

## Robert Thomas Obituary

By PLS member Bill Shields

As many of you are aware, Bob Thomas, a long-time member of PLS, passed away last week at the age of 95.

I consider myself blessed to have known Bob for some 35 years and pleased to consider both him and his wife Phyllis as friends.

Since it has been more than a few years since Bob was at PLS and many club members never met him, I thought that I would take this time to provide a semi-chronological outline of his contributions to PLS and the Live Steam hobby in general.

Who was this fellow Robert (Bob) G. Thomas ?



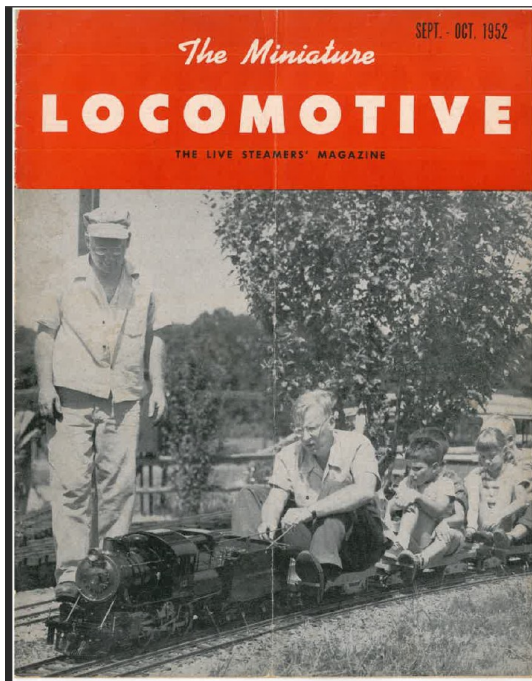


You will note that the track in the above pictures effectively blocks entrance to the garage, which he described as “not a problem since it was the 1930’s and they didn’t own a car!”

That’s him, at a very young age, operating his father’s (George Thomas) B&O Pacific, built from H. J. Coventry castings. The above pictures were taken in 1937 / 1938 when Bob was 10-ish years old, and obviously bitten by the live steam bug.

Yes, that is a 2-1/2” gauge loco.

His dad built 3 other locos of which I am aware, 2 are still in the PLS family (owned by Bob Blackson) and happily running on the 4-3/4” track.



In this picture taken at the PLS Paoli track, Bob is 24 years old. He has already begun building the tender for his 2.5” gauge B-18 B&O steamer. The man standing is his father (George Thomas).

The loco: a 1” 4-6-0 Reading camelback which while still in the area is inoperable due to reported throttle problems.

Why 2.5" gauge?

Back in the early days of live steam modeling, 2.5" gauge, which was very popular in the UK, was considered to be the smallest gauge behind which you could reliably ride. Therefore, when Bob's father started in live steam, it was a given: 2.5" gauge.

Most people refer to 2.5" gauge as 1/2" scale, however Bob correctly called it 17/32". This 'level of exactness' will follow through with Bob's life, work and interaction with others - and if you were going to interact with Bob, you needed to be aware of and prepared for this mind-set.

Yes - you can say that Bob 'grew up live steam' and to say that he 'had it in his blood' is an understatement.

After graduating from Drexel Engineering school (electrical engineering, but he admitted he did better in the mechanical engineering classes), Bob went immediately to work for RCA in Camden NJ as a design engineer in the department where they built TV broadcast equipment (mostly cameras).

He stayed with RCA for over 30 years, taking an early retirement at age 55. Yes, Bob was also a HAM radio operator, which was part and parcel of the business and work environment of the time period.

He then took a job at ABC in NYC. Rather than move from Chestnut Hill, he would get up at 5:30 AM, drive to 30<sup>th</sup> street station and take Amtrak to Penn Station. Using the subway from there, he would be in his office in ABC's building on 67<sup>th</sup> Street for normal starting time. Obviously, he enjoyed his work as Director of Broadcast Operations and Engineering, from which he retired at age 65.

Enough non-steam background, since this is the PLS Gazette.

Bob joined PLS as an associate member in 1946 when the club was still in Paoli. He became a regular member in 1966 and was elected president in 1970, which was the year before the club moved to Rahns. He was President of the club when the current location was purchased.

Today's PLS Gazette, which began life as a regular monthly newsletter, was created by Bob to assist with keeping the club together during the challenging time of the move from Paoli to Rahns. Club membership was down because of the move / construction in Rahns. Bob created the PLS Gazette and used it as a way to keep people talking about live steam. Bob wrote the copy and distributed the Gazette with Phyllis' assistance.

During this time, he organized the track building for what is now called the multi-gauge ground track. Bob also proposed that the multi-gauge track (2.5" / 3.5") also include a 4.75" gauge rail so that the 'newer' 1" scale locos would have a place to run while the main line was being completed.

Over the period of just over a month, the multigauge track panels were built in the clubhouse.

George Thomas (Bob's father) built the stub turnout to the turntable which was aptly named 'Thomas Junction'.

All the while, Bob was planning, designing, acquiring materials for and building his B18 B&O 10-wheeler in 17/32" scale (number 2024). **Time records**, some of which go back to 1948, list all of the hours spent on designing and building individual pieces of the B18. Most of his detailed, freehand pencil on graph paper design drawings and invoices for purchase of materials are dated in the 1970s.

One of his notes clearly states '5000 hours design, 2400 hours construction' -> this for a loco weighing 35#. Anyone that thinks building a small loco is easier and quicker than building a large loco...has a lot to learn from this man's record keeping.

Also of note is that one of his earliest personal 'time cards' shows that he was building the tender in late 1947 and spent over 100 hours laying out with scribe and center punch, drilling and driving the 100's of rivets into the tank. Quick math tells me that from 1946 until 1978 running makes 2042 a project spanning 30+ years.

Club members were always welcome to visit his shop, but only with advance notice so that he could 'clean up'. Visible progress on 2024 notwithstanding, more than one PLS member is remembered commenting "**I don't know how Bob gets anything done, his shop looks like it has never been used**".

John Caldwell (who joined PLS in 1968) remembers the one and only day when he made an unannounced visit to Bob's shop which caused great dismay. Evidently Bob did not have time to properly 'prepare' for the visit and there were chips to be found lying about!

Like many in the live steam hobby in the middle of the 20<sup>th</sup> century (that is the 1950s - 1970s for you Gen-X, Gen-Y, Gen-Z or Millennial readers), live steam loco designs were strongly influenced by what was being / had been produced in the UK. In pursuit of understanding, Bob and Phyllis spent several summers 'travelling around' England, visiting model engineering clubs (or at least Bob was) and gathering insight.

One of the most prolific designers of this era was an author known as LBSC, whom Bob met at his father's home when LBSC was on a tour of the USA sponsored by Charles Purinton of Mass, founder of the IBLS.

Those of you who do not know about the IBLS, please look them up on the internet.

[http://ibls.org/mediawiki/index.php?title=Ground\\_Flying](http://ibls.org/mediawiki/index.php?title=Ground_Flying)

By late 1978, Bob had completed work (and testing) of his B&O B18 and provided written invitations with tear-off-and-mail-back RSVP for people to attend its inaugural operation on August 11<sup>th</sup>, 1979. (note Bob and Phyllis' address which is in the Chestnut Hill area of Philadelphia).



INAUGURAL RUNNING OF B&O CLASS B-18 4-6-0 No. 2024

and

RE-COMMISSIONING OF B&O CLASS P-7 PACIFIC "PRESIDENT ADAMS"

The above 17/32" scale 2½" gauge live steam locomotives will be operated on a 32 foot circle of prefabricated track individually, and doubleheading a freight train.

You are invited to join a dozen or so fellow enthusiasts for any or all of the planned activities. If you have any equipment capable of running on 2½" gauge track, bring it along for operation or display. Do not feel any obligation at all to assist with setting-up track, as it only requires two or three people, and help has been assured; but do try to attend running in the afternoon!

PLACE: 216 Sunrise Lane, Philadelphia, PA 19118

DATE: Saturday, August 11, 1979  
In case of inclement weather, the event will be postponed to August 18.  
In case of doubt about the effect of weather, check by phone: 247 - 2427.

SCHEDULE:

9 AM to 12 PM - Set-up and align track  
12 PM to 1 PM - Lunch (A light lunch will be provided)  
1 PM to 4 PM - Train operation  
4 PM to 5 PM - Dismantle and store track

I hope to see you sometime during the day.

*Bob Thomas*

----- R.S.V.P. -----

- I plan to attend between approximately \_\_\_\_\_ and \_\_\_\_\_.
- I will be unable to attend.

\_\_\_\_\_  
Name

His builder's notes clearly state that it was a 'freight hauling' inauguration -> he was NOT going to haul passengers. Passenger hauling was scheduled for the following month: once he was confident of the necessary operating procedure with freight. There was NO WAY that Bob would put a reasonably un-tested loco out on the track with passengers and suffer possible embarrassment.

The 32' diameter portable track (which was the track shown in the photo taken in his father's back yard) was going to be assembled, used for the afternoon, then disassembled on the same day. It almost sounds like Gauge 1 today. My how things go full circle.

Others with 2.5" gauge equipment were encouraged to bring their locos to run or display.

Shortly after having the B18 in operation, Bob became semi-inactive at PLS. This was due to his daily rail commute to NYC for his job with ABC, which did not get him home until 8 PM in the evenings and included frequent trips to Japan.

During this time, he became a regular contributor to Model Engineer magazine and the Newsletter of the 2.5" Gauge Association. Several of these articles have been previously shared with the PLS Gazette, including the series on 'Management of Small Live Steam Locomotives'.

Bob was always happy to assist novice live steamers with learning to operate their locos. The FIRST thing he would usually do is provide them with a copy of this above-mentioned article.

- Precarious was the student who did not read the missive, if provided.
- Even greater was the woe of one who received, read, THEN TOTALLY IGNORED what Bob had written! (remember reference to 17/32" vs. 1/2" scale and a super clean shop?).

Around the year 2000, Bob brought the B18 (numbered 2024) out to run at PLS. It was the first time that many of us had ever seen a 2.5" gauge steamer in operation. Everyone was significantly impressed at the confidence and speed displayed as Bob performed his 'ground flying' expertise.

Jim Stuart and I quickly removed our 'Tom Thumb' from the track since Bob was going around the loop 2-3 times faster than we were. We were intimidated by a small loco going like greased lightning, being fired by an 'old guy lying on his stomach facing head-first toward the tender'. It quickly became obvious that the B18 with Bob at the throttle had 2 speeds -> standing at the station and throttle wide open with speed controlled by the cut-off.

The expression 'side rods were a blur' aptly described what we were witnessing.

Later in the day, after he had finished running, Bob asked if we could help him get the 2024 and the riding car back into the trunk of his Buick because 'he was a bit

tired since he had a kidney removed the previous week and did not want to overdo it'.

I remember thinking 'tough old dude.... I wonder if he could go faster on two kidneys'...?

Soon after, a long-term personal interaction with Bob came about involving a replacement boiler for Nellie (a loco which his father had completed in 1966). Bob had recently sold Nellie to Bob Blackson and unfortunately, Nellie immediately failed the annual hydrotest. Upon reviewing the existing boiler's design, it was apparent that some minor changes would be warranted.

Since a slightly different flue and superheater configuration (to Bob's specifications) was to be used in the new boiler, I felt it proper to get his ideas regarding Nellie's operation. Bob had been running Nellie with the original boiler on the PLS track for many years.

Be careful what you wish for!

Bob readily supplied very explicit instructions regarding:

- how many scoops of what coal to put in the firebox.
- where to set the blower when at the station
- minimum steam pressure before leaving the station
- water level before starting out on a loop (minimum and maximum since too much water resulted in a 'stack bath')
- reversing gear setting - never just shove it into the corner and forget it!  
Correct Nellie operation required more motion of the reversing gear (cut-off) than throttle.

Each notable segment of the journey around the PLS track (by mile marker) was clearly documented with 'how many turns to back off or advance the cut-off' or 'where to set the water bypass' so that you would be sure to keep up steam pressure, minimize water consumption and attain optimal performance.

All of this was clearly documented in his *Model Engineer* article: "Nellie - An Innovative Live Steam Locomotive" -> hadn't I read it? (NO -> had not -> was it necessary to read the article to build a boiler?)

After he was sure that I had finally read (and digested) the article about Nellie as well as his guide to operating live steam locos, I was consistently and persistently questioned (to put it mildly) about settings of throttle and cut-off and pressure and how it may now be necessary to change the blast pipe size and position because of the difference in boiler construction. All this information was to ensure that Nellie was set up and properly (efficiently) operated on the PLS track. Whew!

Bob Blackson and I just wanted to get around the track without running out of steam.

Silly us, thinking that life could be so simple!

Meanwhile, back on Twin Silo Drive (Bob and Phyllis' retirement home), while all this remote Nellie operational support was going on, he was finishing a 1" electric loco and what I remember as a Gauge 1 steamer -> all on the workbench next to his HAM radio equipment.

In case any of you are interested - I never saw an errant chip or piece of scrap metal laying around. Heaven forbids that a metal chip would get into the HAM radio transceiver.

As Bob moved along in his retirement, he realized that continued steaming would be difficult due to health concerns. He soon finished building the all-electric 1" loco which he campaigned at the PLS track for a few years before he decided that it was no longer safe for him to be out on or getting to / from the track.

Shortly thereafter, he sold both the electric loco and the unfinished Gauge 1 steamer as well as all of his shop equipment.

Three years ago, Bob decided that he wanted his B18 to have a new home with someone who would get it back out on the track at PLS. He did not want 2024 to become a 'shelf ornament' or end up unappreciated in the bottom of a dumpster.

As a result, I am privileged to be the current caretaker of this beauty, along with the voluminous detailed documentation regarding its design, construction, painting, and testing.

During the transfer of 2024 from Bob's apartment to my vehicle, he was **very careful** to warn me about taking care to 'clear the track of every type of debris, since the cow catcher (pilot) has only 3/32" clearance and is easily bent in a derail. Oh...and if you do damage it, here is a quart can of paint left-over from 1979. Instructions on mixing and applying are in the builder's binder.'

OK....enough said. I understood that I needed to be careful.

Being the pragmatic engineer that I am and not wanting to open a 40 year old can of paint, the first thing that I did **before** running 2024 was to remove the 'cow catcher' and put it in a safe place so that it would not be damaged. No cow catcher, ergo no possible damage or need to repaint.

A few months later, I was very proud of the video / pictures taken of Brittany Grimm successfully running 2024 around the ground level PLS track for its first outing in maybe 10 years. While still at PLS, I immediately forwarded the photos and video to Bob.

If you have been following this thread (or if you knew Bob) - you can guess what is coming next.

Bob's return email **clearly established his desire for me to 'reinstall the cow catcher since the loco does not appear to be per prototype without it and should not be shown in public that way'. Period!**

You can also understand why all of the subsequent photos of 2024's operation have been carefully cropped so as to never again show the pilot beam!



To individuals of his generation, model railroading (Live Steaming) was not just a 'weekend away from the office' -> it was clearly an ingrained lifestyle.

As you look through the following pictures of Bob with his 'pride and joy' (7500 man-hours IS a LOT of work), you can easily understand why he was upset because some Philistine had the audacity to remove part of **his** loco and **dare** take it out in public 'partially assembled'.

Some of these photos were taken the last time he ran her at PLS during the 2006 Spring Meet. Some are builder's photos from 1978 / 1979. It was very rare to get a picture of 2024 without the cab roof. Bob even ran with the roof on.



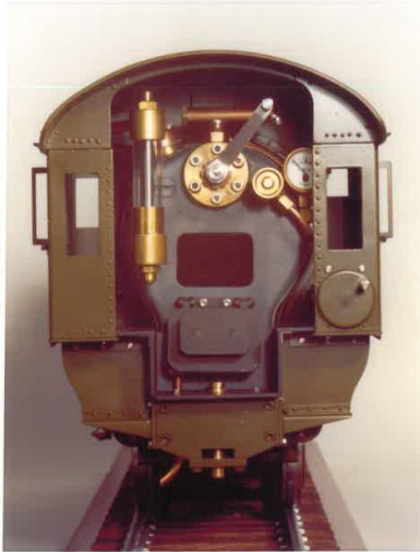
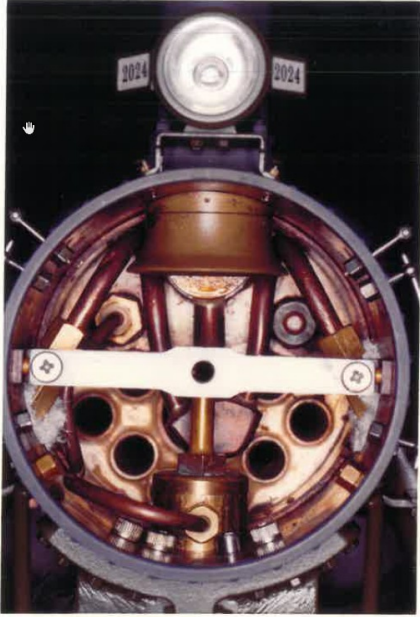
One siding at the PLS turntable still accommodates 2.5" gauge locos. Note this official photo with the cab roof and tender pump cover in place and facing side rods down!



The advantages of a small loco when it comes time to clean up.



While the loco is 2.5" gauge, the lay-down driver's car was 4.75" and had to be separated at the steaming bays since the 2.5" steaming bay does not accommodate 4.75" gauge. Even though the loco was in 'clean up mode' (no cab roof or pump cover), Bob made sure to roll her so that the side rods would appear down in the classic 'steam loco' photo position.



Pressure gauge, throttle, water glass, blower valve and reversing gear. Everything you need once you understand how it works.

The loco travels with a custom tool kit full of special wrenches that allow work to be performed on the smokebox, superheater and blast pipe.

Of special interest is an absolutely filthy length of 5/8" dowel with a 3/8" blind hole drilled into one end. Anyone have an idea regarding its use?



Ground Flying! (above photo credit to Bruce Saylor, PLS Gazette, 2011).

Note, the cab roof is in place even though it makes the throttle lever difficult to reach and water glass difficult to read. What many people did not know is that Bob built TWO cab roofs for the B18:

One 'proper prototype length' roof for display

One 'short' roof for operating that would allow him to see the water level and reach the throttle. This photo shows the 'short' roof.

Hopefully, the next time you see this 2.5" gauge loco out on the track, which will be without the cow catcher and most likely without the cab roof, please take a few minutes to walk over and appreciate the history of dedication required in its creation.

Bob's work depicts his insistence upon everything always being done correctly, and how that mind-set was carried through his entire life.

You can then begin to appreciate his lifetime of contributions to both PLS and the Live Steam hobby.

What's next?

I would like to recommend to all our club members that they take the opportunity to pick out one of the 'old guys', sit them down and talk about 'how it was in the old days', ask about the specific history of the steamer they (or their grandchild) may be operating.

You never know what you might learn....and none of us is going to be around forever.

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My heartfelt thanks to Bob Blackson, John Caldwell, and Phyllis Thomas for assisting with gathering the information contained in this article.

