Preserving ***"THE FEATHER RIVER ROUTE"***

The Train Sheet

Issue 99
January/February 2000

News from the Feather River Rail Society and the Portola Railroad Museum

THE LITTLE ENGINES THAT DID

by Eugene John Vicknair

There is a very old, almost lost chapter in the history of America's railroads and their motive power. It is a story of the very first diesel locomotives, the first wave in the movement, which would eventually topple King Steam from his throne. Today, they are nearly forgotten, and except for a few scant museum pieces, all but extinct. They did not wear memorable paint schemes, nor were they christened with heroic names like Zephyr or Super Chief. Instead, they go by the pe-

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Our very own "Boxcab", Foley Bros. No. 110-1, the last remaining 100-ton unit, awaits volunteers to take up the call to duty and help restore this important piece of locomotive history. - Frank Brehm

Inside this issue:

INSTRUCTIONS FOR FOLEY BROS. LOCOMOTIVE #110-1

Original mimeo sheets for 100-tonner retyped and reproduced here for your enjoyment with all typos. Courtesy of Norm Holmes collection.

Ingersoll-Rand's instructions:

INSTRUCTIONS FOR LOCOMOTIVE # 110-1.

Weekly inspection, appr. 150 hrs.

1 Clean and inspect all oil purifiers.
2 (oil purifiers bowls should be cleaned every 24 hours.)
3 clean and inspect duplex fuel oil screens.
4 Inspect fuel injection pump plunger adjustment.
5 Inspect distributor adjustment set screws.
6 Fill rocker boxes to proper level.
7 Fill water tanks to proper level.
8 Take up all leaks.
9 Fill crank case with lubricating oil to proper level.
10 After inspection and work is done, equipment should be operated to see all is in first class condition before handing over to operator.

Monthly inspection, appr. 600 hrs.
in addition to other inspections.

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- The Train Sheet -
News from the Feather River Rail Society and the Portola Railroad Museum
Editor – Frank Brehm (916) 334-4470 trainsheet@wplives.com

Contribution Deadlines: Last Friday of February, April, June, August, October and December.

- Portola Railroad Museum -

P.O. Box 608
Portola, CA 96122-0608
Museum: (530) 832-4131 Fax: (530) 832-1854 General Office: (530) 832-1657

The normal operating season for the museum is the first Saturday in March through the first Monday of November. The grounds are open from 10:00 a.m. until 7:00 p.m. daily. The museum building is open from 10:00 a.m. until 5:00 p.m. daily. During the non-operating period the museum is closed except for special events in which arrangements have been made in advance. If you wish to visit during the non-operating period it is advisable to call in advance and find out if the museum grounds will be open.

Entrance to the museum is free, although a suggested donation of $2.00 is greatly appreciated.

The Feather River Rail Society, a tax-exempt public benefit California corporation, is the historical society for the Western Pacific Railroad and operator of the Portola Railroad Museum in Portola, California.

The FRRS is not associated with the Union Pacific Railroad.

FRRS Tax ID number is 68-0002774
Member of the Association of Railway Museums and the Tourist Railway Association, Inc.

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- FRRS Membership -

Associate $15.00 Historical $22.00 Active $30.00 Family $35.00 Sustaining $75.00 Life $300.00 Family Life $450.00
These are the dues for the duration of one year, with Life and Family Life being a one-time payment.

Associate memberships do not have a vote, receive The Train Sheet but not the Headlight and are for one person only.
Historical memberships receive only the Headlight, do not vote and are for one person only.
Active memberships receive both The Train Sheet and the Headlight, have voting rights and are for one person only.
Family memberships receive both The Train Sheet and the Headlight, have one vote and include all members of ones immediate family.
Sustaining memberships receive both The Train Sheet and the Headlight, are for a maximum of two persons with one vote each.
Life memberships receive both The Train Sheet and the Headlight, have voting rights and are for one person only for life.
Family Life memberships receive both The Train Sheet and the Headlight, are for a maximum of two people and have two votes (one per member) for life.

Send all applications, renewals and address changes to:
Feather River Rail Society
Membership Dept.
P.O. Box 608
Portola, CA 96122-0608

Web Pages of Interest

PRM	www.oz.net/~samh/frrs	SN Page	www.people.virginia.edu/~ggg9y
WPRRHS	www.wprrhs.org	Tidewater Southern	www5.pair.com/rattene/WP/TideIndex.htm
CZ Virtual Museum	calzephyr.railfan.net	Tidewater Southern	www.wplives.com/tidewater
Western Pacific and FRRS	www.wplives.com	WP Virtual Museum	wpmuseum.railfan.net

From the Chairman

By Andy Anderson

Greetings to all of the members of our Society and Museum.

As the opening of the season draws near, thoughts of preparation are no doubt swirling in the minds of our department heads and the many loyal and hard working members who dedicate themselves to making it successfull and enjoyable every year.

Much thought has been given to how more of the membership can be encouraged to participate in the various aspects and activities at the museum such as Operations, Mechanical Maintenance and in general house and grounds maintenance. I surmise the plan of action would be to make certain that volunteers would have specific areas of interest to them that they can assist in. Hopefully these plans will be in place at the outset of the coming season. I believe various members of the staff will have some rather interesting and informative items relating to progress at the museum throughout the year.

As one who is anticipating a great season, I am hoping for an influx of eager members ready to enhance the appearance of the property and equipment plus any other activities that may appeal to them. This will, hopefully, get us headed in the right direction.

With the recent grant from the City of Portola and Plumas County we are proceeding with the roof replacement project. This was identified as a high priority project and if things go as planned; the existing roof will be removed and replaced during the coming summer months. Also, a great deal of consideration is being given to a Visitors Center and restoration of various pieces of equipment. A visitors center has been discussed for many years as has the need to begin and finish restoration work on much of the collection. In order to fulfill these goals we look to the membership for assistance. Not just with monetary donations but to become part of the workforce that will help plan, guide, and see these projects to conclusion.

The library car is nearly complete with only a few finish items needing attention. I anticipate activity throughout the season as our historical collection is separated, categorized, and cataloged. This will make retrieval of items much easier for our members.

In closing this article; may I encourage any and all members to offer comments and suggestions that may be of benefit to the Museum staff as we endeavor to make this great piece of history an even more inviting place to visit and enjoy, not just for ourselves but for generations to follow. Again, only the membership can make things happen and hopefully you as members will do just that.

It is my fervent hope that I will be afforded the opportunity to meet the many members that I have yet to encounter, what a privilege that will be for me.

Elections and Bylaws

By Frank Brehm

In the last few months questions have been raised concerning the process we, as a society, have in place to elect directors and make bylaw changes. In reading the current bylaws contradictions were found and after discussions among the Board of Directors and with the bylaw committee it was found there were no clear-cut answers due to the conflicting sections in the bylaws.

On May 2 your Board of Directors held a special meeting via conference call. This meeting was requested by Directors Brehm and Morgan and called by Chairman Anderson. The purpose of this meeting was to make a determination as to how to proceed with the election and bylaw amendment process.

The meeting was convened by Chairman Anderson with Directors Brehm, Englert, Holmes, Monger, Morgan, Neves, Stiles, Vicknair and Wagner present. Also in attendance was Bylaw Committee Chair Kerry Cochran. Director Brehm presented a motion, seconded by Morgan that states the Society shall hold in abeyance the current bylaw amendment election process, seek written legal opinion from an attorney with regards to the election process for directors and how bylaw amendments may be made to the current bylaws. It also requests an opinion as to the adherence of our present bylaws to current law and whether the current bylaws should be further amended or replaced in total. Further that a “White Ballot” may be declared for the currently open Directors positions.

Before unanimous adoption of the motion a discussion was held amongst the Directors with feedback and committee action insight being provided by Committee Chair Cochran. The Board was unanimous in its appreciation of the work done by the Bylaw Committee and looks forward to their continued work after this legal opinion is received. Although this action delays the bylaw amendment process, it is prudent for the Society to ensure the legality of its actions before proceeding.

Communications

A complaint often heard concerns the lack of communication among members and between the membership and the Board of Directors. In an effort to alleviate this concern and promote better communications among the membership, a mailing list has been created on the internet that is open only to FRRS members. This list is located at *www.onelist.com/group/FRRS*. The url must be typed exactly as shown. If you are not a member of onelist you will have to sign up for the service. This is a no cost service and sign-up is fast and easy. All applicants to the mail list are checked against the current FRRS membership list. If the url above does not work go to *www.onelist.com* and you can find the list under Recreation, Trains and Railroads. I look forward to seeing many members on the list with positive discussions concerning the FRRS and the future of our Society.

CMO Report

By Hank Stiles

Its been too long since my last report to you. With all that is going on at home with the holidays and at the museum things just got away from me and for this I apologize.

Our engines ran well this last year, but we had some small problems. Nothing that can't be fixed. In using our engines we have to expect some wear. These engines are designed to operate in "run-8 " all the time, so with the light service they enjoy, they will last many years. I know that these are museum pieces, but unless we totally destroy them any wear and tear that we inflict by using them can be easily repaired. All of these units have very few of the original parts that they came from the factory with, most have been changed out many times.

Here is a short list of some of the things that need to be done. I would like to invite anyone that would like to help with any of these things to step forward please!

SP 2873 has a problem with the control stand but as luck would have it Jim Ley found a throttle / reverser controller for fifty dollars. I could not say "YES" fast enough. Now all we have to do is replace the worn parts.

WP 921-D needs some wheel work, new air filters, and some clean up.

WP 608 needs its blowers rebuilt as they leak oil. (buckets on the air box drains take care of the oil.) The rest of the unit is in pretty good shape.

WP 707 needs some work on the cylinder liner seals. I have talked with a retired machinist from the SP and he told me how to check the liner seals. When we find the leak and repair it that will stop the oil blowing out the crankcase vent. Here is a project that a group of you could take on and be a big help to the museum, how about it, would anyone like to head up this project?

WP 512 since we replaced the cylinder heads (two) last year runs much better. It still needs some attention to the fuel injection system. #1 & #2 cylinders still do not fire as strong as the rest do, but we are 90% there.

FR&W 1857 runs great. Ken Iverson with some help replaced one bad battery, now it spins over much better when we hit the start button.

The fleet just kept soldiering on. Oil, water and fuel, with the occasional repair is all it takes to keep them performing as intended. I get so much enjoyment from watching a machine work with the quality of the engineering done at locomotive manufactures. Why can't the automobile manufactures build a car with that kind of quality engineering? If they could we could drive the same car for many years, but maybe I just answered my own question.

Projects that I am thinking about are; upgrading the WP 501 for use in the RAL fleet, maybe getting one of the O&NW Baldwins running or one of the WP GP-9's. If any of you have anything that you would like to see happen get in touch with me, I would like to hear your suggestions. The first order of business is to keep the rental fleet in good shape. That is were we get a big part of our operating budget. I can't keep them going and do these other things that we would like to do with out your help.

Which brings me to a subject that I feel is as important as anything that we have talked about so far in this column. I would like to see more of our members become involved at the FRRS. The board of directors, of which I am a member, as all of you know, has made great strides forward in the management of the FRRS. We have adopted a mission statement, to give us a goal to strive for. With the help of Dan Brady a Certified Public Accountant we have updated our accounting system which will help us in managing our funds so as to use them wisely.

We now have a year round shower car so we can clean up after a day's work. This year we will finish the air conditioning for the sleeping car, so we can sleep comfortably on those hot summer nights. All to make it more inviting for our members who come to visit and help out. I can't stress to much how important it is to the FRRS to have volunteer help. A lot of you say what can I do? You can do what you know how to do, we all have skills that can be put to good use at the museum or the Western Pacific Railroad Historical Society, our other branch This is your society so please get involved.

Last but not least, I hope each and everyone of you had a happy and joyous holiday season.
See you in Portola!

FRRS Museum Master Plan Meeting

On April 9th, the Feather River Rail Society will hold a master plan meeting. The goal of this meeting is the creation of a comprehensive Master Plan for the future growth and development of the Portola Railroad Museum site. The primary result of the meeting will be a Master Site Plan encompassing such items as a visitor's center, walkways, visitor amenities and facilities, storage/display buildings, a library, general site upgrades, paved parking, upgrades to the diesel shop, improved entryway, and a restoration building. In addition, the Master Plan will include concepts for interpretive displays, volunteer amenities, and increased visibility and accessibility to the museum. Ideas on marketing and advertising, membership drives, and other issues of image and profile will also be welcome. However, this meeting will NOT deal directly with issues of the collection, equipment, and restoration projects.

The meeting is scheduled to be held in Sacramento, California at the California State Railroad Museum's Stanford Gallery. The meeting will start at 11 AM. The regular FRRS Board of Directors meeting shall also

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Museum Master Plan Meeting

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be held in Sacramento on April 8th at 1 PM in the conference room of the Discovery Museum History Center located next door to CSRM at 101 "I" Street.

The FRRS Site Committee and the Board of Directors will host this meeting. It is open to all members, any ideas and comments are welcome. All interested members are invited to attend. The final Master Plan will be announced and available by the Board of Directors meeting on May 13, 2000.

If you have any questions, or comments, please contact the FRRS Site Committee:

Wayne Monger	717.426.5510	opscenter@acerail.com
Vic Neves	510.352.4373	vicneves@home.com
Eugene Vicknair	408.248.4039	TSRY@aol.com

PRM Facility Report

By Doug Morgan

Winters are slow in Portola. The snow comes and the snow goes. It softens the soil, and makes a quagmire of the property. However, this year at least the front entrance is under control thanks to the paving we did last summer. The immediate impact is the lack of pot holes.

The plans for 2000 that I have presented to the board for their consideration is the installation of a railroad rail fence around the lower curve of the front entrance, installation of an upper gate above the present entrance that, when closed would turn back traffic before getting to the bottom of the road. At present time, vehicles facing a closed gate must trespass on the Union Pacific operating property in order to turn around. The fence, would be constructed of worn out railroad rail welded atop of vertical pieces of railroad rail. The fence should be about 4 feet high and is designed to keep vehicular traffic from trespassing from our property to the UP and vice versa.

The big project for the summer is going to be the roof of the main building. The city and county have given the museum a $30,000.00 grant for this project. We have an architect from Reno, licensed in California preparing the general specifications for this job. As soon as the specs are completed, we will go out to bid to various contractors. It is hoped the job will be completed early in the summer. With the completion of the roof we will repaint the roof sign.

Other projects we will address is the completion of the air conditioning system in the sleeping car, the connecting deck/walkway between the shower car and the sleeper and the installation of a widow air conditioner in the shower car.

Coming track projects this spring will included the installation of some switch ties, more gauge rods in the balloon, and ballast in some areas. There are also some cracked and broken angle bars that will need to be changed out.

In order to organize the track repairs, we are going to attempt to set up some work weekends specifically aimed at track repair. The idea is to round up a gang of volunteers on a specific weekend. Once the dates are announced, the volunteers would R.S.V.P to the museum. Early on in the season, March, April and even the first part of May, these dates will have to be flexible due to the weather and ground conditions but will be announced in the Train Sheet, on our web site or, if we have enough e-mail addresses, announced via e-mail. The reason for this is the weather. As stated in the opening of the column, winter can linger in Portola. Track repairs are limited to just a few items such as driving spikes, angle bar change out, track and switch bolt replacement. Due to the snow and the softness of the soil in the track structure and the adjacent work areas, it is difficult to change out ties and apply and tamp ballast. These areas will have to wait until the weather warms up and the ground dries out.

We will be continuing with our scrap drive/ grounds cleanup, they are essentially the same thing. If we get rid of the scrap, the grounds get cleaned up. This we will start as soon as the ground can support the weight of a truck in the work area. We are planning this for April.

The backhoe was set up this year with a snow plow. The installation was completed on February 24th. We don't yet now how to make it work but we will be experimenting with it as the snows continue.

As usual, we need volunteers to help with these jobs. If you have any ideas about projects that you would like to pursue, or if you would like to be a part of any of the projects underway, or those that will be started e-mail me at dbmorgan@jps.net or call me at (530) 832-1657 at the Feather River Rail Society office located at the museum in Portola.

Funding Department Created

At the February Board of Directors meeting, the FRRS Board approved a motion by Director Eugene Vicknair to create a new department of the museum dedicated to developing new sources of funding for the preservation and restoration of the Society's artifacts and facilities.

The Funding Department brings together many tasks previously decentralized or informally organized. It also introduces several new concepts to the Society to improve our fundraising potential.

The Funding Department will:

1 Identify sources of funding for the FRRS/PRM/ WPRRHS. These can include but are not limited to grants, donations, loans, gifts, lease/rental income, and business opportunities. These sources can be private individuals, groups, foundations, governmental

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Operating Department

By Jim Gidly, Sr. and Kerry Cochran

2000 CREW TRAINING AND RULES EXAM.

"I've been working on the Railroad", The old song that many of us remember from years pasts. Well here is your chance to try it out for real, "Working on the Railroad" that is.

Each year the Operating Department of the Portola Railroad Museum holds it annual crew training and rules exam.

The rule examination is an open book test on the FRRS General Code of Operating rules with no time limit. Should you not have a copy of the rules book, one will be issued to you. Each member that works in the operating department needs to take this test along with crew training.

After the rules examination, there is hands on training of crews who wish to participate in train operations or any other work with moving railroad equipment. Upon successful compellation of the rule exam, crew members will be instructed in hand signals, getting on and off moving equipment, coupling rolling stock, coupling air hoses and the safe and correct operating procedures.

New members joining the operating departing, will be assigned student train crew duties and start their training as student brakemen.

The Operating Department operates passenger trains every weekend from Memorial Day through Labor Day. We operate Saturday and Sunday from 11AM to 4 PM, with a lunch break. On operating weekends, lunch will be provided for train crewmembers.

Crewmembers should come prepared with work gloves, work boots that cover your ankles, and work clothes. When you become qualified, the gift shop will issue a operating department T-shirt and hat.

Please be prepared to bring your calendar so that you may sigh up on the Crew Duty sheet. This allows the operating department supervisors to schedule crewmembers, and schedule for special events.

The Crew Duty sheet will change this year, and the final announcement on crew positions will be issued during crew training. In the past, crewmembers signed up by date and position, this year there may be a change in how this is performed. Crew members may be ask to sign up for the dates that they know they will be available to work, and on the day of the operation, the supervisor will make assignments, based on the qualified persons that are available.

Crew training dates for this year are: Saturday April 29, and Sunday May 6, from 10AM to 3 PM.
The times of the training varies due to the experience of the members in attendance.

You may attend either of these days. If you are unable to attend classes on either of the days, you can make arrangements to take the rules examination and receive instruction at any other time by calling the operating department.

You need to bring a Pencil or Pen, proof of membership, Active or above (if you are a non-member you can join the FRRS at this time). Overnight accommodations are available at the museum for members, and arrangements can be made with the operating department. Remember to bring a sleeping bag and toiletries if staying overnight.

Jim Gidley, Sr. Superintendent of Operations, Trainmaster (9530) 342-3903
Kerry Cochran Superintendent of Operations, Assist Trainmaster (650) 952-7127
Portola Railroad Museum (530) 832-4131

Membership

By Kerry Cochran

Since I took over the Membership duties last February 1999, I have made great strides in getting the membership files updated. However this is always a task that needs attention every month.

Your help is needed. During the last 10 months I have found several members that were inadvertently left out of the files, and several members have come forward to let us know they were getting mail at the wrong address.

As time passes, I need all members to make sure the information in our membership files is correct. Your help in bringing any errors to our attention along with the needed corrections will help us keep all members informed by way of the mail service.

All payments for membership, address changes or other items related to membership services should be sent to:

FRRS Membership Services
P.O. Box 608
Portola, Ca. 96122-0608

Please remember to include your Zip Code + 4, as the U.S. Postal Service has informed us that our Bulk Mail may not be delivered without the full 9 digits of the zip code.

Those with Email, may contact me directly at my address of: kc6knt@compuserve.com

Kerry Cochran, Membership Services
(530) 832-4131 Museum
(650) 952-7127 Home (evenings between 6PM and 8PM)

The Little Engines That Did

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destrian name of "boxcabs". Their history is incomplete and little remarked, but their legacy has completely rebuilt the structure of the world's railroads and redefined their methods. It still thrives today.

THE HISTORY

The creation of modern railroading began when steam had yet to reach its zenith. In 1892, Dr. Rudolph Diesel designed the compression ignition internal-combustion engine that would later bear his name. Other inventors, such as England's Charles Stuart (who actually designed an earlier version), joined him in building and marketing these type power plants for marine and stationary industrial uses.

Soon, innovators in the railroading world began investigating this new motive power. Sweden fielded the first known diesel powered rail car in 1913, as a self-propelled passenger carrier. This was the lone example until 1918, when electric traction supplier General Electric first explored the concept of diesels for freight railroading. That year, the firm constructed three experimental units equipped with GE-designed 200 hp, 8 cylinder engines. Two were built as steeple-cabs, while the third was specially armored for the U.S. Army and possible service in World War I. They, and later experimentals by Baldwin, proved unsatisfactory, as their weight to horsepower ratio and reliability were very poor. These locomotives did, however, introduce several very important innovations, foremost being the combined use of the diesel engine and an electric transmission and traction motors to transmit the power to the wheels. This system was pioneered by GE on small, gas-engine switchers beginning in 1913.

Since the inception of internal combustion engines, many methods have been utilized to transmit their power into useful work. The most familiar is a direct transmission, usually through gears or drive shafts, but early on some adjustable belt systems were used, mostly in stationary services. While sufficient for low horsepower, these mechanical systems would prove unreliable in heavy railroading applications, where the force required to move several tons from a dead stop would shear teeth and crush shafts. Hydraulic transmissions later found limited success, mostly in Europe, but still a more powerful, easier to maintain system was required.

What General Electric essentially did in 1918, was marry the diesel engine to an electric freight locomotive, or "motor" as they are commonly called. The principals of electric traction were already well developed, GE simply tossed the power plant along for the ride. A new concept, the "oil-electric" locomotive, was born.

The little 1918 GEs were mainly experimental, and proved to be unsuccessful. But the stage had been set for the first wave of diesels to arrive. In 1924, General Electric decided to follow this start into the marketplace, and teamed with engine builder Ingersoll-Rand to produce a 300 hp demonstrator locomotive in a "boxcab" body. When Alco (American Locomotive Company) joined the consortium in late 1924, the curtain arose on the first line of diesel locomotives ever produced.

THE LOCOMOTIVES

The heart of the Alco-GE-IR boxcabs was the Ingersoll-Rand vertical 6 cylinder 10 X 12 prime mover. This four-stroke, in-line engine displaced 942 cubic inches per cylinder and produced 300 horsepower at a stately maximum of 550 RPM. Rugged and powerful for its time, this prime mover would power over 100 early locomotives, many of which operated for thirty years with their original engines intact. The 60-ton version, which dominated early production, contained one prime mover. The later 100-ton version held two, set side by side in the carbody.

General Electric was responsible for providing the electrical systems. Within each truck were mounted two nose-suspended, 600 volt direct current traction motors, supplied by a 200 kW, 600 volt GEC generator geared to the prime mover. The control system was also adapted from contemporary traction practices, consisting of a throttle, which in the diesels controlled engine output, and a "master controller", which connected the traction motors in either series or parallel and controlled direction of travel. The operating handles were mounted in a small stand at the engineers position, a simple precursor to the larger control stands found in later locomotives.

Alco constructed the carbodies and running gear, and assembled the units at its main plant in Schenectady, New York. Each boxcab rode on two two-axle equalized trucks, equipped with American Railway Association standard friction bearing journals (very similar those used under some contemporary electric motors). The locomotives all had rectangular windows spaced along their length, the number varying as production went on. Early models only had one door on each side, while later versions added a door centered in each end. All of the GE-Alco-IR and later GE-IR boxcabs were constructed with bi-directional control, with a small operator's cab at each end.

Cylinders, cylinder heads, and combustion chambers were all completely water-jacketed and cooled by a closed water system. Water was circulated by a centrifugal pump geared directly from the crank shaft. Most of the early units used sets of tube radiators mounted on the roof for heat dissipation. Several units, including Reading 60-ton 51 and some of the 100-ton locomotives substituted enclosed boxes with prominent fans for cooling. When Alco left the consortium, the style changed to a GE designed radiator, with two large fans on the roof centerline, one at each end, flanked by two boxes containing the

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The Little Engines That Did

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radiator cores. A simple thermostatic valve, similar to an automobile engine's thermostat, controlled water flow into the radiators.

The radiators on these locomotives would prove to be among the most altered items as production continued, as well as the most troublesome. Ultimately, some six variations would appear before a satisfactory system was created. A notorious example of early failure is illustrated by Red River Lumber Company's 100 ton 502, the first diesel locomotive in California. While hauling log trains to the Western Pacific and Southern Pacific interchange, this engine would frequently overheat and vent steam through its radiator system, requiring the crews to scramble for supplemental water. A quick solution found the 502 hauling an auxiliary tank car filled with water on every trip, hoses allowing the radiator system to circulate the water contained in the tank car. After two years of this strange arrangement, the 502 was rebuilt with new radiators, almost identical to those found on preserved Foley Brothers 100 ton unit 110-1 at the Portola Railroad Museum. This locomotive itself is very significant in the history of diesel locomotion. In 1929, the Foley Brothers Construction Company of Montana purchased the 110-1 to work an open pit *coal* mine. This is the first documented instance when a diesel locomotive was purchased purely on the basis of operational economics, and not because of any mitigating circumstances such as open fire danger or smoke laws. Indeed, considering the abundance of free fuel to be found at a coal mine, the choice of diesel power by Foley is striking.

The first five production units, built in late 1924, were actually constructed for stock, not for any specific customer. The first sale occurred in early 1925, to Central Railroad of New Jersey. Also in 1925, the consortium introduced the 100-ton model producing 600 horsepower for heavier duty service. Between 1924 and 1928, Alco-GE-IR produced 26 of the 60-ton model and 7 of the 100-ton.

60-ton
Central of New Jersey 1000
Baltimore and Ohio 1 (later 195, then 8000)
Lehigh Valley 100
Chicago and Northwestern 1000-1002
Erie 19-20
Reading 50-51
Delaware, Lackawanna, and Western 3001-3002
Utah Copper 60
American Rolling Mills 741-746
Union Carbide (one unit)
Donner Steel Company 21-24
Ingersoll-Rand 90
Buffalo-GE (one unit)

100 ton
Long Island 401-402
Great Northern 5100
Erie 21-22
Red River Lumber (California) 502
American Rolling Mills E-101

In 1928, Alco withdrew from the production and GE took over building the carbodies. Other than changes in radiators and slight styling differences in the bodies, production continued unchanged until 1930. GE-IR constructed only 2 of the 60-ton model, while 11 100-ton versions were built before production ended.

60-ton
Hoboken Terminal 500
Ford Motor Company (one unit)
100-ton
Chicago and Northwestern 1200
Illinois Central 9000-9005
Belt Railway of Chicago 301 (last unit delivered)
Ford Motor Company 600
Hoboken Terminal 600
Foley Brothers 110-1
American Rolling Mills 747

The last locomotive was delivered in 1935, having been built in 1930 for stock. GE would produce a single 800 horsepower version in 1931, using a 6 cylinder IR 14 3/4 X 16 prime mover, as an experiment. And other companies would produce (mostly unsuccessful) boxcab body locomotives, including Westinghouse and Baldwin, but this early type was on the wane. By the mid-1930's, the boxcab body would fall out of favor as the hood-type switcher and the streamlined "carbody" passenger and freight units gained prominence.

THE BOXCABS IN SERVICE

The Alco-GE-IR boxcab locomotives were not produced with replacement of steam power in mind. Steam was still king and motive power chiefs didn't see that changing any time soon. Rather these locomotives were intended for special applications, circumstances where steam was inadvisable but electrification too unwieldy or expensive. Several of the units, including the first two, purchased by Central of New Jersey and the Baltimore and Ohio, were responses to New York City's famous law barring steam engines from operating within the city. Similar factors motivated most of the other buyers, which split about evenly between railroads and industrial companies. Laws against steam locomotives or extreme fire hazards dictated the use of some alternative motive power, and the "tin horses", as they were dubbed, filled the niche.

Befitting their role as special application power, the boxcabs were purchased only in small numbers. Viewed as "odd-ball" power, only a few buyers recognized the advantages of diesels over steam, at first. Later,

(Continued on page 9)

The Little Engines That Did

(Continued from page 8)

those using the locomotives became impressed by their availability, which hovered between 80 and 90%, and ease of maintenance. While a steam engine needed to be nursed into operation and refilled with water and fuel at regular intervals, one only needed to press a button to bring one of the boxcabs to life. Almost immediately, they were ready to work.

As experience with the new motive power grew, many began to extol the diesel as a replacement for steam. The Long Island Railroad was perhaps the first company to test and evaluate the economics of diesel versus steam, pitting the GE-IR demonstrator, as well as their 2 100 ton units, against steam power in several planned experiments beginning as early as 1924. What they saw impressed the railroad brass, but reliability was still a question. By 1927, experts in the railroad industry were pointing out that the boxcabs required only 1/3 to 1/6 the fuel expenses of an equivalent steam locomotive. Records kept by the New York Central, which tested several of the boxcabs and related IR-powered locomotives, reported overall operating costs between $0.10 and $0.239 per mile.

In service, the boxcabs had a starting tractive effort of around 60,000 lbs for the 100-ton version. Top speed was about 35 MPH, with series-parallel to parallel transition occurring at 5 MPH and shunted parallel transition at 15 MPH. The 100-ton boxcabs were powerful enough to switch trains up to 2200 tons, while trains in the 1000-1200 ton range could be moved over the road, comparable to a medium sized 2-8-0 steam locomotive. The Central of New Jersey reported that experienced crews required only 15 minutes to become acquainted with operation of the new locomotives.

Unlike many pioneers, the boxcabs mostly led long and prosperous lives. While the first, GE-IR's 1924 demonstrator, was scrapped soon after it finished its barnstorming, CNJ's 1000, the first boxcab sold, served the railroad's Bronx Terminal until 1957. Many others lasted in service until the late 1960's, including Portola's ex-Foley Brothers 110-1, the only remaining 100-ton unit. Switching and terminal service were their calling, where they toiled in obscurity throughout their lives, unseen by a majority of the embryonic railfan community. Occasionally, some were called into light road service. Long Island 401, a 100-ton model, made the first non-demonstrator road freight run of a diesel in North America when it hauled a 379 ton train from Erie, Pa. to Jersey City, NJ. LI and the Illinois Central were two roads that regularly used their boxcabs in local and transfer service.

LEGACY OF THE BOXCABS

The most immediate legacy was the boxcabs impact on motive power thinking. Information gained from their use provided the data which would prove invaluable in the coming decades of increased diesel use. It can be argued that, without their successful example, Electro-Motive Corporation's ground-breaking E-series passenger and FT freight locomotives would have been a much harder sell. The boxcabs demonstrated the concept and did it well, as evidenced by their long careers. Only the poor power to weight ratio of the IR 10 X 12 and contemporary engines (about 80 lbs per horsepower), kept their encroachment into mainstream motive power at bay once their teething pains were solved. With the near simultaneous development in the United States and Germany of high RPM, lightweight diesel prime movers, the revolution was at hand. With EMD's famous Winton 201A and later 567 prime movers leading the charge, diesels took over the world.

Although quickly surpassed by their more powerful and glamourous successors, the boxcabs set the pace for the overwhelming majority of diesel locomotives to follow. Look under the hood of any GE Dash 9 or EMD 90 series locomotive today, and you will still find the same system used by the boxcabs. True, the generators have been replaced with alternators, starting in 1966 with the Alco C-630, and the traction motors are increasingly becoming AC powered, but the basic concept remains.

THE SURVIVORS

Happily, some of the boxcab users saw fit to preserve these unique locomotives for posterity. Six still exist in museums, five being 300 hp, 60-ton units, including pioneering Central of New Jersey 1000 at the B&O Railroad Museum in Baltimore, Maryland, and Baltimore and Ohio 1, the second Alco-GE-IR boxcab sold, at the Museum of Transport in St. Louis, Missouri. North Alabama Railroad Museum is home to an ex-demonstrator unit built in 1927, later owned by Union Carbide. Ingersol-Rand plant switcher 90 now belongs to the Henry Ford Museum in Dearborn, Michigan, while sister I-R 91, the former Delaware, Lackawanna and Western 3001 and perhaps the last boxcab to work in revenue service, resides at the Illinois Railroad Museum, still in bicentennial IR paint. All are non-operational, most little more than empty shells.

The sixth is the only remaining 100-ton model, the previously mentioned Foley Brothers 110-1, built by GE-IR in 1928, and located in the Portola Railroad Museum in Portola, California. This locomotive sat unused and virtually unknown in a quarry near Billings, Montana, for over thirty years before United Industries, owners of Long Construction, which purchased the locomotive from Foley Brothers Construction, donated it to the Feather River Rail Society in 1994. The unit was virtually complete and in original condition until a few weeks before it was moved to the Portola Museum, despite the long years outside. Vandals stole several engine parts just prior to movement, but the Society is currently contemplating restoring the 110-1 to operable condition. When completed, it may be the

(Continued on page 10)

The Little Engines That Did

(Continued from page 9)
oldest operating diesel locomotive in the world.

Only one non-Alco-GE-IR/GE-IR boxcab is known to still exist, that being a GE 1913-built gas-electric constructed for the Dan Patch Electric Lines. Numbered 100, it was the second internal combustion railroad locomotive ever built and is owned and operated by the Minnesota Transportation Museum in St. Paul. It is currently the only operational boxcab locomotive and the oldest operating internal combustion locomotive in the world.

As for the members of the consortium, Ingersol-Rand continued building prime movers for GE and Alco until the late 1930's, when it left the field of railroad traction. Today, IR is a well-known and respected supplier of industrial machinery, including shop equipment and portable generators.

The American Locomotive Works (Alco) was the largest supplier of steam locomotives in North America and was a major player in diesel sales until the late 1950's. They built their last domestic locomotive in 1969, although their Canadian subsidiary, Montreal Locomotive Works, continued making diesels until the early 1980's. Several components of the Alco empire still exist, including Alco Engines, now owned by General Electric, which supplies diesel prime movers for marine and stationary power generation service.

General Electric, the company that started it all, spent many years making small gas and diesel powered locomotives until it entered the road locomotive market with its U25B. Today, GE is the largest supplier of locomotives in North America, having removed General Motors' Electro-Motive Division from that place of honor in 1984. The diesel-electric, forecast by the GE and Baldwin experimentals of 1918 to 1925, and brought to fruition by the boxcabs, has proven to be a lasting formula for success. The final chapter in their story is still far in the future.

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With thanks to Christopher Kaprielian, and Norman Holmes, Gordon Wollenson, and other members of the Feather River Rail Society.

Funding Department

(Continued from page 5)

bodies, local organizations, businesses and corporations, etc.

2 Pursue these sources and apply for funding to support the mission of the FRRS. The group can also pursue these sources in the name of specific projects, goals, or equipment.

3 Maintain an internal Grant Fund for the initiation of restorations and special projects. Advocates can apply for monies from the fund to begin/fund approved restorations, facilities improvements, projects, and acquisitions.

4 Aid Equipment Advocates in creating and performing fundraising drives.

5 Coordinate with outside funding consultants.

6 Create and manage revenue generation plans.

7 Enforce financial and planning responsibility policies enacted by the BoD and present in the FRRS By-Laws.

The Funding Department will act as the “bank” of the FRRS. It would search out sources of funding, build and maintain a relationship with these sources, and apply to them for funds. The group would them manage the flow of these monies into the appropriate accounts and projects.

In addition, the group will directly manage an internal

Grant Fund or “seed” fund. This fund would be used by members/advocates to kick-start large projects or fully fund small ones. They will apply for funding with the aid of the appropriate department/committee Restoration/Preservation, Site, etc.) using a process set up by the department. The department will then review the application and present it to the Board for approval. The Funding Department will ensure that such applications conform to policies set forth by the BoD and the by-laws in terms of responsibility, planning, money use, etc.

Membership in the department is restricted, meaning that, while members of other departments and committees may serve on it, sitting Board members cannot. Decisions of the group directly related to funding appropriations will require Board approval.

At present, the Board of Directors is seeking members for the department. The department is

(Continued on page 13)

INSTRUCTIONS FOR FOLEY BROS. LOCOMOTIVE #110-1

(Continued from page 1)

1 Flush and refill water system.
2 Inspect water pump and impellor.
3 Inspect lubricating screen in crank case.
4 Clean air intake filters.
5 Clean fuel filter box and screens.
6 Grease flexible coupling.
7 Inspect gov. and gearing thru hand hole cover.

Quarterly inspection, appr. 1300 hrs.
in addition to other inspections.

Check clearances on crank pin bearings and if they exceed limits close bearings in.

Semi annual inspection, appr. 3600 hrs.
in addition to other inspections.

Change lubricating oil and clean crank case.
Take up main berings and thoroghly inspect interior of crank case.
Take up on crank pin bearings if necessary.

Annual inspection, appr. 7200 hrs.
in addition to other inspections.

A complete overhauling of engine, a representative of the I. R. Co. will be present if notified.

These suggestions may be changed, altered or added to, to suit local conditions, for more detailed instructions please refer to instruction book.

Ingersoll Rand Co. representative,
(s) Ed. P. Gallagher

General Electric's instructions:

INSTRUCTIONS FOR LOCOMOTIVE No. 110-1

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Weekly inspection, appr. 150 hrs.

1. Inspect batteries for gravity and water.
2. TRACTION MOTORS - check armature bearing oil level, axle bearing oil level.
3. Turn grease cup two turns on generator.
4. Turn grease cup two turns on generator.
5. Turn grease cup two turns on traction motor blowers.
6. Turn grease cup two turns on radiator fan motors.
7. Turn grease cup one turn twice a week on compressor motors.

Monthly inspection, Approx. 600 hours
in addition to other inspections.

1. GENERATOR AND EXCITER - Examine commutator, armature clearance, field connections.
2. TRACTION MOTORS - Check commutator bead ring, grease each gear with ½ pound of block gear grease.
3. AIR COMPRESSOR MOTOR - Examine same as generator, fill crank case to proper level with air compressor oil.
4. TRACTION MOTOR BLOWERS - Examine same as generator.
5. RADIATOR BLOWER MOTORS - Examine same as generator.
6. CONTACTOR COMPARTMENT - Tighten all loose connections and parts, replace all burned or worn contactor contacts, examine tension on reverser fingers, clean and lubricate all air cylinders.
7. CONTROLLER - Clean and lubricate fingers, check coil action.
8. THROTTLE SWITCH - Examine connections and spring tension, wipe off contacts.
9. BATTERY PANEL - Inspect for loose connections.
10. SWITCHES - Inspect all hand switches for loose or broken parts.

Semi Annual Inspection, Approx. 3600 hours in addition to monthly inspection.

1. Check air gap of generator after taking up main bearings.
2. TRACTION MOTORS - a. measure bearing wear; axle 1/8" armature 1/16",endplay 5/16" and 3/16" respectively.

b. replace waste in dip pocket.
c. examine gear and pinion for mesh wear.

Annual Inspection, Approx. 7200 hours
in addition to other inspection.

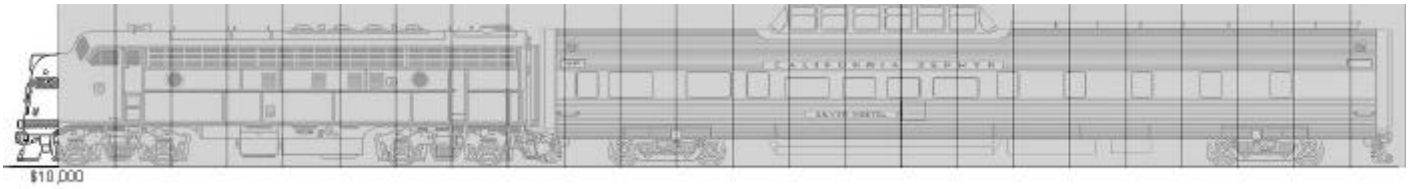
1. GENERATOR - Clean by spraying with carbon tetrachloride
2. TRACTION MOTORS - Remove motor from truck - see instruction book for details
3. COMPRESSOR MOTORS - Drain and refill crank case
4. Dielectric test with megger

The above suggestions may be altered or changed to suit local conditions. For more details refer to instruction book.

(s) B. T. Ridgewell
B. T. Ridgewell

General Electric Company representative

The Zephyr Project Leaves the Station



By Eugene John Vicknair

By now, most members will have received the special mailing outlining the FRRS' Zephyr Project, dedicated to the restoration of our CZ dome-lounge "Silver Hostel" and FP7 805A.

Already, significant progress has been made on the first phase of the Silver Hostel resurrection. Encompassing a complete restoration of the car's exterior, the Project has a goal of completing Phase I by September 2000.

Costs are now in hand for complete replacement of all window glass in the car, replacement and repair of all underframe skirts, restoration of the car's diaphragms, and replacement of missing number and name boards. A supplier has been found for the glass and a metal shop is already gearing up to begin work on the car's skirts. Both have given quotes far less expensive than was expected for these tasks. As this is written, a metal fabrication shop is studying samples of BUDD dome window frames to determine the best way to replicate these crucial items. Several members are also preparing to begin restoration of the diaphragms and repairs to the body once the cold Portola winter is over.

Phase II will involve restoration of the dome area. This should follow quickly as the museum is already in possession of suitable seat frames and several seat backs. Sources for missing light fixtures, carpet, and details are being sought.

The most exciting news is the donation of $10,000 by the estate of Robert Dobbins toward the Zephyr Project. This represents a sizable portion of the estimated cost for the entire exterior restoration. The FRRS is deeply honored and indebted to Robert and his family for this generous gift.

Other "Thank You's" are also in order. Special thanks to Doug Morgan, for his tireless work in locating other CZ car owners and suppliers of parts to gain information on restoring these unique artifacts, and to Lon Orlenko of Monad Railway Equipment, for his information and guidance. Also, to Roy Wullich and Mike Mangini of the Golden Gate Railroad Museum, John McLean of the Gold Coast Railroad Museum, Norm Holmes, and Nick McCabe, thanks for their donations, loans, work, and assistance. And finally to John Sanders of Studio Red for his gracious aid in helping replicate the all important dome window frames.

Silver Hostel: Phase I Restoration

Costs for Phase I of Silver Hostel Restoration

Exterior Restoration		**#**	**Each**	**Total**	**Proposed Completion**
Replacement Side Skirts		5	600.00	3,000.00	May 2000
Repair of Side Skirts		15	100.00	1,500.00	April 2000
Repair of Sand Door		1	200.00	200.00	May 2000
Repair of End Diaphragms		2	250.00	500.00	May 2000
Replacement Letterboards		2	100.00	200.00	April 2000
Replacement Car Number Boards		2	150.00	300.00	May 2000
Replacement Lower Level Glass		23	100.00	2,300.00	April 2000
Replacement Dome Frames		28	Awaiting Estimate		June 2000
Replacement Dome Glass	Side Panels	24	400.00	9,600.00	June 2000
	Teardrops	4	450.00	1,800.00	June 2000
	End	2	180.00	360.00	June 2000
Installation of Skirts and Diaphragms				200.00	June 2000
Installation of Glass and Dome Frames				400.00	July 2000
Final Mechanical Work				3,000.00	September 2000
Miscellaneous				1,000.00	September 2000
			Total	24,360.00	

FRRS Given Chance to Save Rare CZ Sleeper

By Eugene John Vicnair

In late January, the FRRS received a special offer from a private passenger car owner. Recently, the owner had come into possession of the California Zephyr sleeper car "Silver Thrush" and is seeking to have the car preserved in a museum. We have been given an exclusive right to purchase the car for the next few months. After that, the car will be placed on the open market and probably modified for lease service.

The "Silver Thrush" represents a unique chapter in the history of both the CZ and the Budd Company. In 1952, a series of six 6 double bedroom/5 compartment sleepers were built for the CZ to meet high ridership demands. There were other CZ cars built in 1952, all duplicates of existing car types and all delivered to the CBQ, but the 6/5 sleepers were unique to the 1952 order and were delivered to all three partners.

All previous CZ sleepers were Budd standard 10/6 and 16 section configurations. However, the CZ partners wanted larger rooms and asked Budd to specially build an 11 bedroom configuration, a type more commonly associated with the Pullman Company. Budd would build only eight 11-bedroom cars ever: the six CZ 6/5 cars and two near duplicates for the Denver Zephyr. This makes the 6/5 type one of the rarest of all Budd passenger cars.

The six 6/5 cars built were the WP 851 "Silver Crane", WP 852 "Silver Swallow", CB&Q 450 "Silver Dove", CB&Q 451 "Silver Quail", CB&Q 452 "Silver Thrush", and D&RGW 1135 "Silver Gull". All but the "Quail" and "Thrush" eventually ended up in Mexico, the WP and D&RGW cars right after the end of the CZ and the "Dove" in the early 1990s. All are reported scrapped. Of the two survivors, only the "Silver Thrush" retains its full as-built configuration. The only major modifications have been the addition of HEP, the conversion of one bathroom to a shower (a configuration Budd originally proposed for the CZ), and the installation of 4 escape windows. None of these changes have affected the original bedroom layout. In addition, many of the CZ era details survive within the car, including door handles and bathroom fittings.

Very few CZ sleepers of any type survive, and nearly none from the WP or DRGW. The 6/5s in particular are unique in their history and rarity, and were popular with travelers for their (for a sleeping car) spacious rooms. With only two remaining, and the other having been modified, this will likely be the only chance the museum has to acquire a 6/5 in anything approaching original condition and at such a price. If the "Quail" is ever sold, it will certainly be more expensive. If the "Thrush" is purchased for private car service, there is a strong chance it will be modified and future resale will be at a higher price.

From a restoration perspective, the car requires only removal of the carpet placed on its walls, new interior paint, new underframe skirts (which we are currently having made for the "Silver Hostel"), removal of Amtrak stripes, replacement of window glass (the car currently has MarGuard windows, some of which are clouding up), and other minor items to return it to its CZ glory. All beds and many day chairs are present, as well as such details as its original climate controls, room numbers, and shoe shine boxes. The current owner has agreed to do several minor repairs discovered after he took possession. Mechanically, the car is in excellent condition.

The price, however, at $102,000, is high. The owner is not selling the car for any more than what is has cost him, however saving it from being converted to a modified private car has already totaled over $100,000.

Several members of the FRRS are already looking at options for purchasing this rare and historic car without taking money away from the General Fund or current projects. There is also the possibility of trading some equipment not in our permanent collection to offset the cost. But we need the support of the membership to guide the museum in this task. If you want to save the "Silver Thrush", we need your voice. This is a major undertaking, especially in light of the ambitious Zephyr Project now in progress, but such opportunities are scarce and need to be examined.

If you want the "Silver Thrush" to be saved, please contact Director Eugene Vicknair via e-mail at TSRY@aol.com ; by post mail at Zephyr Project, PO Box 608, Portola, CA, 96122; or by phone at 408.248.4039 and show your support. If you would like to donate money, please send care of the Zephyr Project to the museum address above and mark the check "Silver Thrush". Any money not used for the purchase, should it be successful, will be used for restoration of the Museum's CZ equipment.

Funding Department

(Continued from page 10)

planned to have 3-5 members with one serving as Department Head. The FRRS Chief Financial Officer and a Board of Directors Liaison will provide assistance to the members. Most of the department members will be chiefly concerned with the identification and cultivation of funding sources. Much of the departments business will be able to be conducted via e-mail and will not require direct meetings.

Anyone interested in applying to join the Funding Department are asked to contact Director Eugene Vicknair via e-mail at TSRY@aol.com or Director Doug Morgan by phone at 530.832.1657 or via e-mail at dbmorgan@jps.net . Any questions should be directed to Director Vicknair.

Minutes of Past Meetings

January 2000

Lacking a quorum a meeting was not held. In attendance were Directors Anderson, Brehm, Holmes, Morgan, and Wagner.

February 12, 2000

Meeting of the Feather River Rail Society was called to order at 1 p.m., Portola City Library. Those in attendance were Directors Anderson, Brehm, Englert, Holmes, Monger, Morgan, Neves, Stiles, Vicknair, and Wagner. Others present were Lolli Bryan, Ken Iverson, Jim Murphy, Tom Graham & Sue Cooper.
Minutes of the December 1999 meeting were approved as submitted.

RAL REPORT:
Lolli Bryan gave RAL report. Report was handed out to all Directors.

CORRESPONDENCE:
1. A letter of resignation was accepted from David Dewey, Chair of the Restoration Committee effective February 12, 2000 with regrets. Member Dewey stated that Howard Wise had an abiding interest in seeing the Ingersol Rand restored to operational use. He also stated his willingness to continue work on the 1215 if asked by the restoration department.
2. Jim Murphy, of the City of Portola verbally stated that the W.P.R.R. Hospital property was available and indicated that it could conceivably be property acquisition for the Museum if feasible.

BUDGET:
1. Proposed budgets for 2000 are to be submitted to Treasurer Dan Brady immediately.
2. Headlight: Director Brehm was advised by the Board to publish 2 issues/year of The Headlight and 4 if possible. This can be done providing enough material and input is available to warrant the additional publications.
3. A copy of Treasurer Brady's recommendations for a Museum Financial Policy was presented to the Board and for other members present. The Board approved this as submitted MOTION 34-2/2000

FRRS CALENDAR:
Proposed Director Brehm presented calendar for 2000. The Board approved Calendar "A' by voice vote. A copy of this calendar will be included in the Train Sheet due out in March.

MASTER PLAN:
Board moved that we adopt the Master Plan proposed by Plumas Corp. in order that we will be eligible for available grants. MOTION 27-2/2000 Passed

ELECTION:
After much discussion Chairman Tom Graham of the Election Committee asked the Board to approve the proposed election material to be mailed out to the membership. By voice vote this was approved.

BY-LAWS:
The Board moved that the by-laws changes be recommended to the membership for vote. Each section change to be considered separately. Changes will be mailed to the membership. MOTION 33-2/2000 Director Vicknair suggested we obtain legal counsel regarding our current by-laws. Chair Anderson will take care of this matter next Tuesday. The Board members were requested to submit any rebuttals concerning the changes within a 3-week period. The Society will pay for any printing costs of such. Any compiling of data will be done by the by-laws Committee. All will be mailed to the membership by April 1, 2000.

ZEPHYR PROJECT:
A motion to designate printing of information regarding the 'Silver Hostel" Fundraising for restoration of such was presented. Costs for this not to exceed $600. MOTION 28-2/2000. Passed

FUNDING DEPARTMENT:
Director Vicknair presented a motion to form a Funding Department and to seek an individual to initiate said department. The department would consist of the Financial Officer of FRRS acting as head of the department and 3 to 5 members. MOTION 29-2/2000. Passed.

OTHER INFORMATION:
1. The possible trade of Business Car 105 for WP 2-8-0 26 was discussed. Board decision was to refer this to the A & D committee. Director Vicknair will inform the committee.
2. Director Vicknair informed the Board of a decision by Lon Orlenko, to take the "Silver Thrush" off the market for four months. FRRS will have exclusive rights of purchase in the time period.
3. Director Vicknair gave an update on the "Zephyr Project". T-shirts, hats and commensurate models have been ordered. Figures were presented re car windows, skirts and exterior. Preliminary costs for such would be $25,000 to $26,000. Work is in the planning stages and projected finish date is April 2003.
4. The Board authorized Director Vicknair to be the liaison between FRRS and Golden Gate Railroad for possible future trades and cooperation.
5. Master Plan Site Committee Meeting Motion to have the regular Board Meeting on April 8, 1 p.m. and the Site Committee meeting on April 9, 11 a.m.; both to be held at the Sacramento Stanford Gallery. Any members interested in the Master Plan are urged to attend. MOTION 30-2/2000. Passed.
6. The Board, in a voice vote, approved a motion presented by Director Monger to allow the Site Committee to open formal discussions with the Bay Area Electric Railway Assn. Board of Directors regarding a joint partnership venture. MOTION 31-2/2000. Passed
7. Motion presented by Director Morgan that the FRRS shall request from Amtrak to run a Dunsmuir Daylight excursion scheduled for June 17, 2000. Approval to be no later than March 3, 2000. Director Morgan to be Train Manager. MOTION 32-2/2000. Passed.
8. Director Stiles reported on status of 2001 indicating that printed information regarding the repair was on hand and that repair was imminent. Running some excursion trains with our engine was discussed. Possibly this could be a fundraiser for the Silver Hostel. Director Stiles will look into this possibility.
9. Director Brehm advised that February 29 is the deadline for getting articles in for the next Train Sheet.

Being no further business the meeting was adjourned.

Feather River Rail Society
P.O. Box 608
Portola, CA 96122-0608
530-832-4131

Calendar of Events
2000 - 2001

February
Rail Car Maintenance Month

12	Board Meeting, Sacramento

March
Grounds & Track Month, Season Opening

4	Open for Season
11	Winterail
18	Board Meeting

April
Locomotive Maintenance Month

1-2	Locomotive Maintenance Clinic
8	Board Meeting, Sacramento Stanford Room, CSRM
9	Site Committee Meeting, Sacramento Stanford Room, CSRM
14	First Sub Club Meeting
29	Crew Training, Rules Exam

May
Grounds & Facilities Clean-up

6-7	Locomotive Maintenance Clinic
7	Crew Training, Rules Exam
13	Board Meeting, Elections
19-20	WPRRHS Convention
21	Annual Membership Meeting
27	Operating Season Begins

June
Train Rides Every Weekend

3-4	Locomotive Maintenance Clinic
10	Board Meeting

July
Train Rides Every Weekend

1-2	Locomotive Maintenance Clinic
8	Board Meeting
21	First Sub Club Meeting & BBQ

August
Train Rides Every Weekend

5-6	Locomotive Maintenance Clinic
12	Board Meeting
19-20	Feather River Railroad Days

September
Railfan Photographers Day

2-3	Locomotive Maintenance Clinic
4	Operating Season Ends
8	First Sub Club Meeting
9	Board Meeting
14-15	Yard Switching, No RAL
16	Railfan Photographers Day
17-18	Yard Switching, No RAL

October
Prepare Equipment for Winter

7-8	Locomotive Maintenance Clinic
14	Board Meeting

November
Close for Winter, Prepare Santa Train

6	Close for Winter
11	Board Meeting

December
Santa Trains

1	First Sub Club Meeting
2	Santa Train
9	Board Meeting, Santa Train

January 2001

13	Board Meeting

PRESERVING "THE FEATHER RIVER ROUTE"

WP Lives, in Portola!

Mission Statement

The mission of the Feather River Rail Society is to preserve the history of the Western Pacific Railroad. The secondary mission is to preserve the history of the subsidiary and interchange railroads within the territories it served.

Mission Goals

To preserve and interpret the history of the WP, the "Willing People" as a vital link in the development of the rail industry on the West Coast, including the steam and diesel evolution, WP's influence in the passenger tourism industry, the impact of freight competition between neighboring railroads. WP's influence in the lumber, mining and agriculture industry from Plumas County throughout California, Nevada and Utah.

Special Fund Status

Item	Additions	Balance	Notes
Building		$21,827.25	
WP GP9's		$13,619.75	
CTC Board	$150.00	$480.00	(1)
UP 105	$140.00	$2,971.00	(2)
Ingersol-Rand		$100.00	
UP 737/SP 216			
Library/Archives	$250.00	$850.66	(3)
SP Diesel Engs.	$500.00	$800.00	(4)
WP GP 20		$1,030.00	
Magnolia Twr.		$370.00	
Silver Hostle	$10,010.00	$10,130.00	(5)
SP 1215		$25,341.19	
Endowment		$102,986.59	(6)

(1) Ed De Lozier, (2) L.E.Navin & cash, (3) Thomas Lawler, (4) Josiah Jenkins, (5) $10.00-Tom Poole, $10,000.00-Estate of Robert Dobbins (6) transfer from Life Account.

Thank you all for your interest in the above projects.

If you would like to see a favorite project go forward, your financial contribution will help make it so.

The Train Sheet
Feather River Rail Society
P.O. Box 608
Portola, CA 96122-0608

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