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World Time Zones & UTC Offset – Complete Printable Chart

Download the free **World Time Zones PDF** to quickly check **UTC offsets, country and region examples, GMT vs UTC, time-zone abbreviations, half-hour and 45-minute offsets, daylight saving time and international time conversion examples**.

This PDF includes:

- Complete UTC offset chart
- World time zone reference
- Country-wise time zone examples
- UTC vs GMT
- UTC+ and UTC− explained
- India Standard Time
- US time zones
- European time zones
- Asian time zones
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- Daylight Saving Time explained
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- UTC conversion examples
- International time difference examples
- International Date Line
- Time zone cheat sheet
- Printable world time zone chart
- Frequently asked questions

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PDF Reference Information

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Important Time Zone Disclaimer

Time-zone rules can change because of **daylight saving time, government decisions, territorial changes and other local regulations**.

A country may have multiple time zones, and a location's UTC offset may change depending on the date.

The examples in this guide are intended for general reference. For exact current time, scheduling, travel, legal deadlines or software applications, verify the applicable time-zone rules for the specific **location and date**.

WORLD TIME ZONES & UTC OFFSET

Complete Global Time Zone Reference Chart

Updated: 2026

The world is divided into different **time zones** so that local clocks can correspond approximately to the position of the Sun.

UTC (Coordinated Universal Time) is the primary international reference used to express time differences around the world.

A time zone can be described using its **UTC offset**, such as:

- UTC−08:00
- UTC−05:00
- UTC+00:00
- UTC+01:00
- UTC+05:30
- UTC+08:00
- UTC+10:00

This printable **World Time Zones and UTC Offset PDF** provides a practical reference for UTC offsets, country and region examples, common abbreviations, time conversion and daylight saving time.

Quick Answer: What Is a UTC Offset?

A **UTC offset** tells you how many hours and minutes a local time differs from Coordinated Universal Time.

For example:

UTC+05:30

means the local time is **5 hours and 30 minutes ahead of UTC**.

If UTC is:

12:00

then UTC+05:30 is:

17:30

Similarly:

UTC−05:00

means the local time is **5 hours behind UTC**.

What Is UTC?

UTC stands for **Coordinated Universal Time**.

It is the primary reference used for international timekeeping and for calculating time differences between locations.

UTC itself does not change for daylight saving time.

Instead, some locations change their local clock relative to UTC during parts of the year.

UTC vs GMT

GMT stands for **Greenwich Mean Time**.

GMT is historically associated with the mean solar time at Greenwich, London.

UTC is the modern international time standard based on atomic timekeeping and coordinated with Earth's rotation.

For many everyday purposes, **UTC+00:00 and GMT are treated as equivalent offsets**, although UTC and GMT are not technically identical concepts.

Quick comparison

Term	Meaning
UTC	Coordinated Universal Time
GMT	Greenwich Mean Time
UTC+00:00	Zero-hour UTC offset
UTC−05:00	5 hours behind UTC

UTC+05:30 5 hours 30 minutes ahead of UTC

World UTC Offset Chart

The following chart provides a practical reference to UTC offsets that are used by time zones around the world.

UTC Offset	Relative to UTC	Example Locations
UTC−12:00	12 hours behind	Baker Island*
UTC−11:00	11 hours behind	American Samoa, Niue
UTC−10:00	10 hours behind	Hawaii, parts of French Polynesia
UTC−09:30	9 hours 30 minutes behind	Marquesas Islands
UTC−09:00	9 hours behind	Alaska in standard time
UTC−08:00	8 hours behind	Pacific US/Canada in standard time
UTC−07:00	7 hours behind	Mountain North America in standard time
UTC−06:00	6 hours behind	Central North America in standard time
UTC−05:00	5 hours behind	Eastern North America in standard time
UTC−04:00	4 hours behind	Atlantic Canada, parts of Caribbean
UTC−03:00	3 hours behind	Argentina, parts of Brazil
UTC−02:00	2 hours behind	Parts of South Atlantic
UTC−01:00	1 hour behind	Azores in standard time
UTC+00:00	Same as UTC	Iceland, Ghana, parts of West Africa
UTC+01:00	1 hour ahead	Central Europe in standard time, Nigeria
UTC+02:00	2 hours ahead	South Africa, Eastern Europe in standard time
UTC+03:00	3 hours ahead	Saudi Arabia, Kenya, Türkiye
UTC+03:30	3 hours 30 minutes ahead	Iran
UTC+04:00	4 hours ahead	UAE, Georgia, Armenia

UTC+04:30	4 hours 30 minutes ahead	Afghanistan
UTC+05:00	5 hours ahead	Pakistan, Uzbekistan
UTC+05:30	5 hours 30 minutes ahead	India, Sri Lanka
UTC+05:45	5 hours 45 minutes ahead	Nepal
UTC+06:00	6 hours ahead	Bangladesh, Bhutan
UTC+06:30	6 hours 30 minutes ahead	Myanmar
UTC+07:00	7 hours ahead	Thailand, Vietnam, Indonesia
UTC+08:00	8 hours ahead	China, Singapore, Malaysia
UTC+08:45	8 hours 45 minutes ahead	Western Australia regional areas
UTC+09:00	9 hours ahead	Japan, South Korea
UTC+09:30	9 hours 30 minutes ahead	Central Australia
UTC+10:00	10 hours ahead	Eastern Australia in standard time
UTC+10:30	10 hours 30 minutes ahead	Lord Howe Island in standard time
UTC+11:00	11 hours ahead	Solomon Islands, New Caledonia
UTC+12:00	12 hours ahead	New Zealand in standard time
UTC+12:45	12 hours 45 minutes ahead	Chatham Islands in standard time
UTC+13:00	13 hours ahead	Tonga, Samoa
UTC+14:00	14 hours ahead	Line Islands, Kiribati

*Some locations are uninhabited or have special territorial status and are included as geographical references rather than ordinary population centers.

Important: A location's UTC offset can change during the year because of daylight saving time or local government decisions.

Positive and Negative UTC Offsets

UTC offsets are generally written with a **plus (+)** or **minus (−)** sign.

UTC+ Offset

A positive offset means the local time is ahead of UTC.

Example:

UTC+05:30

If UTC = 10:00

Local time = **15:30**

UTC− Offset

A negative offset means the local time is behind UTC.

Example:

UTC−05:00

If UTC = 10:00

Local time = **05:00**

UTC Offset Examples

UTC Time	UTC+05:30	UTC−05:00	UTC+08:00
00:00	05:30	19:00 previous day	08:00
06:00	11:30	01:00	14:00
12:00	17:30	07:00	20:00
18:00	23:30	13:00	02:00 next day

Notice that converting between time zones can sometimes change the **calendar date**.

Country-Wise Time Zone Reference

A country can have one or multiple time zones. Large countries such as the United States, Canada, Russia and Australia span several time zones.

The following is therefore a **general reference**, not a statement that every location in a country always uses the same UTC offset.

Country	Common Time Zone / Offset Example
India	IST – UTC+05:30
Sri Lanka	UTC+05:30
Nepal	UTC+05:45
Pakistan	UTC+05:00
Bangladesh	UTC+06:00
Myanmar	UTC+06:30
Thailand	UTC+07:00
Vietnam	UTC+07:00
China	UTC+08:00
Singapore	UTC+08:00
Malaysia	UTC+08:00
Japan	UTC+09:00
South Korea	UTC+09:00
Indonesia	UTC+07:00, UTC+08:00 and UTC+09:00
Australia	Multiple time zones
New Zealand	UTC+12:00 standard time
Afghanistan	UTC+04:30
Iran	UTC+03:30
UAE	UTC+04:00
Saudi Arabia	UTC+03:00
Türkiye	UTC+03:00

Kenya	UTC+03:00
South Africa	UTC+02:00
Nigeria	UTC+01:00
Ghana	UTC+00:00
Iceland	UTC+00:00
United Kingdom	UTC+00:00 standard time; seasonal changes apply
France	UTC+01:00 standard time; seasonal changes apply
Germany	UTC+01:00 standard time; seasonal changes apply
Italy	UTC+01:00 standard time; seasonal changes apply
Spain	UTC+01:00 standard time for mainland Spain; seasonal changes apply
Brazil	Multiple time zones
Argentina	UTC−03:00
Canada	Multiple time zones
United States	Multiple time zones
Mexico	Multiple time zones
Chile	Multiple time zones/seasonal rules
Russia	Multiple time zones
South Korea	UTC+09:00
Philippines	UTC+08:00

India Time Zone

India uses a single official time zone:

Indian Standard Time (IST)

UTC offset:

UTC+05:30

India does not currently observe daylight saving time nationally.

Example

If UTC is:

12:00

India Standard Time is:

17:30 IST

Nepal Time Zone

Nepal uses:

Nepal Time (NPT)

UTC offset:

UTC+05:45

Nepal is notable because its standard time is offset by **45 minutes**, rather than a whole hour or half hour.

Sri Lanka Time Zone

Sri Lanka uses:

Sri Lanka Standard Time

UTC offset:

UTC+05:30

This is the same UTC offset as India.

United States Time Zones

The United States spans multiple time zones.

Common mainland US time zones include:

Time Zone	Standard UTC Offset
Eastern	UTC−05:00
Central	UTC−06:00
Mountain	UTC−07:00
Pacific	UTC−08:00

Some regions observe daylight saving time, which changes their UTC offset seasonally.

Alaska and Hawaii use additional time zones.

Canada Time Zones

Canada spans multiple time zones, including:

- Pacific
- Mountain
- Central
- Eastern
- Atlantic
- Newfoundland

Newfoundland is particularly notable because its standard offset includes a **30-minute component**.

Australia Time Zones

Australia has multiple time zones.

Examples include:

Region / Time Zone	Typical Standard Offset
Western Australia	UTC+08:00
Central Australia	UTC+09:30

Eastern Australia	UTC+10:00

Some Australian regions observe daylight saving time, while others do not.

Russia Time Zones

Russia spans a very large geographical area and uses multiple time zones.

Its standard offsets range broadly from:

UTC+02:00 to UTC+12:00

depending on the region.

This makes Russia one of the world's most geographically extensive multi-time-zone countries.

China Time Zone

China officially uses:

China Standard Time (CST)

UTC offset:

UTC+08:00

Although China spans a large geographical area, the country officially follows one standard civil time nationwide.

Japan Time Zone

Japan uses:

Japan Standard Time (JST)

UTC offset:

UTC+09:00

Japan does not currently use daylight saving time.

South Korea Time Zone

South Korea uses:

Korea Standard Time (KST)

UTC offset:

UTC+09:00

European Time Zones

Many European countries use one of three broad standard-time offsets:

- UTC+00:00
- UTC+01:00
- UTC+02:00

However, many European countries also change their clocks seasonally for daylight saving time.

Examples:

Region	Standard Offset
Iceland	UTC+00:00
UK	UTC+00:00
Central Europe	UTC+01:00
Eastern Europe	UTC+02:00

Always check the specific location and date when an exact current offset is required.

Half-Hour and 45-Minute Time Zones

Not every time zone differs from UTC by a whole number of hours.

Examples include:

UTC+05:30

India and Sri Lanka

UTC+05:45

Nepal

UTC+06:30

Myanmar

UTC+09:30

Central Australia

UTC+10:30

Lord Howe Island during standard time

UTC+12:45

Chatham Islands during standard time

UTC−09:30

Marquesas Islands

These unusual offsets are important when calculating international time differences.

What Is Daylight Saving Time?

Daylight Saving Time (DST) is a seasonal clock adjustment used in some locations.

During DST, clocks are typically moved forward by one hour compared with the location's standard time.

For example, a location might use:

UTC−05:00

during standard time and:

UTC−04:00

during daylight saving time.

Not all countries use DST, and rules can change.

Countries That Do Not Use Daylight Saving Time

Many countries do not change their clocks seasonally.

Examples include:

- India
- China
- Japan
- South Korea
- Singapore
- Malaysia
- Indonesia
- Thailand
- Saudi Arabia
- UAE

However, DST rules are subject to change, so always verify current local rules when exact scheduling matters.

UTC Offset vs Time Zone

These terms are related but should not be treated as identical.

UTC Offset

A numerical difference from UTC.

Example:

UTC+05:30

Time Zone

A geographical or civil-time system with rules governing local time.

Examples include:

- Asia/Kolkata
- America/New_York

- Europe/London
- Asia/Tokyo

A named time zone can have different UTC offsets at different times of the year because of daylight saving rules or historical changes.

IANA Time Zone Names

Computer systems often use **IANA Time Zone Database** identifiers.

Examples:

Location	IANA Time Zone
India	Asia/Kolkata
Japan	Asia/Tokyo
Singapore	Asia/Singapore
London	Europe/London
New York	America/New_York
Los Angeles	America/Los_Angeles
Dubai	Asia/Dubai
Sydney	Australia/Sydney

IANA identifiers are particularly useful in programming and software systems because they can represent regional time-zone rules rather than simply storing a fixed UTC offset.

Common Time Zone Abbreviations

Abbreviation	Common Meaning	Typical Offset
UTC	Coordinated Universal Time	UTC+00:00
GMT	Greenwich Mean Time	UTC+00:00
IST	India Standard Time	UTC+05:30

JST	Japan Standard Time	UTC+09:00
KST	Korea Standard Time	UTC+09:00
CST	Central Standard Time / other uses	Varies
EST	Eastern Standard Time	UTC−05:00
PST	Pacific Standard Time	UTC−08:00
MST	Mountain Standard Time	UTC−07:00
CET	Central European Time	UTC+01:00
EET	Eastern European Time	UTC+02:00
AEST	Australian Eastern Standard Time	UTC+10:00

Important: Some abbreviations are ambiguous. For example, **CST** can refer to different regional time zones. For precise international communication, a UTC offset or IANA time-zone identifier is often clearer.

UTC Offset Conversion Formula

A simple way to calculate local time is:

Local Time = UTC Time + UTC Offset

Example 1

UTC:

10:00

Offset:

UTC+05:30

Calculation:

10:00 + 05:30 = 15:30

Local time:

15:30

Example 2

UTC:

10:00

Offset:

UTC−05:00

Calculation:

10:00 − 05:00 = 05:00

Local time:

05:00

Time Difference Examples

India vs UTC

India:

UTC+05:30

Therefore:

India is 5 hours 30 minutes ahead of UTC.

India vs Japan

India:

UTC+05:30

Japan:

UTC+09:00

Difference:

3 hours 30 minutes

Japan is **3 hours 30 minutes ahead of India**.

India vs United Kingdom

When the UK is observing UTC:

India:

UTC+05:30

UK:

UTC+00:00

Difference:

5 hours 30 minutes

When the UK is observing its seasonal summer time, the difference changes.

India vs New York

New York's UTC offset changes seasonally.

Therefore, the time difference between India and New York depends on the date.

This is an important example of why a fixed UTC offset should not always be treated as a permanent property of a location.

International Time Conversion Examples

UTC	India (UTC+05:30)	Japan (UTC+09:00)	Dubai (UTC+04:00)
00:00	05:30	09:00	04:00
06:00	11:30	15:00	10:00
12:00	17:30	21:00	16:00
18:00	23:30	03:00 next day	22:00

Crossing Midnight When Converting Time Zones

Time-zone conversion can change the date.

For example:

UTC:

23:00

India:

UTC+05:30

Calculation:

23:00 + 05:30 = 04:30

The resulting local time is:

04:30 on the following day

This is why international scheduling should consider both **time and date**.

International Date Line

The **International Date Line** is an imaginary line generally located around the 180° longitude area of the Pacific Ocean.

Crossing it can result in a change of calendar date.

Because of political and geographical considerations, the International Date Line is not a perfectly straight line.

This contributes to the range of UTC offsets used around the world.

Maximum UTC Offsets

Modern civil time zones extend from approximately:

UTC−12:00

to:

UTC+14:00

This means that the difference between the earliest and latest standard civil offsets can reach:

26 hours

This is one reason the calendar date can differ significantly between two locations at the same moment.

UTC Offset Quick Reference

Offset	Meaning
UTC−12	12 hours behind UTC
UTC−10	10 hours behind UTC
UTC−08	8 hours behind UTC
UTC−05	5 hours behind UTC
UTC−03	3 hours behind UTC
UTC+00	Same as UTC
UTC+01	1 hour ahead
UTC+03	3 hours ahead
UTC+05:30	5 hours 30 minutes ahead
UTC+08	8 hours ahead
UTC+09	9 hours ahead
UTC+10	10 hours ahead
UTC+12	12 hours ahead
UTC+14	14 hours ahead

Most Important UTC Offsets to Remember

UTC−08:00

Common Pacific North American standard-time offset.

UTC−05:00

Common Eastern North American standard-time offset.

UTC+00:00

UTC/GMT reference offset.

UTC+01:00

Common Central European standard-time offset.

UTC+03:00

Used by several countries in Eastern Europe, Africa and the Middle East.

UTC+05:30

India and Sri Lanka.

UTC+05:45

Nepal.

UTC+08:00

China, Singapore and Malaysia.

UTC+09:00

Japan and South Korea.

UTC+10:00

Eastern Australia standard time in relevant regions.

UTC+12:00

New Zealand standard time.

UTC+14:00

Line Islands of Kiribati.

World Time Zone Cheat Sheet

Americas

Common offsets include:

UTC−10 to UTC−03

depending on location and season.

Europe

Common offsets include:

UTC+00 to UTC+03

depending on location and season.

Africa

Common offsets include:

UTC−01 to UTC+04

depending on location.

Asia

Common offsets include:

UTC+02 to UTC+12

depending on location.

Oceania

Common offsets include:

UTC+08 to UTC+14

depending on location and season.

Time Zone Tips for International Meetings

When scheduling an international meeting:

1. Include the **date**.
2. Include the **local time**.
3. Include the **time zone**.
4. Consider daylight saving time.
5. Confirm the time for each participant.
6. Use UTC when communicating with technical or international teams.

Example

Instead of:

Meeting at 10:00 AM

write:

Meeting at 10:00 AM IST (UTC+05:30)

For international teams, you can also state:

Meeting at 04:30 UTC.

Time Zones in Computer Systems

Modern applications should generally avoid relying solely on abbreviations such as:

CST

or:

IST

because abbreviations can be ambiguous.

For example, **IST** can have different meanings in different contexts.

A more precise representation can be:

Asia/Kolkata

or:

UTC+05:30

depending on the application's requirements.

Fixed Offset vs Named Time Zone

A fixed offset such as:

UTC+05:30

means exactly 5 hours and 30 minutes ahead of UTC.

A named zone such as:

America/New_York

contains regional rules, including historical and seasonal changes.

For software that needs correct local time across different dates, a named time zone is generally more useful than storing only a fixed offset.

Frequently Asked Questions

How many time zones are there in the world?

The answer depends on how time zones are counted. There are **24 theoretical one-hour offsets** around the globe, but actual civil time zones include half-hour, 45-minute and other variations, as well as geographical and political boundaries.

Therefore, there are more practical time-zone definitions than simply 24 one-hour zones.

What is UTC?

UTC stands for **Coordinated Universal Time** and serves as the primary international reference for timekeeping.

What is a UTC offset?

A UTC offset is the amount of time a local clock differs from UTC.

For example:

UTC+05:30 = 5 hours 30 minutes ahead of UTC.

What is the UTC offset for India?

India uses:

UTC+05:30

under Indian Standard Time.

What is UTC+5:30?

UTC+5:30 means a local time is **5 hours and 30 minutes ahead of UTC**.

What is GMT?

GMT stands for **Greenwich Mean Time**. It is historically associated with Greenwich, London, and corresponds to a zero-hour offset in many everyday contexts.

Is UTC the same everywhere?

UTC itself is the reference standard. Local times differ according to their UTC offsets and time-zone rules.

Which country is furthest ahead of UTC?

Some locations in Kiribati use:

UTC+14:00

which is the highest standard civil UTC offset currently used.

Which time zone is furthest behind UTC?

Some locations use:

UTC−12:00

as a civil time offset.

Does every country have only one time zone?

No. Large countries such as the United States, Canada, Russia and Australia use multiple time zones.

Does India have multiple time zones?

India officially uses a single standard time zone:

IST (UTC+05:30)

Does India use daylight saving time?

India does not currently observe nationwide daylight saving time.

Why do some countries have half-hour time zones?

Civil time zones are established according to geographical, political and historical considerations. Some regions therefore use offsets such as **UTC+05:30** or **UTC+09:30** instead of whole-hour offsets.

What is the difference between UTC and a time zone?

UTC is the global reference standard. A time zone is a regional system used to determine local civil time relative to UTC.

Printable World Time Zone Reference

Region	Common UTC Offset Range
North America	UTC−10 to UTC−03
South America	UTC−05 to UTC−02
Europe	UTC+00 to UTC+03
Africa	UTC−01 to UTC+04
Asia	UTC+02 to UTC+12
Australia	UTC+08 to UTC+11
Pacific Islands	UTC−11 to UTC+14

Note: These are broad reference ranges, not fixed rules for every country or location.

World Time Zone Quick Reference

UTC−12:00

12 hours behind UTC

UTC−08:00

8 hours behind UTC

UTC−05:00

5 hours behind UTC

UTC+00:00

UTC reference time

UTC+01:00

1 hour ahead

UTC+03:00

3 hours ahead

UTC+05:30

India Standard Time

UTC+05:45

Nepal Time

UTC+08:00

China Standard Time and several Southeast Asian locations

UTC+09:00

Japan Standard Time and Korea Standard Time

UTC+10:00

Eastern Australia standard time in relevant regions

UTC+12:00

New Zealand standard time

UTC+14:00

Line Islands of Kiribati

World Time Zone Cheat Sheet – One Page

UTC Offset	Example Location
−12:00	Baker Island
−11:00	American Samoa
−10:00	Hawaii
−09:30	Marquesas Islands
−09:00	Alaska
−08:00	Pacific North America
−07:00	Mountain North America
−06:00	Central North America
−05:00	Eastern North America
−04:00	Atlantic region
−03:00	Argentina
−02:00	South Atlantic
−01:00	Azores
+00:00	Iceland / Ghana
+01:00	Central Europe / Nigeria
+02:00	South Africa
+03:00	Saudi Arabia / Kenya
+03:30	Iran
+04:00	UAE
+04:30	Afghanistan
+05:00	Pakistan

+05:30 India

+05:45 Nepal

+06:00 Bangladesh

+06:30 Myanmar

+07:00 Thailand

+08:00 China / Singapore

+09:00 Japan

+09:30 Central Australia

+10:00 Eastern Australia

+11:00 Solomon Islands

+12:00 New Zealand

+12:45 Chatham Islands

+13:00 Tonga

+14:00 Kiribati Line Islands