CHARTER

NEXRAD Technical Advisory Committee (TAC)
Updated: May 19, 2015

1. PURPOSE AND SCOPE

This charter prescribes the tri-agency policies for the conduct of the Next Generation Weather Radar (NEXRAD) Technical Advisory Committee (TAC).

2. BACKGROUND

a. The NEXRAD Program

The NEXRAD program is a joint Department of Commerce (DOC), Department of Defense (DoD), and Department of Transportation (DOT) effort to develop, procure, install, and operate dual polarization Doppler weather radar (WSR-88D) systems. Through the application of dual polarization Doppler radar principles, technology, and computer algorithms, the WSR-88D mission includes the detection of hazardous weather (high winds, flash flooding, severe thunderstorms, tropical cyclones, and winter weather), improved water resources management, increased weather warning lead time, identification of aviation hazards, and the provision of the automated exchange of digital weather radar data.

b. TAC History

The original TAC began functioning on an ad hoc basis during 1980 and was officially chartered in 1981. The charter called for the TAC to recommend sources for research and development (R&D) support, recommend action on R&D proposals (i.e. new technologies and algorithms) received from the laboratories, comment on R&D support progress, and comment on the Joint System Program Office (JSPO) progress in meeting the automation goals of the Joint Operational Requirements document. In pursuing this charter, the TAC identified and prioritized NEXRAD technical needs, contributed to the NEXRAD R&D plan, identified technologies and algorithms which might meet the technical requirements, and recommended how to proceed with technology and algorithm development. The TAC was reconstituted by a revised charter signed in January 1991. That charter was further revised in August 1993, September 1995, and October 2002.

c. Radar Operations Center (ROC) Responsibilities

The ROC is responsible for the operational support of the WSR-88D system. This includes maintenance and enhancement of technology and algorithms upon Configuration Control Board (CCB) approval from the Program

Management Committee (PMC), but it does not permit the ROC to engage in basic research directed at developing new technologies or algorithms. Basic research will continue to be an agency responsibility carried out as determined by each agency (i.e. MOUs with NSSL, NCAR, etc). The ROC will be responsible for the coordination of tri-agency research efforts.

3. NEXRAD TAC

3.1 Purpose

a. Update Technical Needs

The TAC began with an assessment of the IOC against the list of technical needs identified in the March 1983 issue of the NEXRAD R&D plan. Technical needs satisfied by the initial operating capability (IOC) were deleted while those not satisfied were retained. Since then, new technical needs have been added to the list. In the future, new technical needs will be added as required and removed when the need is addressed or no longer required. The TAC will assist with identifying technical needs, as well as emerging technologies potentially suitable for solving those needs. The TAC will review the list of technical needs on an annual basis and provide the list to the PMC for approval.

b. Prioritize Technical Needs

The TAC will prioritize technical needs, giving consideration to the feasibility of the R&D required. This process will involve discussions with individuals and groups actively contributing to radar R&D.

c. Survey Research Community and Request R&D Technical Proposals

The TAC will periodically survey the state of meteorological radar research for the purpose of identifying new technologies that may address the technical needs. When deemed appropriate, the TAC will work with the ROC to publish a prioritized list of technical needs to R&D organizations and field users.

d. Evaluate R&D Technical Proposals and Advise the ROC and PMC

The TAC will evaluate the technical merit of R&D proposals (i.e. new technologies and algorithms). Each member will consider the impact of a proposal upon the missions of the agency (DOC, DoD, DOT) he or she represents. As part of these evaluations, the TAC may solicit technical advice from sources outside the NEXRAD program. The TAC will recommend those proposals suitable for implementation into the WSR-88D. Such recommendations will be forwarded to the Software Recommendation and Evaluation Committee (SREC) for prioritization and to the ROC and PMC for

final consideration. Dissenting opinions may be expressed through minority reports, which will also be forwarded to the PMC.

3.2 Membership

a. Committee

The NEXRAD TAC will consist of 10 to 16 members: a nonvoting chairperson, a nonvoting executive secretary, two or four NWS voting representatives, two or four DOT voting representatives, two or four DoD voting representatives, and two voting members at-large. The voting on issues will be recorded.

b. Chairperson

The chairperson will have a 2-year term with renewal upon mutual agreement of the PMC and the chairperson. The PMC will select the TAC chairperson. The chairperson will preside over the TAC meetings.

c. Executive Secretary

The chief of the ROC Applications Branch will serve as the executive secretary. The executive secretary will:

- Set meeting times and agenda
- Arrange for a meeting place
- Coordinate a list of meeting observers
- Compile meeting minutes
- Distribute meeting minutes after approval by TAC members
- Record votes on issues and forward the recommendation (including any minority recommendation) to the ROC, SREC, and PMC as appropriate
- Poll laboratories and field offices for presentations on near-term advanced development

d. Members

Each agency PMC member will appoint up to four members and inform the executive secretary of the appointment(s). Half of the agency members will have operational backgrounds and must be currently employed in operations. The remaining agency members will have research backgrounds and must be currently involved in agency research activities. It is anticipated that members will attend TAC meetings in person.

e. Observers

Observers will be allowed to attend TAC meetings, space permitting. Requests to attend as an observer must be approved by the executive

secretary. Observers will attend executive sessions upon the discretion of the chairperson.

f. Members At-Large

These two voting members will provide an increased link to the R&D community and will be appointed by the TAC chairperson. These members will consider the impact of WSR-88D technical issues upon the missions of the DOC, DoD, and DOT.

3.3 Meeting Frequency

Meetings will be held at least once per year. Additional meetings may be called when needed.

4. RESOURCES AND FUNDING

The ROC will provide administrative support. The agencies will be responsible for the salaries and travel expenses of the members they appoint. The ROC will be responsible for the travel costs for the chairperson and at-large members. However, to minimize costs during uncertain budget years, the use of virtual meetings will be leveraged.

5. EFFECTIVE DATE AND PERIODIC REVIEW

The PMC shall review this charter biannually to determine whether or not it should be continued, modified, or terminated. The latest date of signatory agreement on any modification shall constitute the new effective date unless specifically stated otherwise.

6. AMENDMENT OR TERMINATION

This charter may be amended by mutual consent of the DOC, DoD, and DOT. Termination for cause or for program completion shall require a terminating review to consider the elements negotiated in this charter. The agency who wishes to initiate termination shall notify the other agencies, in writing, of the requested termination, within a time frame to permit orderly transfer of the technical advisory role of the TAC to another committee or agency, and not less than two years in advance of the termination.