

# The National Watch and Clock Museum

by Sean Holliday and Archives Supervisor Sara Dockery.

## Of Watches and Wars

From telling a soldier when to go “up and over” the trench wall, to helping a destroyer keep its course true, watches and timekeepers have had a monumental impact on how wars and battles have been fought for centuries. At the National Watch and Clock Museum in Columbia, PA, the exhibit Enlisting Time illustrates the role watches played in military action. But military clocks are also on display throughout the Museum’s permanent displays.



RAF wall clock with time-only movement by Seth Thomas. Diameter 10 in.; depth 3 in.

In the “clocks in motion” area of the museum, there is a Royal Air Force (RAF) wall clock, circa 1945, made by the Seth Thomas Clock Company, Thomastown, CT. Used by the Royal Air Force Operations Group, this clock was designed to help keep track of air raid reports during the Battle

of Britain. Its bright colors of red, yellow, and blue are dispersed in between the hour notations on the clock face. When a report of incoming German aircraft was sent to an RAF base from the operations center, it was given a color code. The color was determined by the color the minute hand was covering at that moment. Those who heard the message knew how old the current report was. This helped to prevent old reports from being resent to

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the different fighter squadrons who protected the skies over England in those turbulent times.

Within the same case a French tank clock (shown at left), made circa 1917, is on display, with its silver numbers and hands gleaming in the display light. It’s hard to imagine that this amazing timepiece came out of the dark, dank depths of one of the world’s most powerful war machines. The silver was used so that in the darkness of a tank you could still tell time without the aid of light, which could give you away.



Airplane clock used by the French Air Force during World War I.

One other quite interesting piece in this section is an aircraft clock, produced in 1912 by the Waltham Watch Company (at right). This model XA Clock was used as a standard timepiece on aircraft that flew for the U.S. Army Air Force. It was tested



Standard aircraft timepiece used by the U.S. Army Signal Service Corp in World War I.

Continued from preceding page.

- 22. Ibid., 248.
- 23. Ibid., 258.
- 24. Eig, 3-4.
- 25. www.lougehrig.com.
- 26. http://www.Hodinkee.com.
- 27. Ibid.
- 28. Peter Applebome, *The New York Times* (August 1, 2011).
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- 34. Ibid.
- 35. Ibid.
- 36. Ibid.
- 37. Ibid.

- 38. Ibid.
- 39. Ibid.
- 40. NAWCC electronic newsletter, March 2012.

## ABOUT THE AUTHOR

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to be accurate under extreme conditions, such as vibration and sudden temperature and barometric pressure changes. Charles Lindberg used a Model XA Aircraft Clock on the *Spirit of Saint Louis* crossing. It's definitely worth seeing.

The next area of interest is near the tower clocks. With the wall clocks in this area hangs a beautiful square-case wall regulator, built by the Self Winding Clock Company, Brooklyn, NY. This 1950s Western Union regulator uses naval observation time, as shown on the dial (right).

Deeper into the Museum is the ship's clocks exhibit. Here among the many regular maritime shipboard clocks are hidden some true treasures. For exam-



Western Union regulator with "F-style" movement, 120-beat escapement. 15.5 in. square.

ple, tucked up in the upper corner of this section is a Mark I Boat Clock, made for the U.S. Navy by the Seth Thomas Clock Company (left). This amazing clock has an 8-day movement with 11 jewels and uses Naval Observation Time. The second hand on this clock is at the 12 o'clock point; this is the only clock in the

the USSR when this clock could have been used on a Soviet sub spying off the coast of America.

The last major clock of note (below) in this display is the brother clock to the RAF clock mentioned earlier. Stamped U.S. Army Air Corp, this sector or message clock was produced by Seth Thomas Clock Company. There were two different types of these clocks made and therefore, two different designations. Type A refers to the clocks that had 24-hour dials and type B refers to 12-hour dial clocks. The clock on display is a type A; it was used in much the same way as the RAF clock, but instead of colors



Seth Thomas ship's clock with 11-jewel movement and marine lever escapement. Diameter 6 in.; depth 3.875 in.

U.S. Navy to have this placement. It was made to military specifications 18C-11 and 18C-13, which called for it to have a removable vibration-dampening mount. This mount was attached directly to the bulkhead of a ship and was easily removed by a spring-loaded hinge.

In looking at the awesome timekeeper to the left one can imagine its story—where it's been, what it saw, and what kind of boat it was used on. In the lower middle of the display, one's eye is drawn to a clock with an ominous insignia. At the 12 o'clock placement on the face of this ship's clock hangs the red star of the Soviet military forces; just below that ominous red star rises the conning tower of a Soviet submarine and the wording in Russian for the Soviet Submarine Service. This clock harkens back to those oh so tense days between America and

to denote the age of the message, a number was given. Though these clocks never saw combat or flew in a plane, they counted just as much as the combat timekeepers.

Imagine you are a flight director at an airfield waiting a flight of B-17s coming back from a mission over Germany; that clock counted much more to you than anything else at that time, because if the flight was supposed to return by 16:00 hours and it's now 16:45, you know something went wrong and your

friends who manned those planes won't be coming back. You keep checking that clock, a knot begins to form in the pit of your stomach, and you can just feel something has gone horribly wrong. Then at 17:15 you hear the faint rumble of engines—you rush outside to see that 23 of the 35 bombers of the mission have returned. You breathe a sigh of relief and get ready to wait for another flight due in at 18:00.

Finally, we come to the Hamilton Watch Company display, with its diverse applications of time in the military from wristwatches to bomb fuses (see next page). Regarding military timekeepers, Hamilton is most known for its chronometer.



Seth Thomas 8-day marine clock with an 8.5 in. 24-hour dial.



Ship's clock. Russian lettering on lower dial translates "Made in the USSR." Diameter 8.5 in.; depth 3.5 in.

This navigational aid for ships put the Hamilton name in almost every ship in the Allied navy during World War II. The chronometer would be set to GMT (Greenwich mean time) at the beginning of a voyage. Every day the navigator used the time difference between the ship's position and the Greenwich Meridian, to determine the ship's longitude. These clocks had to perform in difficult situations, such as high rolling seas. The carriage that these clocks sit in compensates for turbulent conditions.

During World War II Hamilton also developed and mass-produced fuse mechanisms for bombs and torpedoes. Samples of these fuses are on display and are very interesting to look at. Finally, in the Hamilton display are advertisements from the war era, which tell a story of what clock and watch companies and the Allies accomplished as together they embarked on the "Great Crusade."

Clocks and timekeepers continue to aid our servicemen in the performance of their duty and to help change the ever-evolving face of warfare. Whether through more precisely timed fuses for our bombs or to clocks that sit low in submarines, the very important role of timekeepers in warfare will never change and will help to tell the story of American military history.

—Sean Holliday (PA)

### References

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### About the Author

Sean Holliday is a former gallery attendant at the National Watch and Clock Museum. He studies at Harrisburg Area Community College for his degree in military history. He has written for other magazines, including *Arm Chair General* and *Military History*. He is a multiperiod reenactor and hopes to work his way to Williamsburg, VA.



Bomb fuse mechanisms.

Marine chronometer, ca. 1953. Model 21, 85-size, with a 24-hr. dial.



### New Books and Archived Compilations

*George Daniels: A Master Watchmaker & His Art* by Michael Clerizo

*The Musical Box Society International Golden Anniversary 1949-1999*

*As Horas de Leiria* by José Mota Tavares

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*Hamilton and the 992B* by Art Zimmerla

*Hamilton Military Timepieces*

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*Kroeger Clocks* by Arthur Kroeger

*Myriad-year Clock made by GH Tanaka* by Tei-ichi Asahina and Sachiko Oda

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