

**A Railroad Atlas of the United States in 1946,
Volume 2, New York & New England**

Richard C. Carpenter

Published by The Johns Hopkins University Press,
Baltimore, 2005.

256 pages, 164 maps. Hardbound.

ISBN 0-8018-8078-5

Reviewed by Gordon Kennedy

In the 1920s a letter posted by my grandmother in Bismarck, North Dakota would be delivered to her sister in Manderson, Wyoming the next afternoon. That today's parcel carriers can hardly perform this 560-mile delivery more efficiently—and certainly not cheaper—is testament to the amazing railway post office system of that era. The RPO system was based on a vast network of railroad lines reaching cities and villages throughout the United States.

Richard Carpenter's *A Railroad Atlas of the United States in 1946* documents and pays homage to this great system at the close of the era of railroad primacy in American industry and technology. Railroads were the powerhouse of American industry in the first half of the 20th century: driving innovation, economic vitality and radically changing culture and customs. This atlas maps the American railroads at what many consider "their finest hour"; the culmination of the Second World War, during which American railroads transported massive quantities of materiel and personnel. It is this railroad network that Carpenter celebrates in his atlas.

The author states his objective clearly: "The story of American railroading in its heyday was, and is, a story well worth telling. And I became determined to tell it with a clear, easy-to-read atlas." It is a story worth telling, indeed. Railroads today are but a ghost of what they were in 1946. Mainline trackage at that time amounted to about 400,000 miles, while today it is only about 170,000. Then, there were dozens of major railroad companies; today there are just seven Class 1 railroads in all of North America. A huge workforce was occupied with the construction and maintenance of equipment and infrastructure. Steam locomotives were the predominant motive power and passenger trains served thousands of communities. Railroad operations were controlled by labor-intensive communications based on the telegraph. That this huge, complex, low-tech system could work at all was a wonder of engineering, organization and management. The year 1946 was the penultimate moment for this system, and an apt moment for Carpenter to take the measure of what American railroading was prior to its transformation to its present form of an efficient, high-tech, multi-modal transportation business, largely unnoticed in our daily lives.

This atlas is the second of a series being produced to encompass the United States. Both published volumes are printed on bright, sturdy paper handsomely bound in green cloth. The first volume, subtitled *The Mid-Atlantic States*, covered Delaware, the District of Columbia, Maryland, New Jersey (with New York City), Pennsylvania, Virginia and West Virginia. The volume reviewed here covers Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island and Vermont. In the Introduction, Carpenter provides the historical context for his project and lays out his motivation and goals. He hopes that "by producing a graphic record of this transportation network, present and future generations may learn valuable lessons from one of the most glorious episodes of our transportation history." He offers brief profiles of each state included in the volume. He describes how the maps were developed and discusses how the data are represented. A map of the entire region covered in the atlas provides context and orientation and a Key Map shows how the individual map pages are laid out over the region. A detailed legend precedes the 162 map pages.

The maps are 30-by-30-minute quadrangles based on United States Geological Survey maps. Many data-rich areas are enlarged in detail maps. A substantial amount of information is presented in the maps: the many different railroad companies are distinguished by color and abbreviation; there are symbols for stations (passenger and non-passenger), viaducts and major bridges, tunnels, mileposts, interlocking towers (in service and abandoned), telegraph station call letters, coaling stations and more. Base-map reference information includes civil boundaries, place names and hydrography. Each quadrangle is named and has geographic coordinates labeling its 15-minute neatline ticks.

Following the maps, a considerable amount of reference material is provided: a list of railroad name abbreviations, "Notes on the Maps" (in which a sentence or two of explanatory detail or interesting trivia is offered for each and every map sheet), references to source documents. The atlas concludes with a set of "Indexes" amounting to a railroader's gazetteer: "Index of Coaling Stations," "Index of Interlocking Stations," "Index of Passenger Stations," "Index of Track Pans," "Index of Tunnels" and "Index of Viaducts."

This atlas succeeds in conveying the complexity and extent of railroads in 1946. Railroad aficionados and transportation buffs will readily see the contrast between the world of 1946 and that of today, but the story may not be so clear to the general reader who encounters this book as a rail or transportation novice. Examining the Portland, Maine maps, for example, the story of the city's railroading comes to life if you know how to interpret the map symbols and what they im-

ply. Portland was a maritime connection and hub for rail lines to the north and south. The Portland Terminal Company operated trackage in the central Portland area, interchanging with the Boston & Maine to the southwest and south, and with the Maine Central and Canadian National to the north and northwest. Abandoned segments of the Boston & Maine and the Kennebec & Portland suggest a history of competing railroads in Portland prior to 1946. The Portland Terminal Company, according to the map information, was associated with the B & M and Maine Central, perhaps jointly owned or operated through a contractual agreement. This put the Portland area railroad network under uniform management, thus improving operational efficiencies. The Canadian National, however, reached independently into Portland, a sign that they were not party to the Portland Terminal common operating arrangement. The atlas shows us that multiple railroads competed in Portland's industrial core for a time but by 1946 two had entered a joint operating agreement for mutual benefit, one had retired from the competition, and another continued to go it alone.

The ability to infer such information, and more, from this atlas is a sign of its success. As an atlas should, this volume presents data in a cartographic depiction that enables the reader to develop new knowledge by integrating the mapped information into their own knowledge.

There are some puzzling aspects to this book, however. It is beguilingly simple in concept but idiosyncratic in execution. The most intriguing oddity for cartographers is probably the fact that the maps are *hand-drawn*, and that is to say drawn *by hand*. The linework wavers and jogs, the text occasionally sags and shrinks, and colors vary in intensity as the penmanship varies. The maps were apparently drafted on a single, multi-color original and then scanned for the printing process. All ten colors are screened. The cyan used for shorelines, the black neatline and black lettering all show screen patterns upon close inspection. *Everything* on the maps is screened. Manual separation of colors as a cartographic technique was unused; it was left to the printer to create printing plates from a single, color original. While not consciously visible to most readers, the screened linework possesses a softness of edge that suits Carpenter's freehand style, and gives the maps a look in keeping with their handmade origins. At first one might find little reason to object to this technique—the maps are legible and graphically inoffensive and the freehand work has a pleasing directness and informality. His colors and symbols are logically and precisely employed to present data with clarity and legibility and his lettering is always neat and sharp, even when tiny and crowded. The maps look like very well executed manuscripts ready to be turned over to a cartographer.

Perhaps his technique is a personal and practical choice for producing the kinds of maps he wanted, but the atlas as an entire work is diminished by the graphic limitations of this choice. The Key Map, for example, is a maze of tiny lettering with solid and dotted lines. Because his technique precludes screening a color to background faintness, he uses dashed and dotted linework in an attempt to reduce graphic competition with the foreground material. The shorelines are rendered in blue dotted lines; boundaries in black dotted lines. In spite of these attempts, it is a chore to use this map. Other basic cartographic techniques also are unused; for instance, the maps are all linework with no area fills, so the distinction between water and land can be confusing. On the Providence map the numerous bays, rivers and inlets are visually interchangeable with islands and peninsulas.

Carpenter includes little more than hydrography for geographic context. There are no roads or other non-railroad landmarks to orient the reader to the landscapes of either 1946 or of today. There are islands in Upper New York Bay—Ellis, Liberty and Governors, but they are not labeled to remind us which is which. The name Niagara Falls is found for three railroads' passenger stations and an interlocking tower, but the falls of the river are not indicated.

Another oddity is the inconsistency between the maps and their surrounding material (map titles, map numbers, page numbers, etc.). These have been produced with more refined graphic methods, so that text and lines are sharp-edged and solid (probably because they were produced by commercial publishing software). Carpenter might have enhanced the atlas's overall hand-made look had he used his manual, freehand technique for this material as well as for the maps. The homespun, naïve cartography is a refreshing departure from the computer-generated artwork so prevalent today and this could have been used to greater effect in the design of the entire book.

Finally, this atlas will be most at home in the hands of those who already have knowledge of railroads. Those railroad historians and fans already well versed in railroad history will find this an important and impressive book; a treasury of fascinating information.

For others, however, this atlas is unlikely to provoke fresh interest or appreciation for railroads and their history. The reader approaching this atlas as a way of learning about an unfamiliar topic will encounter, at the least, a good deal of unexplained terminology. Carpenter provides some limited technical explanations in the introduction, but does not specifically discuss the significance of items selected for display on the maps. What, for instance, is an interlocking plant, a track pan or a car shop, and why might they be important to understanding the railroads of 1946? These features are on the maps, but the reader gets little help with their

interpretation.

A more geographic approach would have broadened its usefulness by helping readers interpret railroads in their real-world context. A more expert cartographic technique would have helped tell the story more vividly and aesthetically. But these were not the author's objectives.

Carpenter's atlas is a personal work, a result of his passion for railroad history. It certainly is the result of

countless hours of painstaking research. He acknowledges sources and assistants but has no real collaborators. This was *his* project. It is a railroading book for railroading aficionados, a personal statement by an intrepid and patient researcher. As such, it is an impressive accomplishment and will likely be well loved and well used by rail buffs and historians of industry who want a picture of American railroads in their moment of glory.