Oddity

Fall Back: End of DST

Daylight saving time was first suggested by Ben Franklin, who seemed to mean it as a joke. He wrote in 1784 that Parisians' night-owl ways could perhaps be cured by forcing them to live by the sun's light. (Franklin suggested that cannons at sunrise might do the trick.)

As ambassador to Paris, Franklin wrote a letter to the Journal of Paris in 1784 of his "discovery" that the sun gives light as soon as it rises, and needling Parisians for their night-owl, candle-burning ways.

George Vernon Hudson (20 April 1867 – 5 April 1946) was an English-born New Zealand entomologist and astronomer. In 1895 he presented a paper to the Wellington Philosophical Society proposing a two-hour daylight-saving shift,[3] and after considerable interest was expressed in Christchurch, New Zealand he followed up in an 1898 paper.

> Others took daylight saving time much more seriously, particularly William Willett, an Englishman who loved his early-morning horseback rides. In 1907 William published a pamphlet "The Waste of Daylight"[6] In it he proposed that the clocks should be advanced by 80 minutes in four incremental steps during April and reversed the same way during September. Willett he couldn't believe that everyone else wanted to sleep in after the sun came up. He also touted the benefits of longer hours of daylight in the evenings. [Gallery: Our Amazing Sun]

Willett managed to get the idea of moving the clock forward during the summer months proposed in Parliament in 1908, but it was shot down.

"Willett was a steadfast guy, and so he proposed it again in 1909, 1910, 1911, and Parliament rejected it all those times,".

Willett might have kept this up, but he died in 1915, never to see his beloved daylight saving plan reach fruition.

But no one put daylight saving into place until World War I, when Germany instituted the biannual time change to save fuel for the war effort. Britain soon did the same.

When the United States got involved in the war in 1918, they too instituted daylight saving time. President Woodrow Wilson even wanted to keep the new system after the war ended. But at the time, the country was mostly rural. Farmers hated the time change, because their jobs were dependent on the sun, and daylight saving time put them out of sync with the city people who sold them goods and bought their products. Congress

repealed daylight saving time, Wilson vetoed the repeal, and Congress promptly overrode his veto, a fairly rare occurrence.

So how is it that we're dutifully turning our clocks forward and back these days? World War II. Again, American officials instituted daylight saving time to save energy for the war. But post-World War II, the United States was less rural than post-World War I. This time around, people supported keeping daylight savings so they could enjoy the summer sun after working hours.

When World War II hit, daylight saving time came back into vogue, again to save energy for the war effort. The U.S. instituted daylight saving time less than a month after the Japanese attack on Pearl Harbor, Prerau said. This time, though, America's increasingly industrialized population wasn't as keen on losing their post-work daylight after the war ended. So when the national law requiring the time switch was repealed, some towns stuck with daylight saving.

It was chaos. One 35-mile bus ride from Moundsville, W.Va., to Steubenville, Ohio, took riders through no less than seven different time changes, Prerau said. At one point, the Twin Cities of Minneapolis and St. Paul were on different clocks, creating confusion for workers who lived in one city and commuted to the other.

"The suburbs didn't know what to do at all," Prerau said.

This every-town-for-itself system couldn't last long. In 1966, Congress passed the Uniform Time act of 1966, specifying that states didn't have to get on the daylight saving bandwagon, but that if they did, the whole state had to comply. And the federal government would determine the days of "springing forward" and "falling back," the law stated, eliminating the problem of towns and cities setting their own daylight saving dates.

Expanding daylight saving

Since that time, Congress has expanded the length of daylight saving time three times, once in the This every-town-for-itself system couldn't last long. In 1966, Congress passed the Uniform Time act of 1966, specifying that states didn't have to get on the daylight saving bandwagon, but that if they did, the whole state had to comply. And the federal government would determine the days of "springing forward" and "falling back," the law stated, eliminating the problem of towns and cities setting their own daylight saving dates.

First Used in Canada in 1908

In July, 1908, Thunder Bay in Ontario, Canada became the first location to use DST. Other locations in Canada were also early to introduce Daylight Saving bylaws.
On April 23, 1914, Regina in Saskatchewan, Canada

implemented DST. The cities of Winnipeg and Brandon in Manitoba followed on April 24, 1916. According to the April 3, 1916, edition of the Manitoba Free Press, Daylight Saving Time in Regina “proved so popular that bylaw now brings it into effect automatically”.

DST Statistics — Past and Present Use

Germany First Country to Use DST

Germany became the first country to introduce DST when clocks were turned ahead 1 hour on April 30, 1916. The rationale was to minimize the use of artificial lighting in order to save fuel for the war effort during World War I.

The idea was quickly followed by the United Kingdom and many other countries, including France. Many countries reverted back to standard time after World War I, and it wasn’t until the next World War that DST made its return in most of Europe.

Ancient Civilizations

Although DST has only been used for about 100 years, the idea was conceived many years before. Ancient civilizations are known to have engaged in a practice similar to modern DST where they would adjust their daily schedules to the Sun's schedule. For example, the Roman water clocks used different scales for different months of the year.

Benjamin Franklin

American inventor and politician Benjamin Franklin wrote an essay called “An Economical Project for Diminishing the Cost of Light” to the editor of The Journal of Paris in 1784. In the essay, he suggested, although jokingly, that Parisians could economize candle usage by getting people out of bed earlier in the morning, making use of the natural morning light instead.

Hudson and Willett

In 1895, New Zealand scientist George Vernon Hudson presented a paper to the Wellington Philosophical Society, proposing a two-hour shift forward in October and a two-hour shift back in March. There was interest in the idea, but it was never followed through.

In 1905, independently from Hudson, British builder William Willett suggested setting the clocks ahead 20 minutes on each of the four Sundays in April, and switching them back by the

same amount on each of the four Sundays in September, a total of eight time switches per year.

First Daylight Saving Bill

Willett's Daylight Saving plan caught the attention of Member of Parliament, Robert Pearce, who introduced a bill to the House of Commons in February 1908. The first Daylight Saving Bill was drafted in 1909, presented to Parliament several times and examined by a select committee. However, the idea was opposed by many, especially farmers, so the bill was never made into a law. Willett died in 1915, the year before the United Kingdom started using DST in May 1916.

DST in the United States

In the US, "Fast Time" as it was called then, was first introduced in 1918 when President Woodrow Wilson signed it into law to support the war effort during World War I. The initiative was sparked by Robert Garland, a Pittsburgh industrialist who had encountered the idea in the UK. Today he is often called the "Father of Daylight Saving".

Only seven months, later the seasonal time change was repealed. However, some cities, including Pittsburgh, Boston, and New York, continued to use it until President Franklin D. Roosevelt instituted year-round DST in the United States in 1942.

War Time DST

Year-round DST, also called "War Time", was in force during World War II, from February 9, 1942, to September 30, 1945, in the US and Canada. During this time, the US time zones were called "Eastern War Time", "Mountain War Time", "Central War Time", and "Pacific War Time". After the surrender of Japan in mid-August 1945, the time zones were relabeled "Peace Time". The UK applied "Double Summer Time" during World War II by setting the clocks two hours ahead of GMT during the summer and one hour ahead of GMT during the winter.

DST History in Europe

US Uniform Time Act of 1966

From 1945 to 1966 there were no uniform rules for DST in the US and it caused widespread confusion especially for trains, buses, and the broadcasting industry. As a result, the Uniform Time Act

of 1966 was established by Congress. It stated that DST would begin on the last Sunday of April and end on the last Sunday of October. However, states still had the ability to be exempt from DST by passing a state ordinance.

Modern DST History in the US

The US Congress extended DST to a period of ten months in 1974 and eight months in 1975, in hopes to save energy following the 1973 oil embargo. The trial period showed that DST saved the energy equivalent of 10,000 barrels of oil each day, but DST still proved to be controversial. Many complained that the dark winter mornings endangered the lives of children going to school.

Daylight Saving or Savings?

Energy Policy Act of 2005

After the energy crisis was over in 1976, the DST schedule in the US was revised several times throughout the years. From 1987 to 2006, the country observed DST for about seven months each year. The current schedule was introduced in 2007 and follows the Energy Policy Act of 2005, which extended the period by about one month. Today, DST starts on the second Sunday in March and ends on the first Sunday in November.

Daylight Saving Today

Daylight Saving Time is now in use in over 70 countries worldwide and affects over a billion people every year. The beginning and end dates vary from one country to another. In 1996, the European Union (EU) standardized an EU-wide DST schedule, which runs from the last Sunday in March to the last Sunday in October.

The first comprehensive study of its effectiveness occurred during the oil crisis of the 1970s, when the U.S. Department of Transportation found that daylight saving trimmed national electricity usage by roughly 1 percent compared with standard time.

In 2006 Indiana instituted daylight saving statewide for the first time. (Before then, daylight time confusingly was in effect in just a handful of Indiana's counties.) Examining electricity usage and billing since the statewide change, Kotchen and his colleague Laura Grant unexpectedly found that daylight time led to a 1 percent overall rise in residential electricity use, costing the state an extra $9 million. Although daylight time reduces demand for household lighting, the researchers suggest that it increased demand for cooling on summer evenings and heating in early spring and late fall mornings.

Investigators got another opportunity in 2007, when daylight time nationwide began three weeks earlier, on the second Sunday in March, and ended one week later in the fall. California Energy Commission resource economist Adrienne Kandel and her colleagues discovered that extending daylight time had little to no effect on energy use in the state. The observed drop in energy use of 0.2 percent fell within the statistical margin of error of 1.5 percent.

In their October 2008 report to Congress, they conclude that the four-week extension of daylight time saved about 0.5 percent of the nation's electricity per day, or 1.3 trillion watt-hours in total. That amount could power 100,000 households for a year. The study did not just look at residential electricity use but commercial use as well, Dowd says.
The disparities between regional and national results could reflect climate differences between states. "The

effect we saw could be even worse in Florida, where air conditioning is used heavily," Kotchen suggests.

Moving the Hands Is Bad for the Heart

Springing forward may both end and save lives. Researchers at the Karolinska Institute in Stockholm and their colleagues looked at myocardial infarction rates in Sweden since 1987 and found that the number of heart attacks rose about 5 percent during the first week of daylight saving time (called summer time in Europe). In the October 30, 2008, New England Journal of Medicine, they suggest that this rise may result from the disruption of sleep patterns and biological rhythms.

On the other hand, the clock shift could help prevent traffic accidents by enabling more people to drive home in sunlight. By analyzing 28 years of U.S. automobile crash data, RAND Corporation economists and their colleagues suggest that a 1986 change in federal daylight saving time law—which moved the start of daylight time from the last Sunday in April to the first—produced an 8 to 11 percent drop in crashes involving pedestrians and a 6 to 10 percent dip in crashes for vehicular occupants.