



**NPD 1383.155**

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**Subject: Policy on Use of Authentic, Human-created and Artificial Intelligence-Generated Media in Support of Scientific and Technical Information and External Materials**

**Responsible Office: Office of Communications**

## 1. POLICY

NASA is committed to maintaining the highest standards of integrity, authenticity, and transparency in all our work. While acknowledging the utility of artificial intelligence (AI) in certain contexts, this directive emphasizes the importance of genuine human expertise and ethical content creation. AI tools should complement the creative development, institutional knowledge, and subject matter expertise that define NASA's workforce, Scientific and Technical Information (STI), along with external communications. This directive creates guardrails to ensure the agency authentically represents our work, transparently acknowledges its origins, and upholds the scientific and technical integrity at the core of NASA's mission. Therefore:

- a. It is NASA policy to prioritize the use of authentic media imagery, audio, and video, also known as non-AI generated content, in all external materials, STI products, and communications when possible.
- b. It is NASA policy to only use AI-generated, AI-assisted, and human-created media when authentic media are not available or when necessary to represent concepts, missions, or phenomena that cannot be obtained through capture, recording, or transmission.
- c. It is NASA policy that all AI-generated media must be permanently watermarked and contain embedded metadata that clearly indicates it is not authentic media. Subsequent NASA uses and distribution must ensure watermarks and embedded metadata are persistent and prominent.
- d. It is NASA policy that all AI-assisted media must contain embedded metadata that clearly indicating it is not authentic media. Subsequent NASA uses and distribution must ensure embedded metadata are persistent and prominent.
- e. It is NASA policy that the agency shall identify and maintain records for authentic media imagery, audio, and video assets to enable their prioritized use in all STI products and external materials, as per NPD 1383.1.
- f. It is NASA policy that all STI products and external materials clearly indicate the nature and source of all media when used (e.g., "photograph," "artist's concept," "AI-generated illustration," "AI-assisted video," etc.).
- g. It is NASA policy to only use explicitly agency approved and/or authorized tools for creating or modifying media, as per NPD 2800.1.
- h. It is NASA policy that when AI-generated media is used by NASA employees, contractors, and partners, it must be:

1. Clearly labeled as AI-generated, AI-assisted, or similar approved label
2. Permanently watermarked and embedded with persistent and prominent identifying metadata that indicates it is not authentic media
3. Scientifically accurate and reviewed by subject matter experts
4. Free from misrepresentation of NASA activities or capabilities
5. Compliant with all applicable copyright and intellectual property laws, as per NPD 1383.1.

i. It is NASA policy to prohibit the use of AI generation tools to:

1. Create or modify media that impersonates or alters the likeness of NASA personnel
2. Create or depict scenarios, imagery, or events that could be misconstrued or reasonably interpreted as authentic NASA activities, especially those that are false, technically implausible, or mimic photojournalism.
3. Create or modify media that generates or incorporates the NASA insignia, logos, seals, and other official identifiers or altered versions of these without explicit approval from the Associate Administrator for Communications, or designee.

j. Lastly, it is NASA policy to limit enhancements of authentic media to only those that maintain the factual integrity of the original capture, recording, or transmission. AI-powered processes (e.g., upscaling, sharpening, denoising) and tools that could introduce artificial details (e.g., new textures, extra rocks added to a landscape) require subject matter expert review to ensure enhancements maintain the fundamental authenticity while preventing alterations that create, remove, or modify details essential to media integrity. Significantly modified media can no longer be considered authentic and should follow this directive for AI-generated, AI-assisted, or human-created media.

## 2. APPLICABILITY

a. This policy applies to all NASA employees, contractors, and partners involved in the creation or dissemination of Scientific and Technical Information (STI) products as defined in NPR 2200.2, "Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information," NASA external materials, and communications as defined in NID 1380, "NASA Communications."

b. This policy also applies to all media acquired from non-NASA sources, including but not limited to stock photography, purchased illustrations, licensed footage, and other commercially or freely obtained media from third-party providers. All such externally sourced media must meet the same standards for authenticity, labeling, and appropriate use as media created internally when incorporated into NASA STI products and external materials.

c. This policy applies to visual and auditory content (e.g. images, audio, and video) and their associated captions, descriptions and metadata, even when embedded in a text-based material intended for external release. It is not applicable to text-only documents such as administrative or technical documentation, text-only reports or materials such as e-mails, articles, blog posts, and other similar communication products. It is not applicable to internal only materials not cleared for external release.

### 3. RESPONSIBILITIES

a. The Chief Artificial Intelligence Officer, or designee, shall:

1. be responsible for implementing and enforcing this policy
2. Maintain a list of approved and/or authorized AI tools

b. The lead of STI Compliance & Distribution Services, or designee, shall facilitate compliance with this policy for all STI products

c. The Associate Administrator of Communications, or designee, shall:

1. Ensure compliance with this policy for all NASA external materials and communications
2. Review and approve appropriate use of NASA insignia, logos, and identifiers in AI-generated and human-created media
3. Ensure that AI-generated, AI-assisted, and human-created media content in external materials and communications is properly identified
4. Maintain a list of approved labels for identifying both authentic, AI-generated, and human-created media properly
5. Maintain a watermark for use on AI-generated media

d. All NASA employees involved in creating STI products, external materials and communications shall:

1. Understand and adhere to this policy
2. Reference and follow the latest guidance from the agency, including from the Chief AI Officer on using Generative AI, the Graphics Standards Manual and NASA Imagery Editing Guidance from the Office of Communications
3. Properly label, embed appropriate metadata in, and/or watermark all AI-generated and Ai-assisted media content
4. Obtain subject matter expert review for scientific and technical accuracy of AI-generated media content
5. Ensure all AI-generated, AI-assisted, and human-created media content complies with copyright and intellectual property laws, as per NPD 1383.1.
6. Only use approved and authorized generative AI tools

e. NASA subject matter experts shall review AI-generated media content for scientific and technical accuracy and appropriate representation of NASA activities and capabilities. Self-review is permissible when content is generated by the subject matter expert.

### 4. APPLICABLE DOCUMENTS

- a. Pub. L. No. 115-232, § 238(g), 132 Stat. 1636 (2018), John S. McCain National Defense Authorization Act for Fiscal Year 2019.
- b. 14 CFR 1221, The NASA Seal, the NASA Insignia, and Other NASA Symbols.
- c. NASA Interim Directive (NID) 1380.151, NASA Communications.

- d. NASA Policy Directive (NPD) 1383.1, Release and Management of Audiovisual Products.
- e. NASA Policy Directive (NPD) 2200, Management of NASA Scientific and Technical Information.
- f. NASA Procedural Requirements (NPR) 2200.2, Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information.
- g. NASA Policy Directive (NPD) 2521, Communications and Material Review.
- h. NASA Policy Directive (NPD) 2800.1, Managing Information Technology.
- i. NASA Standard (STD) 2822, Still and Motion Imagery Metadata Standard.
- j. [NASA Guidance from the Chief AI Officer on using Generative AI](#).
- k. [NASA Unified Visual Communications System](#), Watermark Guidance.
- l. [NASA Graphics Standards Manual](#).
- m. [NASA Stylebook and Office of Communications Manual](#), NASA Imagery Editing Guidance.

## 5. MEASUREMENT/VERIFICATION

Compliance with this policy shall be verified through regular reviews of NASA's STI products and external communications materials by the NASA STI Services and the Office of Communications.

### Attachment A: Definitions

For the purposes of this directive, the following definitions apply:

**AI** is an acronym for artificial intelligence.

**AI-assisted Media** refers to content (such as images, audio, video, etc.) that is created through a collaborative process between a human creator and artificial intelligence tools, where the human maintains primary creative direction and editorial control while leveraging AI capabilities to enhance, expand, or refine the work. In this approach, AI serves as a supplementary tool that assists with specific aspects of the creative process—such as providing suggestions, variations, refinements, or technical enhancements—while the human makes the substantive creative decisions about content, style, messaging, and final composition. Unlike AI-generated media, the intellectual and creative framework remains predominantly human-directed, with the AI functioning as a sophisticated tool rather than the primary creator. AI-assisted media would typically be credited as agency work product alongside the name of personnel responsible for its creation.

**AI-generated Media**, also known as synthetic media, refers to content (such as images, audio, video, etc.) that is created or modified wholly or partially using generative artificial intelligence tools (e.g., large language models, image generators, music composition AIs), where the AI system contributes substantive creative content — such as imagery, audio, or design elements — rather than simply assisting in mechanical or editorial tasks. It is not captured directly from the real world. For the purposes of this directive, this includes AI-generated content, deepfakes, voice synthesis, and other forms of algorithmically created and manipulated media. AI-generated media would typically be credited as “AI Generated” or similar approved wording.

**Artificial Intelligence** is defined in section 238(g) of the National Defense Authorization Act for Fiscal Year 2019 (Pub. L. No. 115-232, § 238(g), 132 Stat. 1636 (2018)).

**Authentic Media**, also known as non-AI generated content, refers to content (such as images, audio, video, etc.) that is captured, recorded, or transmitted directly from real-world events, people, or environments without algorithmic generation or manipulation that alters its fundamental

representation of reality. This content accurately documents actual occurrences, statements, or objects as they existed or occurred in the physical world. Authentic media involves minimal post-processing alterations, and those that are applied maintain factual integrity. It typically has traceable provenance and verifiable source information, and notably lacks AI-generated elements that would create fictional content. For the purposes of this directive, this would include photography, videography, audio recording, streaming, and scientific visualization of data. Authentic media would typically be credited as agency work product alongside the name of personnel responsible for its capture, recording, or transmission.

**Generative Artificial Intelligence, or Generative AI**, refers to artificial intelligence systems and algorithms designed to create new content or modify existing content, rather than simply analyzing or categorizing information. These systems learn patterns from training data and can then produce novel outputs—such as text, images, audio, code, or video—that did not previously exist, or transform existing content through substantive alterations, additions, or refinements. When modifying existing imagery or video, generative AI can perform complex operations such as removing or replacing elements, extending boundaries, changing styles, merging content sources, or enhancing details beyond what traditional editing tools permit. Unlike traditional AI systems focused on recognition or prediction tasks, generative AI can independently synthesize and transform content that appears to demonstrate creativity, imagination, and innovation. For the purposes of this directive, this includes large language models (LLMs), diffusion models, generative adversarial networks (GANs), image-to-image translation models, and other frameworks capable of producing or significantly modifying content from learned patterns rather than explicit programming. Generative AI capabilities underpin AI-generated media and contribute to AI-assisted media workflows, representing a fundamental shift from AI systems that merely recognize content to those that can create and transform it.

**Human-created Media** refers to content (such as images, audio, video, etc.) that is substantially conceived, authored, or performed by a human without the use of generative artificial intelligence tools for the creative output itself. Permissible tools may include software used for editing, formatting, or enhancing (e.g., Photoshop, MIDI controllers, grammar checkers), provided they do not independently generate new, substantive creative content. For the purposes of this directive, this includes art, artist concepts, animation, illustration, music and other human-created media content types. Human-created media would typically be credited as agency work product alongside the name of personnel responsible for its creation.