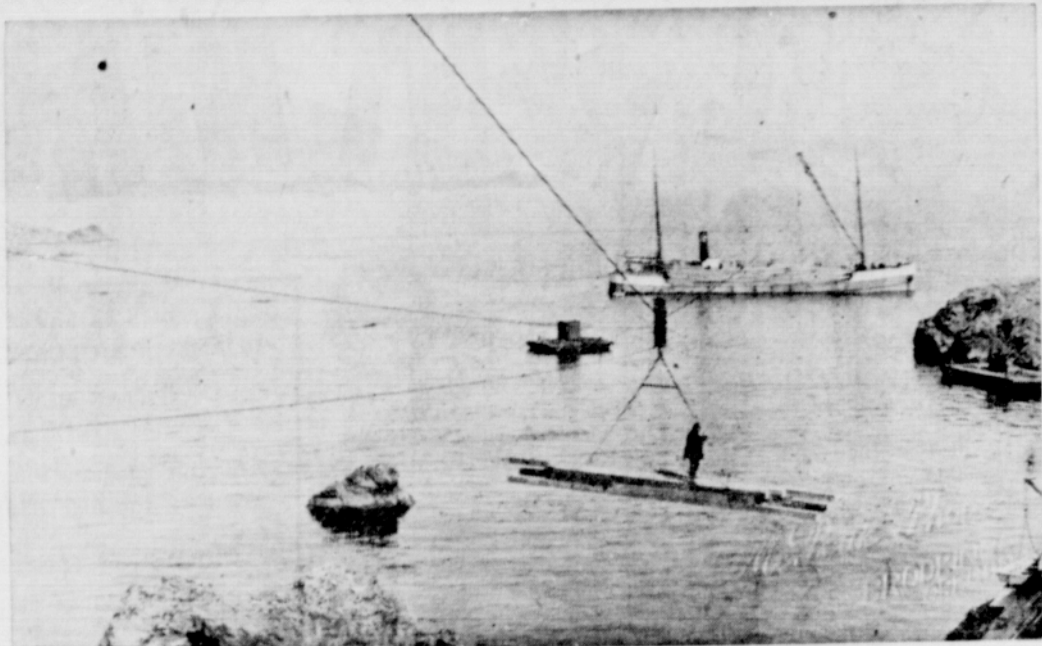


# EARLY ENGINEERS' REPORT GIVEN ON LOCAL HARBOR



Ship Loading Lumber at Brookings' Old Dock

The Port of Brookings has been outlined, in previous PILOTS, mostly from an unofficial angle. The following data, from the files of Charles Grayshel, deals with it from the pertinent attitude of the U. S. Army Engineers who, in the long run, are those whose opinions would bear the most weight when becoming a part of data necessary to obtain federal approval and help.

It is most valuable in presenting synopsis of required engineering and economic data and should be closely followed in future exploring of the project. Although it is nearly twenty years ago there has really been little, if any change in the physical aspects involved but there has been a great change in the economic aspects, some of which would have been ridiculous even to suggest, back when this outline was prepared.

The formula for presentation of the scheme to the Army Engineers remains the same and the PILOT believes the following could well be employed as it stands with the acquisition and insertion of up-to-date data and then the whole would be a strong argument with no points left to question or doubt. It could then be convincing evidence for both dock, breakwater, highway, and commercial interests to further transportation, over the wharves at Brookings as a real necessity for the development of a huge economic area now inadequately served.

This is a transcript of file No. ESC650-1.19, Office of the District Engineer, Portland, dated August 25, 1937, and was submitted in compliance with resolutions by the Committee on Commerce of the United States Senate, adopted March 20, 1937, and the Committee on Rivers and Harbors of the House of Representatives, adopted August 5, 1937.

In places where \*\*\*\* appear,

certain data not now pertaining and/or of inconsequential significance is omitted.

This report was not printed when current.

**(\*\*Official Title\*\*)**

3. Description:—Chetco Cove in Curry County, is on the Oregon Coast in latitude 42 deg. 02 1/2 north. It lies four miles northerly from the Oregon-California boundary and is situated at the northerly end of Pelican Bay, an extensive bight formed by the westerly extension of the coast line between Point St. George, California, and Cape Ferrelle, Oregon. From the State Line the general trend of the coast is northwest to Chetco Cove, whence it extends westerly in a broken, irregular line for one mile to Chetco point, a rough, rocky headland about 80 feet in height, which forms the westerly limit of Chetco Cove. The town of Brookings is situated on the low rolling hills immediately north of the cove.

4. The shore line of Chetco Cove is a rocky bluff from 60 to 80 feet in height, its irregular and jagged course being bordered by numerous visible and submerged rocks, many of which lie several hundred yards seaward of the low water line. The cove is an open roadstead unprotected from the south and southwest, but the projecting headland of Chetco Point provides protection from the west and northwest weather, and, to a lesser extent, from the westerly gales. A considerable part of the harbor area is shoal and there are many rock pinnacles to provide sufficient depth for deep draft vessels. The controlling depth may be considered as a few of which lie in the 21 feet, which is the minimum depth, at mean low water, over the rocks lying between the site of the old wharf and the sea. The average rise of the higher tides is 6.3 ft. with extra extreme tides rising 9.6 feet above mean low water the plane of reference.

5. Chetco River, which enters the ocean about one mile east of Chetco Point, is a small mountain stream of moderate flow, extending stream of moderate flow, extending the Coast Range Mountains, about 25 miles northeast of Chetco Cove and drains an area of about 365 square miles. The lower two mile reach of the stream is tidal and can be navigated by small boats and launches, at high tide. The entrance is usually about 60 feet in width at low tide with depths of 1 to 2 feet, but it is known to have been closed entirely during low water season by the action of the seas on the sand and gravel bars at its mouth. For maps of this area see U. S. Coast and Geodetic Survey Chart No. 5896.

6. The population of Curry County was 3,257, in 1930, an increase of 232 since the 1920 census. Brookings, an incorporated town located at Chetco Cove, had a 1930 population of 273 within its voting precinct limits. The entire population of the tributary area is probably not in excess of 1,500.

7. Adjacent Ports.—The nearest improved harbor to the south is at Crescent City, California, 21 air miles distant. This port is an open roadstead which has been improved by the government by means of a breakwater 3,000 feet long. To the north, the nearest improved harbor is at Bandon, 75 (Editor's Note: The incorporated City of Brookings now has a population greater than all of Curry had at the time of this survey and the city plus the rural area of southern Curry alone probably exceeds 7500. In Curry, Josephine, and Jackson counties plus Del Norte County, Calif., the logical area tributary to the Port of Brookings there could well be a quarter million people. The 1950 census tallied over 91,000 in Josephine County, Oregon.)

8. Tributary Area: The tributary area which is naturally tributary to Chetco Cove, as a port, about 55 square miles in extent, includes the extreme southern end of Curry County, Oregon, and a small part of Del Norte County, California. The region is mountainous, fairly well timbered, sparsely settled and, extending along the coast, generally difficult of access. The main portion of the tributary area is included in the boundaries of the 21,000-acre National Forest.

9. (Editor's Note: The tributary area of the three Oregon counties, plus Del Norte is close to 7,000 square miles. While most of this area is nonproductive, at the present time, by far the greater proportion is an economic block of exceptionally high economic value and is especially interesting owing to its diversification, because of what it produces and what it consumes. It is not subject to seasonal fluctuations and has the advantage of year around motor road, unhampered by ice or snow.)

10. Industries: The principal water-borne tonnage of late years has consisted of logs to the export trade. A sawmill, having 170,000 b. f. daily capacity, was formerly operated at Brookings and coastwise shipments of timber were made for several years, but the mill burned, in 1926, and the machinery has been removed. At the present time, the only operating lumber milling in the vicinity of Chetco Cove is cutting redwood, on the Chetco River, about eight miles from the mouth. The capacity of this mill is 15,000 b. m. feet per 8 hour shift. The cut is hauled by trucks, via Crescent City, to Grants Pass, whence it is shipped by rail for interior deliveries in California. At this time, business in Brookings is very quiet, although some trade is developed during the summer months from the tourist traffic on the Oregon Coast highway.

(Editor's Note: Here is much research work to be done: VERY MUCH, and the PILOT suggests its being handled by people who make it their business. To be impressive, it must be a comprehensive economic survey of at least four counties, with the cooperation of everyone in their areas. It is a BIG PROJECT and can be backed by BIG AGGREGATE FIGURES. This survey should include at least something on all the numbered paragraphs following in this report with special attention to No. 16.)

11. Highways: The Oregon Coast Highway, U. S. 101, which parallels the coast from the California line to the mouth of the Columbia River, passes through Brookings. A secondary road follows the Chetco River upstream for a distance of about 20 miles.

12. (Railroads \*\*\*\*)

13. Bridge: There are no bridges at Chetco Cove. The bridge carrying the Oregon Coast Highway across the Chetco River,

is a steel truss bridge, 210 feet long, built in 1912. It is the only bridge of its kind in the area. The bridge is in good condition and carries a two-lane highway. It is a significant landmark in the area and provides a vital link between the coast and the interior.

14. Preliminary Reports: The only prior report is the preliminary examination report, under review, herein, which is described in Paragraph 2, of this report.

15. Existing Projects: None.

16. Local Cooperation: No offers of cooperation have been made by local interests which would reduce the cost of the desired improvements to the United States.

17. Other Improvements: Terminal and transfer facilities: Previous to 1917, incoming freight and outgoing shipments of lumber were handled by a "high-line" system of rigging, extending from the top of the bluff to deep water in the harbor. During the Spring and Summer of 1917, a treated timber wharf was constructed which extended from the bluff line for 1,200 feet, in a southwesterly direction, head-on to the average run of the seas, so that ships berthed at the structure could lie bow-in to the swells. The wharf was used continuously for all lumber shipments until 1925. Local interests state that the money expended from 1912 to 1926, for shipping facilities, including construction of the wharf, amounted to \$195,714, furnished entirely by private interests.

18. A southwesterly storm, in March, 1936, washed away the outer 800 feet of the wharf and a fire, on May 30, 1937, destroyed about 200 feet additional. The portion remaining, at this time, is a part between the bluff and Bell Rock, about 200 feet, which is of no use, as it is practically on dry land. There are at present no other terminal facilities at the port. The method last used to load ships was to transport logs in rafts to the side of vessels anchored in the deep water of the outer harbor and then load the vessels by means of ships' tackle.

19. Improvements Desired: Local interests, at a public hearing held in Brookings on November 8, 1935, expressed their desire for an improvement of the harbor by the construction of a breakwater extending southwesterly, from Chetco Point a distance of about 2,000 feet, also the removal of a number of menacing submerged

rock pinnacles to provide sufficient depth for deep draft vessels.

20. Commerce and Vessel Traffic: There are no records in this office of water-borne commerce prior to 1923, although in a brief submitted by Brookings Chamber of Commerce, at a public hearing held on November 8, 1935, figures are given which indicate that lumber shipments from 1914 to 1922, inclusive, averaged 44,000 tons, annually. The following statistics cover the period from 1923 to 1936, inclusive.

Yr.	Tons Shipped	Val.	No. of Vess.	Max. Draft
1923	77,637	\$2,504,020	53	19
1924	55,302	1,802,200	72	20
1925	51,940	1,447,025	76	22
1926	(Mill at Brookings burned and no lumber shipments made.)			
1927	1,860	66,948	3	18
1929	2,046	40,920	1	16
1935*	22,000	200,000	6	26
1936*	24,641	82,547	4	26

\*Logs towed in rafts to ships at anchor in deep water.

21. The last ship to load logs at Chetco Cove sailed September, 1936. Logging operations in the woods have been discontinued, at least, temporarily, and though it is stated there are in the neighborhood of a million feet, b.m., of logs, out and lying in the woods, no plans have been made for moving them. It appears unlikely that any water shipments will be made during the current year. The output of the small mill which is operating on the Chetco River is handled entirely by trucks and apparently would not be handled by water in any event as the redwood lumber manufactured is at present hauled past Crescent City to the railroad at Grants Pass.

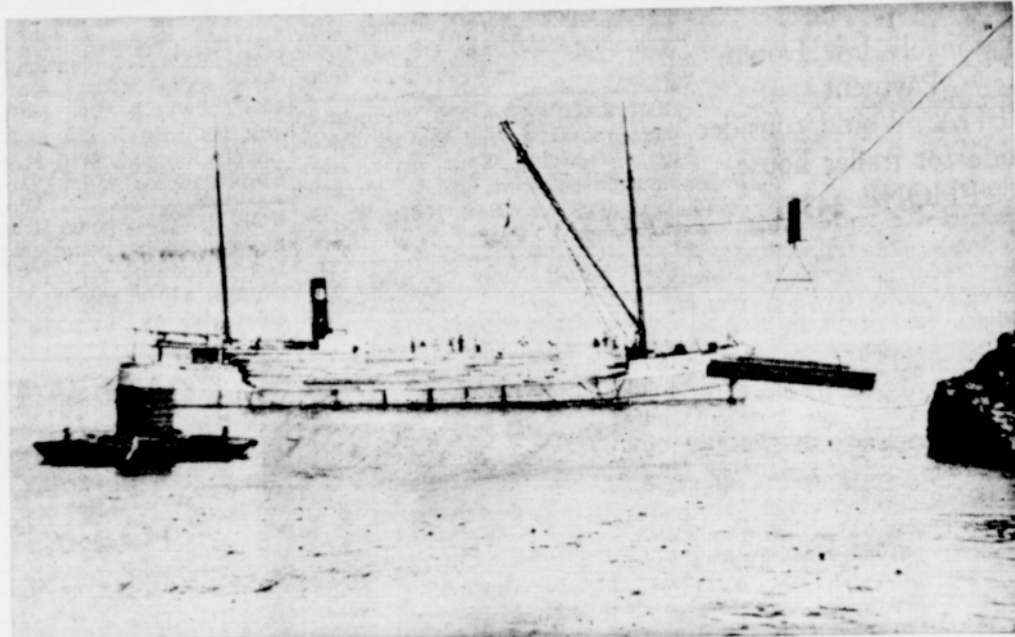
22. Savings: At the present time there is practically no production of lumber in the vicinity, no terminal facilities are available at Chetco Cove, and there is no water commerce. Under the circumstances it appears that if water commerce is resumed it will be limited to the shipment of logs as in 1935 and 1936 unless the lumber industry is revived by the construction of milling facilities.

23. On foreign shipment of logs the savings that would result from an improved harbor and adequate terminal facilities would be represented by the elimination of the cost of rafting and towing of the logs to the ships at anchor in deep water as was the case in 1935 and 1936. It is estimated that the elimination of this handling cost would result in a saving of 50 cents per ton, and on the basis of the 1936 tonnage would represent an annual savings of \$12,300.

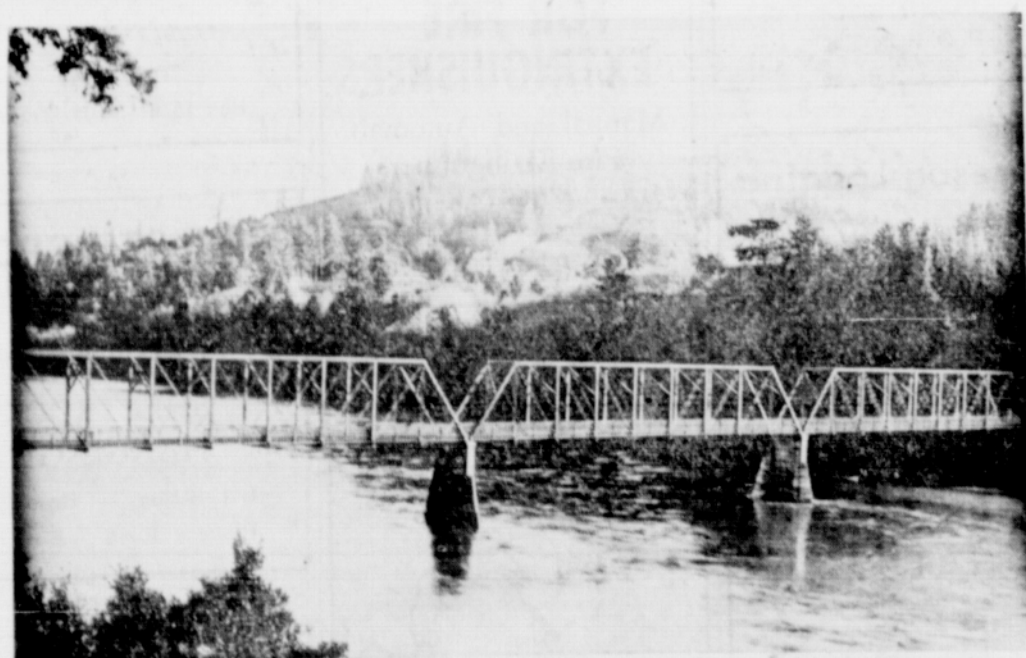
24. If, under present conditions, the lumber industry should be revived, the output of the mill or mills for water shipments would probably be shipped by way of Crescent City harbor, only 28 miles distant by highway. An improved harbor at Chetco Cove would therefore result in savings on lumber shipments in the amount of the cost of haul to Crescent City and on the basis of four cents a ton mile, the saving would be \$1.12 per ton. It is considered that handling charges would be the same whether shipments were made by way of Crescent City or Chetco Cove. No decrease in existing water rates is anticipated. At the present time there are no lumber mills at Chetco Cove (Brookings) and, with the exception of a small amount of tonnage shipped in 1927 and 1929, no lumber shipments have been made since 1925. It is doubtful if any mill will be built to replace the one destroyed by fire in 1926, but should the demand for lumber, and market conditions warrant the construction of another mill, the savings of \$1.12 per ton would apply on that part of the mill output destined for water shipments.

25. In view of the comparatively limited supply of merchantable timber which can be considered as tributary to Chetco Cove and therefore, the inadvisability of the necessary expenditures for a mill or mills of large daily output, it is believed that if lumber shipments by water were to be resumed the annual tonnage would not exceed the amount shipped previous to 1926, an average of about 60,000 tons. On this hypothetical basis, assuming that a mill and terminal facilities were constructed and operated, the total possible savings are estimated

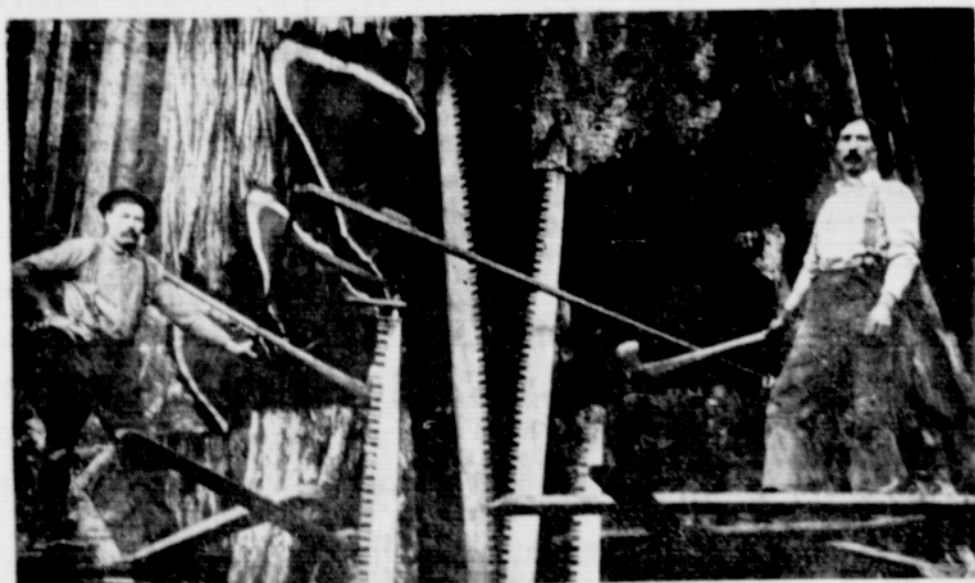
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Early Ship Loading Lumber in Chetco Cove Port



First Bridge Across the Chetco River



Old time loggers making a cut in a giant redwood tree near-by. Note the mastaches.