

BOSTON AND MAINE RAILROAD CHRONOLOGY OF SIGNALING

Daniel E. Horgan

The following represents a chronology of major signaling events on the B&M Railroad from 1946 to 1986. The dates, for the most part, were taken from the "In-Service" books maintained by the B&M Signal Department to whom the author wishes to express his thanks for their cooperation in this project.

In other instances when specific information was lacking in B&M official records, the author relied on his own personal records for dates and events while in the employ of the B&M Railroad Signal Department.

Where mentioned, the Terminal Division was that portion of the railroad as follows:

Boston to Rockport

Boston to North Beverly

Boston to North Billerica

Boston to Willows

All branches within the above areas, including the Central Massachusetts branch, were also considered as the Terminal Division. The merger of the Terminal, New Hampshire and Portland Division (in regard to signaling) took place on November 1, 1959.

A separate section, Signal Towers, was developed from the Chronology and is there to illustrate the effects consolidation of signal control had on the existence of signal towers. Again, the dates shown are those dates as to when the tower was closed in regard to being a signal facility. Some towers are still standing today, but are being used for other purposes.

The records for the installation of automatic highway crossing protection (AHCP) were extensive and the author only attempts to indicate the date to the best information available that installation of an AHCP that would be considered a "first," such as 1/23/47, Merrills Crossing - Charlestown, NH, and 10/29/48, the installation at Hooksett, NH. It is believed, but cannot be proved by records, that the first automatic gate location on the B&M was installed at Rollinsford, NH on the Conway branch. It is also believed, but cannot be proven by records, that the first installation on the Terminal Division was that at Concord Street, North Wilmington, MA.

Another bit of interesting information regarding AHCP was the installation and removal of the auto-stop type of protection. It did just what it says: auto(mobile) stop! This device came up out of the roadway powered by an electro-pneumatic system and its function was to actually stop the automobile. The records indicate that such a system was installed at Route 20, Wayland, on 9/30/36 and outfitted with an electro-pneumatic system on 11/9/38. The hardware consisted of four traffic lights (two on each side of the track), two ten-foot sections of auto stop with two flashing lights in each section covering a twenty-foot road span. With no train approaching, the device would remain flush with the highway road surface.

The system functioned pretty much as follows:

1. No train on approach, all highway traffic lights were green.
2. Train on first approach, traffic lights yellow and auto-stop device was unlatched. After a predetermined time (usually three seconds), the device started to pneumatically lift the sections out of the roadway with the lights in the section flashing red. When in the full-stop position, the device projected about twelve inches above the surface of the road and the highway signals were red at this time.

3. Train on first approach and over crossing all devices straight up, lights flashing and traffic lights red.
4. Train clears crossing the auto stop device recedes back into the highway surface and the traffic lights turn green.

The author, as a Signal Helper assigned to the Arlington, MA Signal Maintenance Section, learned first-hand that the "barrier" at Wayland was a top-priority maintenance item. Many an unsuspecting motorist was stopped abruptly when not paying attention to the traffic signals.

Newmarket, NH also had the distinct reputation as having the other auto-stop device employed by B&M as automatic highway protection.

In today's jargon, automatic highway crossing protection is known as "automatic highway crossing warning."

SIGNAL TOWERS

LOCATION	DIVISION	STATUS
"WY", Mechanicville, NY	Fitchburg	Closed 12/9/52
Mechanicville Yard Office	Fitchburg	Closed 1/23/74
Johnsonville, NY	Fitchburg	Closed 4/24/62
North Adams, MA	Fitchburg	Closed 4/24/62
East Deerfield, MA	Fitchburg	Closed 11/18/83
Gardner, MA	Fitchburg	Closed 1/13/69
Fitchburg, MA	Fitchburg	Closed 11/16/79
Ayer, MA	Fitchburg	Closed 1/9/80
Waltham, MA	Fitchburg	Open MBTA
Tower H	Fitchburg	Open MBTA
Northampton, MA	Conn River	Closed 12/14/50
Lobby, Springfield	Conn River	Closed 10/7/67
Concord, NH	New Hampshire	Closed 8/13/59
Manchester NH	New Hampshire	Closed 10/9/74
North Chelmsford, MA	New Hampshire	Closed 9/2/48
Lowell, MA	New Hampshire	Closed 11/2/84
Winchester, MA	New Hampshire	Closed 10/9/82
Mystic Jct, Somerville, MA	New Hampshire	Closed 5/2/74
Tower X, Somerville, MA	New Hampshire	Closed 12/31/86

Dover, NH	Portland West	Closed 11/17/60
Rockingham Jct	Portland West	Closed 5/24/66
Lawrence	Portland West	Closed 10/14/76
Lowell Jct	Portland West	Closed 11/16/65
Wakefield Jct	Portland West	Closed 3/31/60
Salem, MA	Portland East	Open MBTA
Lynn, MA	Portland East	Closed 5/24/60
Tower C, Somerville, MA	Portland East/West	Closed 9/4/71
Tower A*	--	Open MBTA

* Now houses CTC supervisory control systems -- Somerville Jct to South Lowell, former Tower X, Beverly to Ipswich West and Wilson to Rockport.

PORTLAND/BOSTON DIVISION

- 9/3/47 Automatic searchlight signals installed Wamesit to Lowell Jct replacing semaphore signals.
- 5/25/50 Auto-stop at Exeter Road, Newmarket replaced by automatic highway crossing gates, lights and bell.
- 10/3/50 Barber Tower at Worcester, MA closed. Interlocking controlled from Gardner Street, Worcester.
- 11/12/51 Ball signals at Rochester, NH retired.
- 9/28/52 Signals retired from Kittery Junction, NH to North Berwick, ME.
- 6/1/56 Garden Street Interlocking discontinued.
- 3/6/58 Single track and CTC installed Willows East to Westford.
- 6/22/58 Dover to Rigby CTC control machine relocated from Dover, NH to Boston.
- 4/9/59 Remote controlled interlocking at Newton Jct, NH retired.
- 11/1/59 Terminal, NH and Portland Divisions consolidated, now Boston Division.

2/5/53 Automatic color light signals installed Winnesquam to Lakeport, NH replacing a lever stand at Pleasant Street, Laconia, NH.

10/18/54 Automatic searchlight signals installed White River Jct to Kendall, VT replacing sempahore signals.

10/20/54 Automatic searchlight signals installed Kendall to Fairlee, VT replacing semaphore signals.

6/21/55 Ground levers, semaphores signals and ball signal removed at Wells River.

6/21/55 Automatic searchlight signals installed Newbury to Wells River, VT replacing semaphore signals.

12/7/55 Automatic signals installed Ely, VT to Hooker Siding replacing semaphore signals.

12/14/55 Automatic signals installed Hooker Siding to Newbury, VT replacing semaphore signals.

12/4/57 Single tracking Graniteville to North Chelmsford Interlockings created at Westford and Graniteville.

5/23/58 CTC installed Concord, NH to Westboro, NH and controlled from Boston, MA.

8/13/59 Interlocking and tower at Concord, NH retired.

9/15/59 New interlocking installed at Bow, NH, controlled from Manchester Tower.

11/1/59 Terminal, New Hampshire and Portland Divisions consolidated, now Boston Division

TERMINAL/BOSTON DIVISION

- 12/11/46 Automatic search light signals installed Manchester to Gloucester on Gloucester Branch replacing semaphore signals.
- 12/23/46 Automatic searchlight signals installed Beverly to W. Manchester on Gloucester Branch replacing semaphore signals.
- 10/28/47 New interlocked switches and signals installed at Tower H; account of new Diesel Shop.
- 8/4/47 New improved car retarders installed Yard 8 and Yard 9, Somerville.
- 7/2/48 New improved retarders installed Yard 8 and Yard 9, Somerville.
- 11/30/48 Station protection signal installed for westward trains at Littleton, MA station.
- 9/2/50 Mechanical interlocking at Salem Tower removed. New electric Salem interlocking installed.
- 2/20/52 Mechanical interlocking at South Sudbury removed.
- 4/12/52 New interlocking installed at Clematis Brook, controlled locally.
- 8/29/52 Banner station protection signal at North Woburn replaced by position light station protection signal.

12/2/52 Central Mass Branch track between Hill Crossing and Clematis Brook discontinued. Signals and switches removed at Hill Crossing.

12/24/52 Banner-type station protection signal at Central Square, Woburn replaced by position light signal.

2/19/53 Clematis Brook interlocking control transferred to Waltham Tower.

2/1/54 New retarders installed at Yard 9, replacing original "Boston" type retarders.

7/7/55 Wedgemere southward station protection signal moved 150' south of Winchester Tower to right of detour track.

7/9/55 Temporary "Winchester" interlocking in service in preparation for construction of elevated track and station through Winchester. Crossing tower at Main and Church Streets out of service.

11/22/55 Mechanical signals and interlocking removed at diamond of Newburyport and Danvers Branch, Danvers.

11/11/56 New "Winchester" interlocking in service on high level.

4/4/57 Automatic interlocking "Pickman Park" in service at Salem.

7/23/57 Castle Hill interlocking in service and controlled from Salem Tower.

9/30/57 New interlocking in service at Tower A for new "Budd House" facility.

11/20/57 Viaduct interlocking at Worcester, MA in service controlled from Exchange Street Tower.

3/6/58 Stony Brook Branch single track CTC completed.

4/22/58 Single tracking and CTC in service North Beverly to Ipswich West in service controlled from Salem Tower.

4/24/58 Single tracking and CTC in service Ipswich West to Newburyport controlled from Salem Tower.

7/23/58 Tower E-5 at Everett B&A Railroad Grand Jct Branch retired.

9/16/58 Semaphore signals on Danvers Branch retired.

9/23/58 Semaphore signals on Saugus Branch retired.

11/6/58 Hoosac Tunnel Diamond at Tower "A" retired.

1/24/59 Hot box detector installed at Shirley.

2/9/59 Hot box detector installed at Andover.

2/18/59 CTC installed Hill Crossing to Fens Diamond on Freight Cut-Off.

3/5/59 New automatic searchlight signals in service at Fens Diamond replacing semaphore signals.

4/1/59 CTC installed Fens Diamond to Somerville Jct and Winter Hill.

4/7/59 Hot box detector installed at Wells Beach, ME.

6/4/59 Interlocking at East Switch, Clinton, MA retired.

10/16/59 End of double track moved from east of Gloucester station westward to Centennial Avenue Bridge and named "Wilson."

10/28-59 Hot box detector installed at Exeter, NH.

11/1/59 Terminal, New Hampshire and Portland Divisions consolidated, now Boston Division.

3/31/60 Wakefield Jct interlocking and tower permanently retired.

5/12/60 Hotbox detector installed at Danbury, NH.

11/17/60 Dover Tower retired, new CTC Dover West to Dover East, controlled from Boston

12/5/60 Semaphore and searchlight signals retired Concord to Plymouth, NH.

2/28/61 Signals and interlocking associated with Span 3, Tower A retired.

7/5/61 Single track CTC installed Rollinsford to Kennebunk.

9/5/61 Single track CTC installed Grand Beach to Rigby.

10/4/61 Semaphore signals and searchlight signals retired Woburn to North Woburn Jct.

10/13/61 Signals retired Barber to Ayer.

11/14/61 Semaphore signals, lever stand, etc. retired at Rockport Loop.

2/8/62 Automatic interlocking at Reading, MA retired. Searchlight signals retired Reading to
Wilmington Jct.

5/10/62 Single track CTC installed Newton Street to Moody Street, Waltham.

8/16/62 Automatic crossing signals on Salem Branch in Peabody retired.

9/20/62 Interlocking at Newfields, NH retired.

10/27/63 CTC and single track installed Winchester to Woburn.

5/20/64 Lynn Tower and all associated interlockings retired.

11/23/64 Mechanical interlocking at diamond crossing of Salem and Newburyport branches at West
Peabody retired.

11/29/64 Signals and interlocking for M & L Branches at Manchester, NH retired.

3/21/65 Yard 9 retarders and snap snap switches retired.

8/13/65 Union Square interlocking at Somerville, MA retired.

10/20/65 Kennebunk interlocking retired.

11/10/65 Single track CTC installed Concord to Bow, NH.

11/16/65 Single track and CTC installed Wamesit to Lowell Jct and Lowell Jct to Wilmington Jct; controlled from Lowell Tower.

12/10/65 Holding signal for westward trains installed at Ballardvale.

1/6/66 Signals and interlockings between east end of Newburyport Draw and Emery retired.

4/21/66 CTC between Concord and Westboro, NH retired.

5/24/66 CTC and single track installed Dover to Rockingham, NH. Rockingham Jct Tower closed.

11/30/66 Clearance detector installed on Bridge 26.62, Lowell, MA.

4/18/67 CTC and single track installed South Acton to Willows.

6/13/67 CTC and single track installed North Chelmsford to Nashua, NH.

11/17/67 CTC and single track installed Biddeford to Grand Beach, ME.

3/18/71 CTC between Ipswich and Newburyport retired.

6/16/71 Medford Jct interlocking retired.

8/22/71 New control machine at Tower X placed in service at Somerville, MA.

9/4/71 Tower C, East Somerville closed.

3/7/72 Dispatcher machines at Boston relocated to No. Billerica.

3/22/73 Automatic interlocking at Haverhill, MA retired.

5/5/73 Single track APB with searchlight signals installed Gloucester to Rockport. Semaphore signals retired.

2/2/74 CTC and single track installed Reading Jct to Everett Jct.

2/19/74 CTC and single track installed Plaistow to Rockingham, controlled from North Billerica.

5/22/74 Mystic Tower closed. Control of Winter Hill Interlocking relocated to Tower X machine.

7/16/74 CTC retired Bow to Concord, NH.

10/9/74 Manchester, NH Tower closed. Control machine relocated to North Billerica, MA.

8/23/75 CTC installed Reading Jct to Oak Grove.

10/25/75 Retarders, snap switches, etc. retired at Yard 8, Somerville.

7/27/76 Frye Interlocking installed and controlled from No. Billerica.

10/4/76 Lawrence Tower closed. New interlocking "Andover Street" controlled from North Billerica, MA.

7/21/77 Middlesex Interlocking, Lowell, MA retired.

12/7/77 Automatic interlocking at South Sudbury, MA retired.

12/22/78 Automatic Cab Indicator signal system West Cambridge to Ayer retired.

3/20/81 CTC signal system Hill Crossing to Somerville Jct retired.

4/23/82 CTC signals system Winchester to Woburn retired.

6/6/82 CTC installed both tracks Tower H to West Cambridge

10/9/82 Winchester Tower closed. North Woburn Jct and Montvale interlockings retired. Interlockings known as Winchester, Mishawum, Wilmington placed in service and controlled from North Billerica, MA.

11/22/82 "AR" interlocking, Biddeford, ME, retired. New interlocking known as "Surf" placed in service.

11/21/83 Automatic block signals WJ 165 and WJ 166 retired on Wilmington Branch (Wildcat). New electronic signal system placed in service; a first on B&M.

1/20/84 Zone 1 Interlocking, tracks and bridge deck at Tower "A" destroyed by fire.

- 2/11/84 New interlocking "Shop," reverse signaling shop to Lowell and new South Lowell interlocking placed in service.
- 11/2/84 Lowell Tower closed. Control of interlockings from North Billerica.
- 11/16/84 Beverly Draw bridge and interlocking destroyed by fire.
- 4/20/85 New Tower "A" Zone 1 in service.
- 7/24/85 Diamond at Tower H, intersection of Fitchburg Main Line and Grand Junction Branch retired.
- 6/11/85 Automatic interlocking "Pickman Park" retired.
- 11/29/85 Beverly Draw bridge and interlocking restored to service.

NEW HAMPSHIRE/BOSTON DIVISION

- 11/15/47 New interlockings in service at South Lowell, Wamesit and Bleachery controlled from New Lowell Tower.
- 2/1/48 New interlockings installed Western Avenue and Middlesex.
- 8/2/48 Control of CTC from North Chelmsford to Willows transferred from North Chelmsford Tower to Lowell Tower. North Chelmsford Tower closed.
- 7/14/48 New interlockings installed at Middlesex and North Chelmsford, controlled from Lowell Tower.
- 10/29/48 New automatic gates and signals installed at Londonderry Turnpike, Hooksett, NH.
- 3/31/49 Reverse signaling installed Middlesex to North Chelmsford.
- 7/18/49 Ball signals removed at Coos Jct.
- 8/22/50 Single track and CTC installed Nashua to Manchester, NH, controlled from new Manchester Tower.
- 10/11/50 Single track and CTC installed between Manchester and Concord, NH, controlled from Manchester Tower.
- 4/21/52 Ball signal installed for Berlin Roadway track crossing at Berlin, NH.

FITCHBURG/NEW ENGLAND DIVISION

1/23/47 New automatic gates and signals installed at Merrills Crossing, North Charlestown, NH.

7/7/47 Two-way radio installed at Mechanicville Yard.

6/22/49 Single track CTC installed on Troy Branch. Control is from Johnsonville Tower.

10/18/49 Single track CTC installed Crescent to Scotia, NY. Control is from Mechanicville Yard Office.

1/22/50 Automatic searchlight signals installed Silver Street to East Northfield, MA.

12/14/50 Electro-mechanical tower at Northampton retired.

5/20/51 Automatic searchlight signals installed West River to Putney replacing semaphore signals.

9/20/51 Automatic searchlight signals installed Dole Jct, NH to Brattleboro, VT.

3/5/52 Automatic searchlight signals installed Brattleboro to West River, VT.

9/20/52 Sliding rock detector installed 1000 ft west from East Portal, Hoosac Tunnel.

12/9/52 "WY" Tower, Mechanicville, NY retired.

8/21/53 Interlocking at Petersburg Jct removed from service.

10/21/53 New interlocking installed at Mechanicville West, NY.

2/1/54 Automatic train stop retired, Hoosac Tunnel to North Adams.

2/1/55 Crescent Interlocking control relocated from Crescent Tower to Mechanicville Yard Office.

2/5/55 CTC installed Scotia West to Rotterdam Jct and controlled from Mechanicville Yard Office.

4/18/57 First hot box detector installed at Willows, MA. Readout is at Ayer Tower.

3/6/58 Tyter West Interlocking, Athol, MA retired.

2/17/59 Hot box detector installed at South Ashburnham.

10/27/59 Hot box detector installed at Lake Pleasant, MA.

11/16/59 Hot box detector installed at Zoar, MA.

12/17/59 Semaphore signals retired South Ashburnham, MA to North Walpole, NH (Cheshire Branch).

2/25/60 Single track and CTC installed West Deerfield West to Shelburne Falls.

12/28/60 Interlockings and CTC retired Johnsonville to Troy, NY.

7/14/60 CTC and single track installed Eagle Bridge to Johnsonville.

4/5/61 CTC and single track installed Greenfield West to West Deerfield West.

3/13/61 CTC and single track installed Gardner to Wrights Crossover.

4/17/61 CTC and single track installed Hoosac Tunnel to Rices.

8/16/61 Semaphore signals retired Bellows Falls, VT to Claremont Jct.

11/1/61 Ball signals at Berlin, NH retired.

12/20/61 Ball signals at Bellows Falls, VT retired.

4/10/62 Control of Soapstone Interlocking transferred from North Adams Tower to new control machine at Greenfield, MA.

5/23/62 Control of signals and interlockings Hoosick Jct East to Hoosick, NY relocated from Johnsonville Tower to Greenfield, MA.

6/13/62 CTC installed on both tracks Gardner to Parkers.

6/20/62 Baldwinville East and Baldwinville West Interlockings retired.

7/19/62 Control of CTC and Interlockings Hoosick Jct to Johnsonville relocated from Johnsonville Tower to Greenfield, MA. Johnsonville Tower closed.

4/24/62 CTC installed Soapstone to Williamstown. North Adams Tower closed.

8/2/62 Hot box detector relocated from South Ashburnham, MA to Parker, MA.

6/11/63 Single track CTC installed Russell Street to Arch and Gauntlet track retired.

6/10/63 Diamond crossing at intersection of Fitchburg Main Line and Peterboro Branch at Gardner retired.

5/12/64 CTC installed Rice to Soapstone, MA.

5/20/64 CTC installed Holyoke North to Northampton South on Connecticut River Line. Controlled from Greenfield.

6/16/64 CTC installed Bardwell to Rice.

6/30/64 CTC installed Northampton South to Deerfield.

7/7/64 CTC installed West Deerfield West to Bardwell.

7/15/64 CTC installed Silver Street to East Northfield, MA.

7/28/64 CTC installed East Northfield to Dole Jct.

8/18/64 CTC installed West River to Putney.

10/14/64 CTC installed Putney to Bellows Falls.

11/5/64 CTC installed Bellows Falls to Claremont Jct South.

11/10/64 CTC installed Claremont Jct South to Windsor, VT.

7/8/65 Eastward track retired and CTC installed on westward track Hoosick to Hoosick Jet.

10/21/65 Interlocking signals and diamond retired at Winchendon, MA.

3/9/66 Hot box detector installed at Elnora, NY.

3/21/67 Interlocking at Tyter East retired.

11/11/68 Cab signal system Ayer to East Deerfield retired.

11/11/68 CTC retired Wrights to Athol on both tracks.

10/7/67 New interlocking "WA" installed at Springfield, MA replacing Lobby 1.

4/13/71 Interlocking Viaduct and Barbers at Worcester retired.

4/12/72 Greenfield Dispatchers and control machines relocated from Greenfield to North Billerica, MA.

10/17/72 Engine House interlocking at East Fitchburg retired.

7/26/73 Automatic block signals Rotterdam to Rotterdam Jct, NY retired.

1/23/74 Control machine moved from Mechanicville Yard Office to North Billerica, MA.

2/1/77 Diamond and interlocking signals at Baldwinville, MA retired.

4/7/77 Diamond and ball signals at Waumbek Jct retired.

11/2/77 Rollstone Street Interlocking retired.

6/2/78 Eastward track and signals between Hoosick and Hoosick Jct, NY retired.

11/14/78 Interlocking at Shelburne Falls West retired.

7/5/79 Gauntlet track and associated signals retired at Woodsville, NH.

11/16/79 New interlockings and CTC installed on both tracks East Fitchburg to Westminster.
Controlled from North Billerica, Fitchburg Tower closed.

1/9/80 Ayer Tower closed. Slab City control point, Ayer and Willows Interlockings now controlled
from North Billerica.

11/18/83 Signal and interlocking changes at Deerfield East, Montague Deerfield Jct. East Deerfield
Tower closed. Control of interlockings now from North Billerica.