

TERMS OF REFERENCE

INTERDEPARTMENTAL COMMITTEE FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH

COMMITTEE FOR COOPERATIVE RESEARCH

JOINT ACTION GROUP FOR PHASED ARRAY RADAR PROJECT (JAG/PARP)

1. REFERENCES

Reference documents can be viewed and/or downloaded from the OFCM Phased Array Radar Project web site at: http://www.ofcm.gov/phased_array_radar/phased_array_radar_index.htm

2. BACKGROUND

The Joint Action Group for Phased Array Radar Project (JAG/PARP) is part of an effort underway within the Office of the Federal Coordinator for Meteorology (OFCM) to respond to direction provided by the Federal Committee for Meteorological Services and Supporting Research (FCMSSR) and Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) in regards to identifying and documenting the potential needs and benefits of the Federal agencies that phased array radar and an adaptive radar sensing strategy would address, and integrating those identified needs into a multiagency coordinated R&D plan that would help focus National Severe Storms Laboratory (NSSL) and other R&D efforts on meeting agency needs. Phased array radar technology could provide greater capability in support of homeland security and for aircraft tracking, improved weather detection, and improved quantitative precipitation estimates. The vision is to move from the current situation of “Warn on Detection” to “Warn on Forecast and Detection” through the use of new radar technologies and techniques.

During this phase, the JAG/PARP shall be the principal agent within the OFCM coordinating infrastructure for (1) identifying and documenting the potential needs and benefits of the agencies that phased array radar and an adaptive radar sensing strategy would address, and (2) integrating those identified needs into a multiagency coordinated R&D plan that would help focus NSSL’s and other’s exploratory research on adapting phased array radar (PAR) technology to weather radar surveillance and other agency needs. The current NEXRAD program activities (initially fielded system, NEXRAD Product Improvement Program initiatives, and sustaining engineering program) are expected to extend the useful life of the NEXRAD (WSR-88D) until at least 2020. Beyond 2020, new radar technology and obsolescence of major radar components and facilities infrastructure may require a wholesale replacement of the network with a different technology. Phased array radar is the only new radar technology currently on the horizon...offering a potential breakthrough capability and cost savings.

Operational and research needs and requirements will be documented in a research and development plan (i.e., the Phased Array Radar R&D Plan) and submitted through the Federal Coordinator and the ICMSSR for final disposition.

3. PURPOSE

Action Item 2004-1.1 from the May 14, 2004, meeting of the Interdepartmental Committee for Meteorological Services and Supporting Research tasked the Federal Coordinator to (1) work with the Federal agencies to form a Joint Action Group for Phased Array Radar Project (JAG/PARP) of stakeholder agencies; (2) identify and document the potential needs and benefits of the agencies that phased array radar and an adaptive radar sensing strategy would address; and (3) integrate those identified needs into a multiagency coordinated R&D plan that would focus R&D efforts on meeting agency needs.

The plan should also identify key benefits, and constraints that must be overcome, and should not be limited to solely weather applications.

The JAG/PAWRP will:

- a. Review applicable documents/references on the reference web site listed in para 1.
- b. Develop a questionnaire for use by all agencies to help determine their full set of radar needs, requirements, and expected benefits to assist in determining current capabilities available to meet their operational needs, any unmet needs, and research and development needed to fill the unmet needs.
- c. Using the questionnaire, contact all Federal agencies that might be stakeholders in this project, because they may need the improved severe weather and aircraft tracking or other capabilities the phased array radar may offer, to gather data to assist with completing a list of operational and research needs.
- d. Develop a methodology for characterizing and prioritizing the research and technical needs, and for linking those needs to stated operational requirements. The analysis of the collected questionnaire data should provide valuable input into this process.
- e. Consult with subject-matter experts as required (based on the needs of the JAG members).
- f. Develop a comprehensive plan to document the operational, research, and technical weather radar needs of the Federal agencies. The plan should prioritize the most pressing R&D needs and provide a roadmap to address those needs within the OFCM coordinating infrastructure.

4. MEMBERSHIP

- a. Membership will be drawn from all Federal agencies that are stakeholders in needing the improved capabilities phased array radar may offer; each agency will be invited to provide a primary and alternate member. The JAG/PARP will be augmented as needed by non-Federal personnel to provide subject-matter or other expertise.

JAG/PARP membership will be coordinated through the Office of the Federal Coordinator for Meteorological Services and Supporting Research.

- b. Cochairpersons will be selected by the Federal Coordinator.
- c. The Federal Coordinator will provide the Executive Secretariat.

5. PROCEDURES

- a. Meetings shall be called by the Cochairpersons and shall normally be convened in facilities provided by the Federal Coordinator. A final agenda item for each meeting will be to establish a tentative date for the next meeting. Dates and agenda will normally be finalized 2 weeks prior to meetings. The JAG will normally meet monthly until its business is completed.
- b. JAG decisions will be by unanimous agreement of all members whose agencies are stakeholders in the decision. Members may abstain from voting without prejudice to the decisions of the JAG. Members may reserve their position pending agency clearance or instructions. Decisions may be reached in formal session or through correspondence (including e-mail) circulated to the members by the Cochairpersons or the Executive Secretary (on the Cochairpersons' behalf).
- c. If all members whose agencies are stakeholders in the decision are unable to reach agreement, the Cochairpersons will report the matter, with full documentation, to the Committee for Cooperative Research.
- d. Action items will be reviewed and agreed upon at each meeting. The Executive Secretary will send the draft action items to the JAG members to review and comment within five working days after a meeting. The Executive Secretary will document the action items along with other major decisions in a brief, informal record of actions (ROA) within 30 working days after a meeting. This record, which may be distributed by e-mail, may also include copies of presentations and other important documentation.
- e. Amendments to these Terms of Reference (TOR) will be approved by the Committee for Cooperative Research.

6. REPORTS AND RECORDS

- a. The JAG shall prepare reports and publications identified in this TOR and others as requested by the Committee for Cooperative Research.
- b. Reports of the JAG will be considered as guidance documents for use by NSSL and other agencies as they work to meet their radar requirements. The endorsement of the JAG reports by JAG members in no way implies an agency will provide resource support for the suggested R&D activities.

c. Records of the JAG shall be maintained in the Office of the Federal Coordinator for Meteorology.

7. TERMINATION

The JAG will complete its assigned tasks by the end of FY05 and shall be terminated by the Committee for Cooperative Research unless additional tasks are assigned.

James B. Harrison
Executive Secretary, ICMSSR

2/2/05
(Date)