



Goddard Procedural Requirements (GPR)

DIRECTIVE NO. GPR 2800.1 APPROVED BY Signature: Original Signed By
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EXPIRATION DATE: October 6, 2010 TITLE: Director

COMPLIANCE IS MANDATORY

Responsible Office: 704/Policy and Agency Program Support Office

Title: GSFC Section 508 Web Compliance

PREFACE

P.1 PURPOSE

This directive describes the responsibilities and processes for ensuring GSFC Web site and Web application compliance with Section 508 of the Rehabilitation Act (29 U.S.C. 794d). Section 508 requires federal agencies to make their electronic and information technology accessible to people with disabilities, and to give both disabled employees, and members of the public with disabilities, access to information that is comparable to the access available to others.

P.2 APPLICABILITY

This directive applies to all public and internal GSFC Web sites and Web applications hosted on the nasa.gov network by, or for, GSFC under contracts, grants, or other agreements. Section 508 applies to all Web sites and Web applications hosted by GSFC contractors and grantees where the contract or grant requires the provision of Web services on behalf of Center missions, programs, projects, and institutional requirements.

P.3 AUTHORITY

- a. Section 508 of the Rehabilitation Act (29 U.S.C. 794d)
- b. Architectural and Transportation Barriers Compliance Board (Access Board) Electronic and Information Technology (EIT) Accessibility Standards (36 CFR Part 1194)
- c. NASA Section 508 Web Policy
http://www.section508.nasa.gov/resources/resources_nasa.htm

P.4 REFERENCES

Information links, the Web accessibility checklist, and a list of approved accessibility testing tools are provided at the GSFC Section 508 Web site: <http://web508.gsfc.nasa.gov/>.

- a. GSFC Section 508 Web accessibility checklist
- b. GSFC approved Section 508 Web accessibility testing tools
- c. GSFC Web Accessibility Coordinator: access@webmaster.gsfc.nasa.gov

CHECK THE GSFC DIRECTIVES MANAGEMENT SYSTEM AT
<http://gdms.gsfc.nasa.gov> TO VERIFY THAT THIS IS THE CORRECT VERSION PRIOR TO USE.

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P.5 CANCELLATION

None

P.6 SAFETY

None

P.7 TRAINING

A list of NASA recommended Section 508 training is available at the GSFC Section 508 Web site.

P.8 RECORDS

None

P.9 METRICS

The Systems Development Branch (SDB) will take a yearly random sample of public Goddard Web pages in order to test their compliance with Section 508. The purpose of this metric is to assess the effectiveness of this policy. Higher compliance rates over time would indicate that this policy will have had a positive effect on the Center's compliance with Section 508 as a whole.

The sampling method used will be "probability proportional to size," such that pages that are more frequently accessed are more likely to be sampled. Test results from the first sampling will serve as a baseline for future comparison. Tests will be conducted using an approved testing tool, as specified in Section 2.2.2.

P.10 DEFINITIONS

- a. Browser – A software application used to access and display Web pages.
- b. Compliant – A Web page or Web application that adheres to Section 508 and the Web standards set by the Access Board.
- c. Domain name – Domain name is used to identify computers as belonging to a particular organization. Domain names are hierarchical in nature, with each level in the hierarchy being separated from other levels with a period (pronounced "dot"). For example, one of GSFC's domain names is "gsfc.nasa.gov."
- d. Host name – The name of a specific computer. There can be multiple host names within a single domain. Host names are hierarchical in nature. For the NASA web site, www.nasa.gov, "www" is the host name, and "nasa.gov" the host domain.
- e. Internal – A Web page or Web application that is behind the GSFC firewall and normally available only to employees, contractors, and others covered under contracts, grants, or other agreements.
- f. Internet – The international computer network of networks that connect government, academic, and business institutions.
- g. Intranet – A private network of various computers within an organization. An Intranet is used to share organization information and computing resources among employees. An Intranet uses regular Internet protocols and in general looks like a private version of the Internet.
- h. Low impact – A Web site or Web application with fewer than 500 users per year.
- i. Public – A Web page or Web application that is accessible outside the GSFC firewall.
- j. Redesign – A major Web page or Web application modification, such as replacing more than 50% of the content, creating a new navigation structure, or designing a new look and feel for the site. Simply posting new content does not constitute a redesign.
- k. Responsible NASA Official (RNO) – NASA official responsible for a NASA Web page or Web application.
- l. Restricted – A Web site or Web application that requires an id and password or some equivalent means of user identification for access.
- m. Section 508 – Section of the Rehabilitation Act (29 U.S.C. 794d) that requires Federal agencies to make their electronic and information technology accessible to people with disabilities.

- n. Significant impact – A Web site or Web application with 500 or more users per year. For example, a site that is advertised on the GSFC internal homepage or via the gsfc-all mailing list would be considered to have significant impact.
- o. Testing tool – Software designed to help expose barriers to Web accessibility and to encourage compliance with existing accessibility guidelines and Section 508 rules.
- p. Uniform Resource Locator (URL) – An address that specifies the location of a file on the network.
- q. Update – Web page modification made by a Web site curator or developer such as changing text, pictures, or links. In contrast to a redesign, which is a major change to a large portion of a site, an update is a simple change, usually to a single page. Content that changes based on user input, such as that on a dynamic Web application, is not considered an update.
- r. User – A person who may use a Web page or Web application any number of times.
- s. Web application – A Web-based software application with one or more users, e.g., a timecard system, accessed through the network by entering a URL in a Web browser or similar software.
- t. Web curator – An individual who maintains a Web site, for example, updating text, pictures, and links.
- u. Web developer – An individual who creates Web sites and applications, including designing layout, programming, writing text, creating graphics, and adding pictures and links.
- v. Web page – A single element of a Web site, identified by a specific URL. Web pages can contain text, graphics, and hyperlinks to other Web pages and files.
- w. Web service – Often used as a synonym for the information provided by a Web page or application, the term technically refers to the programmatic interface.
- x. Web site – A logical collection of related Web pages hierarchically structured under the same URL (examples include <http://www.nasa.gov/centers/goddard/home/>; <http://www.nasa.gov>).

PROCEDURES

In this document, a requirement is identified by “shall,” a good practice by “should,” permission by “may” or “can,” expectation by “will,” and descriptive material by “is.”

1. Responsibilities

1.1 Web Developer

The Web developer shall perform Section 508 Web Compliance Tests and shall correct any Section 508 compliance problems found for new or redesigned Web sites and Web applications. The Web developer shall ensure a Web site or Web application successfully passes a Section 508 Web Compliance Test before the site or application is made available to users. If notified that an SDB review uncovered a Section 508 compliance problem in an existing Web page, the Web developer shall correct the problem. The Web developer is accountable to the Responsible NASA Official.

1.2 Web Curator

The Web curator should test existing and updated Web pages for Section 508 compliance. The Web curator shall ensure an updated Web page is Section 508 Web compliant before the updated page is made available to users. If notified that an SDB review uncovered a Section 508 compliance problem in an existing Web page, the Web curator shall correct the problem. The Web Curator is accountable to the Responsible NASA Official.

1.3 Responsible NASA Official (RNO)

The Responsible NASA Official for a Web site or Web application shall ensure a successful Section 508 Compliance Test is performed before a new or redesigned Web site or Web application is made available to users. When a Web site or Web application has passed a Section 508 Compliance Test and is ready for use, the RNO or designee shall notify the SDB. If the Web site or Web application is to be used by the public or is an internal Web site or Web application with significant impact, the RNO or designee shall receive approval from the GSFC Web Accessibility Coordinator before the Web site or Web application is made available to users. If notified that an SDB review uncovered a Section 508 compliance problem in an existing Web page, the RNO shall ensure the problem is corrected within the timeframe agreed upon by the RNO and the Web Accessibility Coordinator as specified in Section 2.4.

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1.4 Web Accessibility Coordinator

The Web Accessibility Coordinator shall notify the RNO when a Web site or Web application that is to be used by the public or an internal Web site or Web application with significant impact has been found to be Section 508 compliant and grant approval to make the Web site or Web application available to users. The Web Accessibility Coordinator shall assist developers and curators to bring their Web sites and Web applications into Section 508 compliance. The Web Accessibility Coordinator may remove an existing Web site or Web application with an uncorrected Section 508 compliance problem from the network. The Web Accessibility Coordinator shall approve Section 508 Web accessibility testing tools.

1.5 Systems Development Branch (SDB)

The Systems Development Branch shall notify the Web Accessibility Coordinator when a RNO or designee has requested approval to make a Web site or Web application that is to be used by the public or an internal Web site or Web application with significant impact available to users. On a periodic basis, the SDB shall review existing Web sites and Web applications for Section 508 compliance. The SDB determines the schedule of reviews for existing Web sites and Web applications. The SDB shall notify the RNO and curator of any Section 508 compliance issues discovered in these reviews. The SDB develops and maintains the GSFC Section 508 Web accessibility checklist found on the GSFC Section 508 Web site.

2. Web Site and Web Application Section 508 Compliance Procedures

2.1 Existing Web Sites and Web Applications

The SDB shall review existing Web sites and Web applications for Section 508 compliance. Given the large number of existing Web sites and Web applications, reviews shall be done in phases. The SDB shall determine the priority and schedule of reviews. The top twenty most frequently visited public Web sites of each directorate shall be reviewed first.

Within one week of completion of a review, the SDB shall notify the RNO and curator of any Section 508 compliance problems with a Web site or Web application. The developer or curator shall correct the identified problems. If not corrected, the Web site or Web application may be removed from the network at the discretion of the Web Accessibility Coordinator who shall notify the Computer Security Officer, RNO, and curator of this action.

In the event the identified problems cannot be immediately corrected, the developer or curator shall request assistance (see Section 2.4), and the Web Accessibility Coordinator shall work with the developer or curator to determine a timeframe in which the Web site or Web application shall be brought into Section 508 compliance. If the identified compliance problems are not corrected within the agreed timeframe, the Web site or Web application may be removed from the network.

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2.2 New Web Sites and Web Applications

Internal Web sites and Web applications are divided into two categories: low impact (fewer than 500 users per year) and significant impact (500 or more users per year). If there are any questions as to whether a Web site or Web application is “significant,” contact the GSFC Web Accessibility Coordinator for assistance.

New public Web sites and Web applications and new internal Web sites and Web applications with significant impact shall be Section 508 compliant and approved by the GSFC Web Accessibility Coordinator or designee before these are made available to users.

Public access for Web sites and Web applications shall not be granted unless these are Section 508 compliant. In the event that a Web site or Web application needs public access while still in its development phase, the Web Accessibility Coordinator shall work with the developer to determine a timeframe in which the Web site or Web application shall be brought into Section 508 compliance. If the Web site or Web application does not comply within that timeframe, public access shall be revoked.

New internal Web sites and Web applications with low impact shall be Section 508 compliant but need not be approved by the GSFC Web Accessibility Coordinator before these are made available to users.

Developers are encouraged to contact the Systems Development Branch with any questions concerning Section 508 or Section 508 compliance as early in the development process as possible to avoid potential problems.

Developers are also encouraged to conduct the exercises in Sections 2.2.1 and 2.2.2 periodically throughout the development process. For all new Web sites and Web applications, developers shall conduct these two exercises upon completion of the development process and before these Web sites and Web applications are made available to users. The RNO or designee shall certify the Section 508 compliance of all new Web sites and Web applications and request approval if needed (see Section 2.2.3).

2.2.1 Exercise One: GSFC Section 508 Web Accessibility Checklist

Web site and Web application developers shall follow the instructions given in the GSFC Section 508 Web accessibility checklist. Checklist is on the GSFC Section 508 Website. Developers shall make any necessary corrections to their Web sites and Web applications to ensure Section 508 compliance. Assistance may be requested from the GSFC Web Accessibility Coordinator if any questions arise (see Section 2.4).

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2.2.2 Exercise Two: Approved Testing Tool

Web site and Web application developers and curators shall test for Section 508 compliance using an approved testing tool. Since no automated testing tool can programmatically diagnose with any certainty, these tools highlight potential problems and suggest items to be manually checked. A list of approved testing tools is maintained at the GSFC Section 508 Web site. Developers shall make any necessary corrections to their Web sites and Web applications to ensure Section 508 compliance. Following necessary corrections, developers shall rerun the test to verify that identified Section 508 problems were corrected. Assistance may be requested from the GSFC Web Accessibility Coordinator if any difficulties arise (see Section 2.4).

2.2.3 Certification

When a new Web site or Web application has completed the two exercises and is ready for use, the RNO or designee shall send an e-mail message to access@webmaster.gsfc.nasa.gov to certify Section 508 compliance and, if a public Web site or Web application or if an internal Web site or Web application with significant impact, the RNO or designee shall also request approval from the GSFC Web Accessibility Coordinator at this time. The Web Accessibility Coordinator shall respond to the RNO and curator within one week. Actual turnaround time for approval may vary, depending on whether there is more work to be done to come to compliance.

2.3 Web Site and Web Application Redesigns and Updates

Whenever a Web site or Web application undergoes a redesign, the exercises in Sections 2.2.1 and 2.2.2 shall be performed by the developer. After successful completion of these exercises, the RNO or designee shall certify the Section 508 compliance of the redesigned Web site or Web application (see Section 2.2.3).

Whenever the Web site or Web application is updated, the developer or curator should run a Section 508 Web compliance test using an approved testing tool and correct any Section 508 problems.

2.4 Requesting Assistance

Developers seeking assistance from the GSFC Web Accessibility Coordinator shall contact the Computer and Applications Services Branch help desk (301-286-9508 or adb-support@listserv.gsfc.nasa.gov) with questions or to request a Section 508 compliance review. The Web Accessibility Coordinator or designee will answer questions or review the Web site or Web application and work with the developer to correct problems. The timeframe for this review and subsequent correction will vary depending upon the severity of the issues and whether iteration is required to resolve them.

2.5 Procedures Summary

Case	Timetable	Requirement	Procedures
New Web Sites and Web Applications (including redesigns of existing sites)...			
...All	During development	None	<ul style="list-style-type: none"> • Web Developers are encouraged to test their sites periodically throughout the development process. • Web Developers are encouraged to contact the SDB with any questions concerning Section 508 or Section 508 compliance as early in the development process as possible to avoid potential problems.
...that are Public	When ready to release	Shall pass the GSFC Section 508 Web accessibility checklist.	<ul style="list-style-type: none"> • Web developers shall follow the instructions given in the GSFC Section 508 Web accessibility checklist. • Web developers shall make any necessary corrections to ensure Section 508 compliance.
- or - ...that are Internal with <i>Significant Impact</i>		Shall pass a Section 508 Web compliance test using an approved testing tool.	<ul style="list-style-type: none"> • Web developers shall test for Section 508 compliance using an approved testing tool. • Web developers shall make any necessary corrections to ensure Section 508 compliance. • Following necessary corrections, Web developers shall rerun the test to verify that identified Section 508 problems were corrected.
		Shall receive approval by the GSFC Web Accessibility Coordinator or designee before these are made available to users.	<ul style="list-style-type: none"> • The RNO or designee shall send e-mail message(s) to access@webmaster.gsfc.nasa.gov to certify Section 508 compliance, <i>and</i> request a review. • The SDB shall review the site(s) for Section 508 compliance, and the GSFC Web Accessibility Coordinator or designee shall approve compliant site(s) before these are made available to users.

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...that are Internal with <i>Low Impact</i>	When ready to release	Shall pass the GSFC Section 508 Web accessibility checklist.	<ul style="list-style-type: none"> • Web developers shall follow the instructions given in the GSFC Section 508 Web accessibility checklist. • Web developers shall make any necessary corrections to ensure Section 508 compliance.
		Shall pass a Section 508 Web compliance test using an approved testing tool.	<ul style="list-style-type: none"> • Web developers shall test for Section 508 compliance using an approved testing tool. • Web developers shall make any necessary corrections to ensure Section 508 compliance. • Following necessary corrections, Web developers shall rerun the test to verify that identified Section 508 problems were corrected
			<ul style="list-style-type: none"> • The RNO or designee shall send e-mail message(s) to access@webmaster.gsfc.nasa.gov to certify Section 508 compliance.

Existing Web Sites and Web Applications,...			
...As-is	In phases	Shall be evaluated for Section 508 Web compliance using an approved testing tool.	<ul style="list-style-type: none"> • The SDB shall review existing Web sites and Web applications for Section 508 compliance. • The SDB shall determine the priority and schedule of reviews. The top twenty most frequently visited public Web sites of each directorate shall be reviewed first. • Within one week of completion of a review, the SDB shall notify the RNO and curator of any Section 508 compliance problems.
		Shall be corrected to eliminate any identified problems.	<ul style="list-style-type: none"> • The developer or curator shall correct the identified problems. • If not corrected, the Web site or Web application may be removed from the network at the discretion of the Web Accessibility Coordinator, who shall notify the Computer Security Officer, RNO and curator of this action.
...Simple update to a page	Upon update	None	<ul style="list-style-type: none"> • Web developers and Web curators are encouraged to test for Section 508 compliance using an approved testing tool, for the purpose of checking their work. • Web developers shall make any necessary corrections to ensure Section 508 compliance.

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3. Section 508 Exemptions and Waivers

3.1 Exemptions

The accessibility standards, 36 CFR Part 1194, provide four exemptions for electronic and information technology.

- a. Electronic and information technology acquired by a contractor incidental to a Federal contract;
- b. Electronic and information technology for a national security system (defined by Clinger-Cohen Act);
- c. Electronic and information technology located in spaces frequented only by service personnel for maintenance, repair or occasional monitoring of equipment; and
- d. Electronic and information technology that would impose an undue burden on the agency.

None of these exemptions are applicable to GSFC Web sites or Web applications. Machine-to-machine Web sites or Web applications with no human users are not covered by Section 508.

3.2 Waivers

There are no waivers for Section 508 compliance thus no process exists to request or to grant them for Web sites.

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CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
Baseline	10/6/2005	Initial Release