

# Train Magazine Anniversary Edition

Volume 5 Edition 5 20th issue ever!

January 2000

## Special points of interest:

The fiscal year ended on January 31st 2000. Train Magazine hoped to get 20 members by the end of the fiscal year. We fell short by 2 members and have 18. Please for next year help us receive 20 new members. If you become a member of Train Magazine than you can get colored pictures on two pages of the Mag for 8 issues. Get an exclusive museum list with ratings and reviews of them. Get all this for only \$10 .

## Inside this issue:

<i>Emer Notes: Take a train to NYC</i>	2
<i>Stock Check</i>	2
<i>Happy Birthday Train Magazine!</i>	2
<i>Photo Flash: The ping-pong ball experiment</i>	3
<i>Guinness Book of World Records</i>	3
<i>Acela Regional is here</i>	3
<i>Letters to the Editors</i>	4

## Interview with Mr. Tom Stockebrand on Mag-Lev trains *From the trusted name of Train Magazine* By David Emer Summer and Fall 1999

### Introduction

I had a great time interviewing Mr. Stockebrand about Magnetic Levitation trains (MagLev). So here is a brief introduction to what I will have in this interview: Magnetic Levitation trains that are run by electromagnetics. These trains actually float above the track. These trains may change the way we travel forever but there are some problems with them. In this interview I found out a lot about the positives of Maglevs, the negatives of Maglevs, how they work, what Mr. Stockebrand thinks about them, when and if they will hit the commercial scene. So sit back relax and this interview will bring you an exclusive sneak peek at the future.

Now for some information on Mr. Stockebrand: Mr. Stockebrand has a Mechanical Engineering degree from Caltech. He graduated in 1953 and then went to the Army. When he was in the army they told him to fix computers and ever since then he has been working on designing parts of computers. He left the Army in 1955.

Then we skip ahead to April of 1985 when Frank Davidson the head of the "Macro Engineering department." He did this until 1992. asked Mr. Stockebrand to build a model of a tunnel for high-speed trains to go into the tunnel at Mach 2. Mach 2 is double the speed of sound. The speed of sound is 738 MPH. Another name for the speed of sound is Mach 1. So if you do the math Mach 2 is 1476 MPH. This was for a conference at MIT. Mr. Stockebrand said that if you wanted to go that fast then it would only make sense to use Maglevs. Frank Davidson said that he only wanted to do the tunnel. Mr. Stockebrand built a tunnel that was 1,000 feet long. They got a Ping-Pong ball to go through the tunnel at Mach 2. Since then Mr. Stockebrand has been doing on and off research and does talks on Maglev trains. Continued in next issue

Thanks so much to Mr. Stockebrand. More information about MagLevs is on page 3.

## Happy Birthday Train Magazine!

I am very happy to announce that Train Magazine is now two years old. Now this may not seem like a very long time but it has been a very big jump since when Train Magazine had two readers. This also is a great accomplishment for a magazine that does not have any full-time writers. The Anniversary was

in February but due to issues beyond my control (homework) it is in March.

### 2 Years 20 Issues

Continued on page 2

# Emer Notes: Take a Train to NYC

If Maglevs don't become commercial for a long time I do think that electric trains will come into the scene of the train world. I hope diesel electric trains will die out because only electric trains do not cause pollution. Now you may say why does David care about the environment if he is always talking about trains. Diesel trains cause more pollution than one car but if a lot of people are taking the train then there will be less cars and probably all those cars added up will make more pollution than one diesel train.

Right now you have to pay very high prices both ways to go over the NYC and Long Island bridges. I think that is great! No I'm not nuts. If they have you have to pay a lot of money

to go over the bridges than maybe when the Acela Express trains come out more people will take it since it is only a 3 hour trip to New York City. Also the train will be electric to help the environment. So there will be no pollution. SAVE THE ENVIRONMENT, TAKE A TRAIN TO NYC.

*"Trains are great for the environment as well as being more exciting than cars or planes"*

## Stock Check

	BNI	CSX	NSC	UNP	TMTA
22-Jan-99	33.25	40.25	29.19	50.56	38.31
19-Feb-99	33.87	40.06	28.37	48.69	37.75
19-Apr-99	33.5	44.12	29.56	57	41.05
1-Jul-99	32.43	47.25	30	59.19	42.22
29-Aug-99	30.25	45.75	27.87	51.06	38.73
24-Nov-99	28.94	37.12	21.94	48.69	34.17
28-Dec-99	24	32.12	20.62	43.19	29.98
18-Feb-00	22.56	21.81	14.81	37.75	24.23

From the last Stock Check at the end of December the stock prices have

gone down.

BNI=Burlington Northern and Santa Fe. NSC= Norfolk and Southern. UNP= Union Pacific.

### Stock Terms

The Dow Jones Industrial Average is a group of stocks that get averaged together each day to find out how well the Stock Market is doing. From the four stocks Train Magazine has been tracking. I'm going to average them together to make an average to see how the rail lines are doing. I'm going to call this average the Train Magazine Transportation Average (TMTA). The TMTA for February is \$24.23.

The Stock Prices are found from NetStock.

## Happy Birthday Train Magazine! (continued)

Train Magazine turned two years old in the beginning of February. I'm not positive of the date because I didn't date the first issue. Our fiscal year ended on January 31<sup>st</sup>. We are very happy that you enjoy Train Magazine. I am very thankful to:

Everyone who has contributed to Train Magazine.

Everyone who reads the Magazine.

All the Members.

Everyone who gives me articles to write.

Last but certainly not least I am very thankful to all the sources who I get information from. The list of people who have helped me has grown enormously since last year so I can't list everyone who helped me.

I am extremely pleased that there were an amazing 38

# Photo Flash: The Ping-Pong Ball Experiment

Mr. Stockebrand did his Ping-Pong ball experiment at MIT athletic field where he made the ball go at Mach 2.



Thomas Stockebrand preparing to launch the urethane-filled ping-pong ball on its supersonic flight through the tube. Just behind Mr. Stockebrand is Dr. Yano Sato, Chief Geological Advisor to Japan's Seikan Tunnel; holding papers is Kenneth E. McHenry, Brigadier-General, U.S. Army, Ret., and engineer-manager during construction of the Tennessee-Tombigbee Canal. On the right stands Sir Alan Muir 'Wook, a principal advisor to Her Majesty's Government on the proposed railway tunnel across the English Channel.

The picture at the left of Mr. Stocke-

brand shooting the Ping-Pong ball through the pipe. As it says in the words below there were many experts about trains and scientists there. (Last Column)



This is a picture of the front of the experimental pipe Mr. Stockebrand had in his back yard in Albuquerque New Mexico. (Above)

## Guinness Book of World Records

Mr. Stockebrand got into the 1987 Guinness Book of World Records for his Ping-Pong ball shot through the pipe at Mach 2.

An experiment at MIT on Apr 25, 1985 in which Thomas Stockebrand, using a working model of a supersonic subway tunnel, demonstrating before world leaders in the field, pneumatically pulled a table tennis ball through 950 ft of small-diameter pipe at 1,040 mph. This was intended to prove that a railway system could be built to operate at velocities greater than the speed of sound.

## Acela Regional is Here!

Amtrak now has some trains that are Acela regional trains. They are electrified from Boston to Washington D.C. Through the year more trains will become electrified until there are no diesels. The really fast trains which are going to be called Acela Express won't be out until at least early summer because of wheel problems. Acela Express is well

over due because it was supposed to be out last fall. Acela Express will have trains from Boston to New York in 3 hours. Acela Regional also didn't come on time. Acela Regional's prices are the same as Northeast Direct. Acela Regional goes 125 MPH. Acela Express will go 150-170 MPH. Northeast Direct goes 80-100 MPH.

**TRAIN MAGAZINE AMERICA'S ANSWER TO  
PLANES SINCE FEBRUARY 1998**

Train Magazine Place  
20 Blackhorse Dr.  
Acton MA 01720

Phone: (978) 263-3920  
Email : Train\_Magazine@hotmail.com



## **Train Magazine**

*America's answer to planes*

# Letters to the Editor

Hi David,  
Got any references for the chariot-rail connection? Space shuttles and horses' backsides The US Standard railroad gauge (distance between the rails) is 4 feet, 8.5 inches. That's an exceedingly odd number. Why was that gauge used? Because that's the way they built them in England, and the US railroads were built by English expatriates. Why did the English people build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used. Why did "they" use that gauge then? Because the people who built the tramways used the same jigs and tools that they used for building wagons, which used that wheel spacing. Okay! Why did the wagons use that odd wheel spacing? Well, if they tried to use any other spacing the wagons would break on some of the old, long distance roads, because that's the spacing of the old wheel ruts. So who built these old rutted roads? The first long distance roads in Europe were built by Imperial Rome for the benefit of their legions. The Roman roads have been used ever since. And the ruts? The initial ruts, which everyone else had to match for fear of destroying their wagons, were first made by Roman war chariots. Since the chariots were made for or by Imperial Rome they were all alike in the matter of wheel spacing. Thus, we have the answer to the original questions. The United States standard railroad gauge of 4 feet, 8.5 inches derives from the original specification

for an Imperial Roman army war chariot. Specifications and bureaucracies live forever. So, the next time you are handed a specification and wonder what horse's ass came up with it, you may be exactly right. Because the Imperial Roman chariots were made to be just wide enough to accommodate the back-ends of two war horses. Plus, there's an interesting extension of the story about railroad gauge and horses' behinds. When we see a Space Shuttle sitting on the launch pad, there are two big booster rockets attached to the sides of the main fuel tank. These are the solid rocket boosters, or SRBs. The SRBs are made by Thiokol at a factory in Utah. The engineers who designed the SRBs might have preferred to make them a bit fatter, but the SRBs had to be shipped by train from the factory to the launch site. The railroad line to the factory runs through a tunnel in the mountains. The SRBs had to fit through that tunnel. The tunnel is slightly wider than a railroad track, and the railroad track is about as wide as two horses' behinds. So a major design feature of what > is arguably the world's most advanced transportation system was determined by the width of a horse's backside.

Compaq Computer Australia, Canberra, ACT These are my opinions, and have nothing to do with Compaq. "The wise man knows that he knows nothing." - Bill. "That's us, dude!" - Ted.

(Forwarded from Toni Juan Hormigo and Jerome and Jean Emer)

The trip from Boston to New York with Acela Regional is 4 hours. Amtrak's Northeast direct took 5 hours to get from Boston to New York. Part of the cut-down of the trip time is because now Amtrak doesn't have to switch diesel and electric engines in New Haven. By car it takes 4 hours to get to New York from Boston. With Acela Regional it will take 7 hours and 15 minutes to get from Boston to Washington D.C. With Northeast Direct it took 8 and a half hours to get from Boston to Washington D.C. According to Amtrak this is only a start for high-speed rail in the United States. Wisconsin Governor Tommy Thompson said, "If Germany, France, Italy and Japan can have it (high-speed rail), why can't America?"

The next portion of this article is all my opinion:

It is obvious that even with Acela Express airplanes will be faster and I don't know what the price difference will be. I think that planes are much more of a nuisance than trains are because with planes you have to walk around a lot to get to the correct terminal. You are squished into a tiny seat. Also, your ears kill you during take offs and landing. In addition you can't see anything but clouds. I hope to see trains in the United States for many more years.

Some of the information in this article came from the Boston Globe in an article by Thomas Palmer Jr.

## **Burlington Northern and Santa Fe and Canadian National Merge**

On December 20th 1999 Burlington Northern, Santa Fe (BNSF) and Canadian National (CN) merged. BNSF and CN hope that all approvals will be made and the transaction will be completed by mid-2001. When these two lines join they will have a total of 50,000 miles and will be the largest rail line in North America. They also employ 67,000 people and have revenues of 12.5 billion in total. Both of these rail lines are proven to be successful and have completed successful merges. Such as, the merge between Burlington Northern and Santa Fe in 1995. The company will be called North American Railroads Inc. Robert D. Crebs Chairman and Chief Executive Officer of BNSF and Paul M. Tellier, President and Chief Executive Officer of CN said, "The combination of CN and BNSF builds the first North American railroad uniting the most efficient Canadian railroad with the most efficient railroad in the United States."

The information for this article came from forumsa.compuserve.com.

Train Magazine is now an internationally distributed magazine!

This page will be known as the bonus page for free!

Page 4