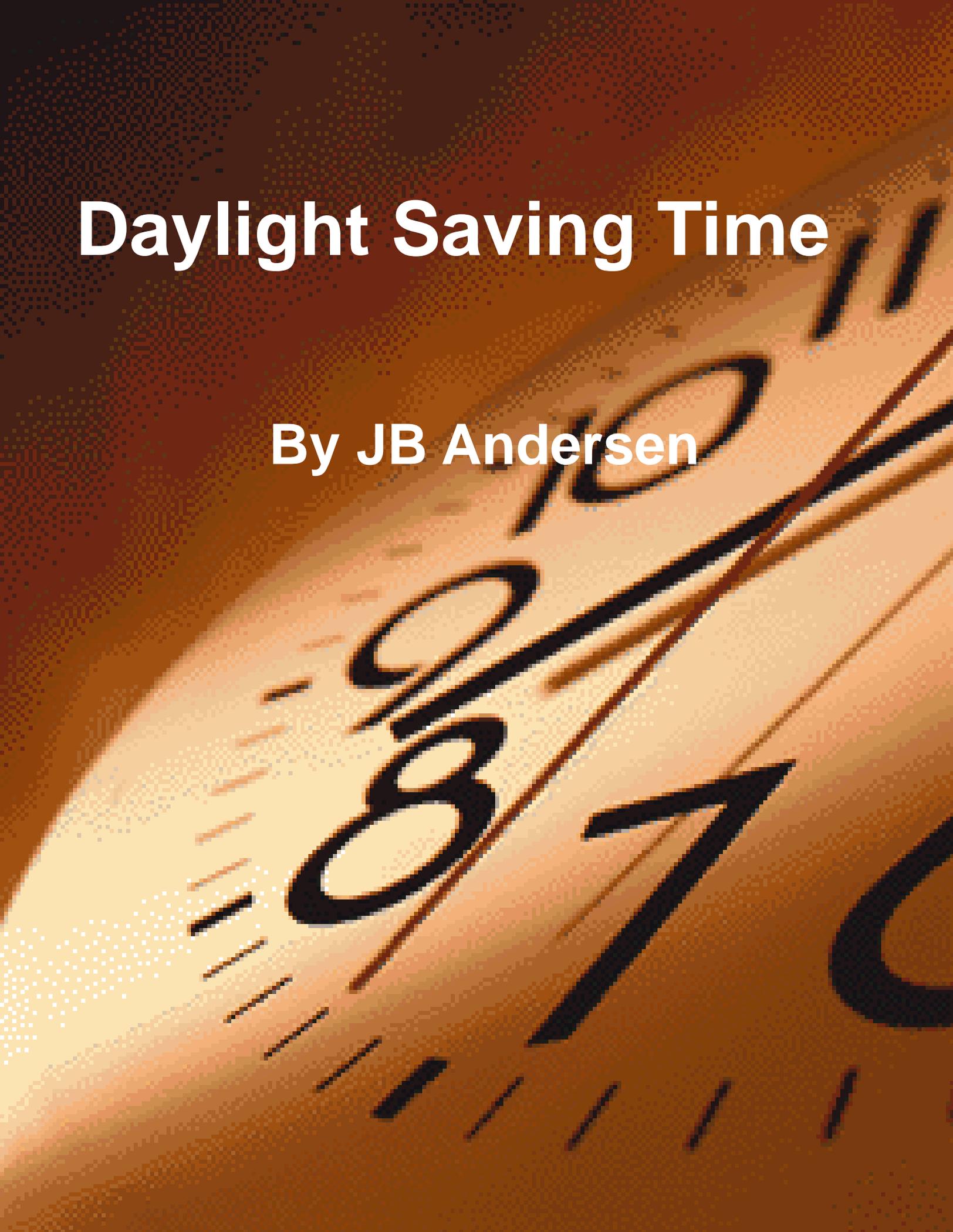


# Daylight Saving Time

By JB Andersen



## A Grammar Lesson.

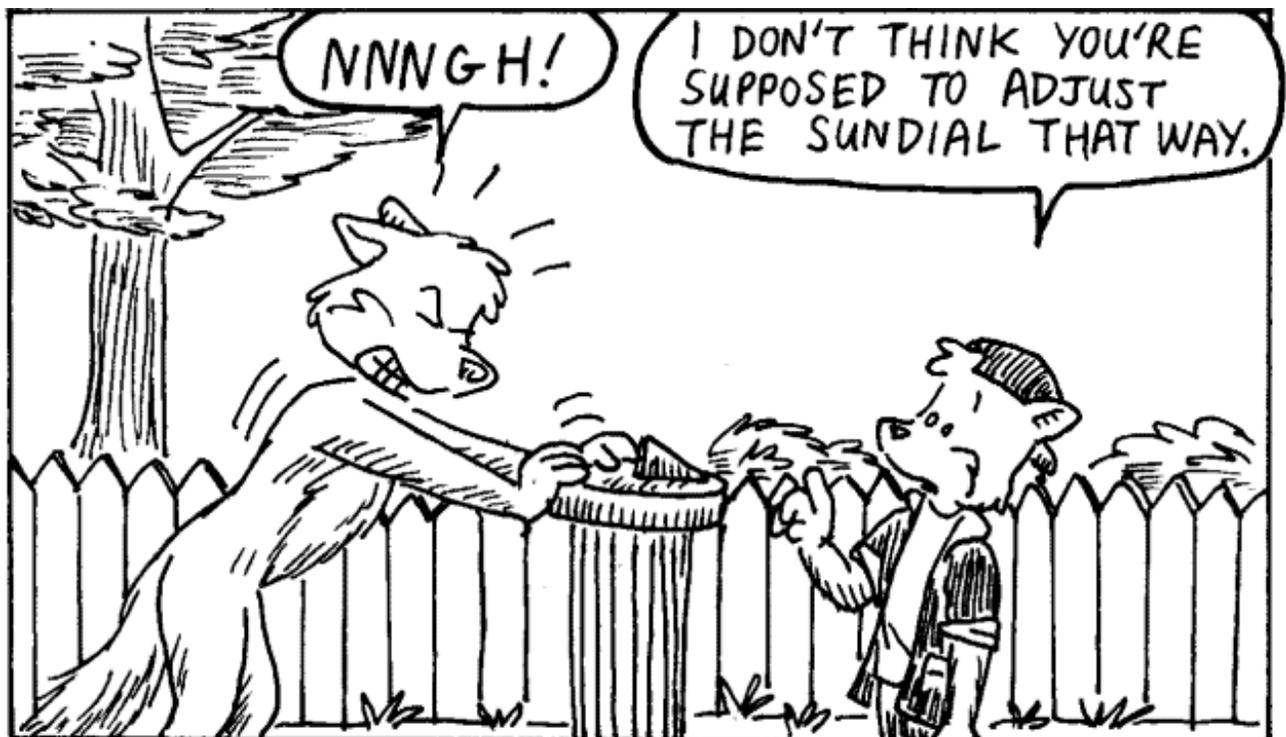
It is not spelled Daylight Savings Time. *Saving* should not be pluralized. Saving is a verb and it describes a single kind of activity hence the form should be singular. Saving modifies the word *Time* and tells us about the nature of time. I have a pet Cockatiel. When it has playtime I do not say it is “Cockatiel plays time.”

Many dictionaries do spell the term with an “s” as it is the common usage. It also seems to slip across the tongue better than in the singular form.

Further the term is inaccurate. We are not saving time or Daylight. What we are doing is moving the hours of daylight forward one hour. Daylight Changing Time would be a better term for what we do.

## The Sundial.

Used since ancient times, the sundial measured the time by the position of the sun. When the sun was directly overhead it was noon. Unfortunately this meant that a town just 10 miles from your town had a slightly different time.



Once the clock was invented towns set their clocks by the sundial. This meant that at the same moment it would be 12noon in one town, 12:03 a bit down the road and 12:06 a bit further down the road.

## Standardization of Time

**England Standardizes Time.** When goods started to be moved by railroads, scheduling became difficult. Every city had a different time. Every spot in the road had a different time.

William Hyde Wollaston proposed that time be standardized into zones. Abraham Follett Osler popularized the idea and the city of London set a standard time. In 1840 a railroad adopted London time for its scheduling throughout Britain.

Other railroads adopted the system and soon the towns they served did too. By 1855 most of Britain was standardized.

Britain standardized itself to Greenwich Mean Time (GMT). The Village of Greenwich was the site of a telescope. Timing is very important to astronomers so they set a standard for time at the Royal Observatory there. GMT now sets the world time standards.

It was not until 1880 in the Statues Act that the legal system caught up and clocks were legally required to be set to the same time everywhere in England.



**William Hyde Wollaston  
(1766-1828)**



Telescope house at  
Greenwich, England.

**Standardization in North America.** Cities in North America set their own time usually based on the old system of noon being set when the sun is directly overhead. This was just one of the disadvantages of local control. It created mayhem in the worlds of transportation, telegraphy, and the about to be born telecommunications industry.

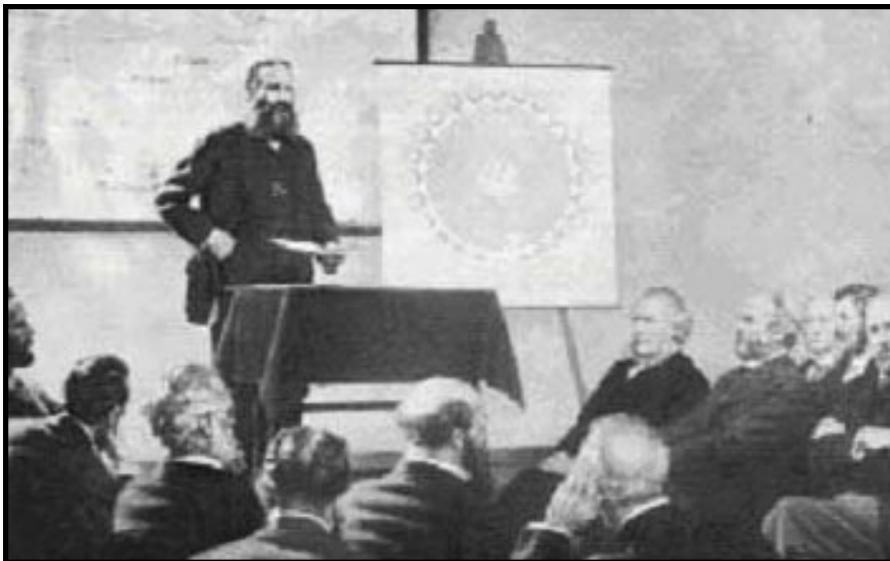
In 1809 William Lambert proposed to Congress a bill to establish time zones. This fell to the floor dead.

In 1870 Charles Dowd proposed to the railroads in the United States a plan for time zones and it was adopted in 1872. The Canadian and United States governments adopted the plan legally in 1883.

Detroit wanted nothing to do with the new system and kept their clocks on the old city time that was 32 minutes behind the new central time zone. In 1900 the Detroit City Council ruled that the city should adopt the 1883 system. It did not happen, however, until 1905 when Central time was finally accepted.

The Canadian Stanford Fleming proposed the time zones that are currently in effect in North America and worldwide with one hour variations. This system was set up in 1884 after the International Prime Meridian Conference met in Washington, D.C.

Business and commerce had set their strategy for chasing down the time of day. This brings us to the notion for the general citizenry that more daylight during the evening hours might be better.



Sir Stanford Fleming.  
Inventor of  
the one hour  
time zones.

## **Daylight Saving Time in the United States.**

**World War I.** When the United States entered World War I President Wilson called on Congress to make an immediate shift to Daylight Saving Time (DST). The law was passed.

Electricity was saved because workers arriving home had an extra hour of daylight at night and consequently used less electricity when at home.

The United States was in the war for such a short time that the DST lasted only 7 months. Wilson wanted it continued but Congress passed another law stopping it and overrode Wilson's veto.

There was popular opposition to DST especially among farmers who did not have electricity anyway.

**World War II.** President Roosevelt started DST in 1942 and it was in effect until about two months after the war's end. During the war DST was called "War Time."

Until 1966 no federal legislation controlled DST. As a result of local options, everything had gotten very confusing.

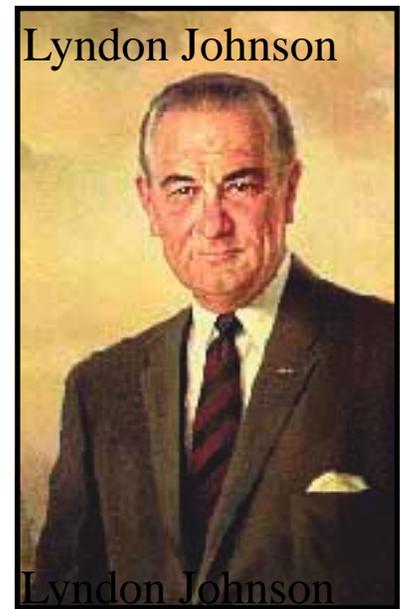


Woodrow Wilson (left) and Franklin Roosevelt (right) instituted Daylight Saving Time as presidents during war years.

**Reforms in the 1960s.** About half of all Americas were observing DST. The confusion for the transportation industry was huge.

The classic example used to promote legislation was a 35-mile stretch of road from Moundsville, West Virginia to Steubenville, Ohio where a bus or train passed through seven time changes!

In 1966 President Johnson signed the Uniform Time Act. From the last Sunday in April to the last Sunday in October DST would be in effect nationally. States could pass a law that allowed them not to abide by the federal law.

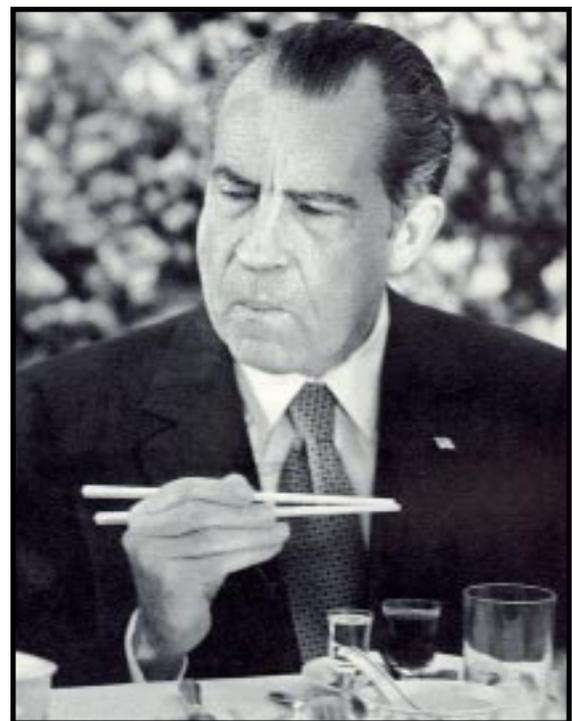


**Reforms of the 1970s.** Time may seem older than dirt but we were still tinkering with it in 1970s.

In 1972 President Nixon signed into law a provision that allowed a state that was in two time zones to change the time in just one of the zones so that the entire state could be on the same time.

In 1974 The Department of Transportation, which regulates DST, decided to extend DST. In 1974 DST lasted for 10 months and in 1975 it lasted for 8 months.

The reason for the extension was a study that showed DST to have several advantages.



Richard Outhouse Nixon  
“Tricky Dick”

DST saves oil. And in 1972 there had been an oil shortage with lines at gas stations in many parts of the country. There were 10,000 less barrels of oil consumed per day in the United States during DST months.



DST saves lives. People were able to travel home from work in the daylight. Why didn't the dark morning offset this? A possibility is people are less stressed in the morning and more stressed at night after a day's work. In many areas people were going to work in the dark anyway. So the morning hazard was not increased. People were also able to get errands run during the daylight. There are less traffic accidents and fatalities during DST. There were 50 less deaths and 2000 less accidents every day on United States roads during DST! A whopping 28 million dollars in injuries and property losses were prevented during DST, and that is in 1970 dollars.

DST prevents crime. Many crimes are more common in the dark. People were able to get home before dark.

DST saves electricity. The entire country's electrical use is reduced by one percent each day during DST months.



The question then is why don't we have DST year around? There are a couple of reasons.

Farmers were opposed to DST as they perceived that it made no difference in their work lives. The hours of work on farms start earlier than in the cities and bedtime is sooner. Farmers prefer early sun to help dry their fields and prevent rot and mold from forming. This argument makes no sense as you still have the same amount of daylight.

Also a few children across the country were killed or injured while waiting for school buses in the dark. Tragic indeed is the loss of a child, but weighed against the traffic losses generally, it would seem the search for a solution would have been warranted. Improving the waiting stations for school buses could have prevented this.

**Reforms in the 1980s.** President Reagan got in on reforms when he extended DST by a month. DST now begins on the first Sunday in April, not the last Sunday. The bill also established that the time change would take place at 2 am. This stemmed from the fact that many states already had such a law. The 2 am law was in effect in states that had a 1 am saloon closing time. By changing the clocks at 2 am the nasty bars were prevented an extra hour of business once a year. Many bar owners supported the law, as they did not want the extra hour.

The Reagan extension saved 300,000 more barrels of oil each year.

**The Holdouts.** Arizona does not observe DST and this is due to some extent to the befouled politics of the state. But they do have plenty of sunlight already because of their southern location. The Navaho Reservation in Arizona does observe DST.

Hawaii with its far south location feels it does not need more daylight in the evening.

**The Indiana Complexity.** Indiana has divided itself into three time zones.

The Northwest, around Lake Michigan and near the city of Chicago, wants to be in the Central Time Zone and observes DST. This keeps them in tune with nearby Chicago. Evansville, Indiana, in the southwest corner of the state wants the same.

The Southeast, along the Ohio River, wants to be like neighboring cities Cincinnati, Ohio and Louisville, Kentucky. They are in the Eastern Time Zone and observe DST.

The remaining very large central portion of the state is in the Eastern Time Zone and does not observe DST.

Basically what happens in Indiana is that in the winter they have the same time as New York City (Eastern Time Zone). In the summer they have the same time as Chicago (Central Time Zone.)

# The Indiana Complexity

Gary and Hammond are on Chicago time (Central Daylight).



The large central portion of Indiana does not observe daylight time (Central Standard).

The area to the left is on Cincinnati, Ohio time (Eastern Daylight)

Evansville is on Chicago time (Central Daylight).

The area above is on Louisville, Kentucky time (Eastern Daylight).

## Worldwide DST

**The Tropics.** Areas near the equator have equal amounts of daylight year around and well into the evening. They see no advantage to having DST.

**Asia.** In China the entire country is a single time zone. During the 1980s they experimented with DST but have now abandoned the idea.

Japan is the only industrialized country not to use DST. They used it after World War II by order of the United States occupation. Opposition from farmers ended the practice in 1952.



Mongolia ended DST in 2002.

Russia east of the Ural Mountains, the dividing line between Europe and Asia, uses DST.

**Australia and Tasmania.** During the World Wars of the 20<sup>th</sup> Century they observed DST.

Since the wars the practice has been erratic and controlled by the provinces. There was an attempt in the early 1990s to standardize the practice across Australia but the party in power killed the bill.



Tasmania, the island south of Australia, had a drought in 1967 and most of their electricity is water-generated. They were desperate to save energy and instituted DST during the emergency.

**The Middle East.** Israel observes DST but renews it each year with new legislation. No permanent policy has been established.

The practice of DST in Palestine has changed over time. When the British controlled the area they standardized time and generally followed whatever the practice was in England.



As control of the area has changed hands so has DST. Under Egyptian control the need was not seen to have DST. Under the control of Israel the area was on DST as is Israel. During independence there have been periods of DST but being so close to the equator there generally has not been a need in the eyes of the Palestinians.

Jordan established year-round DST in 1999.

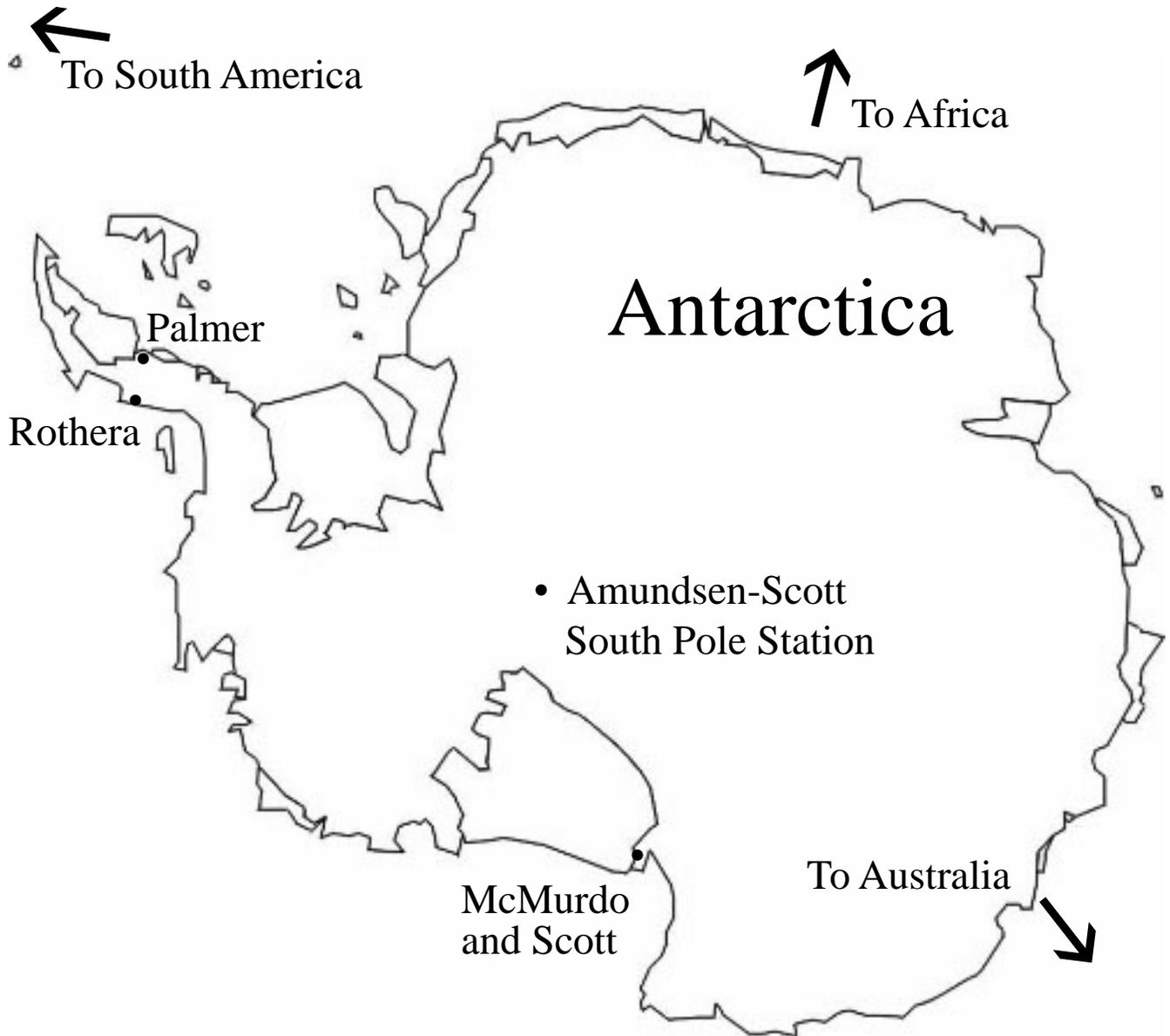
**Antarctica.** Standing at the South Pole a person could take a baby step and be in any one of the 24 time zones – they all come together at the poles.

It has been decided that where there are research stations a time zone would be established. Both McMurdo and Amundsen-Scott Stations use New Zealand time, when DST is used.

The Palmer Station uses Chile time.

Rothera, a British Station, uses England's Greenwich Mean Time but subtracts 3 hours and does not observe DST.

Of course the use of DST in Antarctica is frivolous as the area has roughly 6 months of dark and 6 months of daylight. So it is impossible to “save” anything. They simply follow the convention to remain in sync with the country whose time standard they have adopted.



- Scott, McMurdo and Amundsen-Scott stations use New Zealand time.
- Palmer Station is on Chile time.
- Rothera Station uses Greenwich Mean Time minus 3 hours.

**Europe and Russia.** Both areas use DST, starting the last Sunday in March and ending the last Sunday in October. European Russia is the area west of the Ural Mountains. The part of Russia East of the Urals is considered Asian.

Due to Russia's far north latitudes, and much shorter period of daylight, they move ahead of standard time by 2 hours, not the single hour common in the rest of the world. This makes for much better saving of energy.



During World War II Britain used the two hour difference to save even more electricity.

The countries of Europe are standardized for DST just as they are economically since the creation of the union.



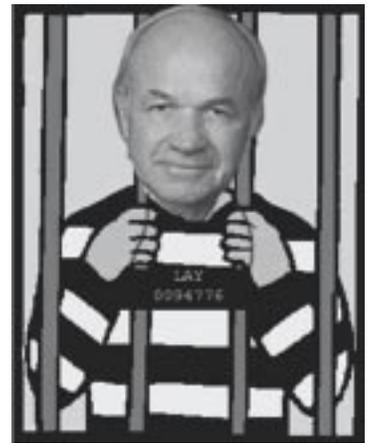
**Africa.** Egypt and Namibia practice DST.

**South America.** Brazil and Chile use DST. The areas along the equator in Brazil do not observe DST, however.

## The California Energy Crisis.

In the 1990s Enron bought up California's public utility energy companies. Enron used the profits to buy other energy companies outside the state. These profits should have been used to maintain the California plants. Further creative accounting at Enron led to their bankruptcy and the bankruptcy of the state of California. This was followed by a recall of California Governor Gray Davis and the election of Arnold Schwarznegger.

One solution that had been proposed to help solve the crisis during the Davis years was to move California to year-round DST. The California legislation requested from the federal government permission to move to year-round DST. Then came the events of 9/11. As a result the Bush administration and Congress took no action on the California request.



“Kenny Boy” Lay as President George “Wrong” Bush calls his close pal. Will this man ever go to prison?!



## New Problems in Keeping Up With Time.

When I was a child growing up in South Minneapolis, our family had one clock and it hung on a wall in the kitchen. When DST came and went my father would change that clock.

Today in my home I have the following items with a clock:

- 3 televisions
- 2 cars
- 1 VCR-DVD
- 1 stove
- 2 computers
- 1 thermostat
- 1 stereo system
- 4 alarm clocks
- 1 clock radio
- 5 wall clocks
- 5 telephones
- 1 grandfather clock
- 1 fax machine
- 2 pocket watches
- 2 wristwatches
- 1 coffeemaker
- 2 microwaves
- 1 cell phone



That is 36 items in all. Fortunately some are now being made with automatic resets for DST.

