

WHITE PASS & YUKON ROUTE OPERATING ANALYSIS

Circa 1970 - October 8, 1982

In designing my HO gauge WP&YR layout for realistic operations, it has been very helpful to create both an operating analysis for the time period modeled, and a companion Shipper's Directory.

The WP&YR Shipper's directory will be published separately. In taking Railfan inputs and doing further research, the operational era selected is Circa 1970 – October 8, 1982. This is because that operating era contained few changes. The conversion from essentially steam to diesel operations was virtually complete, the containers in use were the 25'3" new designs, and except as noted below, the flow of concentrates out of the Yukon was stable. The bounding premises and sources are listed below. This same approach could be used to model any time period one would desire.

Here are the significant events within that timeframe:

NORTHBOUND PRODUCT: Northbound containerized product included things necessary to make Yukoners enjoy "southern type" food and merchandise, packed in containers that could hold up to 25 tons. There were container transfer facilities at Skagway and Whitehorse. At intermediate stops such as Carcross, the containers never left the flatcar. Instead, they were unloaded by locals onto flatbed trucks. According to one account, an empty flatbed car was placed by the container door end and served as a loading dock. Standard Oil was a big shipper of gasoline and other petroleum products northbound. The tankers returned southbound, empty. Sources [f, g].

PASSENGER AND AUTOBAGGAGE: Passengers and their automobiles, campers and such moved in both directions. Configurations ranged from one or two flats and a combine to dedicated trains carrying 200 people and twenty vehicles. Loading ramps were located near the Skagway and Whitehorse depots. Even trucks such as the ones used for carrying ore between Cyprus Anvil and Macrae Station traveled on this railroad. When the trestle at Tunnel Mountain caught fire, they loaded a fire truck on a flat bed and took it there to put the fire out. These accounts are in source [f].

SOUTHBOUND PRODUCT (Required for round trip container usage): In the period 1970-82, the Cypress Anvil mine complex shipped between 400,000 and 500,000 tons annually of zinc & lead concentrates and some silver. These were all in the specially designed Anvil containers, and northbound they went empty. Three other mines contributed substantially to Yukon mineral production at a combined rate of 96,000 tons annually. I couldn't verify if these other mines used the WP&YR, but the anecdotes Railfans provided and the transportation infrastructure of the time and Bourries Burkhart's comments quoted below, indicate that they probably did. So the Cyprus Anvil mine accounted for 71% of the southbound minerals, the Clinton Creek Mine contributed 26% and the other two probably contributed 3%.

In 1977, the Clinton Creek asbestos mine ceased operations (85,500 tons of asbestos per year). This made a substantial impact, reducing southbound full container requirements from about 74 per week to about eight per week. This made for a lot of southbound empty containers and probably raised operating costs. Although the Anvil container load remained essentially the same at about 180 Anvil containers/week (on 90 flatbeds), the WP&YR became much more dependent in the Cypress Anvil business. For the period 1978-1982, it constituted at least 96% of southbound mineral shipments.

EQUIPMENT CHANGES: In 1977, the newly designed 12' Anvil ore containers entered service, replacing the longer ones.

PAINT SCHEME CHANGES: In the years close to 1982, there were three locomotive paint schemes. The blue with white trim and orange bombardier (the standard at the time of

shutdown); the blue with large white and orange stripes (1976-80); and the yellow & green configuration (variously throughout the period). While everything didn't overlap precisely, for purposes of modeling, they add great variety.

BOUNDING PREMISES

1. Frank H. Brown in use from 1965 on [a]
2. GE shovel nose locomotives entered service in 1956-63 [b].
3. Alco 101 class locomotives entered service in 1969-71 [b].
4. Roundhouse burned in 1969; the current day "Shops" facility was built to replace it [a].
5. The 25'3" containers replaced the original 8x8' containers in 1965 [a].
6. The 12' Anvil ore containers started service in 1977. I may use both types [c].
7. Cyprus Anvil data [a, b, d]
8. Bourries Burkhardt's article, "White Pass Container Pioneers" states, "Containers and heavy deck loads of northbound freight (from the MV Frank H. Brown) are exchanged at Skagway for a southbound containerized cargo of copper, asbestos and silver-lead-zinc concentrates." The implication is there is a lot. Since the Cypress Anvil project had separate container and transfer facilities, the mining information in the directory shows there were several other active mines right up to WP&YR's closing that could have kept those containers filled southbound [d].
9. Several engine paint schemes existed at least late in this period, giving legitimate opportunity to model all or most.
10. Faro data [e].

SOURCES

[a] The White Pass and Yukon Route A Pictorial History, by Stan Cohen, Pictorial Histories Publishing Company, Inc. © 1980 revised 1997

[b] The Sea to Sky Gold Rush Route, by Eric L. Johnson, Hemlock Printers, Ltd. © 1998

[c] Carl Mulvihill's drawing of the 12 Anvil Ore container

[d] "Yukon's Mining History," report on website, Government of Yukon, Department of Energy, Mines and Resources

[e] "Faro Yukon Territory History," article on website, Town of Faro, Yukon

[f] Along the White Pass High Iron, by J.D. True, Lynn Canal Publishing, © 1987

[g] "White Pass Container Pioneers," by Bourries Berkhardt, published on Whitepassfan web site, 2/2/02