Department of Commerce • National Oceanic & Atmospheric Administration • National Weather Service

NATIONAL WEATHER SERVICE INSTRUCTION 30-1205 JULY 24, 2024

> Maintenance, Logistics, and Facilities Configuration Management, NWSPD 30-12 CHANGE MANAGEMENT PROCESS

NOTICE: This publication is available at <u>https://www.weather.gov/directives/</u>.

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SUMMARY OF REVISIONS: This instruction supersedes *National Weather Service (NWS) Instruction 30-1205, Change Management Process*, dated July 23, 2019. Revisions include:

- 1. Change in terminology from Configuration Control Board (CCB) to Configuration Advisory Board (CAB).
- 2. Update links to the change management website.
- 3. Replace the Radiosonde Replacement System with Upper Air.
- 4. Remove references to CaRDS in appendices since it is addressed in section 3.2.
- 5. Corrections of typographical errors.

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Change Management Process

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1. Introduction

This National Weather Service (NWS) Instruction (NWSI) establishes the Change Management Process (CMP). It includes an overview of the scope, structure, process, and responsibilities within the CMP for the systems under NWS change management control (Appendix A). This instruction is authorized by National Weather Service (NWS) Policy Directive (NWSPD) 30-12, Configuration Management.

2. Purpose

The CMP ensures efficient, visible, uniform, and accountable processes. The process applies technical and administrative direction to control changes, records, and reports change processing, verifies compliance with established requirements, and provides process improvements. Appendix F lists acronyms applicable to the CMP.

3. Closed Loop Process

The NWS operational systems under configuration management have established baselines managed by the NWS Office of Observations, Surface and Upper Air Division, Services Branch, Configuration Management Section (OBS32-3). Each change to those baselines requires a Request for Change (RC) submitted by a designated Submitting Authority (SA). NWS Office of Observations, Surface and Upper Air Division, Services Branch, Configuration Management Section (OBS32-3) processes RCs using the review and approval structures set up by the program managers of each system under configuration management control. During the review and approval process, W/OBS32-3 compiles implementation activities recommended by reviewers and distributes action steps to the responsible offices along with the approval notification. After implementing the changes and releasing upgraded documentation, approved changes create a new baseline that may be changed again to meet new or unmet user requirements, establishing A closed-loop process. Appendix G illustrates the closed-loop change process.

3.1 Configuration Baseline

NWS Instruction (NWSI) 30-1203, Configuration Management for Operational Systems, specifies the organization responsible for maintaining the Configuration Baselines for operational NWS systems under CM control. Appendix A lists these responsible organizations.

3.2 Needs and Requirements

The CM organization responsible for each system under Change Management (see Appendix A) ensures proposed baseline changes relate to established needs and requirements. These changes must meet all of the following criteria:

- a. The requested change is under the purview of an established approval authority for the applicable program. There is an implicit solution that lends itself to a specific program without impacting other systems requiring significant development or additional resources.
- b. The submitter identifies and describes an adequate solution. Sufficient information is or will be available to describe the concept and requirements.

- c. The RC identifies an appropriate funding source, and adequate funds are available so the request does not need to go to the Strategy Execution and Evaluation (SEE) process.
- d. The need to be met by the requested change fulfills or relates to an existing requirement. New field requirements are referred to the Capabilities and Requirements Decision Support (CaRDS) process for action.

3.3 **Request for Change Process**

Office-level organizations will initiate RCs in response to unfulfilled or changing user requirements, and a designated SA will submit the RCs electronically to nwsrc@noaa.gov using NWSRC Form 1001. The latest RC form and instructions are available at https://cbits.nws.noaa.gov/ using MIRS (Management Information Reporting System) Private Kiosk for Change Management.

3.3.1 Change Management Analyst Roles and Responsibilities

The Systems Change Manager (SCM) assigns each RC to a Change Management Analyst (CMA). The CMA's responsibilities include analyzing the RC before distributing it for review processing, obtaining all missing data, scheduling and providing secretarial assistance (agendas and minutes) to the Configuration Advisory Board (CAB) and Program Management Committee (PMC) meetings, maintaining the current status of RCs including action items, maintaining charters and Terms of Reference (TOR), and coordinating the RC appeals process. Each CMA should have someone to represent them in their absence.

3.3.2 Submitting Authorities

The SA is the Office Director, Regional Director, Program Manager, or their selected designee. Each SA should have someone to represent them in their absence. The SA is responsible for submitting RCs referencing a particular requirement in electronic (soft copy) form to the nwsrc@noaa.gov mailbox. Only SAs and their designated backup representatives can submit RCs to the Office of Observations (OBS).

3.3.3 Focal Point Responsibilities

Each SA will designate a Focal Point (FP) for each applicable program to represent their office throughout the RC process. For each RC, FPs will identify a Cognizant Technical Individual (CTI) who will be available to answer any technical questions that come up during the review process. Each FP should also have someone to represent them in their absence. The FP functions are necessary for an effective and efficient CMP and include the following activities.

- a. Reviewing requested changes to ensure they are clear, concise, and valid.
- b. Coordinating with their respective offices before and after a decision is reached.
- c. Providing comments and recommendations for RCs in the time prescribed in the section 3.3.5 Review Process.
- d. Notifying or designating someone to notify W/OBS32 through the appropriate CMA mailbox (see Appendix A) of any changes in schedule or scope and when implementation is completed.

3.3.4 **Priorities**

The SA may recommend a priority code, but the respective Approving Authority will decide. Each program establishes a priority system and specifies criteria for assigning and processing RCs using the following three priority codes.

- a. <u>Routine</u>. This priority level applies to all RC meetings that do not meet the Emergency or Urgent criteria. <u>Urgent</u>. This priority level applies when at least one of the following criteria is met:
 - (1) To correct a potentially hazardous condition, the uncorrected existence may result in injury to the general public, injury to personnel installing or using the equipment, or damage to the equipment itself.
 - (2) To effect a change which, if not accomplished expeditiously, may seriously compromise the effectiveness of the program equipment, software, or products.
 - (3) To affect an interface change that, if delayed, would cause a schedule slippage or cost increase.
- b. <u>Emergency</u>. This priority level requires immediate processing and applies when changes are necessary to correct a failure of the system as follows:
 - (1) Delay weather or water warnings to the general public of a hazardous condition that may result in severe or fatal injuries to the general public.
 - (2) To correct a hazardous condition that may result in severe or fatal injuries to personnel installing or using the equipment.
 - (3) Cause extensive damage or destruction to the equipment itself.

3.3.5 **Review Process**

W/OBS32-3 will initiate RC reviews according to procedures established for the system or systems potentially affected by proposed changes. Charters and TORs applicable to specific weather systems and programs outline these processes, including specific reviewing offices or individuals necessary to complete RC reviewing processes. Each reviewer will respond within five working days. Valid responses include a decision statement or a request for additional review time. Requests for additional time should include the estimated time needed and clearly explain why the extension is required. Reviews should also incorporate a check to determine if an RC will substantially change an NWS environmental information service. Any such changes must follow the public comment/review process outlined in NWSPD 1-10 and input from this period of comment/review will be included in review and decision making for the proposed change.

3.3.6 Fast Track Process

Fast Track RCs include RCs that can be approved after coordination with a subset of the standard group of voting and approving authorities. Although the fast track does not refer to the processing speed, approval of routine Fast Track RCs may be quicker because of the reduced coordination required. The complete set of voting and approving authorities will determine the criteria for Fast Track RCs in advance. This decision may be based on multiple criteria such as low cost, fewer stakeholders, simplicity of solutions, clear precedent, limited variables, or the routine nature of the

change. Voting and approving authorities can identify systemic problems with the process, allowing them to request a review of fast-track criteria as needed. To reduce the overhead required for many routine changes, each program should strive to increase the number of changes meeting the fast track criteria.

3.4 **Approval Structure**

Each program has an approval authority defined by program-specific charters and TORs. After completing the review process, voting members decide the disposition of each RC through consensus. Failure to reach a consensus may result in disapproval or a referral to the next higher board as determined by each program in their respective charters and TORs.

3.4.1 Systems Change Manager

The Systems Change Manager (SCM) coordinates an appropriate review of all RCs and is the Approving Authority for any NWS system without a decision board or Program Manager (PM).

3.4.2 Tri-Agency Programs

The Automated Surface Observing System (ASOS) and Next Generation Weather Radar (NEXRAD) are tri-agency programs with stakeholders including the Departments of Commerce (NWS), Transportation (FAA), and Defense (US Navy and US Air Force). Decisions require a consensus among representatives from each department.

3.4.3 **Program Management Committees**

For ASOS and NEXRAD, Program Management Committees (PMC) provide oversight of the program budget, policy, resource commitment, and management guidance. These committees also serve as higher-level decision bodies and approving authorities for proposed major product improvement changes to ASOS and NEXRAD system configurations operationally deployed within the three agencies. PMC responsibilities are those necessary for effective and efficient lifecycle operations, maintenance, configuration management, and system evolution. The roles of the PMC members are as follows:

- a. <u>Chair</u>. The Chair presides over the PMC, arranges the presentation of information and issues to the PMC, and obtains all resolutions. The Chair, in consultation with members of the PMC, may invite other agency personnel to participate in meetings as necessary and may also create working groups. The Chair receives plans, issues, interagency Memorandums of Agreement and Charters from the agencies and RCs, and Engineering Change Proposals from the CAB.
- b. <u>Executive Secretary</u>. The Executive Secretary maintains the PMC administrative management process and performs the routine secretariat functions for the PMC, including maintaining the list of members, scheduling meetings, preparing agendas and supporting data, assisting the Chair in the conduct of meetings, distributing proposed revisions to the charter, and preparing and distributing meeting minutes.
- c. <u>Agency Representatives</u>. The agency representatives are delegated full authority by their respective agencies and will present agency issues and dispositions to the PMC. Each agency representative reviews the PMC agenda to be prepared to address and resolve

each item on the agenda at the meeting. Agency representatives ensure appropriate coordination to permit the timely commitment of agency resources to agency-supported, PMC-approved activities.

3.4.4 Configuration Advisory Boards

For ASOS and NEXRAD, CABs serve the PMCs as technical support groups responsible for addressing operations, engineering, logistics, Configuration Management (CM), testing, and other related technical aspects of proposed changes to the program. Several other programs listed in Appendix A also have CABs, though they do not have PMCs. CABs serve as the central technical groups that evaluate RCs, make decisions within their purview, and perform special analyses when needed. Members may invite advisors to help them with the evaluations and discussions made at CAB meetings; however, members are responsible for representing the official positions of their offices and agencies. The following are specific responsibilities.

- a. <u>Chair</u>. The Chair presides over the board, arranges the presentation of issues, and coordinates their resolution. The Chair may designate Working Group Chairs. The Chair determines what specific tasks, if any, are to be completed by a Working Group and ensures that milestones for completing these tasks are assigned.
- b. <u>Secretary</u>. The Secretary performs routine secretarial duties for the CAB, including scheduling meetings, coordinating the distribution of items for decision, preparing meeting agendas and supporting data, assisting the Chair in the conduct of meetings, preparing and distributing meeting minutes, and maintaining the status tracking of RCs.
- c. <u>Members</u>. Members serve as their respective office/agency representatives for technical and programmatic issues. The office/agency representatives ensure appropriate coordination occurs within their offices/agencies to obtain input involving each change request.

3.5 Notification

Upon completion of the decision-making activity, the CMA will notify the SA, focal points, and other appropriate authorities of the decision as soon as possible. Documentation reflecting the decision and defining all action items necessary to implement decisions will be distributed to individuals having action items. The designated SA should notify W/OBS32 when the change is implemented through the appropriate program-specific point of contact listed in Appendix A.

3.6 Appeals Process

The appeals process may be used when a submitter disagrees with the final decision on their RC. This process does not replace program-specific provisions to elevate decisions under the circumstances outlined in program charters and TORS. The NWS RC appeals form and instructions are available at <u>https://cbits.nws.noaa.gov/</u>.

3.6.1 Time Limit

Using the date, the RC disapproval notice is distributed, the Submitting Authority will have up to ten (10) working days to submit NWSRC Form 1002, Appeal Request, to the CMA via e-mail indicating that they are appealing the disapproval of their RC with a complete description of their reasons for the appeal.

3.6.2 Appeal Notification

Once the CMA receives the appeal notification e-mail, it informs the appropriate Approving Authority and voting members.

NOTE: Approving Authority is defined as the person with approval and disapproval authority. This person may be the PM, CAB Chair, PMC Chair, or SCM, as indicated in the appropriate charters and TORs.

3.6.3 Adjudication

The Approving Authority should hold a meeting(s) to discuss and agree that the appeal has sufficiently addressed the concerns of the voting members.

3.6.4 **Decision**

Upon agreement by the voting members, the CMA will send an e-mail to the SA, copying the Approving Authority and the voting members, informing them of the final decision.

NWS System	Program	CM Responsible Organization	Point of Contact	Approval Authorities
Advanced Weather Interactive Processing System	AWIPS	OBS32	awipsrc@noaa.gov	CAB
Automated Surface Observing System	ASOS	OBS32	asosrc@noaa.gov	CAB PMC
Changes of Operation (other data collection, dissemination, and operational support systems)	СНОР	OBS32	nwsrc@noaa.gov	SCM Program Managers
Data Review Group	DRG	OBS32	drgcm@noaa.gov	DRG
Next Generation Weather Radar	NEXRAD	OBS12	nexradrc@noaa.gov	CAB PMC
Upper Air	UA	OBS32	uarc@noaa.gov	CAB

APPENDIX A - NWS Systems Under Change Management

APPENDIX B - Advanced Weather Interactive Processing System (AWIPS) Terms of Reference (TOR)

Authority

The National Weather Service Instruction (NWSI) 30 -1205, Change Management (CM) *Process*, authorizes this Terms of Reference (TOR).

Mission

The Advanced Weather Interactive Processing System (AWIPS) is an integrated suite of automated data-processing equipment that supports complex analysis, interactive processing, display of hydrometeorological data, and the rapid dissemination of warnings and forecasts in a highly reliable manner. AWIPS supports the weather and hydrologic forecasts and warning operations at the Weather Forecast Offices (WFOs), River Forecast Offices (RFOs), and the National Centers for Environmental Prediction (NCEP).

AWIPS provides open access, via NOAAPort and the Satellite Broadcast Network (SBN), to extensive National Oceanic and Atmospheric Administration (NOAA) data sets; acquires and processes data from an array of meteorological sensors, including the Next Generation Weather Radar (NEXRAD), Geostationary Operational Environmental Satellite (GOES), Automated Surface Observing System (ASOS), and local sources; and disseminates warnings and forecasts.

Objectives

This TOR documents the authority, mission, and responsibilities of the CM of the AWIPS system.

Responsibilities

• Composition

NWS CM administers the AWIPS Configuration Advisory Board (CAB), which comprises the AWIPS CAB Chair, representatives of the NWS Headquarters (NWSHQ) Office, and the AWIPS CM Analyst.

• Method of Work

The NWS Systems Change Manager (SCM) arranges for the resources needed for effective CM functions within the NWS, including standardized forms, a Request for Change (RC) tracking system, and trained analysts to process the RCs. There is a single entry point for all RCs, regardless of the authorized Submitting Authority (SA) or the level of effort required to fulfill the request. Ensure baseline changes relate to established needs and requirements.

AWIPS RCs are processed by the AWIPS CM Analyst, who analyzes the RCs, gathers any additional data needed, conducts reviews, and distributes adjudication notices. The AWIPS CAB assigns implementation actions among the organizations to individuals responsible for physical changes, software changes, notifications, and documentation. The AWIPS voting members and FPs are responsible for coordinating the review of AWIPS RCs with their offices and providing comments to their voting members for a final vote. All comments and votes are due within five working days unless granted an extension. Extension requests should be justified and submitted within five working days.

• Membership

- 1. <u>AWIPS Configuration Advisory Board Chair:</u> Approves or disapproves all AWIPS RCs. The AWIPS Program Manager serves as the AWIPS CAB Chair.
- 2. <u>AWIPS Analyst/Secretary:</u> Serves as the CAB Secretary. Analyze for conciseness and clarity before forwarding them to the AWIPS Execution & Oversight Analyst (EOA). The CM Analyst is responsible for maintaining and archiving all documentation associated with baseline changes.
- 3. <u>AWIPS Execution & Oversight Analyst</u>: Distributes RCS to the voting members and FPs for review; establishes a due date for the RC review; and sends adjudication notices to the Submitting Authority (SA), Cognizant Technical Individual (CTI) and reviewing members.
- 4. <u>AWIPS Voting Members:</u> These are appointed by the NWS Headquarters (NWSHQ) Office and Regional Directors. Voting members coordinate the RC reviews within the applicable NWSHQ and regional offices. They recommend approval or disapproval or may request additional time to review RCs.
- 5. <u>Designated Submitting Authority</u>: Appointed by NWSHQ Office and Regional Directors. SAs receive RCs from the CTI, review and submit RCs for processing, or return incomplete or invalid RCs for additional information or denial.
- 6. <u>AWIPS Focal Points:</u> These are appointed by the NWSHQ Office and Regional Directors. FPs are responsible for coordinating RC reviews within their respective organizations and providing all comments to the appropriate voting members for a final vote.
- 7. <u>Cognizant Technical Individual:</u> Any user of the AWIPS system that needs a change to the existing baselined system may submit a completed RC to the appropriate SA.

• Board and Committee Support

The AWIPS CAB Charter is available on the NWS Change Management website at <u>https://cbits.nws.noaa.gov/.</u> The AWIPS CAB Chair establishes committees on an as-needed basis.

APPENDIX C – Automated Surface Observing System (ASOS) Terms of Reference (TOR) Authority

The National Weather Service Instruction (NWSI) 30-1205, Change Management (CM) Process, authorizes this Terms of Reference (TOR).

Mission

The Automated Surface Observing System (ASOS) program is a joint effort of the Departments of Transportation (DOT), Commerce (DOC), and Defense (DOD). The ASOS system serves as the nation's primary surface weather observing network. ASOS supports the nation's meteorology, hydrology, and climatology operations and research needs.

Objectives

This TOR documents the authority, mission, and responsibilities of the CM of the ASOS system.

Responsibilities

• Composition

NWS manages the ASOS CM program and coordinates the ASOS configuration baseline changes among the three agencies. Agency representatives submit Requests for Change (RCs) to the single point of entry maintained by the NWS. The CM objective is to help the agencies standardize their systems to the maximum extent possible while remaining responsive to agency-unique and site-specific requirements.

• Method of Work

The NWS Systems Change Manager (SCM) arranges for the resources needed for effective CM functions within the NWS, including standardized forms, a Request for Change (RC) tracking system, and trained analysts to process the RCs. There is a single entry point for all RCs, regardless of the authorized Submitting Authority (SA) or level of effort required to fulfill the request. Ensure baseline changes relate to established needs and requirements.

ASOS RCs are processed by the ASOS CM Analyst, who analyzes the RCs, gathers any additional data needed, conducts reviews, and distributes adjudication notices as appropriate; the ASOS Configuration Advisory Board (ACAB) and ASOS Program Management Committee (APMC) assign implementation actions among the agencies to specific individuals who are responsible for physical changes, software changes, notification, and documentation. The ASOS voting members and focal points are responsible for coordinating the review of ASOS RCs with their offices and providing their comments to their voting members for a final vote. Each agency reviews and approves or disapproves RCs through their membership in the ACAB and APMC. All comments and votes are due within five working days unless granted an extension. Extension requests should be justified and submitted within five working days.

• Membership

- 1. <u>APMC Chair</u>: Directs the activities of the APMC and approves or disapproves ASOS RCs based on the consensus of the APMC members.
- 2. <u>ACAB Chair</u>: Directs the activities of the ACAB and approves or disapproves RCs based on the consensus of the ACAB members.
- 3. <u>ASOS Analyst/Secretary:</u> Analyzes RCs before distributing them to the voting members and focal points for review; distributes and establishes a due date for the RC review; and sends adjudication notices to the SA, Cognizant Technical Individual (CTI), voting members, reviewing members, and those assigned actions. The ASOS CM Analyst serves as the ACAB Secretary.
- 4. <u>ASOS Voting Members:</u> Responsible for coordinating the RC reviews within their organization. Voting members recommend approval or disapproval or may request additional time to review RCs.
- 5. <u>Designated Submitting Authority</u>: SAs are appointed by the directors of their respective offices. They receive RCs from the CTI, review and submit them for processing, or return incomplete or invalid RCs for additional information or denial.
- 6. <u>ASOS Focal Points:</u> These are responsible for coordinating the RC reviews through their organizations at their respective headquarters and appropriate field activities and forwarding consolidated comments to their respective voting members.
- 7. <u>Cognizant Technical Individual:</u> Any user of the ASOS system that needs a change to the existing baselined system may submit a completed RC to the appropriate designated SA.

The FAA (DOT), the NWS (DOC), and the US Navy (DOD) are stakeholders in the ASOS program. Each participating agency provides funds for RCs in proportion to the number of ASOS sites they own and in relation to agency-specific requirements.

• Board and Committee Support

The ACAB and the APMC charters include specific tri-agency responsibilities. These charters are available on the NWS Change Management website at https://cbits.nws.noaa.gov/

The APMC includes senior-level representatives designated by each agency with authority granted by the sponsoring agency to make appropriate decisions relative to the current and future configuration of the ASOS program. Because the hardware and software are standardized across all participating agencies to the maximum extent possible, each member has a stake in APMC decisions.

The ACAB serves the APMC by reviewing and approving RCs, recommending appropriate RCs for higher-level decisions, and performing other change-related tasks assigned by the APMC.

APPENDIX D – Data Review Group (DRG) Terms of Reference (TOR)

Authority

This Terms of Reference (TOR) is authorized by the National Weather Service Instruction (NWSI) 30-1205, Change Management (CM) Process.

Mission

The Data Review Group (DRG) reviews, assesses, and adjudicates data product changes on the National Weather Service (NWS) communication networks under configuration management control. These networks include the Emergency Managers Weather Information Network (EMWIN), the National Oceanic Atmospheric Administration (NOAA) Weather Wire Service (NWWS), and the Advanced Weather Interactive Processing System (AWIPS) Satellite Broadcast Network (SBN) / NOAAPort.

Objectives

This TOR documents the authority, mission, and responsibilities of the CM of data products on the AWIPS, NWWS, and EMWIN systems.

Responsibilities

• Composition

NWS Change Management (CM) administers the DRG, which comprises the DRG Chair, NWS Headquarters (NWSHQ) Office representatives, and regional members. The DRG Chair is the adjudicating authority for DRG Requests for Change (RCs).

• Method of Work

The NWS Systems Change Manager (SCM) arranges for the resources needed for effective CM functions within the NWS, including standardized forms and an RC tracking system, and trains analysts to process the RCs. There is a single-entry point for all RCs, regardless of the authorized Submitting Authority (SA) or the level of effort required to fulfill the request. Ensure baseline changes relate to established needs and requirements.

Data-related RCs are processed by the DRG CM Analyst, who analyzes the RCs, gathers any additional data needed, conducts reviews, and distributes adjudication notices. The DRG assigns implementation actions among the organizations to individuals responsible for data changes, notifications, and documentation. The DRG voting members and FP are responsible for coordinating the review of DRG

RCs within their offices and providing comments to their voting members for a final vote. All comments and votes are due within five working days unless granted an extension. Extension requests should be justified and submitted within five working days. Approved DRG RCs are transferred to the AWIPS CAB for review and adjudication.

• Membership

The CM Analyst serves as the DRG Chairperson. The NWSH Office Directors and Regional Directors appoint the DRG FPs.

- <u>DRG Chair:</u> Approves or disapproves all DRG RCs. The DRG CM Analyst serves as the DRG Chairperson.
- <u>DRG Analyst</u>: Analyzes the RCs before distributing them to the voting members and FPs for review; distributes and establishes a due date for the RC review; and sends adjudication notices to the SA, Cognizant Technical Individual (CTI), and reviewing members.
- <u>DRG Voting Members:</u> Appointed by NWS Headquarters (NWSHQ) Office and Regional Directors. Voting members coordinate the RC reviews within applicable NWSHQ and regional offices. They recommend approval or disapproval or may request additional time to review RCs.
- <u>Designated Submitting Authority:</u> Appointed by NWSHQ Office and Regional Directors. SAs receive RCs from the CTI, review and submit RCs for processing, or return incomplete or invalid RCs for additional information or denial.
- <u>DRG Focal Points:</u> Appointed by NWSHQ Office and Regional Directors. FPs are responsible for coordinating RC reviews within their respective organizations and providing all comments to the appropriate voting members for a final vote.
- <u>Cognizant Technical Individual:</u> Any user who wants to change data products may submit a completed RC to the appropriate SA.

• Board and Committee Support

The DRG Charter is available on the NWS Change Management website at https://cbits.nws.noaa.gov/. The DRG CM Chair establishes committees on an as-needed basis.

APPENDIX E – Next Generation Weather Radar (NEXRAD) Terms of Reference (TOR) Authority

The National Weather Service Instruction (NWSI) 30 -1205, Change Management (CM) Process authorizes this Terms of Reference (TOR).

Mission

The Next Generation Weather Radar (NEXRAD) provides hazardous weather warnings. Meteorologists can now warn the public to take shelter with more advance notice than any previous radar. There are 158 operational NEXRAD radar systems deployed throughout the United States and at selected overseas locations. The maximum range of the NEXRAD radar is 250 nautical miles. The NEXRAD network provides significant improvements in severe weather and flash flood warnings, air traffic safety, flow control for air traffic, resource protection at military bases, and management of water, agriculture, forest, and snow removal.

Objectives

This TOR documents the authority, mission, and responsibilities of the CM of the NEXRAD system.

Responsibilities

• Composition

The NEXRAD CM analyst manages the NEXRAD CM program and coordinates changes to the NEXRAD configuration baseline for the DOC/NWS as a representative on the NEXRAD Configuration Advisory Board (CAB), which is operated by the Radar Operations Center (ROC) in Norman, Oklahoma. Designated Submitting Authorities (SAs) submit Requests for Change (RCs) to a single point of entry maintained by the NWS. DOC/NWS, DOD/USAF, and the DOT/FAA are stakeholders in the NEXRAD program. Each participating agency provides funds for RCs in proportion to the number of NEXRAD sites they own and in relation to agency-specific requirements. Each agency reviews and adjudicates RCs through its NEXRAD CAB and the NEXRAD Program Management Committee (NPMC) membership. The CM's objective is to help standardize their systems to the maximum extent possible while remaining responsive to NWS-unique and site-specific requirements.

• Method of Work

The NWS Systems Change Manager (SCM) arranges for the resources needed for effective CM functions within the NWS, including standardized forms, a Request for Change (RC) tracking system, and trained analysts to process the RCs. There is a single point of entry for all RCs, regardless of the authorized SA or level of effort required to fulfill the request. Ensure baseline changes relate to established needs and requirements.

NEXRAD RCs are processed by the NEXRAD CM Analyst, who analyzes the RCs, gathers any additional data needed, conducts reviews, and distributes adjudication notices. As appropriate, the NEXRAD CAB and NPMC assign implementation actions among the agencies to specific individuals responsible for physical changes, software changes, notifications, and documentation. The NEXRAD voting members and Focal Points (FP) are responsible for coordinating the review of NEXRAD RCs with their offices and providing comments to their voting members for a final vote. Each agency reviews and approves or disapproves RCs through their NEXRAD CAB and NPMC membership. All comments and votes are due within five working days unless granted an extension. Extension requests should be justified and submitted within five working days.

• Membership

- 1. <u>NPMC Chair:</u> Directs the activities of the NPMC and approves or disapproves NEXRAD RCs based on the consensus of the NPMC members.
- 2. <u>NEXRAD Configuration Advisory Board Chair</u>: Approves or disapproves all NEXRAD RCs. The Director of the ROC serves as the NEXRAD CAB Chair.
- 3. <u>NEXRAD CM Analyst:</u> Analyzes RCs before distributing them to the voting members and FP for review; distributes and establishes a due date for the RC review; and sends adjudication notices to the SA, Cognizant Technical Individual (CTI), and reviewing members. The NEXRAD CM Analyst also serves as the CAB's NPMC Executive Secretary and NWS voting member.
- 4. <u>Designated Submitting Authority:</u> SAs are appointed by the directors of their respective offices. They receive RCs from the CTI, review and submit them for processing, or return incomplete or invalid RCs for additional information or denial.
- <u>NEXRAD Focal Points:</u> Appointed by NWSHQ Office Directors and NWS Regional Directors. FPs are responsible for coordinating the RC reviews by applicable NWSHQ and NWS Regional staff and providing all comments to the NEXRAD CM Analyst for a final vote.
 - 6. <u>Cognizant Technical Individual:</u> Any user of the NEXRAD system who needs to change the existing baselined system may submit a completed RC to the appropriate SA.

• Board and Committee Support

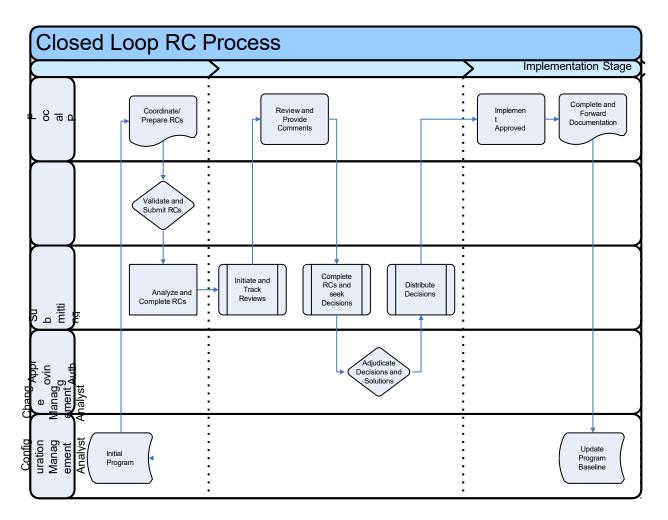
The NPMC includes senior-level representatives designated by each agency with authority granted by the sponsoring agency to make appropriate decisions relative to the current and future configuration of the NEXRAD program. Because the hardware and software are standardized across all participating agencies to the maximum extent possible, each member has a stake in NPMC decisions.

The NEXRAD CAB serves the NPMC by reviewing and adjudicating RCs, recommending appropriate RCs for higher-level decisions, and performing other changerelated tasks assigned by the NPMC. Charters are available on the NWS Change Management website at <u>https://cbits.nws.noaa.gov/</u>

APPENDIX F - Acronyms and Definitions

Acronym	Definition
ASOS	Automated Surface Observing System
ACAB	ASOS Configuration Advisory Board
APMC	ASOS Program Management Committee
AWIPS	Advanced Weather Interactive Processing System
CAB	Configuration Advisory Board
CaRDS	Capabilities and Requirements Decision Support
CHOP	Changes of Operation
CM	Change/Configuration Management
CMA	Change Management Analyst
CMP	Change Management Process
CTI	Cognizant Technical Individual
DRG	Data Review Group
EMWIN	Emergency Managers Weather Information Network
EOA	Execution & Oversight Analyst
FAA	Federal Aviation Administration
FP	Focal Point
GOES	Geostationary Operational Environmental Satellite
MIRS	Management Information Reporting System
NCEP	National Centers for Environmental Prediction
NEXRAD	Next Generation Weather Radar
NOAA	National Oceanic & Atmospheric Administration
NPMC	NEXRAD Program Management Committee
NWS	National Weather Service
NWSHQ	NWS Headquarters
NWSI	National Weather Service Instruction
NWSPD	National Weather Service Policy Directive
NWSRC	National Weather Service RC
OBS	Office of Observations
PM	Program Manager
PMC	Program Management Committee
RC	Request for Change
RCTS	RC Tracking System
RFC	River Forecast Center
SA	Submitting Authority
SBN	Satellite Broadcast Network
SCM	Systems Change Manager
TOR	Terms of Reference
UA	Upper Air
WFO	Weather Forecast Office





* Approval structures and processes are program-specific. Program-specific Charters and TORs provide program-specific details of approval processes and structures, including CAB, PMC, DRG, and SCM roles and responsibilities where applicable.