

## Inspection Report

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### **California Zephyr Dome-Coach "Silver Lodge"**

Chicago Burlington and Quincy 4717

Inspected at TransTexas Rail, San Antonio, TX – September 24, 2004

Inspected by Eugene John Vicknair

## Specifications

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builder – Budd Company

built 1948

type – dome-coach 24 dome/46 coach seating (Women's and Children's car)

cast pedestal GSI ISH four wheel trucks, 6x11 bearings, rim stamp 36" wheels - needs COT&S disc brakes, D-22 schedule

Type "H" TLC, Air connector, 32v DC electric (Spicer Drive removed), Batteries-Dead, Steam Heat A/C is unknown

Water - 2 tanks (400 gal capacity), Track dump sanitary system stored restored/out of service

not Amtrak compatible

coupler to coupler length 85'6" - end sill to end sill length 83'9" - width 10'4" height 15'10"..

## History

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CBQ 4717 "Silver Lodge", later ARR 7032

The Silver Lodge was built as part of the initial CZ car order and served until the end of the train. At some point in the early 1950's, the car received minor modifications, mainly involving the removal of a doorway that section one end of the car into a special section reserved for women traveling with small children.

The Lodge was used in early Amtrak service and sold to Alaska Railroad in early 1980's. The car did not receive any HEP modifications. Was partly restored and used in Mexican excursion service late 1990's, early 2000. Side skirts removed by Amtrak. The car was sold as part of the Denver Railcar auction in early 2004, however the purchaser could not complete the deal and the sale was voided.

The Lodge is one of 6 dome-coaches built for the CBQ as part of its CZ pool. All survive. Sister cars include the Silver Lariat and the WP Silver Feather.

## Offer

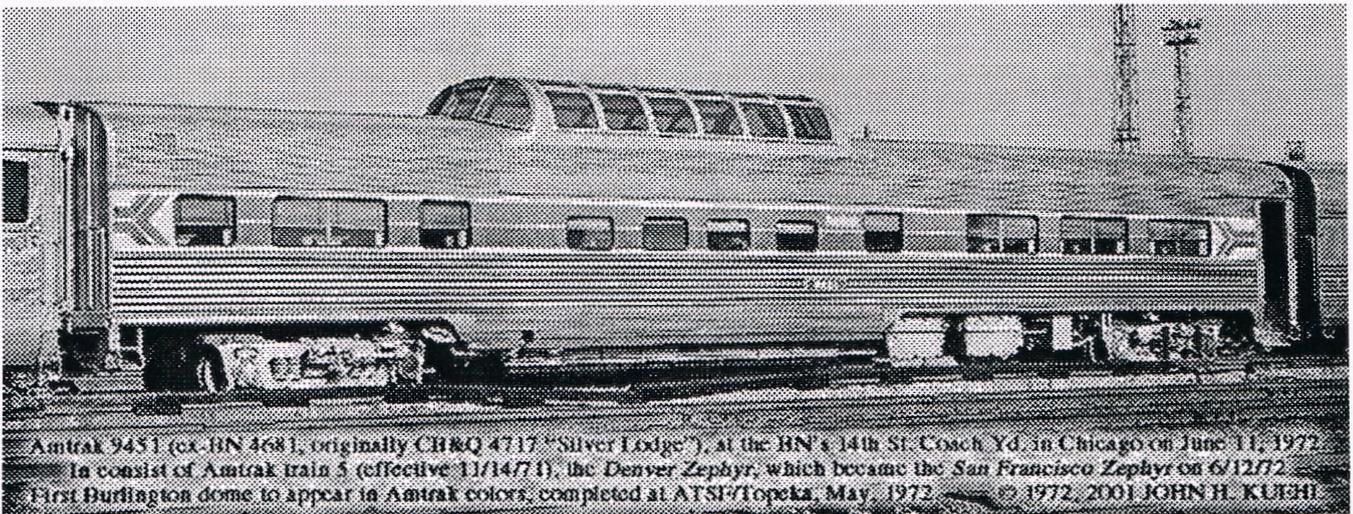
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The current owner is offer the Silver Lodge for sale through D. F. Barnhardt. The offered price is \$61,900.00. This includes the broker commission. The seller is willing to take payments with \$20,000 down. The seller will locate a third party to finance the deal. Details of rendering the car operable for shipping have not been discussed.

## Recent CZ dome car sales and cars offered for sale

DRGW Silver Mustang	\$53,000	D.F.Barnhardt auction, price includes commission
CBQ Silver Bridle	\$62,000	D.F.Barnhardt auction, price includes commission
DRGW Silver Pony	\$55,000	D.F.Barnhardt auction, price includes commission
WP Silver Dollar	\$90,000	Illinois Transit list price
DRGW Silver Colt	\$115,000 est.	D.F.Barnhardt auction, price includes commission
CBQ Silver Stirrup	\$115,000 est.	D.F.Barnhardt auction, price includes commission

- D&RGW 1106 - "Silver Colt", coach. Sold 5/04 to Grand Canyon Railway.
- D&RGW 1107 - "Silver Mustang", coach. Sold 5/04 to Jon Clark - car moved to Commerce CA.
- D&RGW 1108 - "Silver Pony", coach. Car sold 5/04 to Catskill Scenic RR New York via Grand Canyon Railway.
- CB&Q 4722 "Silver Stirrup" coach. Sold 5/04 to Grand Canyon Railway.

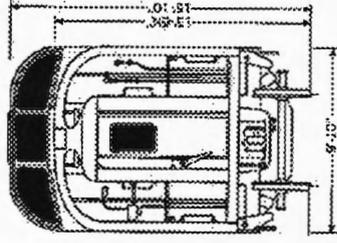
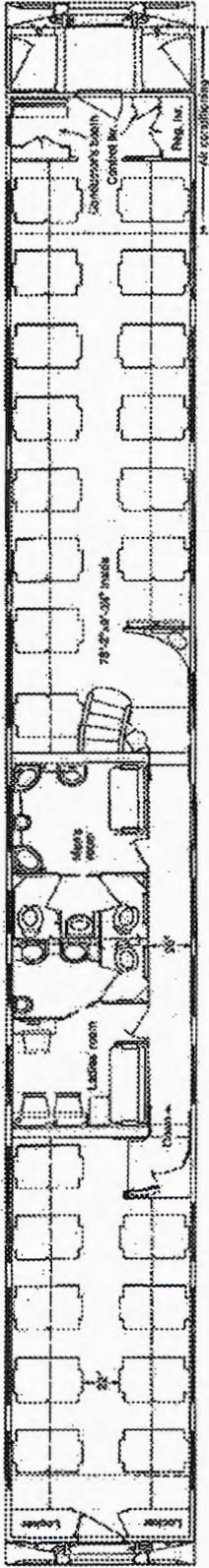


sister cars:

### Vista-Dome Chair Car

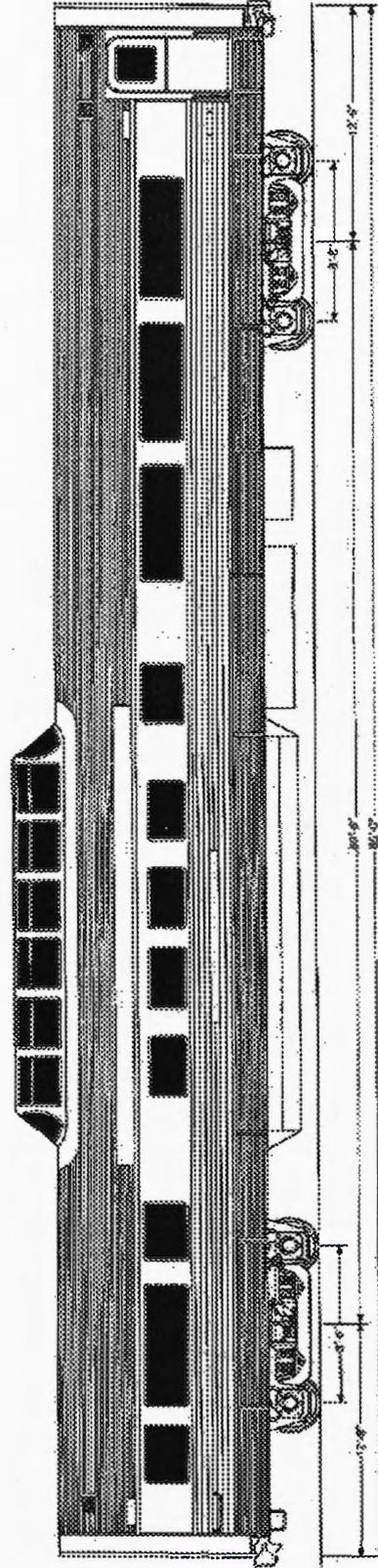
Lot 9656-021 - February-May 1948

<u>Railroad</u>	<u>Name</u>	<u>Number</u>	<u>Disposition</u>	
WP	Silver Dollar	811 <sup>1</sup>	Illinois Transit Assembly Corp, heavily stripped	for sale
WP	Silver Feather	812 <sup>1</sup>	BCRail, named "Moonglow"	in service
D&RGW	Silver Bronco	1105 <sup>1</sup>	stored at the old D&RGW Burnham yard in Denver, gutted	storage
CB&Q	Silver Bridle	4716 <sup>1</sup>	Amtrak 9450, sold in Denver Railcar Auction to ???	storage
CB&Q	Silver Lodge	4717 <sup>1</sup>	BN 4681, Amtrak 9451, owned by DRC, at Trans-Texas, San Antonio TX	storage
CB&Q	Silver Lariat	4718 <sup>1</sup>	Amtrak 9452, owned by CZ Railcar Charters, Los Angles, in charter service	in service



# California Zephyr Dome Chair Coach

Plans not to scale



From Plans originally drawn by Julian Carallier  
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## Inspection Details

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### Introduction

Overall the car was found to be in structurally solid condition with no detrimental defects or problems. CMO of TransTexas reported that they had experienced no issues with movement or tiedown of the car and had found no structural defects such as cracks or fatigue. He feels the Lodge is a solid car and my inspection appears to confirm that.

### Car Exterior

The Lodge has a very good condition body. The only damage or dents appear to be of the type associated with use and service rather than collision. While the lower area of one side was obscured behind the inspection dock, nothing was found on the exterior that appeared to be major damage. Even the aesthetic impact of the dents found in the stainless steel was relatively minor.

The car is missing its car nameboards and ownership boards. These can be replicated and replaced on the car. The car has been painted across the upper train name area, but this paint should remove easily.

All windows are polycarbonate and all are clouded to various degrees. The exterior rubber is severely decayed in many places. One window in the dome is too narrow for the frame and is thus open to the elements. All window glazing and rubber will need to be replaced. All frames are present and appear to be in good condition, except for one outer end windshield in the dome. This can be replicated. Two or three of the dome window retainer strips are missing, but these can also be replicated.

The car has vestibules and all related appliances appear to be present and functional. The diaphragms are present, although the fabric is showing decay. They are functional, however.

The skirts of the car have been removed, but this job was done cleanly. They can be replicated and replaced, but this will be a costly job due to the complex fabrication involved. The absence of skirts is merely a cosmetic detail and does not affect operation of the car.

### Underframe and Trucks

The car was placed on an inspection pit, allowing easy access to the underframe. All underframe components appear to be intact and present, except for the axle Spicer driver to the generator and the trainline connections for the steam heating. (All other steam lines present.) No substantial corrosion or decay was noticed, including the area around the restroom drains.

The wheels appear to be good, however no profile gauges were available so this could not be confirmed. TransTexas stated that they felt the wheels were good for interchange. The trucks have a lube date of 11/04/02, but the COTS date is 06/89 and COTS would be required before movement. The truck journal retainers have been cut in half on all axles, but this does not affect operation. This was done to facilitate maintenance and is mainly a cosmetic defect.

The car has the original Budd/CZ style trucks with C-frame brakes and articulated spring planks. The spring plank forms the base for the suspension springs in the trucks. A hinged or articulated plate was initially used due to its smooth ride qualities. These were later changed to non-articulated planks due to high maintenance on the hinges. The planks on the Lodge appear to be in good condition and the low mileage usage envisioned by the FRRS should not present a major problem. A complete truck rebuild is recommended and possibly required if the car were to regularly see charter or other high-speed service, such as Amtrak.

## **Electrical**

The car's DC generator has been removed and it has no AC converter, therefore I could not hook up to shore power and confirm operation of the electrical system. However, all other major components appear to be in place and no damage to the wiring system was noted, with one exception. The car has two electrical cabinets. The primary cabinet appears to be intact and all components present. The secondary cabinet, which is believed to mostly handle heating and air conditioning, had several banks of components removed. While I cannot confirm what they are, I would guess they were relay banks based on my experience with other cars.

The Silver Lodge is a 32V car with most or all original wiring. It has received no HEP modifications and appears to represent a good preservation of authentic electrical components.

## **Brakes**

An inspection of the brake system revealed that most of the flex hoses on the trucks had decayed and/or been removed. These would need to be replaced. Also, a coupling link in the hand brake chains had been removed. The reason for this is unknown. All pads inspected seemed to be in good condition and all pads and calipers were in place. The hoses and links would need to be replaced before interchange.

## **Interior – Seating Areas**

Overall, the seating areas are in good condition. All seats are present and mostly undamaged. They had the old Amtrak blue upholstery and would require some cleaning and polishing, but all seats tried worked with only a few feeling stiff. Some seats have been turned for facing seating.

A good majority of the light fixtures were in place and intact, with only a handful having broken glass or small missing parts. Some of the lights above the seating have had their lenses removed. The decorative glass panels, those located near the hallway and at the ends of the cars, are gone, likely broken by vandals.

The Mary Lawser mural is intact in the short end of the car. Other surfaces appear to have been painted during Amtrak service and faux wood paneling was installed between the windows. The carpet is Amtrak issue and filthy. It is unknown how well it will clean. A proper restoration would require new carpet and upholstery. At the very least, a good steam cleaning of all carpet and fabric will dramatically improve the look of the car.

As previously mentioned, all windows are clouded to varying degrees and would need to be replaced. Some of the remaining roller shades are badly decayed and hanging into the window areas. Many roller shades have been removed.

There was no obvious water damage in the seating areas. There were 3-4 spots of aluminum corrosion on some wall panels, but they are fairly minor. Using a stabilizer and filling with putty will repair these minor spots before repainting. It is possible that other corrosion spots exist under the paint, but none were detected.

Two ceiling panels are missing, one in the short end and one in the long end. In the short end, this panel is a vent into the cooling system and it opens directly into the plenum that leads to the dome. This end of the dome has had its outer windshield removed, allowing some water to come in and damaged the insulation in the ceiling. No other damage from the water was noted.

The baggage racks are in place and intact. Most of the seat marker tags are still present. Most of the missing ones are in the long end.

### **Hallway**

Overall, the hallway was in poorer condition than the seating areas. Two ceiling lights are missing, but we have enough in stock for the Hostel to supply at least one extra for this car. The carpet is in similar condition to the seating areas. The major damage is found on the outer wall, where all the window sills are showing various degrees of decay and water damage. The wall panels at the end nearest the dome stairs exhibit the worst wall corrosion and also have some rust streaks from the mild steel in the wall trim. Some additional wall corrosion and rust streaks were noted along the entire length of the hallway. None of this is structural and is all related to cosmetic panels. The dome end will require new wall panels. The rest can be arrested and filled.

The cover over the floor radiators is missing in the hallway, but this is easily replicated. One window is extremely damaged and boarded up, but the frame is present. The water cooler is present, along with its cup holder, but it appears to have had parts removed (mainly the spigot) and other modifications. It can be repaired.

### **Women's Restroom**

The major fixtures in the Women's Restroom are still present, including all the vanity tables and mirror sets in the Women's Lounge, as well as the sofa. Most of the mirrors themselves are gone, but the lights and mounts remain. The sofa fabric is very old and would need to be deeply cleaned or replaced.

The entrance door is gone and I could not find it in the car. Except for towel dispensers, all the fixtures appear present and all appear to be original except for the sink tap sets, which may be replacements (this is a detail I need to verify). The toilet door is off its hinges but present. The flooring has been removed and only subsurface material is present.

There is some wall corrosion and rust streaks on the walls. Also, some water traces are visible in the ceiling. These seem to relate to condensation from piping beneath the dome. The aluminum corrosion is confined to the outer wall and is repairable.

### **Men's Restroom**

The Men's Restroom condition is similar to the Women's, however it is missing more fixtures and suffers from greater corrosion. One sink has been changed, one mirror base is missing and one toilet is missing. The small Men's Sofa is in place and in very good condition. As with the Women's Restroom, the door is missing and not able to be located, however there are two exit lights that appear to be a feature only of the Men's Restroom. Both are present and intact.

The flooring is in a condition similar to the Women's. Similar water and rust traces on the walls and ceilings are also present, likely from the same cause (condensation from ceiling piping). There is more wall corrosion, but most is confined to the outer wall of one toilet compartment.

### **Dome Area and Stairs**

The dome has suffered the most damage at the hands of vandals and the elements. As mentioned, one outer end windshield is missing and one dome window is cut short, leaving a large gap. The glass rubber is badly deteriorated. However, all frames (except the one noted) are present and intact.

One ceiling light is missing completely, however all other lights are intact and complete except for glass lenses. I have had a shop make a mold to cast new lenses for the Hostel, so we can make more for this car as well. The end speaker is covered and I could not confirm what remains. The carpet is in similar condition to the seating areas and Amtrak style blue shag has been placed on some of the wall surfaces.

The interior trim pieces are in surprising good condition and no real corrosion was found. Some minor water damage (mostly rust) is present in some of the lower corners. One corner piece was noticeably worse than the others and may or may not be salvageable. If not, it can be replicated.

All interior wall and ceiling panels are present and in good repair. Even most of the details such as ashtrays are present.

The biggest problem in the dome is the seats. At some point, vandals set each dome seat on fire. The flames were extinguished before they could destroy the seat frames (not to mention the car itself), but all the fabric and foam cushion on each seat is a loss. The seat frames will also require some cleaning to remove soot.

The stairs are intact and carpeted and all stairwell footlights are present. The railings (chrome) are also in place, however all four lighted bases where the railings meet the floor (both in the dome and in the seating area) have been removed. Some parts were found loose in the car, but it appears that a majority of the missing bases would need to be replicated.

### **Conclusion**

Several minor items would need to be repaired before the car can roll in interchange. Also, a COTS would need to be performed and the wheel profiles double-checked.

The biggest requirements for bringing the car to an acceptable level of display would be replacing all window glazing and rubber and replacing all seat fabric and carpet. Painting and some detail work and repair would also be required.

A final step to complete restoration of the car would involve replication of the skirts and nameboards. These can be left as a later step. The windows and dome seats are the most critical items. The remaining seats and carpets can be heavily cleaned as a first step.

The electrical system presents unknown challenges, but the wiring should be solid, making work on the rest of the system simpler. Adding an AC converter would be of primary importance after a test of the electrical system.

## **Estimated Costs – Restoration and Purchase**

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### **Acquisition**

The current negotiated offer on the Silver Lodge is for a total of \$61,900 with \$20,000 being a down payment and the remaining \$41,900 being financed through a third party located by the seller. The estimated interest rate on this balance is 6.5%, resulting in an estimate monthly payment to the FRRS of \$840.00 per month over a duration of 5 years. This will result in \$8500 in interest payments.

A higher initial payment would, of course, save in interest charges. Also, there is a possibility that the seller would accept a lower price for an all cash payment, although this would require further negotiation.

### **Movement**

Costs for movement have not been calculated. The car does require maintenance before movement. These could be laid off on the seller through negotiation or paid for by the FRRS. Costs unknown.

## Restoration

A restoration of the Silver Lodge could be segmented into 4 phases:

Phase 1 (required immediately) – replacement of all window glazing, cleaning and repair of interior

- Window glazing and rubber \$20-25,000
- Lights and Fixtures \$5000
- Temporary seat covers for dome \$1200
- Cleaning, strip exterior paint \$2000

Total \$29-34,000 estimated

Phase 2 – interior restoration: seats, carpet, painting

- Reupholster all seats \$8500
- Replace all carpet \$3000
- Panels and Paint \$3000
- Restroom fixtures \$5000
- General \$2500

Total \$22,000 estimated

Phase 3 – exterior restoration: skirts, nameboards

- Skirts unknown
- Replace nameboards \$4000
- Refurbish diaphragms \$3000

Phase 4 – upgrading of electrical/HVAC systems, install HEP pass-through

- Work cost unknown

## Recommendation

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I would recommend that the FRRS pursue acquisition of the Silver Lodge.

Considering the recent sales of CZ dome-coaches, there are very few remaining that will come available in the next few years and they will likely be of higher price since the recent auction glutted the market, lowering current prices. Also, most of the surviving cars are being modified for charter service, rendering them more difficult as candidates for restoration.

The Silver Lodge appears to be structurally sound and mechanically complete. The lack of inspection on the electrical system is troubling and the replacement of window glazing and skirts are major jobs, the car overall can be made into a suitable display with relatively little interior work. The windows will need to be done to make the car display condition, however.

It is a major capital outlay, but a dome-coach is one of the key cars if we intend to display a representation of the California Zephyr. It would be an ideal companion to the Silver Hostel and give us two different styles of dome car for display and excursions.