

Space Weather EOC

About Time

All reports, images, and data plots are referenced in UTC time and date. This website provides time and date based on the user's computer clock. The website provides a link to the National Institute of Standards and Technology (NIST) time reference system. For information on how to synchronize the computer with NIST time, please refer to the Help files "**About Time**".

GMT and UTC Format (Sat, 13 Dec 2014 14:51:24 GMT)

The program converts the computer time to UTC (GMT). UTC, GMT, and Zulu Time (ZT) are the same. Reports, images, and data plots are stamped with this 24 hour time and date.

Local Time Format (Sat Dec 13 2014 07:50:28 GMT-0700 (US Mountain Standard Time))

This is the time zone and date the user's computer is set. The difference between the Local Time (LT) and UTC are also displayed. All times are indicated in 24 hour format

Time Stamp Format

Sat, 13 Dec 2014 14:51:24 GMT Sat Dec 13 2014 07:50:28 GMT-0700 (US Mountain Standard Time)
Sat, 13 Dec 2014 14:49:24 GMT Sat Dec 13 2014 07:49:28 GMT-0700 (US Mountain Standard Time)

Each webpage displayed contains a two line clock. The top line can be black or white in text color. It displays the current time and date.

Each time the webpage is loaded or refreshed (manually or automatically) the RED clock captures that time. All web pages contain auto refresh unless otherwise indicated every 60 seconds.

NIST Official Time



Synchronizing your computer clock

If your computer is a member of a [domain](#), your computer clock is probably synchronized automatically by a network [time server](#). If your computer is not a member of a domain, you can synchronize your computer clock with an Internet time server.

If synchronization is enabled, your computer clock is synchronized with an Internet time server once a week. However, if you don't have a continuous Internet connection through a cable modem or [DSL](#) modem, the automatic synchronization might not always occur. In that case, you can force an immediate synchronization by clicking the **Update Now** button on the **Internet Time** tab in Date and Time in Control Panel. This tab is only available if your computer is not a member of a domain.

If time synchronization fails

When you click the **Update Now** button, your clock should be synchronized immediately. If it fails, it might be for one of the following reasons:

- You are not connected to the Internet. Establish an Internet connection before you attempt to synchronize your clock.
- Your personal or network firewall prevents clock synchronization. Most corporate and organizational firewalls will block time synchronization, as do some personal firewalls. Home users should read the firewall documentation for information about unblocking network time protocol (NTP). You should be able to synchronize your clock if you switch to Windows Firewall.
- The Internet time server is too busy or is temporarily unavailable. If this is the case, try synchronizing your clock later, or update it manually by double-clicking the clock on the [taskbar](#). You can also try using a different time server.
- The time shown on your computer is too different from the current time on the Internet time server. Internet time servers might not synchronize your clock if your computer's time is off by more than 15 hours. To synchronize the time properly, ensure that the date and time settings are set close to your current time in the Date and Time Properties in Control Panel.
- To open Date and Time, click **Start**, click **Control Panel**, and then double-click **Date and Time**.
- An Internet time server updates the date set by your computer as well as the time.
- The **Update Now** button is not available unless the **Automatically synchronize with an Internet time server** check box is selected.
- You can change the time on your computer clock manually on the **Date & Time** tab in Date and Time in Control Panel. You can also open Date and Time by double-clicking the clock on the taskbar.



Adjust this NIST Clock to 24 Hour-UTC to coordinate with images and data plots.

This widget is a public service provided by the [Time and Frequency Division](#) of the [National Institute of Standards and Technology \(NIST\)](#). It is a web clock showing the official time of day from NIST, displayed as a 12 or 24-hour clock, in a user-selectable time zone.

The time reference for the widget is the output of the national time scale called UTC(NIST). It starts with a zero-offset time zone called Coordinated Universal Time (UTC), and it is adjusted to the local time based on the client's computer time zone settings.

It is not continuously linked to NIST - it re-synchronizes with NIST every 10 minutes. Therefore, this widget is intended as a time-of-day service only. It should not be used to make measurements, nor should it be used to establish traceability to NIST.

The widget utilizes the client's computer clock as a timer to measure the round-trip network delay, which is the interval of time starting when the widget sends a time request to the server and ending when the time is displayed in the browser. The accuracy of the time shown will always be better than this round-trip delay.