

4411

-

4420

4420

-

4411

Diag. Chy. No. 5807

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Topographic*Field No. *4411* Office No. *to 4420*

LOCALITY

State *Oregon*General locality *Cape Arago to*Locality *Yaquina Head*1928

CHIEF OF PARTY

O. W. Swanson

LIBRARY & ARCHIVES

DATE *April 23, 1929*

B-1870-1 (1)++

4411 to 4420 incl.

incl.

4411 to 4420

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
<div></div>	
State: Oregon	
DESCRIPTIVE REPORT	
A to J, incl.	
Topographic Hydrographic	Sheet No. 4411 to 4420 incl.
LOCALITY	
Cape Arago to	
Yaquina Head	
(10 sheets)	
1928	
CHIEF OF PARTY	
O.W. Swainson	

DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC SHEETS

A, B, C, D, E, F, G, H, I and J.
4411 → 4412 → 4413 → 4414 → 4415 → 4416 → 4417 → 4418 → 4419 → 4420 →

Oregon Coast

1928

U. S. C. & G. S. STR. PIONEER.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

To: The Director,
U. S. Coast and Geodetic Survey,
Washington, D. C.

Thru: The Commanding Officer,
U. S. C. & G. S. S. PIONEER.

From: Curtis Le Fever,
Aid,
U. S. C. & G. S. S. PIONEER.

Subject: Descriptive Reports.

There is respectfully submitted herewith the following Descriptive Report to accompany Topographic Sheets A, B, C, D, E, F, G, H, I, and J, covering that portion of the Oregon Coast required in your instructions of March 3rd, 1928.

Curtis Le Fever

Curtis Le Fever,
Aid,
U. S. Coast & Geodetic Survey Str. PIONEER.

Approved and Forwarded:

O. W. Swainson

O. W. Swainson,
Chief of Party,
U. S. C. & G. S. S. PIONEER.

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC

SHEETS A, B, C, D, E, F, G, H, I and J.

AUTHORITY

The topography was executed in accordance with instructions of the Director, U. S. Coast and Geodetic Survey, of March 3, 1928 for combined operations on the Oregon Coast by the Coast and Geodetic Survey Ship PIONEER. Topographic work was begun on May 1, 1928 and ended August 25, 1928.

LOCALITY AND LIMITS

The area of the Oregon Coast covered by this topography extends from Yaquina Head Light House 1908, Latitude $44^{\circ} 40' 38''$ N., northern limit, to a point south of Cape Arago Light House 1909, approximate Latitude $43^{\circ} 19' 50''$, southern limits. The northern limits of this topography joins that which was executed by the personnel of the S. S. PIONEER during 1927. The southern limits join topography executed later in 1928 by the personnel of the S. S. PIONEER.

The topography consists of a partial survey. The object of this survey is to check the old survey shown on the bromide copies furnished by the office. It includes the high and low water lines, off lying rocks and buoys, all of which are tied in to the new control.

In accordance with paragraph eight of the instructions dated March 3, 1928, the vicinity of entrances to rivers were resurveyed on a scale of 1 : 10,000, the survey of the rivers not being carried much beyond a mile from the entrances. The rest of the work was on a scale of 1 : 20,000.

ORGANIZATION OF PARTY

The party consisted of one officer and three seamen. The officer was the topographer, one of the men acted as umbrella man and helped to carry the instruments between setups, the other two men acted as forward and rear rodman. The three men were rotated in position so as to make it possible for each of them to know and be able to perform all of the duties. The car was usually driven by one man who understood it better than the others. The arrangement of the party proved very satisfactory and prevented any one part of the work becoming monotonous.

MEANS OF TRANSPORTATION

A light Ford truck was used for hauling the instruments and gear used by the party, and for moving from one place to another.

From Newport to Yachats the highway was the ocean beach and could be traveled only at certain stages of the tide. There were small private auto ferrys running across the Yaquina and Alsea Rivers. From Yachats to Florence the highway ran along the top or faces of the bluffs. There was a small ferry running across the Siuslaw at Florence. From this point the highway runs inland several miles from the beach, and it was necessary to get on the beach with the car. To do this the car was driven to Westlake, a small village on the west shore of Siltcoos Lake. Here a narrow barge was hired and the car was barged down the Siltcoos River to the beach.



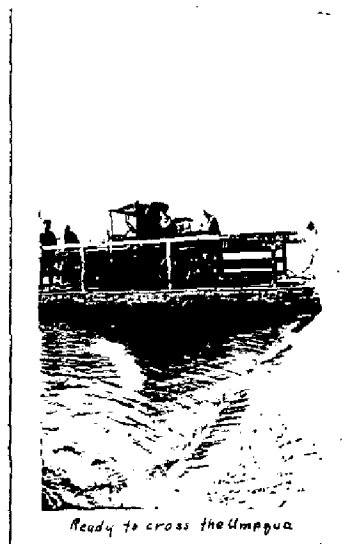
Moving topographic party down the Siltcoos River. Taken at West-Lake

The ocean beach was driven from the Siuslaw River to Coos Bay. It was necessary to drive across the small rivers and creeks running into the ocean.



Crossing the Tillamook River near the ocean beach

The car and party were barged across the Umpqua River with the aid of the Umpqua Coast Guard Station.



Ready to cross the Umpqua

CONTROL

The triangulation control was very extensive and thorough; permanent stations being established on points inside the river entrances. Permanent control points were furnished along the coast at a distance not exceeding three miles between, and in most cases under two miles.

The triangulation was of the third order and was executed by Lieutenant G. L. Bean, Chief of Party, in years 1927 and 1928.

The triangulation stations Reserve on Heceta Head and the Coos Bay Coast Guard Lookout at the entrance to the bay were found to be in error as to location. Reserve was located by three cuts taken from triangulation stations Heceta 2 and Wave and a topographic station on top of the bluff. The Coos Bay Coast Guard Lookout was located by a three point fix taken at the station and was relocated later by triangulation, the data being sent to Lieutenant Bean.

METHODS

The usual plane table methods of topography were used, traversing between successive triangulation stations and rodding in all shore line details. It was possible in many cases to check the survey by resection. The off lying rocks were located by three or more cuts in all cases and the same method was used for hydrographic signals where possible, thereby checking the later rod locations of the signals. The low water line was rodded in where possible and the ends of sand spits located either by rod or cuts.

Pictures were taken of topographic features and operations of party where it was considered necessary. These pictures are included in this report. The surveys of the river entrances were checked in all cases by plane table triangulation and resection methods.

DISCREPANCIES

From Yaquina Head south to Seal Rocks there seemed to be a constant error in the old survey, which seemed to indicate a shifting of the control to the West. Farther south below Cape Perpetua from triangulation station Doe to Boulder was an area where the topography was in error about 120 meters north and south. This probably was an error in the old topography, as it disappeared all at once south of triangulation station Boulder. From Heceta Head south to a point south of the Umpqua River the old survey was in error, the old high water line falling on the present storm water line. This indicates that the storm water line was located as the high water line in the old survey.

Special care was taken to check the work where ever discrepancies were noted between the old and the new surveys. This was facilitated by the unusually good control of the area surveyed. The triangulation stations were less than two miles apart in most cases.

All rocks were located by at least three cuts from triangulation stations where ever possible. The discrepancies are given more in detail in the body of the report.

TRAVERSE

Along the sections of straight sand beach where traverse was used by the triangulation party to locate the permanent stations, plane table traverse was run along the old traverse line, the old traverse stakes being used for plane table setup points. There was a constant check for both orientation and distance..

It was necessary to run the traverse on top of the bluffs around Heceta Head, the high water line being located where possible by rod and in a few cases by cuts. On all the rest of the survey it was possible to run the traverse approximately on the high water line.

The traverses run and the errors of closure were as follows:

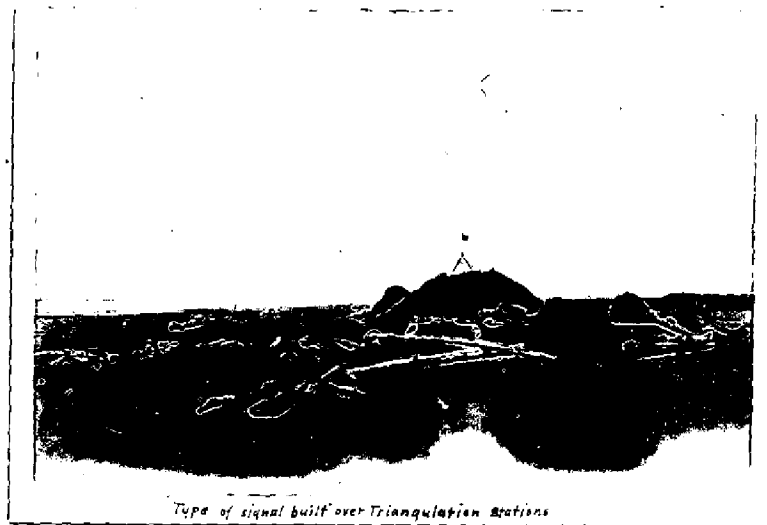
	Error in distance	azimuth
Port 1927 to Jump Off 1927.	8 meters	0 meters
Jump Off 1927 to Monterey 1927.	6 "	0 "
Monterey 1927 to Yaquina Head L. H. 1908.	5 "	3 "
Port 1927 to Jetty 1927 to Life Guard 1927.	0 "	0 "
Life Guard 1927 to Flag Pole 1927.	0 "	0 "
Flag Pole to Mark 2 1927.	0 "	3 "
East Gable of house on dock 1927 to Hint 2, 1927-4 "	0 "	0 "
Rise 1927 to East Gbl. of house on dock 1927.	0 "	0 "
Rise 1927 to Life 1908.	0 "	0 "
Life 1908 to Dodge 1927	2 "	0 "
Dodge 1927 to Morrison 1927	0 "	0 "
Morrison 1927 to Buck 1927.	0 "	0 "
Buck 1927 to Seal 1927.	8 "	2 "
Seal 1927 to Smithys Ranch 1927	0 "	0 "
Smithys Ranch 1927 to Dick 1927	4 "	0 "
Dick 1927 to Tram 1927,	6 "	0 "
Alsea 1927 to Tram 1927	4 "	2 "
Dock 1927 to Johnston 1927.	0 "	0 "
Johnston 1927 to Lader 1927	0 "	0 "
Lader 1927 to Redwood 1927.	5 "	0 "
Redwood 1927 to Blue 1927	6 "	0 "
Blue 1927 to Shore 1927.	6 "	4 "
Shore 1927 to Fox 1927.	0 "	0 "
Yachats to Fox 1927.	3 "	0 "
Doe 1927 to Car 1927.	0 "	0 "
Car 1927 to Agate 1927.	0 "	0 "
Agate 1927 to Yachats 1927.	0 "	2 "
Loaf 1908 to Boulder 1927	10 "	3 "
Boulder 1927 to Sharkey 1927.45 "	10 "
Sharkey 1927 to Doe 1927.10 "	0 "
Lester 1927 to Wave 1927.10 "	4 "
Wave 1927 to Heceta Head L.H. 1908.	8 "	0 "
Heceta 2, 1927 to Loaf 1908	4 "	0 "

	Error in distance	azimuth
Lester 1927 to Cottage 1927.	0 meters	0 meters
Cottage 1927 to Sugar Loaf 1908.	0 "	0 "
Sugar Loaf 1908 to Acme 1927	0 "	0 "
Cannery Hill 1893 to Acme.	4 "	0 "
Two Tree 1927 to Tsiltcoos 1927 to Goose 1927.	6 "	4 "
Goose 1927 to Duck 1927.	8 "	0 "
Duck 1927 to Clear 1927.	10 "	0 "
Clear 1928 to Siuslaw 1928	0 "	0 "
Siuslaw 1928 to River 1928	3 "	0 "
Apple 1928 to Fish 1928 to Creek 1928.	0 "	0 "
Creek 1928 to Two Tree 1928.	0 "	0 "
Apple 1928 to Five Mile 1928	0 "	0 "
Five Mile 1928 to Knoll 1928	0 "	0 "
Knoll 1928 to Gull 1928.	0 "	0 "
Gull 1928 to Three Mile 1928	0 "	0 "
Three Mile 1928 to Gardner 1928.	4 "	0 "
Gardner 1928 to Bay 1928	0 "	3 "
Bay 1928 to Umpqua C. G. Lookout 1928.	0 "	0 "
Dix 1928 to Point 2, 1928.	0 "	0 "
Dix 1928 to Deadman 1928	3 "	0 "
Deadman 1928 to Crook 1928	0 "	0 "
Schooner 1928 to Ten Mile 1928	3 "	0 "
Ten Mile 1928 to Apple 1928.	0 "	0 "
Apple 1928 to May 1928.	10 "	0 "
May 1928 to June 1928.	5 "	0 "
June 1928 to West 1928	0 "	0 "
West 1928 to Oil 1928.	0 "	0 "
Oil 1928 to Water 1928	0 "	0 "
Water 1928 to Ink.	20 "	0 "
Ink 1928 to U. S. E. 8	0 "	0 "
U. S. E. 8 to Fly 1928	2 "	0 "
Fly 1928 to Red Water Tank 1928.	0 "	0 "
C. G. Lookout to Cape Arago L. H. 1909	0 "	0 "

The traverse from Boulder to Sharkey was adjusted for both distance and direction by applying the errors in direct proportion to the distance. The one from Water to Ink was corrected for distance in the same way.

SIGNALS

Signals were erected over all triangulation stations where they were suitably located for hydrographic signals, and other hydrographic signals were erected and located about 850 meters apart throughout the survey. Natural objects and buildings were used where ever possible.



Type of signal built over Triangulation Stations

MAGNETIC OBSERVATIONS

Observations were made with declinometer number H 19 at stations about ten miles apart throughout the survey. Four stations were occupied in approximate vicinities of old magnetic stations. They were as follows:- At Yaquina Head L.H. a point in range with old tower and about 18 feet from the base of the lighthouse was occupied. Yaquina Lincoln Co. 1888 - the old station could not be recovered and the Triangulation Station Yaquina School House 1927 near by was occupied instead. Cannery Hill 1887 was a triangulation station and had been recovered by Lieutenant Bean. This station was occupied for magnetic declination. Ten Mile Knoll 1887 - This marker was not found here but the knoll could not be mistaken for any other. The triangulation station Two Tree 1928 is located on the top of this knoll and was occupied for magnetic declination.

The other magnetic stations occupied with declinometer were triangulation stations and are well marked. They are as follows:- Seal Rocks (Seal) 1927, Fox 1927, Loaf 1927, Gardner 1928, Ten Mile 1928, and Oil 1928. The magnetic station C.I.W., Fort Scott, San Francisco, was observed at the end of the season and an index correction determined for the instrument H 19.

Other magnetic observations were made with a declinatoire and the magnetic meridians placed on the topographic sheets. The follow-

ing triangulation ~~triangulation~~ stations were occupied: Dick 1927, Shore 1927, Doe 1927, Boulder 1927, Lester 1927, Clear 1928, Two Tree 1928 (also occupied with declinometer), Creek 1928, Schooner 1928, and Oil 1928 (also occupied with declinometer).

The index correction determined at the end of the season's work for the declinometer H 19 was ± 15.2 minutes. Observations were taken at triangulation stations Oil and Two Tree with both the declinometer and the declinatoire. A correction was determined for the declinatoire as follows:

At Δ Two Tree

Declination by declinometer	-	-	20° 54'
Index correction	-	-	± 15.2
			<hr/> 21 09.2
Declination by declinatoire	-	-	21 13
Correction to arrow on sheet	-	-	<hr/> 3.8

At Δ Oil

Declination by declinometer	-	-	21° 08'
Index correction	-	-	15.2
			<hr/> 21 23.2
Declination by declinatoire	-	-	21 10.0
Correction to arrow on sheet	-	-	<hr/> ± 15.2

The mean of these two results was used as the correction for all stations other than Oil and Two Tree.

COOPERATION WITH SCRIPPS INSTITUTE

Five samples of beach sand were obtained from different points along the coast for the Scripps Institute. They were requested by Dr. Trask of that institute.

TOPOGRAPHIC SHEET A T. 44/11Scale: 1 : 20,000Limits: 44° 27' north to 44° 41' north.DISCREPANCIES FOUND IN OLD SURVEYS

Some of the rocks along the south point of Yaquina Head were found to be in error as to location and all of the rocks were re-located. From Yaquina Head Light House to Yaquina Bay the high water and bluff lines were re-determined and found to be as much as forty meters in error. The low water line was rodded and found in places to be one hundred meters outside the old line.

From Yaquina Bay to the southern limits of the sheet the high water line and bluff line were re-surveyed and found to be from 10 to 40 meters in error except just north of triangulation station Life where the low sand area joins the bluffs. For about 300 meters here the newly located high water line came very near that of the old survey.

The old survey of the area north of Seal Rocks to the sand dune area shows a strip of sand from 10 to 40 meters wide between the high water line and the bluff line. At present the high water line comes to the bottom of the bluff. This beach is being used as a highway at present and cannot be driven on at high tide.

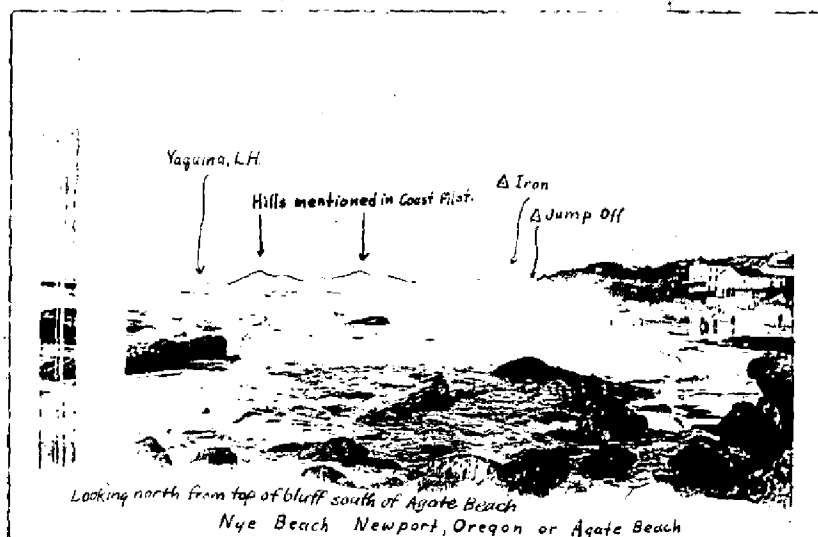
Seal Rocks were relocated and found to be in error as to location. The three sunken rocks on the north edge of the group were not showing by breakers at low tide so their existence is doubtful. All rocks which could not be located throughout the survey were left in pencil on the topographic sheets. There are several other rocks in this group which could not be located.

The discrepancies on this sheet seem to be in the same general direction and indicate that the new control is a little different from the old.

DESCRIPTION OF SHORE LINE

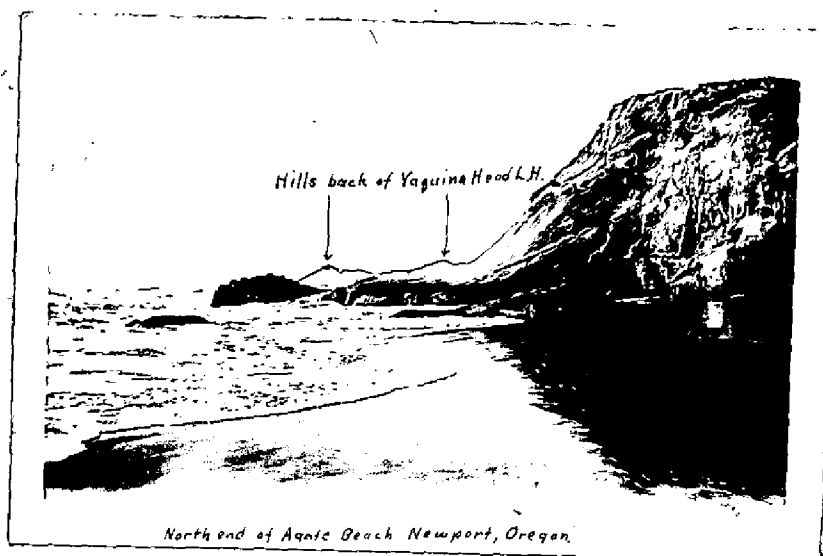
The southern shore of Yaquina Head is very rocky and precipitous. There is one point however where it was possible to make a whaleboat landing at high water. This part of the coast is sheltered from a northeast storm. The Yaquina L. H. keeper said that years ago sailing vessels ran in south of the head to anchor and be sheltered from the north or northwest.

The shoreline south of the head is a series of low bluffs covered with stunted pines.



Yaquina Head, showing the two large hills mentioned in the Coast Pilot, shows on this picture.

Nye Beach and Agate Beach are two names for the same beach. The low bluffs in this section are of soft sandstone and are being eroded quite rapidly.



South of Yaquina Bay there is an area about one and one half miles long of shifting sand dunes. This joins on the south low bluffs of soft sandstone fronted by a broad sand beach at low tide. These sandstone layers are cut by an intrusion of hard igneous rocks at Seal Rocks, but south of Seal Rocks the low bluffs and sand beach extend to the limits of the sheet.

Seal Rocks are made up of several ledges of very hard rock running approximately north and south. These ledges are about one and one half miles long and extend offshore about one half mile.



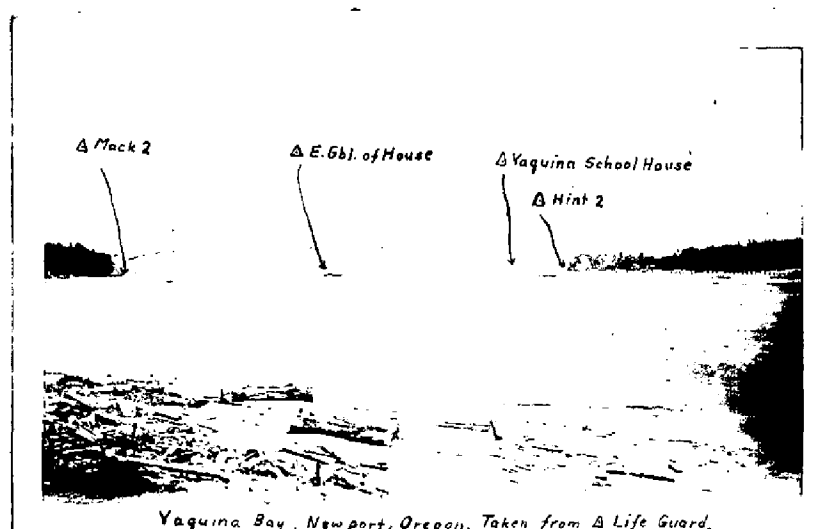
There is a small village of Seal Rocks with one general store and post office. There are also a few houses and summer cottages.

TOPOGRAPHIC SHEET B, YAQUINA BAY T. 4412Scale: 1 : 10,000Limits: 44° 33' north to 44° 40' north.DISCREPANCIES FOUND IN OLD SURVEY

The jetties on both north and south sides of the entrance to Yaquina Bay have caused the sand to fill in on the outside beach and the high water line is farther out than on the old survey. The high water line on the north side of the bay was as much as 40 meters in error in some places. The water front of Newport checked very well and the joining of the old work and the new where the resurvey was stopped was good. On the south side of the bay where there were differences between the two surveys it was evident that there had been changes in the shore line. The error of the joining of the old work and the new on the south side was about 80 meters east and west. There seemed to be some doubt about the accuracy of the old survey of this area.

DESCRIPTION OF THE SHORELINE

On the north side of the bay there is a high sandstone bluff below the old light house. This bluff gets lower inside the bay and west of Newport is heavily wooded almost to high water line. On the south side of the bay the heavy timber comes right to the high water line except near the jetty where the drifting sand dunes keep the trees from growing.



NEWPORT

The town of Newport is not built up solid but is mostly scattered houses and cottages. Its population is very much increased in the summer by tourists from the valley towns. The water front street is the old part of the town and is only reached from the top of the hill by two roads. The bluff is very steep and high and shelters this part of the town from the north and northwest storms.

Bp. 22550 A blueprint was obtained of the town. Three points common to both the blueprint and the topographic sheet were located and marked on both blueprint and topographic sheet. The town was transferred to the topographic sheet from the blueprint because the print was misleading in different parts and indicated the town to be larger than it is.

TOPOGRAPHIC SHEET C

T. 44/3

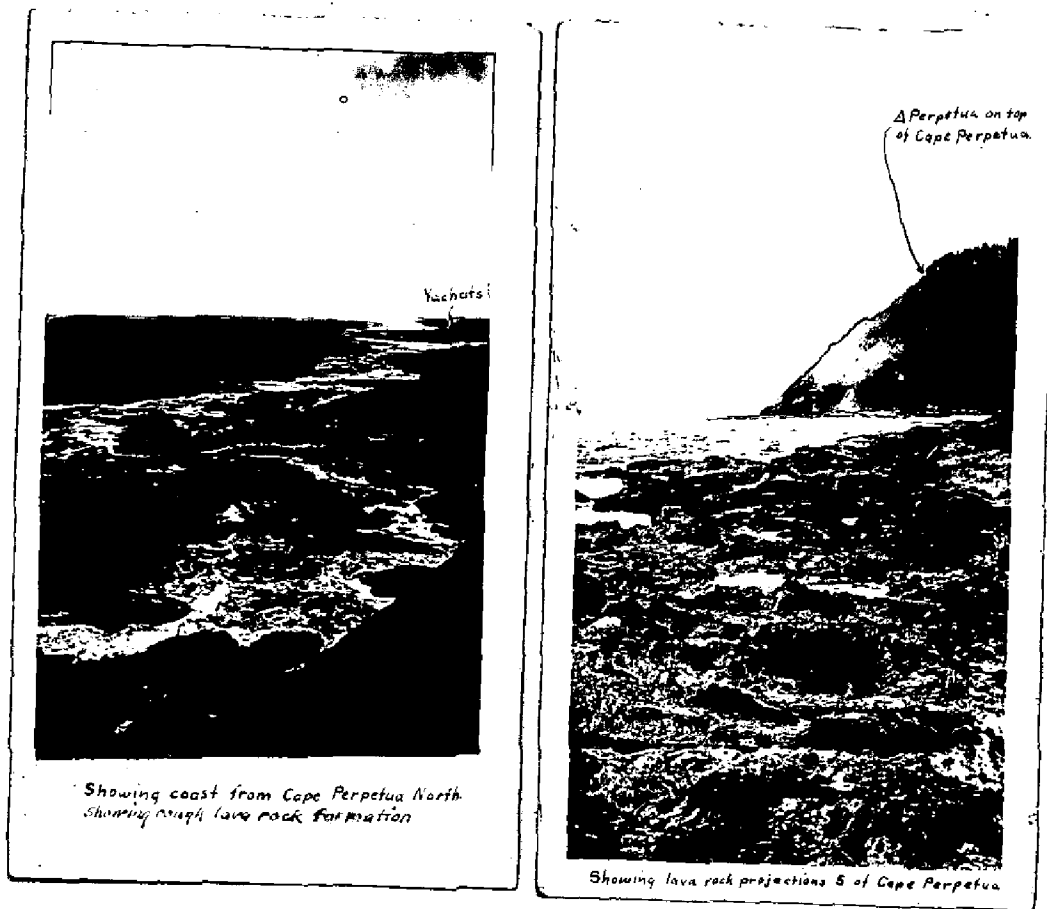
Scale: 1 : 20,000Limits: 44° 16' north to 44° 30' north.DISCREPANCIES FOUND IN OLD SURVEY

The point of sand on the north side of Alsea Bay at the entrance has become much narrower and shifted westward as shown by the resurvey. The difference between the old and the new surveys is about 60 meters north and south at the ferry dock on the north side of the bay, but decreases to zero east of the dock, and the resurvey makes a perfect joining with old where the newly located shore line stops.

On the south side of the bay the joining of the old work and the new was very good. The water front of Waldport has changed the general outline of the shore but very little. There is a short stretch of shore line just east of triangulation station Johnston on the south side of the bay which has evidently been cut back about 100 meters since the old survey. From Alsea Bay south the present high water line differs varying amounts from 0 to 100 meters, always falling outside that on the old survey. This again looks as if the control had been shifted a little westward by the new triangulation.

DESCRIPTION OF SHORE LINE AND TOWNS

About one and one-half miles north of Alsea Bay the bluff disappears and from this point to the bay is an area of shifting sand. There is a broad sand beach from Seal Rocks to Alsea Bay which is used as a highway at most stages of the tide. A high wooded bluff comes down to the high water line on the north side of Alsea Bay. There is a tramway built across the sand spit to the ferry landing on the north side of the bay. The south side of the bay at the entrance is backed by a high sandstone wooded bluff which changes on the outside beach to a low bluff or bank about twenty feet high. This bank is soft shale and is eroding rapidly. This low bluff backs an extensive sand beach which is used as a highway from Waldport to a point about one mile north of the village of Yachats. At this point the character of the shore line changes abruptly. It is the edge of an extensive sheet of lava rock which is very hard and therefore resists erosion by the surf. It is full of fissures and fault lines and is so rough as to be almost impassable in some places.



The Yachats River breaks through this sheet evidently following an old fault line. This river is closed to navigation at the mouth by a bar, but is navigable above the bar for small boats such as canoes and row boats. Just south of Cape Perpetua is a large fissure-like cave which runs under the hill an undetermined distance and into which the surf runs at all times.

Just north of Yachats River is the small village of Yachats. There is one very small general store and a postoffice, a small summer hotel, and some summer cottages.

Waldport, on the south shore of Alsea Bay, is a small town quite popular for fishing and crabbing in the summer. There are two hotels and a few stores and garages located here. An improved highway runs east into the valley from this point.

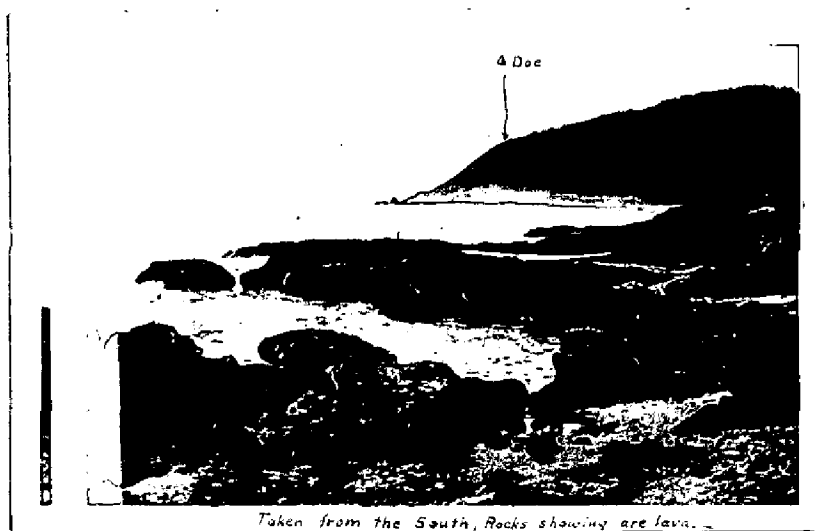
From a point one mile north of Yachats to a point south of Heceta Head the highway runs along the side of the bluffs, but within a short distance of the high water line. This road is going to be abandoned as soon as the Roosevelt Highway is built, so was not located.

TOPOGRAPHIC SHEET D T. 4414Scale: 1 : 20,000Limits: 44° 03' to 44° 16'.DISCREPANCIES

The high water and bluff lines from triangulation stations Doe to Boulder differ from the old topography by about 120 meters, falling south by that amount. The creeks in this area were traced from the old survey but shifted south by the amount of the error. From triangulation station Boulder south to Heceta Head the error between the two surveys was about 20 meters in the same direction. There was no error east and west. The resurvey of Heceta Head and the mouth of Cape Creek checked the old survey very closely. From Heceta Head south to the limits of the sheet along the shifting sand area the high water line on the old survey fell on the present storm water line.

DESCRIPTION OF COAST LINE

From the northern limits of the sheet south to a point south of Rocky Knoll the coast is very rough and rugged. The rocky ledges are all black igneous rock, very hard and are being eroded very slowly. There are a few short stretches of sand beach between these sheets of hard rock. There is a layer of stratified and cemented gravel and sand on top of the igneous deposit, which forms a high bluff along this part of the coast. There are many agates of all colors and sizes found in the loose gravel along the narrow stretch of beach. They come from the old cemented gravel bed which the surf is wearing away.





Making a whale boat landing in Cape Cove



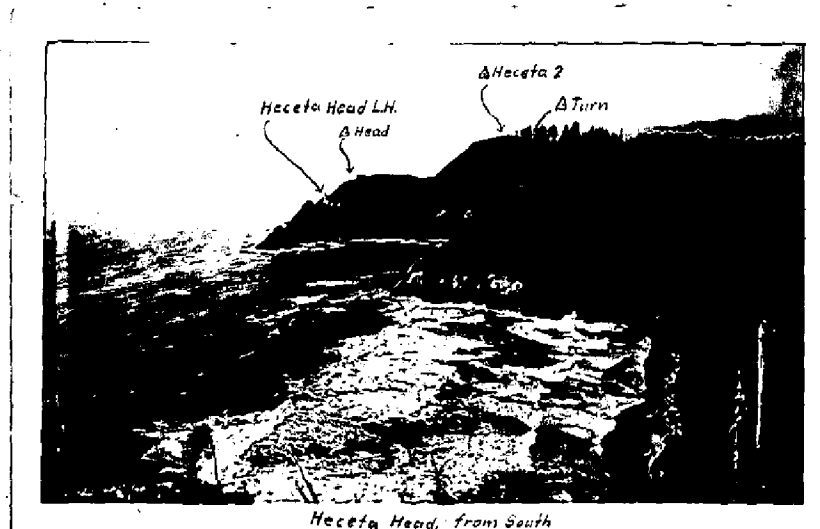
Preparing to launch whale boat.

There were many rocks shown on the old survey of this part of the coast which are not there now. These rocks were traced from the old survey, left in pencil on the topographic sheet and marked not existing.

The beach from Rocky Knoll south to Heceta Head is broad and sandy, backed by a low sand bluff. There is a very old sand dune area extending inland here for about a mile. This area now is covered with grass and salal bushes and is used as a sheep ranch. From a point about one and one-half miles north of Rocky Knoll the seaward side of the hills are covered with grass and are used for sheep and cattle grazing.

Heceta Head is very rugged and precipitous. There is practically no sand beach along the head except at the mouth of Cape Creek, the heavy surf coming to the base of the vertical cliffs. Cape Cove is sheltered from the north and northwest, and it is possible to make a whale boat landing on the small beach when the surf is not too strong. Heceta Head

Heceta Head is all heavily wooded. The old highway or trail winds around over the top of the head and is almost impassible for automobiles. The preliminary survey for the Roosevelt Highway over the head has been made. The head is a formation of hard black igneous rock and is being eroded very slowly.



South from Heceta Head is a broad area of shifting sand dunes with small groups of weather beaten scrubby pines dotting the otherwise bare sand. Inland a mile or so these dunes have a scrubby growth

of pines covering them.

All of the creeks shown on this sheet are small and filled with boulders, and are not navigable for any boat.



TOPOGRAPHIC SHEET E - SIUSLAW RIVER ENTRANCE

T. 4415

Scale: 1 : 10,000Limits: 43° 57' north to 44° 03' north.CHANGES IN ENTRANCE TO RIVER

The entrance to the Siuslaw River has made some radical changes since the jetties have been built. It is much narrower and farther north. The sand area outside of the bluff on the north side has become much wider and extends over to the bluff with no water between. The sand area on the south side has also become wider, the high water line being farther west than before. The high water line inside has not changed much as the joining of the old survey and the new was good. The point, mast, on the chart on the north side of the river is not marked now.

DESCRIPTION OF SHORE LINE

On the north side of the river there is a sandy bluff running almost due north and south. In front of this bluff is a wide area of sand which gets narrower to the north. The river curves sharply to the south from the entrance and so the bluff forms its north bank after crossing the sand area.



Siuslaw River Entrance, taken from Cannon Hill

The bluff is covered with a low evergreen growth. The trestle work over the jetties still remains.

On the south side of the river is a flat area of shifting sand dunes with some small scattered bunches of grass.

TOPOGRAPHIC SHEET F

T. 4416

Scale: 1 : 20,000Limits: 43° 49' north 44° 03' north.DISCREPANCIES FOUND IN OLD SURVEY

The water line on the old survey was from 20 to 60 meters inshore from the present high water line except at the mouth of Siltcoos River where there has evidently been some change since the old survey. The error indicates that on the old topography the storm water line may have been taken as the high water line, as the high water line on the old survey corresponds to the present storm water line in many instances.

The outlet to Wahahink Lake has been changed to run into Siltcoos Lake as shown on the resurvey. This outlet was sketched on the resurvey and not located by topographic methods.

DESCRIPTION OF SHORE LINE, RIVERS, AND LAKES

From the Siuslaw River to the Siltcoos River is an area of drifting sand dunes one mile to two miles wide. There are a few small groups of evergreen scattered over this area. There is a broad flat beach along this area.



The sand dune area from the Siltcoos River to the south limits of the sheet is not so wide as that north, but otherwise is the same. The beach is wide and flat.

Carter Lake sketched in pencil on the topographic sheet is a very narrow long lake in a deep depression just back of the timber line.

Siltcoos River is closed to navigation at the mouth by a bar, and the sand has drifted into it for about a mile from the mouth until only small row boats can be used. Above this point the river is quite deep but narrow. Motor boats can enter it from Siltcoos Lake and come down as far as the edge of the sand area.

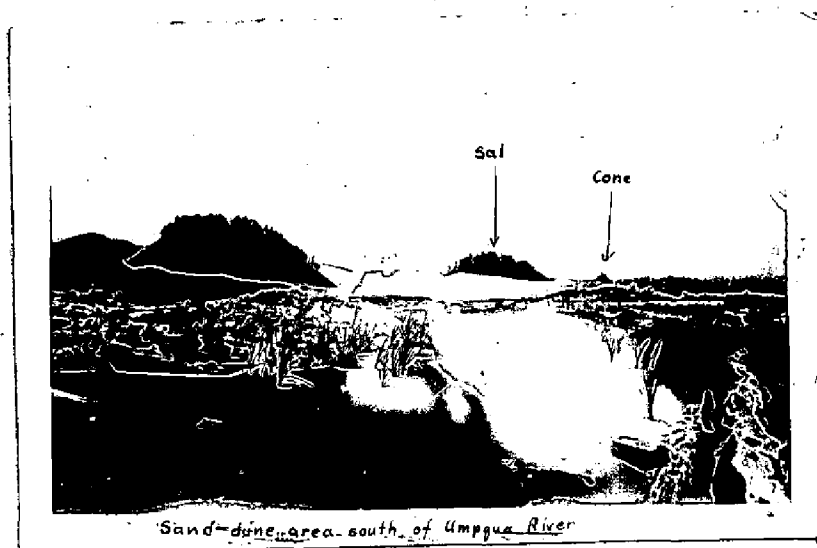
From the Siuslaw River to Coos Bay the highway is several miles inland so the beach is not traveled as it was north of Cape Perpetua.

TOPOGRAPHIC SHEET G T. 4417Scale: 1 : 20,000Limits: 43° 35' north to 43° 49' north.DISCREPANCIES FOUND IN OLD SURVEY

The high water line of the old survey comes very close to the present storm water line except on the southern limits of the sheet, where the two surveys check each other very closely. The distance between the present storm and high water lines is about twenth meters in most places. The small lake shown on the old survey close to the mouth of Tahkenitch Lake has evidently been filled with drifting sand, as that area now is covered by sand dunes.

DESCRIPTION OF TOPOGRAPHIC FEATURES

A broad sandy beach extends the entire length of this sheet and is backed by an area of sand dunes from one-half to one and one-half miles wide. There are a few scattered clumps of pine trees in this area.



Tahkenitch Creek is not navigable for any boat.

TOPOGRAPHIC SHEET H - UMPQUA RIVER ENTRANCE

T. 44/8

Scale: 1 : 10,000Limits: 43° 57' north to 43° 44' north.DISCREPANCIES IN SHORE LINE

The outside beach on the north side is being built out toward the end of the jetty. There has been a small recession of the high water line at the inner end of the jetty. On the south side of the entrance the sand beach is being built out and there is a sand spit filling in across the mouth of Winchester Bay. The docks shown on the topographic sheet in Winchester Bay were not located but sketched in.

DESCRIPTION OF TOPOGRAPHIC FEATURES

The north shore of the entrance is a low bare area of sand and driftwood. The south shore is a low area of sand and driftwood and logs, backed by a heavily wooded bluff. The triangulation station Mast is an old wreck with part of the hull and mast projecting above the sand and water.

TOPOGRAPHIC SHEET I *T. 4419*

Scale: 1 : 20,000

Limits: 43° 22' north to 43° 35' north.

DISCREPANCIES FOUND IN OLD SURVEY

The old and new surveys agreed very closely throughout this sheet.

DESCRIPTION OF TOPOGRAPHIC FEATURES

From the north to the south limits of this sheet the shore is a broad sand beach backed by a shifting sand dune area with scattered groups of pines. On the southern end of the sheet the dunes are covered with scattered bunches of tall grass.

TOPOGRAPHIC SHEET J - COOS BAY ENTRANCE AND VICINITY T. 4420Scale: 1 : 10,000Limits: 43° 18' north to 43° 25' north.DISCREPANCIES FOUND IN OLD SURVEY

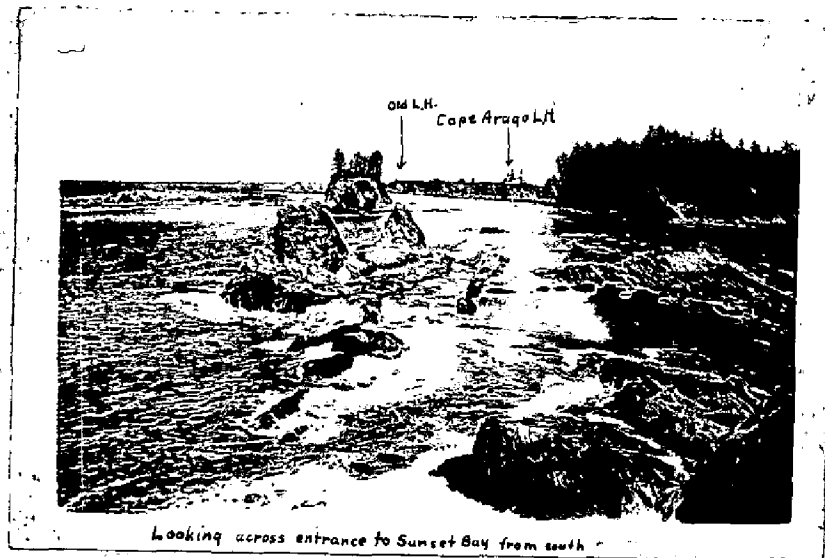
The general outline of the shore line on this sheet is about the same as the old survey. The main line of the shore does not seem to be shifted. However, the rocks and details of the shore line are different in some places from what is shown on the old survey. There are some rocks shown on the old survey which do not exist. These were marked as not existing and shown in pencil on the sheet.

DESCRIPTION OF TOPOGRAPHIC FEATURES

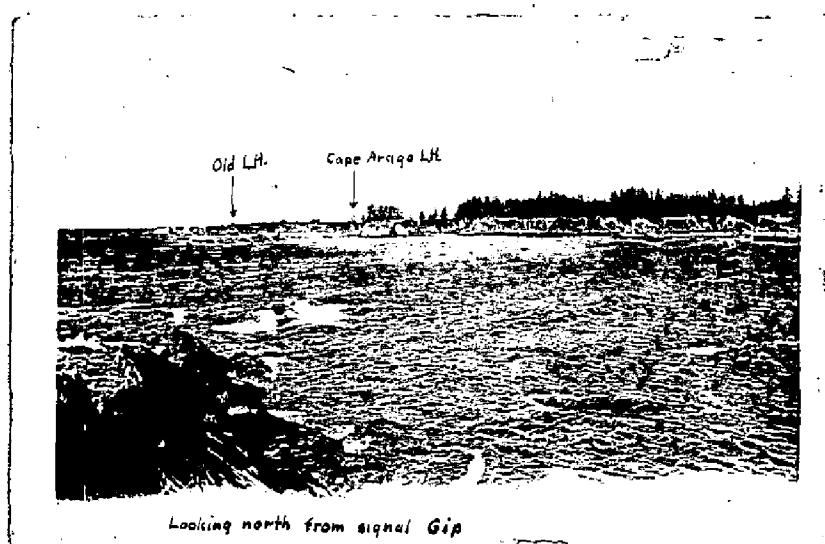
North spit is an area of shifting sand dunes covered with scattered bunches of coarse grass. The old tower marked on the chart is no more a land mark, as it is a weathered frame which can hardly be seen even from the river. Fossil point and the east shore of South Slough on the south side of the river, are a low wooded bluff, that part in the vicinity of the old submerged jetty being very rocky. The west side of South Slough as far as the bridge is low and sandy and backed by heavily wooded hills. The south shore of the entrance is a high rocky bluff with heavy timber on top. The outside coast south of the entrance to the southern limit of the sheet is a high, very irregular and rocky, bluff, with the exception of Sunset Bay, which is a shallow sheltered bay and is used by fishermen with small boats as an anchorage during bad weather or at night. The approach to Sunset Bay is very rocky.

*Appears on Eng. BP 28391 - Feb - 1935
and probably used as a signal -
should be retained on chart 5984.*

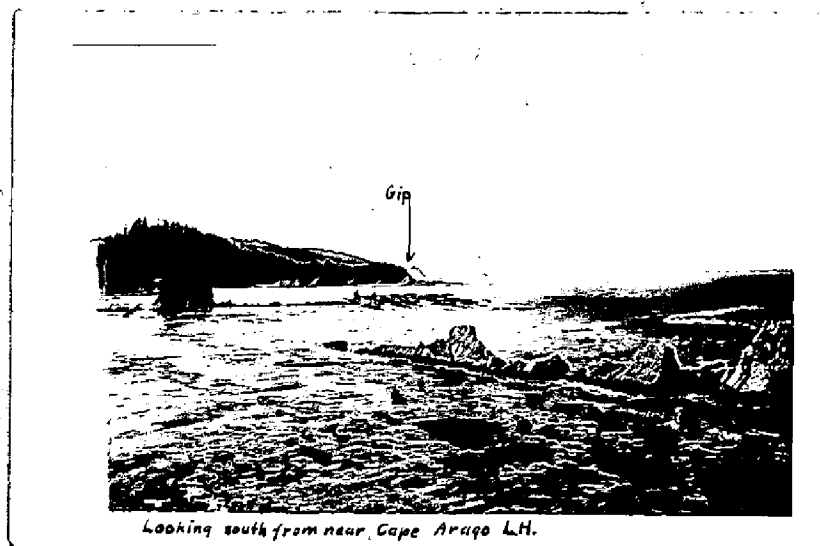
*C K Green
March 5, 1935*



The small island on which the light house is situated is very narrow with a high rocky bluff all around it. The old light house is on the extreme end of this island.



The rocks in this vicinity are very hard stratified sandstone and run in long straight ledges.



Bassendorf Beach is a broad flat beach used at times for bathing. The point to the north of the beach has a natural tunnel running through it. There is a heavy growth of timber on top of the bluffs.

The jetties are both being extended by the U. S. Engineering Department.

NEW NAMES OF GEOGRAPHICAL FEATURES.

Yachats River instead of Creek, local name.

Big Creek - First large creek south of Alsea Bay, local name.

Squaw Creek - Lat. $44^{\circ} 12\frac{1}{2}'$, local name.

✓ Lagoon Creek - Just north of Heceta Head, local name.

✓ Siltcoos River - is the name used locally for Ten Mile Creek north of the Umpqua River.

✓ Tahkenitch Creek - is the name used locally for Five Mile Creek.

NOTE: All of the above names are used locally; none of them were chosen by the topographer.

LIST OF TOPOGRAPHIC POSITIONS
(Recoverable stations underscored.)

Sheet A topographic Stations

Scale 1 : 20,000

		Lat.	DM	Long.	DP
		°	'	°	'
Cot	Triangle on bluff	44	40	(1397) 455	(626) 124 03 696
Tres	Square in center of railroad trestle.			(303) 39 1549	(864) 03 458
End	Tripod on end of trestle over N. jetty			(1833) 37 19	(1140) 04 182
Oak	Tripod on sand dune			(1187) 36 665	(171) 03 1153
Cone	Cone shaped tower on small red building			(898) 35 9548	(12) 03 1312
Fir	Diamond shaped banner 65 ft above HWL			(397) 34 1455	(1221) 04 103
Race	Triangle on top of bluff			(922) 34 930	(1152) 04 172
Mist	Rectangle " " " "			(386) 33 1466	(1046) 04 278
Gull	Diamond shaped signal			(1272) 33 580	(918) 04 406
Mill	Diamond shaped banner on top of bluff			(537) 52 1315	(803) 04 522
Fog	Signal shaped like end of house			(1321) 32 531	(744) 04 580
Beaver	Tripod			(951) 31 901	(748) 04 577
Clam	Rectangle on top of bluff			(46) 30 1806	(479) 04 846
Sand	" " " " "			(1295) 30 557	(198) 04 1127
White	White house			(338) 29 1514	(186) 04 1139
Ho	White House			(706) 29 1146	(216) 04 1110
Clay	Rectangle on top of yellow clay bank			(1564) 29 288	(1303) 05 23
Log	Rectangle			(1300) 28 552	(260) 04 1066
Bald	Diamond shaped signal on top of bluff			(1736) 28 116	(279) 04 1047

LIST OF TOPOGRAPHIC POSITIONS

Sheet 2 A Continued

Scale 1 : 20,000

		Lat.	IM	Long.	DP
		0	(1670)	0	(298)
Dune	Rectangle on sand dune	44	27 172	124	04 1028

SHEET C Topographic Positions.

West	Diamond shaped banner on sand dune	26	(815) 1037	04	(200) 1127
Asp	Rectangular banner	25	(825) 1027	04	(343) 984
Tri	Large triangular bare spot on south shore of Alsea Bay.	25	(1056) 796	04	(1100) 227
Trip	Tripod on top of bluff	24	(577) 1275	05	(1328) 00
Tip	Small tripod with background of pines	23	(1712) 140	05	(926) 402
Big	Rectangular banner on top of bank	22	(490) 1362	05	(898) 431
Nat	Rectangular banner on top of grassy dune	22	(1312) 540	05	(810) 518
Box	Diamond shaped banner	21	(833) 1019	05	(512) 817
Stor	A small building banner	21	(1375) 477	05	(454) 875
Mail	Triangular banner	20	(405) 147	05	(318) 1011
Dead	Diamond shaped banner	20	(1318) 554	05	(119) 1210
Ball	" " "	19	(1258) 594	06	(805) 525
Dan	A low building	18	(557) 1295	06	(806) 524
TOPO SHEET D			Scale 1 : 20,000		
All	Rectangular banner	15	(10) 1842		(728) 06 603

LIST OF TOPOGRAPHIC POSITIONS

Sheet D Continued

Scale 1 : 20,000

		Lat.	DM	Long.	DP
		°	'	°	'
Top	Rectangular banner on top of low bluff.	44	15 13 71	124 06	(481) (590) 741
Gap	Tripod on top of bluff	15	(1370) 482	06	(450) 881
Trip	Triangle on top of bluff	14	(1055) 797	06	(499) 833
New	Small new bldg at foot of hill, unpainted	14	00	06	(666) 666
Hip	Low house, unpainted	13	(775) 1077	06	(753) 579
Pile	Rectangular signal	12	(182) 1670	06	(256) 1076
Squa	Small house, unpainted	12	(893) 959	06	(280) 1052
Gras	Tripod on top of bluff	12	(1402) 450	06	(192) 1140
Sap	Old stub dressed with signal cloth	11	(667) 1185	06	(263) 1070
Shak	Old bldg at foot of high hill	10	(605) 1247	06	(221) 1112
Ram	A tall lone stub on brow of hill	10	(1482) 360	06	(380) 940
Twin	Small tripod on top of low bank	09	(362) 1490	07	(1320) 13
Late	Triangular signal on top of bluff	08	(79) 1771	07	(1134) 200
Rest	Rectangular signal over Triang. Sta. Reserve	07	(1113) 739	07	(566) 768
Lam	Tripod on top of bluff	06	(662) 1190	07	(780) 555
Fin	Tripod on sand dune	06	(1831) 21	07	(894) 441

LIST OF TOPOGRAPHIC POSITIONS

Sheet D Continued

Scale 1 : 20,000

			Lat.	Long.	DP
Rip	Rectangle on sand dune	44	05 905	124 07	(947) (803) 532
Not	Small triangular banner		04 969	07	(883) (612) 723
Lim	Rectangular banner on sand		04 74	07	(1778) (551) 784
Rope	Triangle on low sand dune		03 770	07	(1082) (607) 739

Sheet E Scale 1 : 10,000

Bee	Rectangle on top of low bluff		01 238	07	(1605) (659) 677
<u>Life Guard</u> <u>Lookout</u>	Small white building on top of hill	44	00 666	07	(1186) (730) 606
Kit	Rectangle on sand dune	44	00 156	08	(1696) (1191) 146

Sheet F Scale 1 : 20,000

Adder	Small tripod		02 1438	07	(414) (222) 1114
Giv	Square banner on sand dune		02 56	07	(1796) (53) 1283
Pit	Tripod	43	59 75	08	(1777) (946) 391
Hikt	Rectangular signal		58 1106	08	(746) (883) 454
List	Tripod on grassy dune		57 1214	08	(638) (706) 632
Sip	Rectangular banner		57 281	08	(1571) (624) 714
Viv	Triangular banner on top of sand dune		56 1401	08	(451) (531) 807
Asp	Rectangular banner		56 664	08	(1188) (504) 854

LIST OF TOPOGRAPHIC POSITIONS

Sheet F Continued

Scale 1 : 20,000

		Lat.	DM	Long	DP
		0	'	0	'
Rin	Tripod	43	55	(819) 1033 124 08	(302) 1037
Nor	White water tank	58	255	(1597) 06 509	(829) 06 509
Hole	Bare spot of sand surrounded by ring of brush.	57	726	(1126) 07 513	(825) 07 513
Gras	Rectangular signal on grassy dune	55	140	(1710) 08 1102	(237) 08 1102
Hou	Tripod	54	1262	(590) 08 1264	(75) 08 1264
Black	Most northerly of 3 brush covered dunes	54	743	(1109) 07 923	(416) 07 923
Hap	Small triangle	53	1066	(787) 09 178	(1161) 09 178
Zip	Small triangle	53	292	(1560) 09 267	(1072) 09 267
Hid	Rectangular banner	51	1627	(225) 09 524	(816) 09 524
Lop	" "	50	1670	(182) 09 787	(553) 09 787
Gal	" "	50	233	(1619) 09 954	(386) 09 954
Add	Tripod	49	1174	(679) 09 1099	(241) 09 1099
Brel	Small clump of trees on south end of a ridge with a few scattered trees left standing.	52	341	(1511) 07 930	(410) 07 930
Sheet H Scale 1 : 10,000 Umpqua River					
Pole (Flag)	Flag pole at Umpqua Life Guard Station	41	1462	(390) 10 766	(578) 10 766
Why	White house at " " " "	41	1444	(408) 10 748	(596) 10 748
Rear	Rear range beacon, Umpqua River	40	972	(880) 11 355	(989) 11 355
Sin	Small white boat house at bottom of bluff	40	640	(1212) 11 617	(727) 11 617

LIST OF TOPOGRAPHIC POSITIONS

Sheet H Continued

Scale 1 : 10,000

		Lat.	DM	Long.	DP
		0		0	
<u>Front</u>	Front range beacon, Umpqua R.	43	40 706	124 11	932 (1146) (412)

Sheet G

Scale 1 : 20,000

			(561)	(52)
<u>Al</u>	Rectangular banner	48	1491	09 1289
<u>Up</u>	Dead white trees, few branches at edge of timber.	47	936 (916)	09 1036 (306)
<u>Do</u>	Tall dead tree on bare hill	46	626 (1226)	09 1034 (308)
<u>Fi</u>	Tall spar on top of hill	45	1609 (243)	09 972 (370)
<u>Wreck Tacoma</u>	Shows a little at low tide (no signal)	45	55 (1797)	11 273 (1069)
<u>Se</u>	Rectangular banner at edge of timber	44	1519 (333)	10 1057 (285)
<u>Bow</u>	Tripod	44	583 (1269)	10 1320 (23)
<u>Tall Fil</u>	Round topped hill, stub on top	42	398 (1454)	08 695 (648)
<u>Rex</u>	White banner at edge of timber	39	851 (1001)	12 256 (1089)
<u>Bat</u>	Three trees on lower edge of sand spot on wooded ridge	39	235 (1617)	11 1340 (05)
<u>Bald</u>	Top of the same large sand spot	39	247 (1605)	11 1291 (54)
<u>Bil</u>	White signal at edge of timber	38	1578 (274)	12 160 (1185)
<u>Top</u>	Last high group of trees on south end of above mentioned ridge.	38	70 (1782)	11 734 (611)
<u>Sal</u>	Most southerly of two round wooded spots	37	1005 (847)	12 356 (990)
<u>Cone</u>	Small dark very pointed tree covered mound	36	1534 (518)	12 35 (1310)
<u>Larg</u>	Highest tree in large wooded spot	36	337 (1515)	12 198 (1148)

LIST OF TOPOGRAPHIC POSITIONS

Sheet I Scale 1 : 20,000

		Lat. o ' "	DM	Long. o ' "	DP
How	Tripod	43	35 769	124 13 498	(1083) (850)
Ham	Tripod	34	1576	13 726	(276) (620)
Mar Ram	Tripod on grassy dune	33	470	14 42	(1382) (1307)
<u>Ed</u>	Center of a group of trees surrounded by sand	35	632	12 617	(1220) (731)
Fin	Rectangular banner	32	1496	14 287	(356) (1060)
Tow	Tripod	32	662	14 517	(1190) (830)
<u>By</u>	Small group of trees on sand area	32	432	13 904	(1420) (443)
Bil Bid	Rectangular banner on top of grassy dune	31	1579	14 757	(273) (591)
Zip	" " " " " dune	30	1628	14 1262	(224) (86)
Row	Tripod	30	799	15 164	(1053) (1184)
Say	Tripod on grassy dune	29	1744	15 470	(108) (878)
Ape	Small tripod on sand	28	1702	15 1032	(150) (317)
Vow Cow	Rectangle " "	28	612	16 54	(1240) (1295)
<u>Cam</u>	Center of a large clump of trees	27	1426	15 513	(426) (839)
Dun	(See topo sheet)				
Dog	Tripod on sand dune	27	252	16 913	(1500) (536)
Doe	Rectangle " " "	26	1021	16 1256	(831) (93)

LIST OF TOPOGRAPHIC POSITIONS

Sheet I Continued

Scale 1 : 20,000

		Lat. DM °	Long. DP °
<u>Cop</u>	Tripod on sand dune	(1031) 43 25 821	(624) 124 17 726
<u>Rat</u>	" " " "	(262) 24 1590	(204) 17 1148
<u>Apt</u>	Center of a large clump of trees on dune	(1654) 24 198	(261) 17 1089
<u>All</u>	Small clump of trees surrounded by sand	(405) 23 1447	(1334) 18 16
<u>Sap</u>	Rectangular banner	(990) 23 862	(1050) 18 301
<u>Rod</u>	Radio Compass Station	(1768) 23 84	(35) 18 1315
<u>SHETZ J</u>	Scale 1 : 10,000-Coos Bay Entrance	(50)	(354)
<u>Fox</u>	A U. S. E. tripod	21 1802	19 998
<u>Hul</u>	Red roofed white building	(894) 21 958	(29) 19 1323
<u>Hut</u>		(37)	19 (769)
<u>Front</u>	Coos Bay Entrance Front Range Beacon	20 1815	19 585
<u>Range</u>		(356)	(92)
<u>Rear</u>	" " " Rear " "	20 1496	18 1260
<u>Range</u>		(424)	(399)
<u>Pon</u>	Diamond on point of south jetty	20 1428	20 953
<u>Red</u>	Small red building	(692) 20 1160	(446) 20 906
<u>Why</u>	" white house	(1107) 20 745	(867) 21 484
<u>Nit</u>	A white washed tripod	(693) 20 1159	(595) 21 756
<u>Gip</u>	Tripod on point	(202) 19 1650	23 62
<u>Fin</u>	Large white house on edge of bluff	(964) 19 888	23 236
<u>Old L.H.</u>		(661) 20 1191	(611) 22 741
<u>Old</u>			

DEPARTMENT OF COMMERCE

DIVISION OF CHARTS, FILE NO.

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

San Francisco, California,

April 3

19 29

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

O. W. Swainson,

Chief of Party.

DESCRIPTION.	POSITION.					Method of determination.	Charts affected.
	Latitude.		Longitude.		Datum.		
	°	D. M. meters.	°	D. P. meters.			
<u>Topographic Sheet A.</u>							
First grass covered hill back of Yaquina Head L.H.	44	40	1036	124	04	535	Triangulation
Second grass covered hill back of Yaquina Head L. H.	44	40	980	124	03	1274	Topography
Seal Rock - large black rock at water edge below the village of Seal Rock	44	29	1547	124	05	60	Triangulation
Most northerly large white house in village of Seal Rock, backed by evergreen timber.	44	29	1514	124	04	1139	Topography
A large white house south of the one above	44	29	1146	124	04	1110	Topography
<u>Topographic Sheet B.</u>							
Yaquina L. H. Old Tower - white building on top of bluff on north side of Yaquina Bay.	44	37	884	124	03	964	Triangulation
<u>Topographic Sheet C.</u>							
Most northerly and highest point of Cape Perpetua. Triangulation station Perpetua on brow of this point.	44	17	516	124	06	752	Triangulation

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaves and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE

DIVISION OF CHARTS, FILE NO.

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

San Francisco, California,April 5, 19 29

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

O. W. Swainson,

Chief of Party.

DESCRIPTION.	POSITION.					Method of determination.	Charts affected.
	Latitude.		Longitude.		Datum.		
	° ' "	D. M. meters.	° ' "	D. P. meters.			
<u>Topographic Sheet G.</u>							
A large triangular shaped bald sand spot on dark wooded ridge.	43 39	247	124 11	1291		Topography	
<u>Topographic Sheet H.</u>							
Life Guard Station at Umpqua River. A large white building setting back from the beach on sand dune area.	43 41	1444	124 10	748	Flag pole is better DWS	Topography	
Flag pole close to above building	43 41	1462	124 10	766		"	
<u>Topographic Sheet I.</u>							
Radio compass station - a low tower on beach north of Coos Bay.	43 23	84	124 18	1315		Topography	
<u>Topographic Sheet J.</u>							
Life Guard lookout - a small white tower on top of bluff on south side of entrance to Coos Bay.	43 21	130	124 20	217	not conspicuous	Note: Newly located by triangulation. We have not the new location. Topography	

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaves and like objects are not sufficiently permanent to chart.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

August 27, 1929.

TOPOGRAPHIC SHEET No. 4411

Surveyed and inked by C. Le Fever.

General Instructions and specific instructions were complied with, the only apparent failure to show or account for details on the old sheet being the two breakers on T. 1809 west of Δ Jetty and the two islets or rocks north of Δ Jump Off. It is probable that the four rocks are all that remain of the islet nearest Δ Jump Off, but it is probable that there are some remains of the rock or ledge to the northward. It is shown identically the same on T. 1086 and T. 3488.

Bluffs along the shoreline are a dominating feature of this sheet. The base of the bluff is uniformly represented by a full line of same weight as the high water line. There is no warrant for this treatment in the plane table manual or in Coast Survey practice.

The junctions with adjacent sheets are adequate.

C. K. Green
Chief, Section of Field Records

E. P. Egan
Asst. Chief, Section of Field Records

L. O. Roberts
Chief, Division of Charts.

H. S. Jordan
Chief, Section of Field Work.

A. P. Lukens
Asst. Chief, Division of H. & T.

Signed Mar. 5, 1935.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

August 27, 1929.

TOPOGRAPHIC SHEET No. 4412

Surveyed and inked by C. Le Fever.

The survey is adequate. The character of the group of islets northwest of Δ Old Tower is uncertain. This group is not shown on any Coast Survey sheet, but is included in the ledge formation on chart 6058 (probably from U. S. Engineers' survey). Also the ledge southwest of Δ Old Tower (on T. 1086 and chart 6058) is not shown. These features should have been described in the descriptive report.

E. Plummer

Asst. Chief, Section of Field Records.

*The showing of the town of Newfort
should be questioned pending future information.
The transfer from blueprint is doubtful. Q*

C. K. Green

Chief, Section of Field Records

R. R. Lukens

Asst. Chief, Division of H. & T.

Signed Mar. 5, 1935

L. O. Solbert

Chief, Division of Charts.

H. Borden

Chief, Section of Field Work.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 11-DEM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 27, 1929.

TOPOGRAPHIC SHEETS NOS. 4413 and 4414

Surveyed and inked by C. Le Fever.

These two sheets are adequate in that the control is satisfactory and the rock details along shore were carefully checked as directed.

They contain the same faulty representation of the bluffs as occurred on T. 4411, and it has the additional fault of showing the rocky ledges by a full line of same weight as the shoreline instead of the disconnected broken lines shown in the standard symbols. As a result throughout the greater part of the coast covered by these sheets there are at least two lines and in some places three, any one of which might be interpreted as the high water line.

A study of the sheets indicates that where the ledge formation is shown, the ledge is outside of the high water line and the latter is the first line inside of the ledge. This interpretation agrees with T. 1810.

E. P. Eves

Asst. Chief, Section of Field Records.

C. K. Green
Chief, Section of Field Records.

R. R. Lukens
Asst. Chief, Division of H. & T.

F. S. Borden
Chief, Section of Field Work.

L. O. Pollock
Chief, Division of Charts.

Signed Mar 5, 1935

The 1927 triangulation which furnished control for T. 4413 is of a very low grade. C.K.G.

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 25, 1929.

Report on Topographic Sheets of
Oregon Coast

Surveyed in 1928, O. W. Swainson, Chief of Party

Instructions dated March 3, 1928 (PIONEER)

T. 4415) Surveyed and inked by C. Le Fever.
4416) These surveys are in accordance with the General Instruc-
4417) tions and specific instructions and are adequate.
4419)

T. 4418 Surveyed and inked by C. Le Fever.
This survey is in accordance with the General Instruc-
tions and specific instructions and is adequate, except
for the failure to clear up the misrepresentation of
Ork Reef. A note by the surveyor on a photograph of
T. 1757 states that the reef was not investigated.

It is clear from a study of the previous topographic
and hydrographic surveys and survey by the U. S. En-
gineers that the reef covers at high water and bares
3 feet at low water. The symbol on chart 6002 is cor-
rect, but the vertical lettering and (3) indicate that
the reef is 3 feet above high water.

Signed Mar. 5, 1935

E. H. Green

Chief, Section of Field Records.

F. B. Ingham

Chief, Section of Field Work.

L. O. Folger

Chief, Division of Charts.

R. R. Lukens

Asst. Chief, Division of H. & T.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 25, 1929.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4420

Coos Bay, Oregon

Surveyed in 1928

Instructions dated March 3, 1928.

Chief of Party, O. W. Swainson.

Surveyed and inked by C. Le Fever.

1. The plan and character of the survey conform to the General Instructions and specific instructions, but the execution is defective.
2. In the eastern portion of the sheet the shoreline is three-fourths millimeter thick, but as the shoreline there is not complicated no serious harm resulted. West of Bassendorf Beach the shoreline and reef details are very intricate, and the shoreline here averages one-half millimeter thick, which makes it impossible to show the details without distortion. The previous surveys indicate well defined ledges and reefs outside the high water line in this locality, but no attempt was made on this sheet to distinguish between them, and in many cases the outer edges of the reefs are the only shorelines inked.
3. The area west of Bassendorf Beach has been covered by four surveys prior to T. 4420, namely T. 846, 1812, 2460 and 3922. There is hopeless disagreement between all five sheets in the representation of shoreline and reefs, and the work on T. 4420 is so crude and contains so many palpable errors that it is not an acceptable substitute for the others. This is particularly so for the reason that the locality is charted on 1:20,000 scale
4. The hydrographic surveys of this area have not been carried close inshore, so it is presumed that there is no navigation there.
5. With the exception of the area noted in paragraph 3 the survey is adequate. The junctions with the adjoining contemporary sheets are satisfactory.

6. Reviewed by E. P. Ellis, October, 1929.

Approved:

B. K. Green

Chief, Section of Field Records (CHARTS)

F. B. Borden

Chief, Section of Field Work (H. & T.)

Signed Mar. 5, 1935

L. O. Robert

Chief, Division of Charts

R. K. Lukens
Chief, Div. of Hyd'y and Top'y

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter -A-

REGISTER NO. 4411

C. & G. SURVEY
L. & A
APR 28 1929
Acc. No.

State Oregon

General locality Pacific Coast Yaquina Head

Locality From near Alsea Bay to Yaquina Head
Yaquina Head south to Latitude 44° 27' N.

Scale 1:20,000 Date of survey May 1, 19 28

Vessel Str. PIONEER

Chief of Party O. W. Swainson

Surveyed by Curtis Le Fever

Inked by Curtis Le Fever

Heights in feet above M. H. W. to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated March 3, 19 28

Remarks: Contours and vegetation were transferred from old
photostat.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
4412

C. & G. SURVEY
L. & A.
APR 28 1929
Acc. No.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter -B-

REGISTER NO. 4412

State Oregon

General locality ~~Pacific Coast~~ Yaquina Head

Locality Entrance to Yaquina Bay

Scale 1:10,000 Date of survey May 1 - Aug 25, 19 28

Vessel Str. PIONEER

Chief of Party O. W. Swainson

Surveyed by Curtis Le Fever

Inked by Curtis Le Fever

Heights in feet above M.H.W. to ground to tops of trees

Contour Approximate contour ~~Form-line interval~~ 20 feet

Instructions dated March 3, 1928, 19

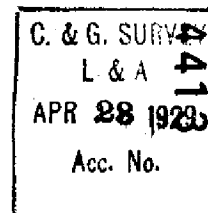
Remarks: _____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter -C-REGISTER NO. **4413**State OregonGeneral locality Pacific Coast Alsea BayLocality From $43^{\circ} 27' N.$ to $44^{\circ} 16' N.$ Cape Perpetua to Alsea BayScale 1 : 20,000 Date of survey May 1 to Aug. 25, 19 28Vessel Str. PIONEERChief of Party O. W. SwainsonSurveyed by Curtis Le FeverInked by Curtis Le FeverHeights in feet above H. W. to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated March 3, 1928, 19Remarks: No contours shown

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

C. & G. SURVEY
L. & A. 4414
APR 28 1929
Acc. No.

Field Letter -D-

REGISTER NO. 4414

State Oregon

General locality Pacific Coast Heceta Head

Locality North of Siuslaw River to Cape Perpetua
From Lat. 44° 17' N. to 44° 03' N.

Scale 1 : 20,000 Date of survey May 1 to Aug. 25, 1928

Vessel Str. PIONEER

Chief of Party O. W. Swainson

Surveyed by Curtis Le Fever

Inked by Curtis Le Fever

Heights in feet above M. H. W. to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated March 3, 1928, 19

Remarks: No contours shown.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

C. & G. SURVEY
L &
APR 28 1929
Acc. No.

REG. NO. 4415

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter - E -

REGISTER NO. **4415**

State Oregon

General locality ~~Pacific Coast~~ Siuslaw River

Locality Entrance to Siuslaw River

Scale 1:10,000 Date of survey May 1 to Aug. 25, 1928

Vessel Str. PIONEER

Chief of Party O. W. Swainson

Surveyed by Curtis Le Fever

Inked by Curtis Le Fever

Heights in feet above M. H. W. to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated March 3, 1928, 19

Remarks: No. contours shown.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4416

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter - F -REGISTER NO. **4416**State OregonGeneral locality Pacific Coast Siuslaw RiverLocality Tahkenitch Creek to Siuslaw River
From Lat. 43° 59' N to 43° 49' NScale 1 : 20,000 Date of survey 1928Vessel Str. PIONEERChief of Party O. W. SwainsonSurveyed by Curtis Le FeverInked by Curtis Le FeverHeights in feet above M. H. W. to ground to tops of treesContour Approximate contour Form line interval feetInstructions dated March 3, 1928, 19Remarks: No contours shown.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4417

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter - G-

REGISTER NO. 4417

State Oregon

General locality Pacific Coast Umpqua River
Tenmile Creek to Tahkenitch CreekLocality From lat. $45^{\circ} 40' N$ to $45^{\circ} 50' N$.

Scale 1:20,000 Date of survey May 1 to Aug 25, 19 28

Vessel Str. PIONEER

Chief of Party O. W. Swainson

Surveyed by Curtis La Fever

Inked by Curtis La Fever

Heights in feet above M. H. W. to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated March 3, 1928, 19

Remarks: No contours shown.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4418

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter *H*REGISTER NO. 4418State OregonGeneral locality ~~Pacific Coast~~ Umpqua RiverLocality Entrance to Umpqua RiverScale 1:10,000 Date of survey May 1 to Aug. 25, 19 28Vessel Str. PIONEERChief of Party O. W. SwainsonSurveyed by Curtis Le FeverInked by Curtis Le FeverHeights in feet above M.H.W. to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated March 3, 1928, 19Remarks: No contours shown. 2

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REG. NO.
C. & G. SURVEY
L. & A.
APR 28 1929
Acc. No.

4419Field Letter IREGISTER NO. **4419**State OregonGeneral locality ~~Pacific Coast~~ Cape AragoLocality Coos Bay to Tenmile Creek
from lat. 43° 56' N to 43° 22' N.Scale 1:20,000 Date of survey May 1 to Aug. 25, 1928Vessel Str. PIONEERChief of Party O. W. SwainsonSurveyed by Curtis Le FeverInked by Curtis Le FeverHeights in feet above M. H. W. to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated March 3, 1928, 19Remarks: No contours shown.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEYC. & G. SURVEY
L. & A.
APR 28 1929
Acc. No.

REG. NO. 4420

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter -J-

REGISTER NO. 4420

State Oregon
General locality Pacific Coast Cape Arago
Locality Cons. Bay Entrance to point south of Cape Arago, I. H.
Scale 1 : 10,000 Date of survey May 1 to Aug. 25, 19 28
Vessel Str. PIONEER
Chief of Party O. W. Swainson
Surveyed by Curtis Le Fever
Inked by Curtis Le Fever
Heights in feet above M. H. W. to ground to tops of trees
Contour Approximate contour Form line interval feet
Instructions dated March 5, 1928, 19
Remarks: No contours shown.