

## Preface

While completing *Selling the True Time* (Stanford University Press, 2000), my study of public timekeeping in America in the nineteenth century, I was struck by how easy it is today to know the exact time to within a second or two. Accurate time is available everywhere: on quartz watches, cell phones, GPS receivers, radio-controlled wall clocks, personal computers, and home entertainment components that reset their displays automatically after power failures and even adjust for the twice-yearly shift between Standard Time and Daylight Saving Time.

These modern time givers acquire and maintain the correct time thanks to an extensive set of accords among the world's time providers working at physics laboratories and astronomical observatories in a host of countries. Their technical accords are virtually transparent to the general public. However, how the consumer devices adjust to the other divisions of civil time is also dependent on agreements, ones that directly affect people. This book explores how these latter conventions were reached and how they have evolved.

In my earlier study I described many of the public timekeeping conventions adopted in the United States and told how they came about. I deliberately omitted any discussion of twentieth-century timekeeping and, by focusing on America, excluded significant nineteenth-century events that took place elsewhere. This new book concentrates on three time-related subjects that have continuing importance for travelers and ordinary citizens in every country: the International Date Line, the system of standard time zones that encompasses the globe, and Daylight Saving Time.

These subjects are all linked to international acceptance of Greenwich as the prime meridian. This acceptance was achieved only slowly and involved more than fifty years of intense discussion; the matter was eventually resolved between 1870 and 1925. This latter date also marks the

culmination of efforts aimed at unifying the timekeeping of specialists by linking their calculations and tables to Greenwich civil time.

Although printed sources cover certain facets of the areas identified here, they are sadly incomplete. For example, no history of the International Date Line exists that accurately describes the tremendous alterations in its sweep across the Pacific Ocean over the last two centuries, or even how its location was eventually fixed. Similarly, there has been no detailed study of how the world's time zones came into being.

Web-based sources that deal with these areas are notoriously unreliable. Indeed, much of what is being distributed electronically as fact is incomplete and often dead wrong. For example, every site I examined stated that the International Meridian Conference of 1884 resolved uniformity issues and led directly to many of our current conventions regarding the public's time. My conclusion from examining original records and correspondence is diametrically opposite: the conference was a failure. To set the record straight I have made every effort to ensure that every statement offered here can be traced back to original sources.

My previous book included no visual record of those who contributed significantly to uniformity in American timekeeping. This omission was noted by a good friend who reviewed the work and, later, by one of my colleagues, who urged me to include portraits in this new study. I have done so, locating photographs and engravings created, for the most part, close to the time when key characters were most active. In my view, it is important to show them as they were then, for late-in-life images often give a false impression.

Many of those named and pictured, while well-known in their own countries, are virtually unknown elsewhere. One reason for this is that historians are often parochial, especially when they focus on their own country. For example, no previous English-language writer has done more than hint at how much French activities during the first decades of the twentieth century contributed to global efforts at unifying time. Realizing their importance has led me to devote an entire chapter to them in this study.

For some time now it has seemed that any public interest in Daylight Saving Time was essentially historical and, further, that the boundaries of all U.S. time zones were now fixed. Imagine my surprise when last year not one but two books on the subject appeared: Michael Downing's *Spring Forward* (Shoemaker & Hoard, 2005) and David Prerau's *Seize the Daylight* (Thunder's Mouth Press, 2005). Both of these popularly written accounts, which have vastly different views regarding Daylight Saving Time's impact, are filled primarily with anecdotes from the last eighty years. In contrast, I chose to end my story in the 1920s so as to

focus on the basic issues underlying more than a century of efforts directed at changing America's public's timekeeping.

However, Indiana's recent decision to begin observing Daylight Saving Time everywhere (starting in 2006) and the passage of the Energy Policy Act of 2005, which mandates extending Daylight Saving Time in the United States beginning in 2007, caused me to add to the epilogue a discussion of some of the trade-offs that affect the public—trade-offs articulated in 1976 in testimony before Congress.

My first professional encounter with Daylight Saving Time happened over thirty years ago. Its public impact led me to undertake historical studies of timekeeping and of efforts to make time uniform throughout the United States and the world.