential benefits DP data can provide to the field forecaster. The TAC was also shown results from the August 2010 Operational Assessment of DP data that clearly show operational forecasters are very excited about the new DP upgrade. The forecasting teams look forward to the development and use of new techniques using new DP data and products to enhance (optimize?) warning and forecasting operations.

As with any new technology, there will be new discoveries and challenges once DP is deployed to the field. The TAC believes strongly that to maximize the return on the taxpayers' investment in the deployment of the DP upgrade, there must be a significant, sustained effort to continuously improve DP data quality. Past history assures us, this can only be achieved through transitioning advances in science through further development and deployment of DP algorithms that are linked to prompt responses to the challenges and opportunities that fielded DP capability reveals during operations. This approach has served the NEXRAD system well from its earliest days, resulting in the best weather surveillance radar network in the world.

Consequently, the TAC is extremely concerned that NEXRAD Product Improvement (NPI) funds will not be available in future years to address critical DP challenges, or to continue overall improvement of the NEXRAD system. As just two examples of critical NPI work not currently funded, consider 1) the need to optimize the DP precipitation algorithm performance for various climate regimes around our nation and 2) the validation of logic to mitigate local terrain effects on the radar's energy.

The TAC strongly recommends that appropriate resources be committed to continue the NPI Program to ensure the continued enhancement of DP data and algorithms to fully leverage the Nation's \$56 million investment in the initial DP capability.

Sincerely,


JOHN SNOW

Chairman, Technical Advisory Committee

cc:

Don Berchhoff
COL John Shepley
Alfred Moosakhanian
Richard Vogt
Greg Cate
LTC Stephen Cocks