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

NATIONAL WEATHER SERVICE POLICY DIRECTIVE 100-4 NOVEMBER 3, 2021

External Affairs
TECHNOLOGY TRANSFER

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OPR: W/OPPSD (J. Sprague) Certified by: W/OPPSD (K. Cooley)

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SUMMARY OF REVISIONS: This directive supersedes NWSPD 100-4, "*Technology Transfer*" dated March 20, 2009. Changes were made to reflect the NWS Headquarters reorganization effective April 1, 2015.

- 1. The National Weather Service (NWS) develops or adopts technology to support its mission, and may transfer this technology to external parties. This policy directive states the relevant authorities, sets out the procedure, and provides policy to guide appropriate technology transfer activities of NWS.
- 2. In accordance with 15 U.S.C. § 3710, 15 U.S.C. § 3710a, and National Oceanic and Atmospheric Administration (NOAA) Administrative Order (NAO) 201-103, NWS engages in technology transfer, when appropriate, to increase the value to the public of the investments NWS makes in developing technology.
- 2.1 NWS staff will disclose all new technologies and inventions to the NOAA Technology Partnerships Office (TPO) prior to public disclosure for purposes of Rights Determination and coordination of technology transfer activities. Disclosure procedures are detailed in the Handbook for NAO 201-103, but NWS staff should consult with TPO in advance of disclosure to receive the latest guidance.
- 2.2 In choosing whether and how to make specific NWS technology available for technology transfer, NWS will consider the costs of NWS technology transfer activities in relation to the value of the technology to external parties.
- 2.3 NWS may establish any level of technology support, including none, for any technology NWS makes available for technology transfer.
- 3. In carrying out technology transfer activities, NWS shall be cognizant of, and endeavor to

observe, the valid rights of patent holders and owners of other intellectual property.

- **4.** Development and/or acquisition of NWS technology is subject to policies and procedures established elsewhere in the NWS Directives System.
- **4.1** NWS will develop external purpose technology (see Attachment 1 for definition) only when required by law, when required by legal agreement, or when approved by the Director of the NWS or his/her designee.
- 5. When appropriate and when there is legal authority to do so, NWS may recover the costs of technology transfer by charging external parties that receive such technology.
- 5.1 Any such cost recovery may include the direct costs of technology transfer and any associated technology support, but will not include recovery of the costs of developing the technology itself unless required by law, or by a legal agreement.
- **5.1.2** Any such cost recovery will be carried out in an equitable manner for all parties who acquire NWS technology and the basis for such costs will be available upon request.
- **6.** This directive establishes the following procedures and responsibilities:
- **6.1** The Director of the Office of Planning and Programming for Service Delivery will establish procedural directives and/or supplements for technology transfer, subject to the following:
- **6.1.1** Consultation with the Assistant Chief Information Officer, the Director of the Office of the Chief Operating Officer, the Director of the Office of Organizational Excellence, the Director of the International Activities Office, the NOAA Technology Partnerships Office, and other members of the NWS Executive Council as needed.
- **6.1.2** Procedural directives and/or supplements for technology transfer will assure compliance with applicable requirements imposed by NOAA Administrative Orders and by procedures for information technology security, national security, export control laws and policies, or other restrictions on transfer of NWS technology to external parties.
- 7. Technology transfer should be effective and useful to external entities and will be measured by the following:
- 7.1 Increased service delivery by the Weather, Water and Climate Enterprise, including international partners, using NWS provided technology.

- 7.2 Increased participation from the Weather, Water and Climate Enterprise in refining NWS technology transfer and implementation procedures.
- **8.** This policy directive is supported by the glossary of terms and references in Attachment 1.

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Assistant Administrator for Weather Services

Attachment 1

Glossary of Terms

Glossary of Terms (as applied in this policy directive)

<u>External Purpose Technology</u> – Technology produced or acquired by NWS primarily to assist specific external parties in the conduct of their business related to the NWS mission, as opposed to technology produced or acquired primarily to support NWS in carrying out its mission.

<u>Technology</u> – In this directive, "technology" is used in a broad sense to mean methods and means of production of NWS information that have been developed and/or acquired by NWS. Common examples include software and associated documentation, and engineering specifications for equipment used by NWS.

<u>Technology Support</u> – Providing routine updates to maintain the currency and to correct deficiencies in technology, and/or making NWS experts (including contract experts) available to parties using the supported technology.

<u>Technology Transfer</u> – The processes and procedures used to make NWS technology available to external parties.

References and Relationship to other NOAA and NWS Directives

NOAA Administrative Order (NAO) 216-105B, "Policy on Research and Development Transitions," and the accompanying Handbook, apply to the transition of research results into operations, applications, commercialization, and other uses, not technology transfer in the sense used in this directive. However, subsection 3.14 of NAO 216-105B does contain a statement of NOAA policy regarding compliance with patents and other intellectual property repeated as Section 3 in this directive.

NAO 201-103, "Cooperative Research and Development and Invention Licensing Agreements Under the Federal Technology Transfer Act of 1986 (Public Law 99-502)," addresses technology transfer by the NOAA Line Offices, including NWS, through use of Cooperative Research and Development Agreements (CRADA) and patent licensing. A CRADA is one example of the "legal agreements" cited in sections 4.1 and 5.1 of this directive, and NAO 201-103 is the applicable NOAA policy for this form of agreement.

NAO 207-12, "Technology Controls and Foreign National Access," sets forth responsibilities and requirements to safeguard technology subject to Export Administration Regulations (EAR) controls to prevent inappropriate release or transfer of controlled technology (actual or deemed) to foreign nationals.

NAO 201-118, "Software Governance and Public Release Policy (DRAFT)." This administrative order will address Software Governance and Public Release Policy of all software that NOAA uses, (co-)develops, maintains, supports, or discontinues development and support of, as a part of its mission.

Numerous policies apply to planning, establishing requirements, managing, developing / acquiring, and implementing NWS technology. Since this directive applies to transferring technology *after* development, it has no effect on these policies, with one exception: clause 4.1 imposes a specific requirement for justification of development of external purpose technology.

Various restrictions may apply to transfer of NWS technology to others. Clause 6.1.2 requires the Director of the Office of Planning and Programming for Service Delivery to be aware of and incorporate such restrictions in procedural directives and/or supplements for NWS technology transfer.

The Freedom of Information Act (FOIA) may require transfer of NWS technology under procedures established to respond to FOIA requests (see NWS Instruction 1-603 "Freedom of Information Act Procedures"). This directive applies to NWS decisions to voluntarily transfer technology.