

# USER'S GUIDE 2572

CASIO®

## Getting Acquainted

Congratulations upon your selection of this CASIO watch. To get the most out of your purchase, be sure to carefully read this manual and keep it on hand for later reference when necessary.

### Warning!

- The longitude, lunital interval, Moon phase indicator, and tide graph data that appear on the display of this watch are not intended for navigation purposes. Always use proper instruments and resources to obtain data for navigation purposes.
- This watch is not an instrument for calculating low tide and high tide times. The tide graph of this watch is intended to provide a reasonable approximation of tidal movements only.
- CASIO COMPUTER CO., LTD. assumes no responsibility for any loss, or any claims by third parties that may arise through the use of this watch.

## General Guide

- Press **(C)** to change from mode to mode.
- In any mode, press **(L)** to illuminate the display.

### Timekeeping Mode

Press **(C)**.

## About This Manual



(Light)

- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.

### Moon / Tide Data Mode



### Countdown Timer Mode



### Dual Time Mode



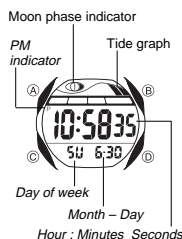
### Stopwatch Mode



### Alarm Mode



## Timekeeping



Use the Timekeeping Mode to set and view the current time and date.

- The tide graph shows tidal movements for the current date in accordance with the current time as kept in the Timekeeping Mode.
- The Moon phase indicator shows the current Moon phase in accordance with the current date as kept in the Timekeeping Mode.

### Important!

- Moon phase, tide graph data, and Moon/Tide Data Mode data will not be displayed properly unless the Timekeeping Mode current date and time settings and Home Site data are configured correctly. See "Home Site Data" for more information.

### To set the time and date



- In the Timekeeping Mode, hold down **(A)** until the seconds start to flash, which indicates the setting screen.
- Press **(C)** to move the flashing in the sequence shown below to select other settings.



- When the setting you want to change is flashing, use **(D)** and **(B)** to change it as described below.

To change this setting	Perform this button operation
Seconds	Press <b>(D)</b> to reset to 00.
Hour, Minutes, Year, Month, Day	Use <b>(D)</b> (+) and <b>(B)</b> (-) to change the setting.
12/24-Hour Format	Press <b>(D)</b> to toggle between 12-hour (12H) and 24-hour (24H) timekeeping.

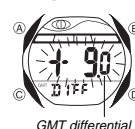
- Press **(A)** twice to exit the setting screen.
- The first press of **(A)** displays the GMT differential setting screen. Pressing **(A)** again exits the setting screen.
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all modes.
- The day of the week is automatically displayed in accordance with the date (year, month, and day) settings.

### Home Site Data

Moon phase, tide graph data, and Moon/Tide Data Mode data will not be displayed properly unless Home Site data (GMT differential, longitude, and lunital interval) is configured correctly.

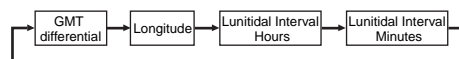
- The GMT differential is the time difference of the time zone where the site is located from Greenwich Mean Time.
- Note that you must add one hour to the GMT differential for your time zone whenever you change to Daylight Saving Time. Subtract one hour when you change back to Standard Time.
- The lunital interval is the time elapsing between the Moon's transit over a meridian and the next high tide at that meridian. See "Lunital Interval" for more information.
- This watch displays lunital intervals in terms of hours and minutes.
- The "Site Data List" and "Lunital Interval List" provide GMT differential, longitude, and lunital interval information around the world.
- The following is the initial factory default Home Site data (Tokyo, Japan) when you first purchase the watch and whenever you have the battery replaced. Change these settings to match the area where you normally use the watch.  
GMT differential (+9.0); Longitude (East 140 degrees); Lunital interval (5 hours, 20 minutes)

### To configure Home Site data



GMT differential

- In the Timekeeping Mode, hold down **(A)** until the seconds start to flash, which indicates the setting screen.
- Press **(A)** again to display the GMT differential setting screen.
- Press **(C)** to move the flashing in the sequence shown below to select other settings.



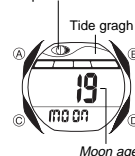
- When the setting you want to change is flashing, use **(D)** and **(B)** to change it as described below.

Setting	Screen	Button Operations
GMT differential	90 1FF	Use <b>(D)</b> (+) and <b>(B)</b> (-) to change the setting. • You can specify a value in the range of -11.0 to +14.0, in 0.5-hour unit.
Longitude	140° E 1.0	Use <b>(D)</b> (+) and <b>(B)</b> (-) to change the setting. • You can specify a value in the range of 179°W to 180°E, in 1-degree units.
Lunital Interval Hours, Minutes	5:20 10:58	Use <b>(D)</b> (+) and <b>(B)</b> (-) to change the setting.

- Press **(A)** to exit the setting screen.

## Moon/Tide Data

### Moon phase indicator



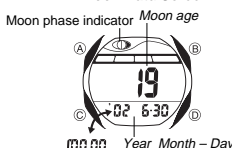
Moon age

- Moon/tide data lets you view the Moon age and Moon phase for a particular date, and tidal movements for a particular date and time for the Home Site.
- If you suspect that the Moon/tide data is not correct for some reason, check the Timekeeping Mode data (current time, date, and Home Site settings), and make changes as required.
  - See "Moon Phase Indicator" for information about the Moon phase indicator and "Tide Graph" for information about the tide graph.
  - All of the operations in this section are performed in the Moon/Tide Data Mode, which you enter by pressing **(C)**.

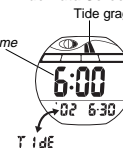
### Moon/Tide Data Screens

Each press of **(A)** in the Moon/Tide Data Mode toggles between the Moon Data screen and the Tide Data screen.

### Moon Data Screen



### Tide Data Screen

Press **(A)**.

- When you enter the Moon/Tide Data Mode, the data that appears first is the Moon data (Moon age and Moon phase indicator) for the current date as kept by the Timekeeping Mode.

### To view the Moon data for a particular date

- While the Moon Data screen is displayed in the Moon/Tide Data Mode, use **(D)** (+) and **(B)** (-) to display the date whose Moon data you want to view.
- You can select any date from 2000 to 2039.


## To view tide data for a particular time

- While the Moon Data screen is displayed in the Moon/Tide Data Mode, use **(D)** (+) and **(B)** (-) to display the date whose tide data you want to view.
- Press **(A)** to switch to the Tide Data screen.
  - The initial screen shows the tide graph for 6:00 AM.
- Specify the time for which you want to display tide data.
  - Use **(D)** (+) and **(B)** (-) to change the time in one-hour steps.

## Countdown Timer

The countdown timer can be set within a range of one minute to 60 minutes. An alarm sounds when the countdown reaches zero. The countdown timer has two modes: auto-repeat and elapsed time, and a progress beeper signals the progress of the countdown. All of this makes the countdown timer a valuable tool for timing the start of a yacht race.

- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing **(C)**.



Timekeeping Mode time

## Configuring the Countdown Timer

The following are the settings you should configure before actually using the countdown timer.

*Countdown start time and reset time*

*Timer mode (auto-repeat, elapsed time)*

*Progress beeper on/off*

- See "To configure the countdown timer" for information about setting up the timer.

### Reset Time

You can set a "reset time," which is a kind of alternate countdown start time you can recall with the press of a button any time a countdown operation is in progress.

### Timer Mode

The countdown timer gives you a choice of two modes: auto-repeat and elapsed time.

#### Auto-repeat

Auto-repeat mode automatically restarts the countdown from the countdown start time you set whenever zero is reached.

- Auto-repeat mode is best when timing the starts of match races.
- Even if you start a countdown operation from the reset time, the countdown automatically restarts from the countdown start time whenever it reaches zero.
- Auto repeat timing repeats up to seven times.

#### Elapsed Time

When the end of the countdown is reached in the elapsed time mode, the timer automatically switches to an elapsed time measurement operation.

- The elapsed time mode is best when timing the speed of yachts during ocean races.
- The elapsed time operation is performed in one-second increments up to 99 hours, 59 minutes, 59 seconds.

## Countdown Timer Beeper Operations

The watch beeps at various times during a countdown to so you can keep informed about the countdown status without looking at the display. The following describes the types of beeper operations the watch performs during a countdown.

### Countdown End Beeper

The watch beeps each second of the final 10 seconds before a countdown reaches zero, and at zero. The first five beeps (seconds 10 through 6) are higher pitched than the final five beeps (seconds 5 through 1). The watch emits a longer beep to signal when the countdown reaches zero.

- The countdown end beeper always sounds, regardless of the on/off status of the progress beeper.

### Progress Beeper

The progress beeper actually includes two beepers: a reset time beeper and a reset period progress beeper.

- The reset time beeper and reset period progress beeper sound only while the progress beeper is turned on.

### Reset Time Beeper

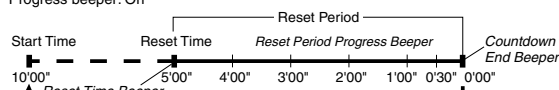
The reset time beeper is similar to the countdown end beeper. When the progress beeper is turned on, the watch beeps each second of the final 10 seconds before the countdown reaches the reset time.

### Reset Period Progress Beeper

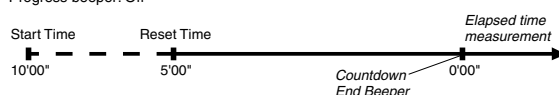
The reset period is the portion of the countdown between the reset time and zero. When the progress beeper is turned on, the watch emits four short beeps at the top of each minute during the reset period, and 30 seconds before the end of the countdown.

## Countdown Timer Examples

Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Auto-repeat; Progress beeper: On

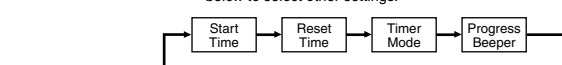


Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Elapsed time; Progress beeper: Off



## To configure the countdown timer

- While the countdown start time is on the display in the Countdown Timer Mode, hold down **(A)** until the countdown start time setting starts to flash, which indicates the setting screen.
  - If the countdown start time is not displayed, use the procedure under "To use the countdown timer" to display it.
- Press **(C)** to move the flashing in the sequence shown below to select other settings.



- When the setting you want to change is flashing, use **(D)** and **(B)** to change it as described below.

Setting	Screen	Button Operations
Start Time	10:00 FR	Use <b>(D)</b> (+) and <b>(B)</b> (-) to change the setting. • You can set a start time in the range of 1 to 60 minutes in 1-minute increments.
Reset Time	5:00 RS	Use <b>(D)</b> (+) and <b>(B)</b> (-) to change the setting. • You can set a reset time in the range of 1 to 5 minutes in 1-minute increments.
Timer Mode	00 - RST -	Press <b>(D)</b> to toggle between the auto-repeat mode ( <b>00</b> ) and the elapsed time mode ( <b>0FF</b> ). • An auto-repeat indicator ( <b>00</b> ) appears when the auto-repeat mode is selected.
Progress Beeper	00 - NOT -	Press <b>(D)</b> to toggle progress beeper on ( <b>00</b> ) and off ( <b>0FF</b> ). • A progress beeper indicator ( <b>0</b> ) appears when this setting is turned on.

- Press **(A)** to exit the setting screen.

- The reset time setting must be less than the countdown start time setting.

## To use the countdown timer

- In the Countdown Timer Mode, press **(D)** to start the countdown timer.
- The countdown timer measurement operation continues even if you exit the Countdown Timer Mode.
  - The table below describes button operations you can perform to control countdown operations.


To do this:	Do this:
Stop the countdown operation	Press <b>(D)</b> .
Resume a stopped countdown operation	Press <b>(D)</b> again.
Display the countdown start time	While the countdown is stopped, press <b>(B)</b> .
Stop the countdown operation and display the reset time	Press <b>(B)</b> .
Start the countdown from the displayed reset time	Press <b>(D)</b> .

- The table below describes button operations you can perform during an elapsed time measurement operation in the elapsed time mode.

To do this:	Do this:
Stop the elapsed time operation	Press <b>(D)</b> .
Resume a stopped elapsed time operation	Press <b>(D)</b> again.
Display the countdown start time	While the elapsed time is stopped, press <b>(B)</b> .
Stop the elapsed time operation and display the reset time	Press <b>(B)</b> .
Start the countdown from the displayed reset time	Press <b>(D)</b> .

## Alarms

Alarm time (Hour : Minutes)



Timekeeping Mode time

You can set five independent Daily Alarms. When an alarm is turned on, the alarm tone sounds when the alarm time is reached. One of the alarms can be configured as a snooze alarm or a one-time alarm, while the other four are one-time alarms.

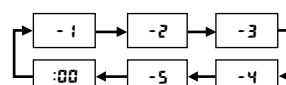
You can also turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.

- There are five alarm screens numbered 1 through 5. The hourly time signal screen is indicated by **00**.

- When you enter the Alarm Mode, the screen you were viewing when you last exited the mode appears first.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **(C)**.

## To set an alarm time

- In the Alarm Mode, use **(D)** to scroll through the alarm screens until the one whose time you want to set is displayed.



- You can configure Alarm 1 as a snooze alarm or a one-time alarm. Alarms 2 through 5 can be used as one-time alarms only.
  - The snooze alarm repeats every five minutes.
- After you select an alarm, hold down **(A)** until the hour setting of the alarm time starts to flash. This indicates the setting screen.
  - Press **(C)** to move the flashing between the hour and minute settings.
  - While a setting is flashing, use **(D)** (+) and **(B)** (-) to change it.
    - When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (**P** indicator).
  - Press **(A)** to exit the setting screen.

## Alarm Operation

The alarm sounds at the preset time for about 10 seconds. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, until you turn the alarm off or change it to a one-time alarm.

### Note

- Pressing any button stops the alarm tone operation.
- Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze alarm operation.
  - Displaying the Timekeeping Mode setting screen
  - Displaying the Alarm 1 setting screen

## To test the alarm

In the Alarm Mode, hold down **(D)** to sound the alarm.

## To turn Alarms 2 through 5 on and off

One-time alarm on indicator



1. In the Alarm Mode, use (D) to select a one-time alarm (alarm number 2 through 5).
2. Press (B) to toggle the displayed alarm on and off.
- Turning on a one-time alarm (2 through 5) displays the one-time alarm on indicator (ALM) on its screen.
- The one-time alarm on indicator is displayed in all modes.
- If any alarm is on, the alarm on indicator is shown on the display in all modes.

## To select the operation of Alarm 1

1. In the Alarm Mode, use (D) to select Alarm 1.
2. Press (B) to cycle through the available settings in the sequence shown below.

SNZ indicator and one-time alarm on indicator



- The applicable alarm on indicator (ALM or SNZ ALM) is displayed in all modes when an alarm is turned on.
- The SNZ indicator flashes during the 5-minute intervals between alarms.
- Displaying the Alarm 1 setting screen while the snooze alarm is turned on automatically turns off the snooze alarm (making Alarm 1 a one-time alarm).

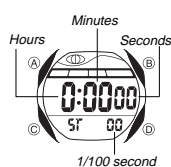
## To turn the hourly time signal on and off

Hourly time signal on indicator



1. In the Alarm Mode, use (D) to select the Hourly Time Signal.
2. Press (B) to toggle it on and off.
- Turning on the Hourly Time Signal displays the hourly time signal on indicator (SIG) on its screen.
- The hourly time signal on indicator is displayed in all modes.

## Stopwatch



The stopwatch lets you measure elapsed time, split times, and two finishes.

- The display range of the stopwatch is 99 hours, 59 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing (C).

## To measure times with the stopwatch

### Elapsed Time



### Split Time



### Two Finishes



## Dual Time

Dual time (Hour : Minutes Seconds)



The Dual Time Mode lets you keep track of time in a different time zone.

- The seconds count of the Dual Time is synchronized with the seconds count of the Timekeeping Mode.

## To set the Dual Time

1. Press (C) to enter the Dual Time Mode.
2. Use (A), (B), and (D) to set the Dual Time Mode time.
- Each press of (D) (+) and (B) (-) changes the time setting in 30-minute increments.
- Pressing (A) sets the Dual Time Mode to the same time as the Timekeeping Mode.

## Backlight

Auto light switch on indicator



The backlight uses an LED (light-emitting diode) and a light guide panel that cause the entire display to glow for easy reading in the dark. The watch's auto light switch automatically turns on the backlight when you angle the watch towards your face.

- The auto light switch must be turned on (indicated by the auto light switch on indicator) for it to operate.
- See "Backlight Precautions" for other important information about using the backlight.

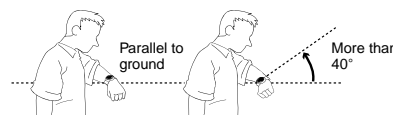
## To turn on the backlight manually

- In any mode, press (L) to illuminate the display for about one second.
- The above operation turns on the backlight regardless of the current auto light switch setting.

## About the Auto Light Switch

Turning on the auto light switch causes the backlight to turn on for about one second, whenever you position your wrist as described below in any mode.

Moving the watch to a position that is parallel to the ground and then tilting it towards you more than 40 degrees causes the backlight to turn on.



## Warning!

- Always make sure you are in a safe place whenever you are reading the display of the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in accident or injury. Also take care that sudden illumination by the auto light switch does not surprise or distract others around you.
- When you are wearing the watch, make sure that its auto light switch is turned off before riding on a bicycle or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal injury.

## To turn the auto light switch on and off

- In the Timekeeping Mode, hold down (D) for about two seconds to toggle the auto light switch on (AUTO displayed) and off (AUTO not displayed).
- The auto light switch on indicator (AUTO) is on the display in all modes while the auto light switch is turned on.

## Reference

This section contains more detailed and technical information about watch operation. It also contains important precautions and notes about the various features and functions of this watch.

## Moon Phase Indicator

The Moon phase indicator of this watch indicates the current phase of the Moon as shown below.

	(part you cannot see)			Moon phase (part you can see)			
Moon Phase Indicator							
Moon Age	0, 1, 29	2 - 5	6 - 9	10 - 13	14 - 16	17 - 20	21 - 24
Moon Phase	New Moon		First Quarter (Waxing)		Full Moon		Last Quarter (Waning)

- The Moon phase indicator shows the Moon as viewed at noon from a position in the Northern Hemisphere looking south. Note that at times the image shown by the Moon phase indicator may differ from that of the actual Moon in your area.
- The left-right orientation of the Moon phase is reversed when viewing from the Southern Hemisphere or from a point near the equator.

## Moon Phases and Moon Age

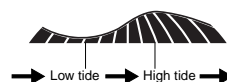
The Moon goes through a regular 29.53-day cycle during which it appears to wax and wane due to how the Sun illuminates the Moon and the relative positioning of the Earth, Moon, and Sun. The greater the angular distance between the Moon and the Sun,\* the more we see illuminated.

\* The angle to the Moon in relation to the direction at which the Sun is visible from the Earth.

This watch performs a rough calculation of the current Moon age starting from day 0 of the moon age cycle. The actual Moon age average cycle is 29.53 days, but this can vary anywhere from -1 day to +1 day for specific months. Since this performs calculations using integer values only (no fractions), the margin for error of the displayed Moon age is ±2 days.

## Tide Graph

The black bar on the watch's tide graph indicates the current tide.



## Tidal Movements

Tides are the periodic rise and fall of the water of oceans, seas, bays, and other bodies of water caused mainly by the gravitational interactions between the Earth, Moon and Sun. Tides rise and fall about every six hours. The tide graph of this watch indicates tidal movement based on the Moon's transit over a meridian and the lunital interval. The lunital interval differs according to your current location, so you must specify a lunital interval in order to obtain the correct tide graph readings.

## Lunital Interval

Theoretically, high tide is at the Moon's transit over the meridian and low tide is about six hours later. Actual high tide occurs somewhat later, due to factors such as viscosity, friction, and underwater topography. Both the time differential between the Moon's transit over the meridian until high tide and the time differential between the Moon's transit over the meridian until low tide are known as the "lunital interval." When setting the lunital interval for this watch, use the time differential between the Moon's transit over the meridian until high tide.

## Auto Return Feature

If you leave a screen with flashing digits on the display for two or three minutes without performing any operation, the watch automatically saves any settings you have made up to that point and exits the setting screen.

## Scrolling

The **(B)** and **(D)** buttons are used in various modes and setting screens to scroll through data on the display. In most cases, holding down these buttons during a scroll operation scrolls through the data at high speed.

## Timekeeping

- Resetting the seconds to **00** while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to **00** without changing the minutes.
- With the 12-hour format, the **P** (PM) indicator appears on the display for times in the range of noon to 11:59 p.m. and no indicator appears for times in the range of midnight to 11:59 a.m.
- With the 24-hour format, times are displayed in the range of 0:00 to 23:59, without any indicator.
- The year can be set in the range of 2000 to 2039.
- The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's battery replaced.

## Backlight Precautions

- The illumination provided by the backlight may be hard to see when viewed under direct sunlight.
- The backlight automatically turns off whenever an alarm sounds.
- Frequent use of the backlight shortens the battery life.

## Auto light switch precautions

- Wearing the watch on the inside of your wrist and movement or vibration of your arm can cause the auto light switch to activate and illuminate the display. To avoid running down the battery, turn off the auto light switch whenever engaging in activities that might cause frequent illumination of the display.

More than 15 degrees  
too high



- The backlight may not light if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
- The backlight turns off in about one second, even if you keep the watch pointed towards your face.
- Static electricity or magnetic force can interfere with proper operation of the auto light switch. If the backlight does not light, try moving the watch back to the starting position (parallel with the ground) and then tilt it back toward you again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again.
- Under certain conditions, the backlight may not light until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the backlight.

## Site Data List

Site	GMT Differential		Longitude	Latitude
	Standard Time	DST/Summer		
ABIDJAN	0.0	1.0	4°W	5°N
ABU DHABI	4.0	5.0	54°E	24°N
ADDIS ABABA	3.0	4.0	39°E	9°N
ADEN	3.0	4.0	45°E	13°N
AMSTERDAM	1.0	2.0	5°E	52°N
ANCHORAGE	-9.0	-8.0	150°W	61°N
ATHENS	2.0	3.0	24°E	38°N
AZORES	-1.0	0.0	25°W	38°N
BANGKOK	7.0	8.0	100°E	14°N
BEIJING	8.0	9.0	116°E	40°N
BEIRUT	2.0	3.0	35°E	34°N
BOGOTA	-5.0	-4.0	74°W	5°N
BOSTON	-5.0	-4.0	71°W	42°N
BRASILIA	-3.0	-2.0	48°W	16°S
BUENOS AIRES	-3.0	-2.0	58°W	35°S
CAPE TOWN	2.0	3.0	18°E	34°S
CARACAS	-4.0	-3.0	67°W	10°N
CASABLANCA	0.0	1.0	8°W	34°N
CHICAGO	-6.0	-5.0	88°W	42°N
CHRISTCHURCH	12.0	13.0	173°E	43°S
DAKAR	0.0	1.0	17°W	15°N
DALLAS FORT WORTH	-6.0	-5.0	97°W	33°N
DAMASCUS	2.0	3.0	36°E	33°N
DENVER	-7.0	-6.0	105°W	40°N
DETROIT	-5.0	-4.0	83°W	42°N
DHAKA	6.0	7.0	90°E	24°N
DUBAI	4.0	5.0	55°E	25°N
DUBLIN	0.0	1.0	6°W	53°N
EDMONTON	-7.0	-6.0	114°W	54°N
EL PASO	-7.0	-6.0	106°W	32°N
FORT WORTH	-6.0	-5.0	97°W	33°N
FRANKFURT	1.0	2.0	9°E	50°N
GOLD COAST	10.0	11.0	154°E	28°S
GUAM	10.0	11.0	145°E	13°N
HAMBURG	1.0	2.0	10°E	54°N
HANOI	7.0	8.0	106°E	21°N
HELSINKI	2.0	3.0	25°E	60°N
HONG KONG	8.0	9.0	114°E	22°N
HONOLULU	-10.0	-9.0	158°W	21°N

Site	GMT Differential		Longitude	Latitude
	Standard Time	DST/Summer		
HOUSTON	-6.0	-5.0	95°W	30°N
ISTANBUL	2.0	3.0	29°E	41°N
JAKARTA	7.0	8.0	107°E	6°S
JEDDAH	3.0	4.0	39°E	21°N
KARACHI	5.0	6.0	67°E	25°N
KUALA LUMPUR	8.0	9.0	102°E	3°N
KUWAIT	3.0	4.0	48°E	29°N
LA PAZ	-4.0	-3.0	68°W	17°S
LAS VEGAS	-8.0	-7.0	115°W	36°N
LIMA	-5.0	-4.0	77°W	12°S
LISBON	0.0	1.0	9°W	39°N
LONDON	0.0	1.0	0°E	51°N
LOS ANGELES	-8.0	-7.0	118°W	34°N
MADRID	1.0	2.0	4°W	40°N
MANILA	8.0	9.0	121°E	15°N
MELBOURNE	10.0	11.0	145°E	38°S
MEXICO CITY	-6.0	-5.0	99°W	19°N
MIAMI	-5.0	-4.0	80°W	26°N
MILAN	1.0	0.0	9°E	45°N
MONTEVIDEO	-3.0	-2.0	56°W	35°S
MONTREAL	-5.0	-4.0	74°W	45°N
MUSCAT	4.0	5.0	58°E	23°N
NADI	12.0	13.0	178°E	18°S
NAIROBI	3.0	4.0	37°E	1°S
NAURU ISLAND	12.0	13.0	166°E	1°S
NEW ORLEANS	-6.0	-5.0	90°W	30°N
NEW YORK	-5.0	-4.0	74°W	41°N
NOME	-9.0	-8.0	165°W	65°N
NOUMEA	11.0	12.0	166°E	22°S
PAGO PAGO	-11.0	-10.0	171°W	14°N
PANAMA CITY	-5.0	-4.0	80°W	9°N
PAPEETE	-10.0	-9.0	150°W	18°S
PARIS	1.0	2.0	2°E	49°N
PERTH	8.0	9.0	116°E	32°N
PHNOM PENH	7.0	8.0	105°E	12°N
PORT OF SPAIN	-4.0	-3.0	61°W	11°N
PORT VILA	11.0	12.0	168°E	18°S
PRAIA	-1.0	0.0	23°W	15°N
PYONGYANG	9.0	10.0	126°E	39°N
RIYADH	3.0	4.0	47°E	25°N
ROME	1.0	2.0	12°E	42°N
SAN FRANCISCO	-8.0	-7.0	122°W	38°N
SANTIAGO	-4.0	-3.0	71°W	33°S
SAO PAULO	-3.0	-2.0	47°W	24°S
SEATTLE	-8.0	-7.0	122°W	48°N
SEOUL	9.0	10.0	127°E	38°N
SHANGHAI	8.0	9.0	121°E	31°N
SINGAPORE	8.0	9.0	104°E	1°N
STOCKHOLM	1.0	2.0	18°E	59°N
SYDNEY	10.0	11.0	151°E	34°S
TAIPEI	8.0	9.0	122°E	25°N
TOKYO	9.0	10.0	140°E	36°N
ULANBAATAR	8.0	9.0	107°E	48°N
VANCOUVER	-8.0	-7.0	123°W	49°N
VIENNA	1.0	2.0	16°E	48°N
VIENTIANE	7.0	8.0	103°E	18°N
WELLINGTON	12.0	13.0	175°E	41°S
WINNIPEG	-6.0	-5.0	97°W	50°N

\* Based on data as of June 2001.

## Lunital Interval List

Site	Lunital Interval	Site	Lunital Interval
ANCHORAGE	5:40	LIMA	5:20
BANGKOK	4:40	LISBON	2:00
BOSTON	11:20	LONDON	1:10
BUENOS AIRES	6:00	LOS ANGELES	9:20
CASABLANCA	1:30	MANILA	10:30
DAKAR	7:40	MELBOURNE	2:10
GOLD COAST	8:30	MIAMI	7:30
HAMBURG	4:50	NOUMEA	8:30
HONG KONG	9:10	PAGO PAGO	6:40
HONOLULU	3:40	PANAMA CITY	3:00
JAKARTA	0:00	PAPEETE	0:10
JEDDAH	6:30	SEATTLE	4:20
KARACHI	10:10	SHANGHAI	1:20
SINGAPORE	10:20	VANCOUVER	5:10
SYDNEY	8:40	WELLINGTON	4:50

\* Based on data as of June 2001.