



The Northwestern Pacific: Challenges and Rewards of Modeling a Prototype Railroad

**Ed Merrin
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Summary

- **Recap previously presented goals and philosophy of modeling a prototype RR.**
- **Description and History of Northwestern Pacific (NWP).**
- **Layout Design and Implementation.**
- **Some selected problems and how they were addressed.**



Historical Modeling

- **Reproduce “look and feel” of a prototype railroad set in a specific era. The layout itself becomes a model.**
- **Employs stagecraft scheme consisting of three equally important dimensions telling the story of the railroad.**
 - **Stage and Props (landscape and geography, structures, track layout).**
 - **Cast (motive power and rolling stock, human operators).**
 - **Script (Operational Scheme).**
- **All Three Subject to Selective Compression, Compromise, etc.**



Basic Requirements

- **Choice of Era (When).**
- **Selection of Modeled Locations (Where).**
- **Operational scheme (What).**



Primary Goal

- Have an operating layout that recreates the essence of a selected prototype so that you and your visitors/fellow modelers can allow yourselves to live out the fantasy that you are operating that prototype at that time in history.
- Absolute accuracy is secondary to overall effect.



Northwestern Pacific

Tiburon to Eureka, 278 miles



- Packed In: Narrow gauge, dual gauge, trestles, bridges (including over waterways), tunnels, helper districts, long freights, overnight passenger and express service, street running, passenger and car ferries, electric (3rd rail and catenary).
- Colorful History: Floods and landslides, dramatic train wrecks, exploding boilers, violent turf battles.
- Settings: Mountains, forests, cliffs, rivers, tunnels, bridges, trestles, swampland, sea coasts, wharfs, farmland.
- Traffic: Lumber, produce, rock and gravel, dairy, livestock.
- Equipment: Box cars, flat cars, reefers, hoppers, tank cars (including wine), streamline and heavyweight passenger, pulled by small and medium steam, road switchers, etc.



NWP History: Growth

- **1871: North Pacific Coast Railroad (NPC) founded, provided NG service to various communities north of SF, becomes North Shore Railroad in 1902.**
- **1903: North Shore initiates SG third rail electric interurban system in Marin County, connects commuters to San Francisco by ferry.**
- **1907: NWP Incorporated as joint Santa Fe and SP venture, consolidating multiple existing lines. Access to lumber was motivation.**
- **1914: Construction completed.**
- **1909-35: Vacation packages (Triangle Route) with ferry to Sausalito, standard and NG trains to Russian River resorts.**
- **1929: Santa Fe bows out, NWP becomes SP subsidiary.**
- **1930: Last of NG standard gauged.**
- **1932: SP acquires P&SR, which NWP operated until 1984.**
- **1953: Entire line dieselized.**
- **1960: Traffic peaks, remains high through 1970s with 100 car trains, pool power needed.**
- **1960s: Major locomotive rebuilding programs.**



NWP History: Decline

- **1937: Golden Gate Bridge opened.**
- **1941: Interurban service discontinued.**
- **1956: Night trains, express service ended.**
- **1958: Three train weekly (Redwood) Tiburon to Eureka ends.**
- **1959-1971: Budd car #10 Willits to Eureka, ends with Amtrack.**
- **1961: Tunnel fire cuts off line below San Rafael. for 6 years.**
- **1964: Eel river floods, requires massive rebuilding.**
- **1967: Last train from Tiburon.**
- **1982: Became SP's "NWP District."**
- **1984: Line above Willits sold to Eureka Southern (Bankrupt 1993).**
- **1985: Operations in Marin County discontinued.**
- **1990s: Public Agencies assume ownership (GGBHD, NCRA), operations leased to California Northern to Willits.**
- **1997: FRA imposes 10 mph limit Willits to Eureka**
- **1999-2000 NCRA operates "new NWP."**
- **2001: Storms shut down line yet again, repair money withheld**



NWP History: Resurrection

- 2011: NWPCo begins freight to Windsor.
- 2012: Begin installation new rail/ties for SMART.
- 2015: First train arrives for SMART.
- 2017: Projected return of commuter rail, first phase San Rafael to Windsor.





My NWP

- **1958-60, early fall (for apples).**
- **Modeled towns selected for operational function: Petaluma, Santa Rosa, Sebastopol, Healdsburg, Willits. Includes Petaluma & Santa Rosa, interchange with California Western.**
- **Ends of line (Eureka, Tiburon, Schellville etc.) are “staged.”**
- **Trains & operations patterned after prototype 1958 timetable.**



NWP Operations 1958

- TTTO, Dark.
- Daily Trains:
 - Two 2nd class westward freights Eureka to Willits (division point).
 - Two 2nd class westward freights Willits to Schellville.
 - Eastward extras in opposite direction (mostly empties).
 - Asst'd locals etc
 - One passenger daily in alternating direction between Tiburon and Eureka.





Look and Feel of NWP 1958





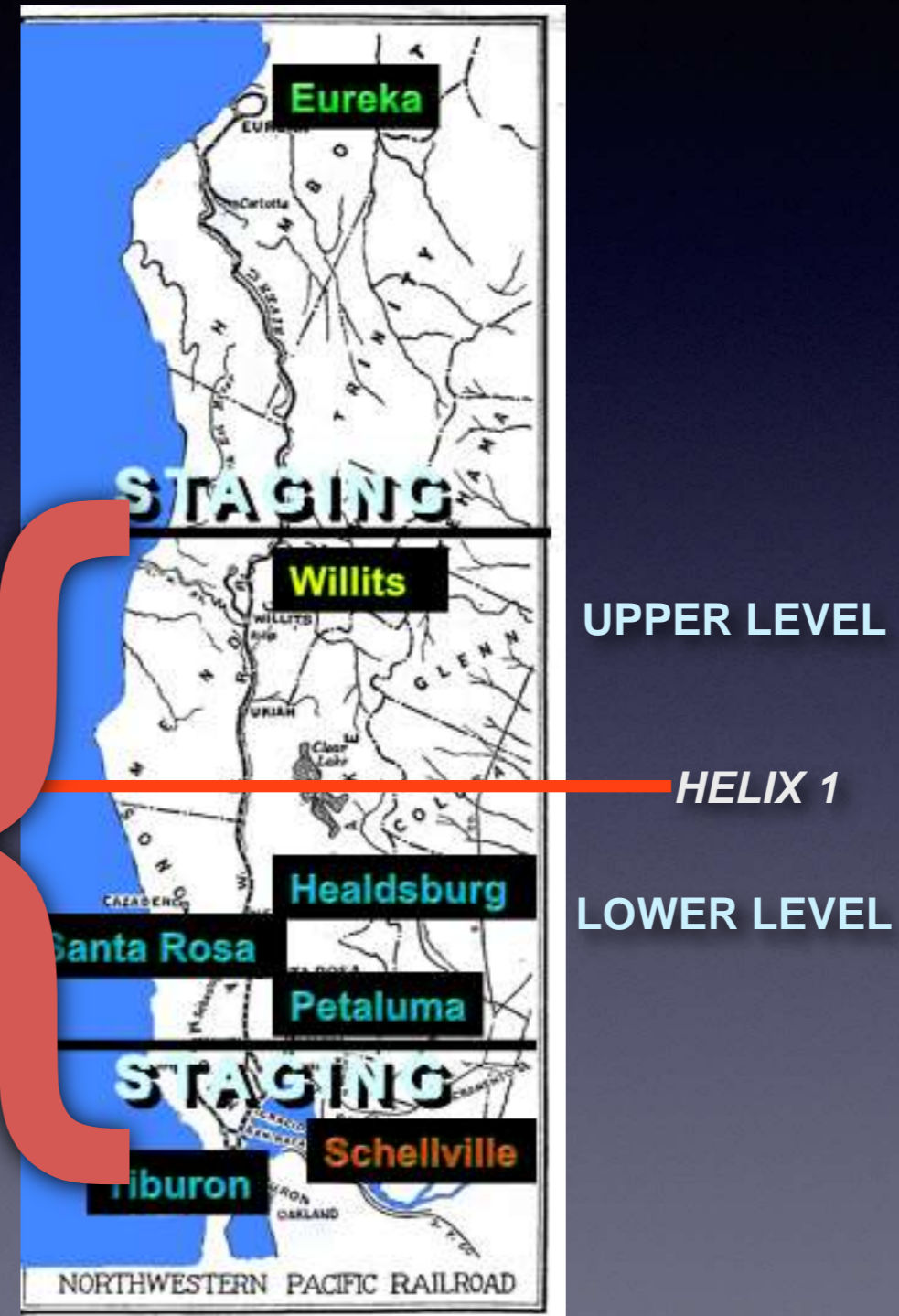
Space and Design

- **Available Space - About 12 x 17 feet, give or take, in part of a two car garage.**
- **Walk in, once through scene.**
- **No duckunders.**
- **Multi-Deck connected by helix.**
- **Hidden Staging, point to point, with continuous run option, accessed via double tracked helix.**
- **Curve Radii - mainline minimum 26 inches.**



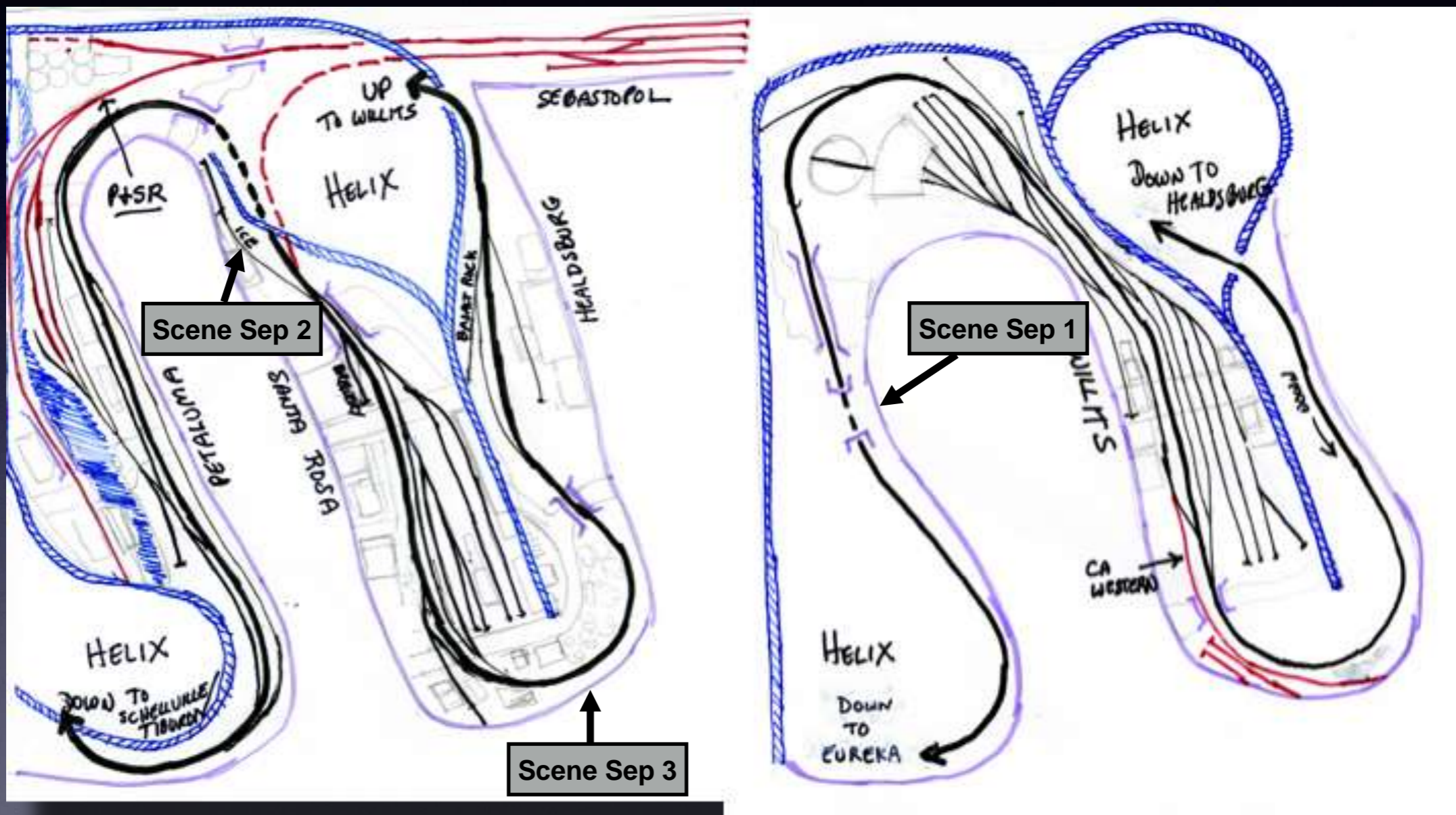
Function of Helixes

- Two levels with staging underneath.
- Helix 1 connects levels.
- The two levels share Helix 2 to staging.





Track Plan



Lower Level

Upper Level



Layout in the Flesh



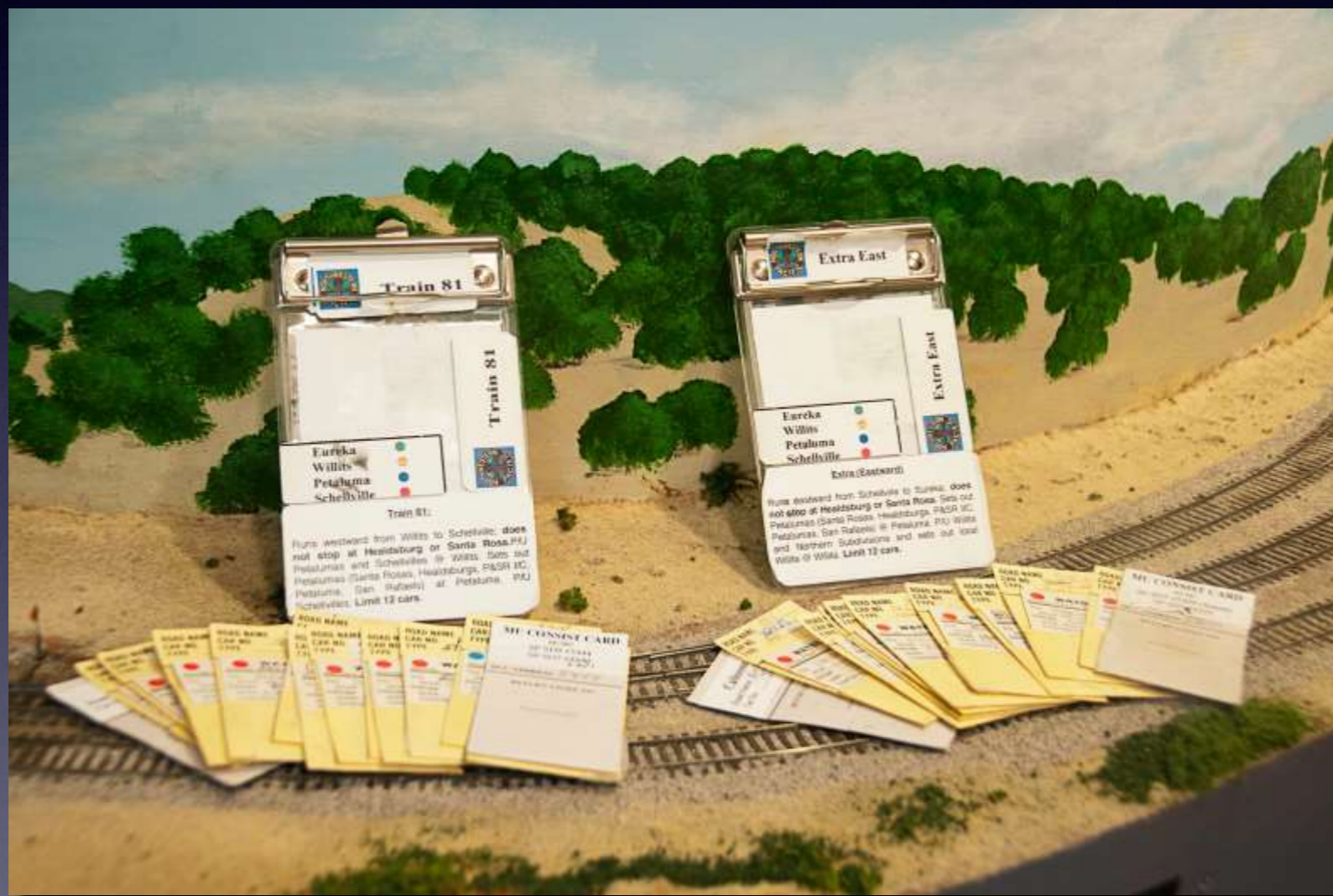


Small Details Make A Difference

- **Waybill Destinations.**
- **Switch Stands and Headblocks.**
- **Yard Limit Signs.**



Waybill Destinations





Switch Stands



**Rest of Railroad
Universe**



Southern Pacific



NWP Switch Stands





Modeled NWP Switch Stands





Yard Limit Signs





Motive Power and Rolling Stock

- Locomotives.
- Freight Cars.
- Caboose.



On Strike! Tiburon 1954



NWPRRHS - Fred Codoni



NWP and the SD7 1952-1970

- Number of SD7s Built by EMD = 188.

Number of SD7s Purchased by SP = 43 (23%).

Number of SP SD7s Leased to NWP = 40.

SP Locomotives Leased to NWP in 1958:

NW2	2
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SW8	8
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SW900	3
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SD7	25
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SD9	3
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Availability of SD7/9 in HO Scale

- **Athearn.**
- **Early (Life-Like) Proto 2000.**
- **Later (Walthers) Proto 2000.**
- **Broadway Limited (BLI, Blue Line, Precision Craft).**

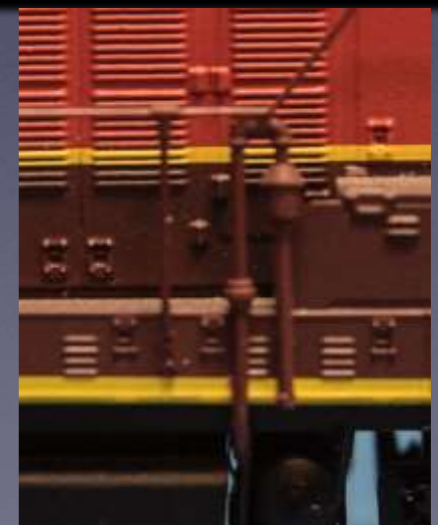


All except most recent Walthers SD9 releases do not have SP specific detailing

Early P2K



BLI - remove fuel tank breather pipe, fix numbers and paint.





Completed Roster Members



SD9s

SD7s





Problems with Early Proto 2000

- Cracked Gears.
- Light Board Caused DCC Problems.
- Frequent Derailments.
- Intermittent Pickup Problems.



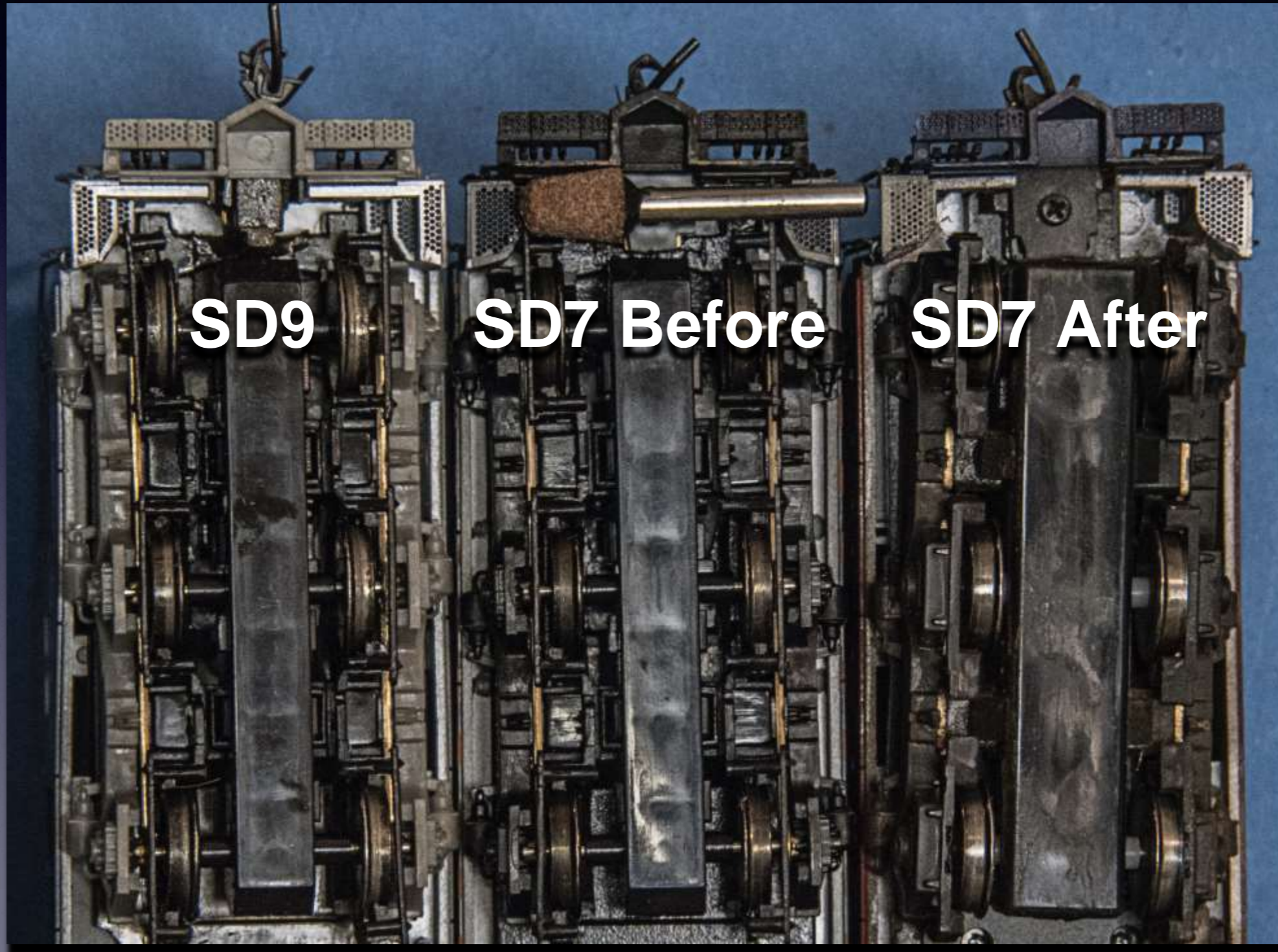
Derailments

- Six wheel trucks do not tolerate uneven track well, including vertical curves and twists.
- Problems more likely to show up when consisting.
- Steps to take:
 - Test Train
 - Improve track work.
 - Modify gear tower cover.





Early Proto 2000 SD7 Corner Steps Interfere with Trucks on Curves.



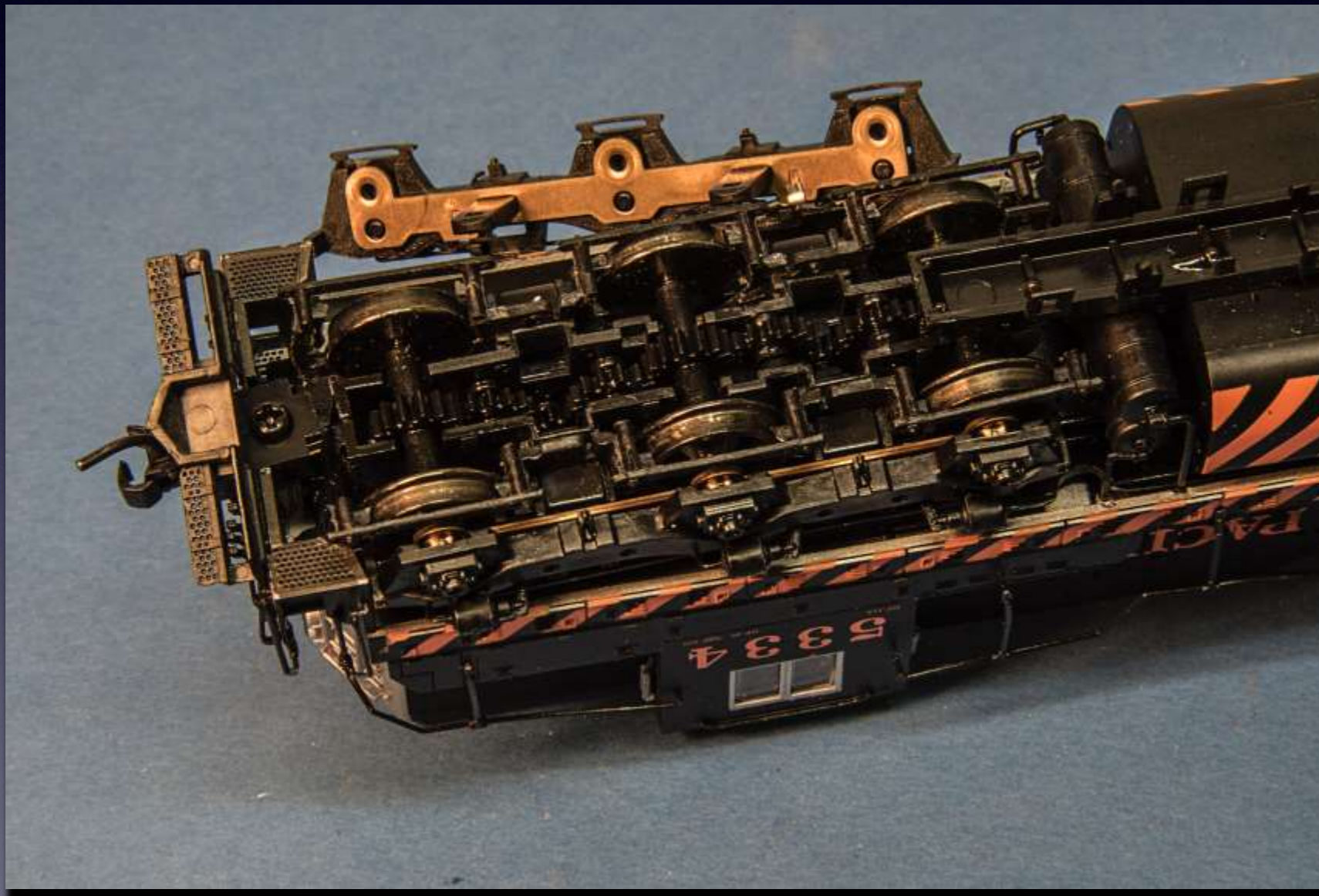


Pickup Problems

- **Symptoms**
 - **Power cuts off intermittently.**
 - **In consists, one unit grinds as it tries to pull or push the other. Speed matching not the problem.**
 - **Wheel cleaning doesn't fix it.**
 - **No loose or broken wires, not decoder related**



Pickup "Fixes"



- Solder leads to truck frame.
- Some install wipers.
- "O" Scale Coupler Springs on axle ends.
- Replace frame/drive and reuse old shell.



Key Rolling Stock





SP Ballast Hoppers



Petaluma 1991

Healdsburg 1934



Modeling Ballast Hoppers



Healdsburg 1992: H-70-17 Blt 1957





Petaluma & Santa Rosa RR

- Less than 40 miles of track, Petaluma to Forestville, with branch from Sebastopol to Santa Rosa.
- Started out as electric passenger and freight service, also operated two river steamers. Served poultry and apple industries.
- History
 - Incorporated 1903, competed with NWP predecessor California Northwestern.
 - 1904: "Crossing War" with CNW in Santa Rosa.
 - 1928: Purchased by NWP but operated as separate line.
 - 1932: Passenger service ended.
 - 1946: Diesels replace electrics.
 - 1950: Last steamer trip.
 - Abandoned 1984-1989, Petaluma tracks retained for NWP.



P&SR Power: Electric Freight Engines 1903-1946



No. 502, 1938



No. 504, 1938



No. 1008, 1940



GE 44 tonners #1, #2 1946 - 1958



GE 44 tonners #3, #4, leased. 1958-1962





Destiny?



Fred Codoni



Petaluma 1960



Modeled P&SR 44 Tonners



Look Great, But
There is a Tale of
Woe



Later P&SR Diesels



• 1972 and after, SW1500s (e.g., #2591)



The End

- References:

- Stindt, FA: *The Northwestern Pacific Railroad Vol. 1, 2, 1985.*
- Strapac, JA: *Southern Pacific Historic Diesels, v4, 1997.*
- Shine, JW: *Southern Pacificinto the 90's, 1991.*
- *The Northwesterner, NWPRRHS, various issues 1989-2015.*
- Various Wikipedia articles.

- Photo Acknowledgements:

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