What is Greenwich Mean Time (GMT)?

Please note that GMT may be listed as Zulu (Z) or Coordinated Universal Time (UTC).

To avoid the confusion caused by all the time zones around the world and changes between standard time and daily savings time, most scientists use the twenty four hour clock and only one time zone, Greenwich Mean Time or ***GMT***. ***GMT*** time is the current time measured on the Prime Meridian (0 degrees longitude). The Prime Meridian runs through Greenwich, England, hence the name Greenwich Mean Time or ***GMT***. All over the planet it is the same time. Some people use the names ***Z*** or ***Zulu*** and ***UTC*** or Universal Time Coordinates instead of ***GMT***. ***GMT***, ***Z***, ***Zulu*** and ***UTC*** all mean the same thing - the current time at the Prime Meridian.

When converting from ***GMT*** to local time, first consider the ***GMT*** as military time (24 hour clock). Then go back the correct number of hours using the following:

From GMT to Local Standard Time:
Eastern Standard Time (EST) UTC - 5 hours = EST
Central Standard Time (CST) UTC - 6 hours = CST
Mountain Standard Time (MST) UTC - 7 hours = MST
Pacific Standard Time (PST) UTC - 8 hours = PST

From GMT to Local Daylight Time:
Eastern Standard Time (EDT) UTC - 4 hours = EST
Central Standard Time (CDT) UTC - 5 hours = CST
Mountain Standard Time (MDT) UTC - 6 hours = MST
Pacific Standard Time (PDT) UTC - 7 hours = PST

Next, the local time is converted to an AM/PM time, if needed.

Friday 2300Z Dec 2

Consider 2300Z as 2300 hours (basically changing Z time to a 24 clock). Then for Central Standard Time, go back 6 hours. Therefore 2300Z or 23Z Dec 2 is 1700 hours or 500 PM Friday Dec 2nd Central Standard Time.

Monday 0300Z May 9 (Hint: For 0000Z through 0500Z, it is actually the day before)

Consider 0300Z as 0300 hours (basically changing Z time to a 24 clock). Then for Central Daylight Time, go back 5 hours. Therefore 0300Z or 03Z May 9 is 1000 PM on **Sunday May 8** Central Daylight Time.

U. S. Standard Time vs. Universal Time Coordinated (Z-time)

UTC Time	off-set	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
AST	-4	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p	5p	6p	7p
EST	-5	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p	5p	6p
CST	-6	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p	5p
MST	-7	5p*	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p
PST	-8	4p*	5p*	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p
AK	-9	3p*	4p*	5p*	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p
Hi	-10	2p	3p*	4p*	5p*	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p
Guam	+10	10a	11a	12N	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12M%	1a%	2a%	3a%	4a%	5a%	6a%	7a%	8a%	9a%

Note: AST - Atlantic AK - Alaska time HI - Hawaii time *The previous day %The next day

Daylight Saving Time vs. Universal Time Coordinated (Z-time)

UTC Time	off-set	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
EDT	-4	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p	5p	6p	7p
CDT	-5	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p	5p	6p
MDT	-6	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p	5p
PDT	-7	5p*	6p*	7p*	8p*	9p*	10p*	11p*	12M	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12N	1p	2p	3p	4p