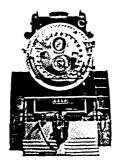
THE HISTORICAL ATLAS OF

NORTH AMERICAN RAILROADS

John Westwood and Ian Wood



CONTENTS



Map list 7

Introduction 8-9

Opening the trade routes 10-17

First railroads, 1700-1830 18-23

ORIGINS OF THE STREETCAR 24-25

Rail track developments 26-27

Harnessing the Power of Steam, 1800-34 28-33

Coming of the Iron Horse 34-37

THE BOOM BEGINS, 1830-37 38-41

TECHNICAL IMPROVEMENTS, 1830-40 42-43

SAFETY ON THE TRACKS 44-45

After the panic of 1837 46-51

Abe lincoln's whistle-stop tours, 1849 and 1861 52-53

The classic american locomotive, 1840-60s 54-57

THE TELEGRAPH REVOLUTION 58-61

RAILROAD EXPANSION, 1850s 62-69

THE PACIFIC RAILROAD SURVEYS, 1853-55 70-81

Expansion of the railroads, 1860-65 82-87

The background to the civil war 88-93

Railroads at war 94-105

Standardizing the railroad gauge 106-109

Building the union pacific railroad 110-117

Landmarks in locomotive design, 1860-80 118-123

Spreading railroad networks, 1865-79 124-129

COMMERCIAL RIVALS 130-135

Railroad dispatch and signaling, 1870-1900 136-141

Advent of the air brake 142-143

ELECTRIC STREETCARS AND LOCOMOTIVES 144-147

Master car builders' association 148-151

Pullman and the New Passenger Cars 152-155

Spreading networks and Canada, 1870-90 156-163

GROWTH OF THE MEXICAN RAILROADS, 1860-90 164-171

Farmers versus the railroads, 1866-90 172-175

THE LAND GRANT ISSUE 176-179

LOCOMOTIVE DEVELOPMENTS, 1880-1900 180-181

CAMELBACKS AND HIGH WHEELERS 182-185

RISE AND FALL OF THE ELECTRIC INTERURBANS 186-187

THE ADAPTABLE STREETCAR 188-191

Railroads to the Pacific, 1893-1900 192-195

Consolidation and legal issues, 1900-10 196-201

REROUTING, 1900-04 202-207

EASTERN CITY ROUTES 208-211

Natural disasters 212-215

New constructions, 1906-10 216-219

Legislation and losses, 1900-16 220-223

Growth of the Steam Locomotive, 1900-28 224-231

THE MALLETS, 1904-20 232-235

CAR DESIGN, 1900-25 236-237

Industrial turmoil 238-241

Transcontinental railroads, 1900-20 242-245

RAILROADS DURING WORLD WAR I, 1914-18 246-251

ICC regrouping and electrification, 1903-30252-257

Fare dodgers and safety cars, 1920s 258-261

The great depression and receivership in the U.S., 1930s 262-267

STREAMLINED STEAM 268-271

ALTERNATIVE MOTIVE POWER 272-273

Diesel-electric locomotives, 1930-44 274-279

Heavy Steam, 1930-50 280-285

Railroads during World War II, 1939-45 286-293

Oil-burning, Cab-forward locomotives, 1900-60 294-295

Postwar problems, 1945-60 296-299

Passenger and freight car evolution, 1920-50s 300-301

The New Interurbans, 1930-41 302-305

THE LAST GREAT STREETCAR 306-309

The growth of commuter traffic 310-315

SHORT LINES AND REGIONALS 316-321

As commuter services decline, a new regime enters 322-327

Railroad mergers and deregulation, 1960-95 328-345

Renaissance of the North American railroads 346-359

Trolleys and light rail in the 21st century 360-363

North American railroads in the 21st century 364-375

Primary Canadian Railroads 376-381

Primary mexican railroads 382-385

Bright prospects for light rail 386-389

Index 390-399

Acknowledgments 400

7

Map List

North America c. 1780	6	Federal Land Granted to Railroads	178
The National Road (The Cumberland Road)	12	Trolley Map of Massachusetts 1912	190-191
Map of the State of New York: Erie Canal	14- 15	Northern Pacific Railroad	192
The Granite Railway 1825	21	Railroads to the Pacific	193
Railroads early 1830s	35	Great Northern 1880s	194-195
Philadelphia & Reading Railroad	39	Territory Growth 1900	196
Baltimore & Ohio Railroad 1830	41	Major Rail Combinations, early 20th century	197
United States Territorial Growth 1840	47	Railroads 1900	198-199
Champlain & St. Lawrence Railroad 1836	49	The Alaska Railroad 1903	200
Chicago & North Western Railroad	50	Lucin Cutoff 1904	203
Railroads, 1840	51	Salton Sink, 1905-1908	215
Abraham Lincoln's Travels 1849 and 1861	53	The Southern Railroad 1894	221
Territory Growth 1850	63	Atlantic Coast Line	223
Railroads, 1850	64	Seaboard Air Line 1880s	227
Chicago, Burlington & Quincy Railroad	65	Homestead: A Company Town 1880	238
1850: The Old Northwest Traffic goes North-South	66	Industrial Giant 1873	239
Illinois Central 1851	68	Transcontinental Railroads 1900	243
New York Central 1831/1853	69	Chicago, Milwaukee, St. Paul & Pacific	245
The Pacific Railroads Surveys 1853-55	71	Railroads 1916	248-249
Chicago, Rock Island & Pacific 1852	74	United States Territorial Growth 1920	253
1860: The Old Northwest Traffic goes East-West	75	Federal Highway System 1925	255
Erie 1832/1861	76	Unemployment and Relief by State 1934	263
Wagon Trails to the West, Cattle Trails to the North 1860	90 78	Crop Failure in the Midwest, 1934	264
Westward Migration 1853-70	79	Midwestern Rainfall: Normal, 1934, 1936	264-265
Native American Wars 1860-90	80-81	Output for Major Wheat- and Corn-producing States	265
Territorial Expansion to 1860	83	Civil Aviation 1918–30	266
Speed of Travel 1860	84	Airports Constructed or Improved by WPA June 1941	267
United States Military Railroads	86	Zephyr Trip 1934	275
Railroads 1860	87	American World War II Industry and Relocation 1941-45	5 287
Free and Slave Population by State	88	Net Regional Migration, 1940-60	297
The United States, January 1861	89	Brooklyn and Queens Trolley System, 1930s	309
The Secession Vote 1860-61	90	Long Island Railroad 2010	310
Civil War: railroad network 1860	93	Chicago Commuter Lines 1950	313
Railroads and the Civil War	95	Pennsylvania Short Lines 2001	317
The Campaigns of 1863	105	Regional Railroads 2010	319
Railroads in 1861: Myth of an Integrated Network	107	Chicago Commuter Lines 2009	323
Union Pacific Railroad and Land Grant	108	West Coast Passenger Trains 2010	324
Union Pacific 1862	112	Railroads 1963	330-331
Railroad Terminals in Cincinnati 1865	124	Growth of Four Major Railroads, 1959-98	333
Chesapeake & Ohio Railroad 1869	125	Railroad Mileage in Ten Selected States, 1840–1995	334
Atchison, Topeka & Santa Fe Railroad 1883	127	Classification Yards 2010	336
Railroads to the Pacific	128	Intermodal Yards 2010	351
United States Territorial Growth 1870	133	Trolleys and Light Rail Systems	361
Boston & Maine Railroad 1898	134	ICC Class 1 railroads: Union Pacific	365
Standard Time Zones	139	ICC Class 1 railroads: BNSF	368
Pullman's Pullman, Illinois	155	ICC Class 1 railroads: CSX	371
Canada 1885	157	Canadian Railways Southern Expansion	373
Railroads 1890	158-159	ICC Class 1 railroads: The Acela Express (Amtrak's HST	
Mexico City-Veracruz Railroad 1873	169	Canadian Railroad Mergers 1987-2009	377
Ferro Carril Mexicano 1877	171	British Columbia Railway System 2010	378
The Railroads: Getting Agricultural Products to		Primary Canadian Railroads: VIA Rail	380
Markets 1890	173	Mexican Railroads	383
Grange Railroads 1890	174	Toronto Trolley System 2010	389
Federal Land Allegedly Granted to Railroads 188		J J	