Approved For Release 2005/06/08 : CIA-RDP78T05439A000300210067-6

	: TC?	27 February 1964 Copy No.	
25X1A	MEMORANDUM FOR: ATTENTION: THRU: FROM: SUBJECT:	Chief, Military Division, OCI Chief, RG/RB/CGS Chief, CIA/PID (NPIC) Submarine Activity in the vicinity of the Shipunski Peninsula, Kamchatka, USSR, Photo Sutdy	
	REFERENCES:	 (a). Requirement No. C-CI4-80,947 (Project No. C 66-64) (b). Requirement No. C-CI3-80,815 (Project No. C 1671-63) (c). G-MB Memorandum No. 764/63 dated 20 November 1963 (d). G-MB Memorandum No. 80/64 dated 29 January 1964 (e). H.O. 98 (formerly H.O. 122A) Sailing Directions for the east coast of Siberia 	
25X1D	and in amplifica the following in the Shipunski Pe approximately 45 this memorandum current basis po graphy of this r	tial response to Requirement No. C-CI4-80,947 (C 66-64), ation of G-MB Memorandum No. 80/64 dated 29 January 1964, aformation is forwarded concerning submarine activity in eninsula region of Kamchatka, USSR, (53 16N-159 47E), onm NNE of Petropavlovsk. The materials forwarded via are intended to supplement, on the most inclusive and essible, previous information derived from aerial photography available on this area was forwarded via	
25X1D DEC	Peninsula area fand (a). A to o i A p	chowing significant activity was observed in the Shipunski from aerial photography obtained in reveals that extensive construction actifity is still continuing on the western side of Bechevinskaya Bay (53 16N-159 47E) in the immediate vicinity of a large possible naval pier. pproximately 5 buildings have been constructed near the ier - including one multi-storied building approximately 30 ft x 50 ft and one long-building approximately 280 x 5 ft. A shed-like structure approximately 100 x 30 ft	25X1D 25X1D
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ı	25X1D	on the end of the pier approach and a probable wooded pier extension approximately 110 feet long have been added since As noted in reference (c) the construction of this pier appears similar to the piers observed at the new naval/submarine base at Pavlovskogo Bay (formerly Strelok Straits Naval Base, Anna).	
25X1D	(b).	The existence of previous submarine activity (observed on can now be verified. Four dispersed submarines, one probable submarine, one probable destroyer, and one small unidentified vessel were noted, apparently dead in the water - but headed into the bay, approximately one mile inside the entrance to Bechevinskaya Bay (53 13.5N-159 45.0E). No facilities of any description were noted along either side of Bechevinskaya Bay on the coverage. Bay ice was observed to extend approximately 1,700	25X1D
25X1D		feet to seaward from the subsequent location of the possible naval pier first observed in or to a position approximately 2nm to the NE into the bay from the location of the furthest penetration of the submarine activity. This information was previously forwarded via references (c) and (d).	. 7
25X1D 25X1D 25X1D	(c).	Two probable submarines were observed in	25X1E
25X1D	(d).	on an unnamed headland (53 16N-160 OLE) near Ostrov Morzhovy (Benzenger Island) can now be positively identified as	25X1
25X1D 25X1D		a SA-2 SAM site. No evidence of this site was noted on good quality USAF photography dated This is the second SAM site to be deployed in nearly inaccessible terrain on the Shipunski Peninsula - the first is located on the other (SW) side of the peninsula at 53 13N-159 47E, approximately	
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3.5nm south of the pier area in Bechevinskaya Bay noted above.

- 3. A further description of significant activity noted on selected photographic coverage of the Shipunski Peninsula is forwarded as an enclosure to this memorandum.
- 4. Specific dimensions described in the enclosed graphics to this memorandum were performed by the Technical Analysis Branch, TID (NPIC). Mensural data was computed from the orbital ephemeris only and can only be considered as approximate.

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- 6. H.O. 98 (formerly H.O. 122A) was found to contain significant hydrographic data for the Shipunski Peninsula region. Of particular interest for purposes of this study were references to: (1) an established anchorage at the head of Morzhovaya Bay; and (2) depth soundings of 23 to 28 fathoms in the upper portion of Bechevinskaya Bay. A five page extract from this publication will be found in the enclosed notebook.
- 7. All coordinates referenced in this memorandum were obtained from the unedited proof copy of AMS Series DESPA-1, Sheet NN 57-8.

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- - 9. The photo analysis on this project was performed by

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	CIA/PID/GMB, who may be contacted on for any additional info	
	10. This memo is in response to a continuing requirement and documplete the referenced requirement.	es not
	25X1A	
	Enclosures: 1. Description of Additional Activity Observed in the Shipunski	
	Peninsula Area, Kamchatka, USSR, from Selected Missions Dated	
25X1D		
	One not check (CTA/PID/GMB/P=600/64, copy number 1)	

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	Attachment To
	DESCRIPTION OF ADDITIONAL ACTIVITY OBSERVED IN THE SHIPUNSKI PENINSULA AREA, KAMCHATKA, USSR, FROM SELECTED MISSIONS DATED 25X1D
r	Photo No. 1
	ission
ŧ	This mosaic represents the best and most recent satellite photo coverage of the entire Shipunski Peninsula region. The graphic contains a key to additional photo enlargements from Mission illustrating all areas of significant activity noted on this coverage.
	Photos No. 2A & 2B
[Mission
D	These two adjoining prints contain the latest available photo intelligence of the inner portion of Bechevinskaya Bay (53 16N-159 47E). Additional activity noted at the possible naval base under construction (last observed on includes the following: (a). A probable wooden pier extension, approximately 110 feet in length, has been built from the end of the pier approach.
	(b). A possible shed (approximately 100×30 feet) has been constructed on the end of the pier approach.
	(c). A protrusion into the bay located approximately 500 feet SW of the main pier - and previously labelled as a "probable pier base under construction" - appears to have been bypassed by a new road/trail along the shore which leads to a new man-made earthen protrusion which extends approximately 120 feet into the bay. This new projection is located approximately 2,200 feet SW of the main pier.
	(d). Approximately 5 new buildings, including one measuring approximately 280 x 35 feet have been constructed in the vicinity of the main pier. (See line drawing forwarded with enclosure (2).
	(e). At least two unidentified newly constructed traces were observed paralleling the sides of a small river valley for approximately 2,200 yards to the north from the original barracks/support area (labelled Area "A" in photo #10 forwarded via reference (c). No activity could be discerned along the valley in the coverage of this area - which is snow covered.
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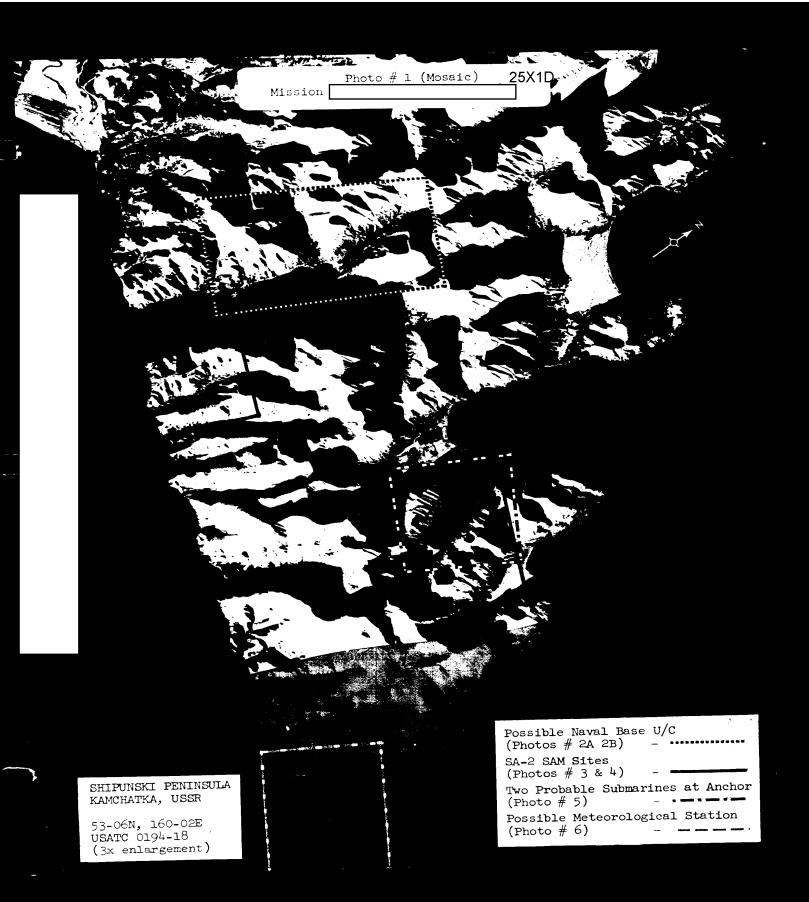
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25X	(f). The new road observed leading SW from the pier area to the shingle spit in has been extended for nearly 0.5nm to a position just to the SW of the shingle spit. Several traces and many heavy earth scars are now visible in this area which is located approximately 1.5 to 2nm SW of the main pier area. No significant changes appear to have occured in the vicinity of the barracks/support area (Area "A"). A probable lighter appears anchored just off the small finger pier which services this installation.	
	Photo No. 3	
ſ	Mission	25X1E
25X1D	This is the best photography to date of the SA-2 SAM site located near the SE approach to Bechevinskaya Bay at 53 12 48N-159 46 30E. A probable pipeline trace is visible leading toward a small rivulet on the eastern side of the plateau on which the site is deployed photography reveals that the site was operational in A small light aircraft was visible just to the north of the site on that photography. Photo No. 4	25X1
	Photo No. 4 Mission	25X1[
	An operational SA-2 SAM site is visible on clear photography on an unnamed headland (53 15 30N-160 01 10E) by Ostrov Morzhovy (Benzenger Island). This area is incorrectly labelled on USATC 0194-18 as "Mys Argali". A check with the Board of Geographic Names and the NIS Gazzeteer reveals that this headland is as yet unnamed.	
	Photo No. 5	 \$
	Mission	25X1[
	This is the best coverage available of the SE extremity of the Shipunski Peninsula (Mys Shipunski - 53 06N-160 02E). Track activity and several unidentified structures are visible on the elevated tableland that forms the Shipunski Peninsula. The small scale of the photography precluded the identification of this installation - other than as a possible meteorological site. The Electronic Order of Battle Communist Forces Far East carries a radar station at this location (site # NA 006); the Bombing Encyclopedia carries it as a radio communications site (BE #); and Russian broadcasts have referred to Mys Shipunski as a collective meteorological station.	25X1A
	Photo No. 6	
25X1D	Mission	*
	Two probable submarines are visible, anchored apparently stern inshore, off "the southernmost rivulet on the eastern shore" of Morzhovaya Bay near troublet firm and the continuous and the continuous are visible, anchored apparently stern inshore, off "the southernmost rivulet on the eastern shore" of Morzhovaya Bay near troublets firm and the continuous are visible, anchored apparently stern inshore, off "the southernmost rivulet on the eastern shore" of Morzhovaya Bay near troublets firm and the continuous are visible, anchored apparently stern inshore, off "the southernmost rivulet on the eastern shore" of Morzhovaya Bay near troublets firm and the continuous are visible, anchored apparently stern inshore, off "the southernmost rivulet on the eastern shore" of Morzhovaya Bay near troublets firm and the continuous are visible, and the continuous are visible to the continuous are visible, and the continuous are v	rts. / Tide and

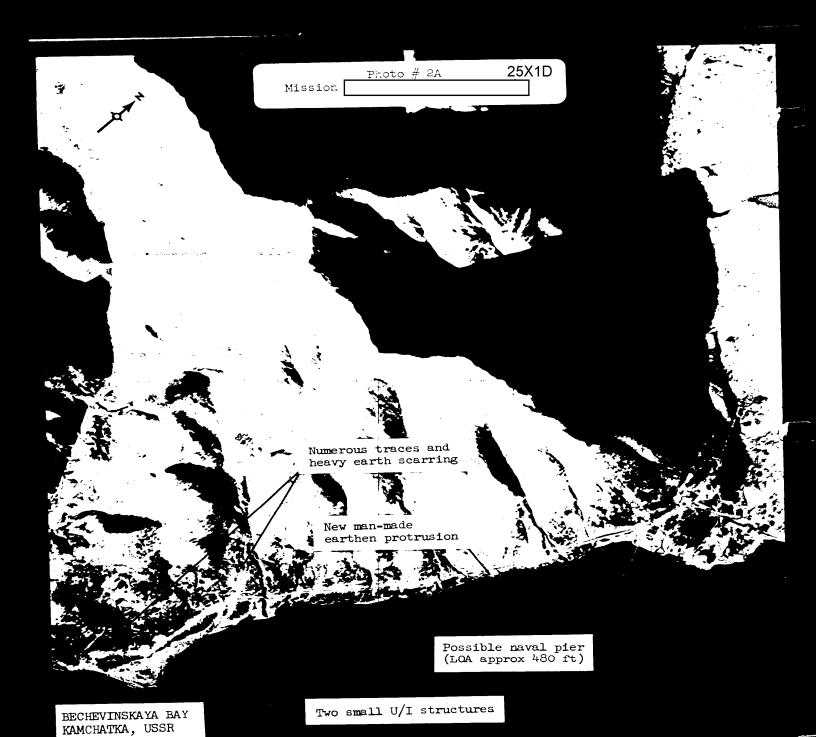
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25X1D	its head. A re-examination of all previous photography of this bay failed to reveal any firm evidence of submarine or naval activity - although two possible vessels were noted at this identical location in coverage dated (Refer to text to photos 8 and 8A of this enclosure.) Photos No. 7 & 7A (stereo pair fold-outs)	25X1[
051/45	[]	•
25X1D		
	This stereo pair of contact prints of Bechevinskaya Bay is forwarded to illustrate the naval/submarine activity present at that time. Seven vessels - including 4 submarines, one probable submarine, one destroyer, and one small unidentified vessel are located at the entrance to the bay (53 14N-159 14E). Obliquity and image quality precluded the identification of these vessels without the use of a stereoscope. By unfolding these prints a view may be obtained looking toward the icebound Petropavlovsk Kamchatskiy Submarine Base at Tar'ya Bay. Of additional possible interest may be the proximity of the active volcano, Sopka Kozelskaya (53 12N-158 53E), located approximately 33nm west of the possible naval base under construction at Bechevinskaya Bay.	÷
	Photos No. 8 & 8A	٥,
25X1D		
25X1D	These photographs are forwarded as evidence in an attempt to establish a possible connection between the probable submarine activity noted at the head of Morzhovaya Bay in (see photo no. 6) with any possible previous naval activity noted in this bay. A careful study of several different frames from	25X1D
25X1D	reveals that two possible vessels, moored alongside one another, were positioned at the head of the bay off "the southernmost rivulet on the eastern shore" of the bay. Whether these objects were possible submarines could not be determined although their length-width ratios appeared similar. It should be noted that the reproduction of these faint images on fourth generation prints appears to have significantly reduced their visibility; the images appear a little firmer on the second generation DP's	

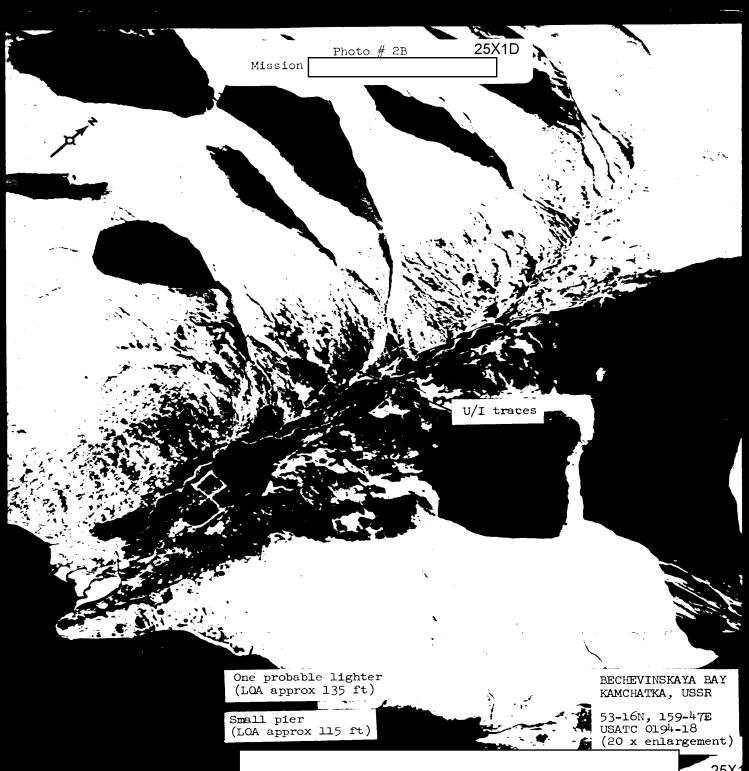
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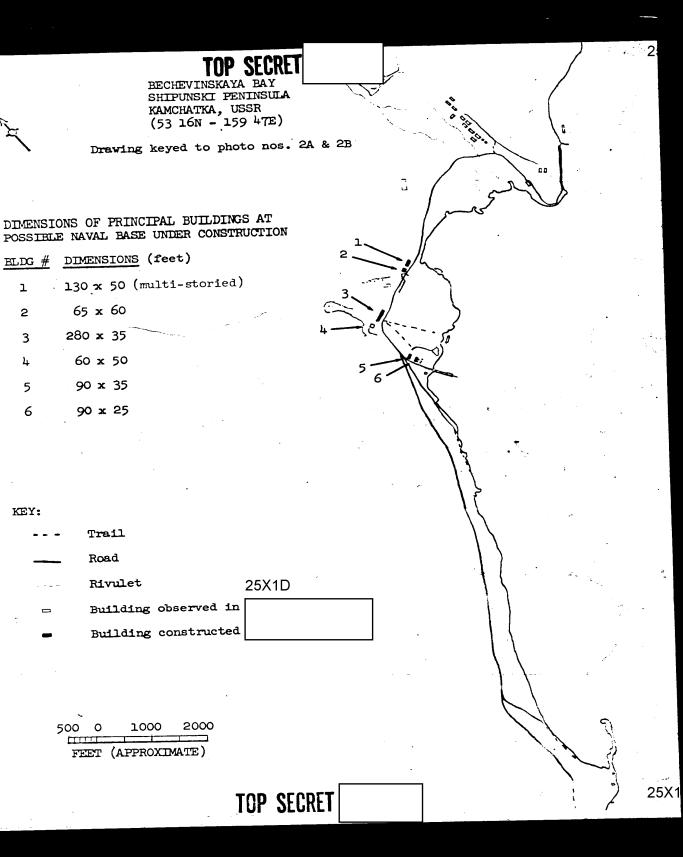
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53-16N, 159-47E USATC 0194-18 (20 x enlargement)

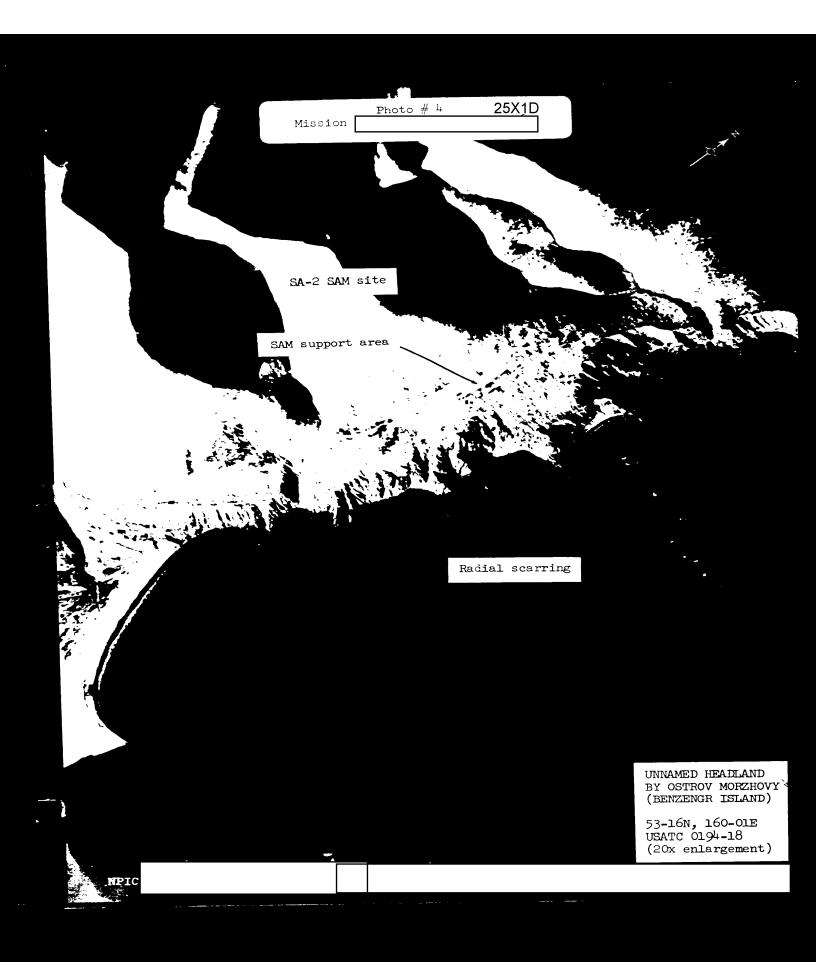




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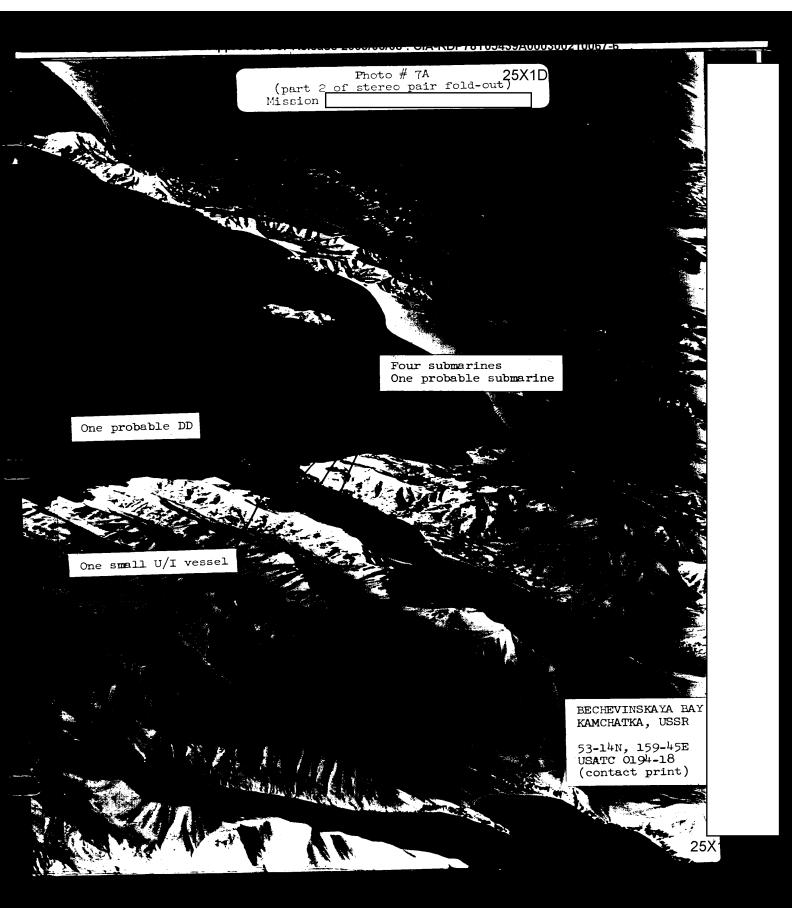


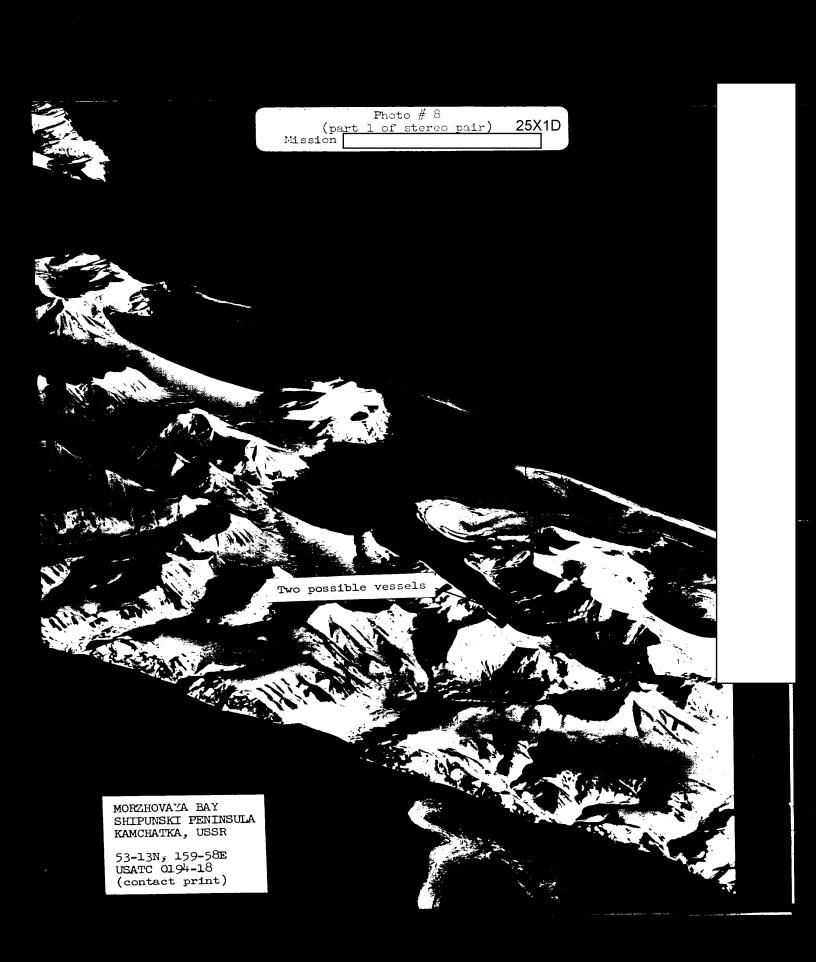


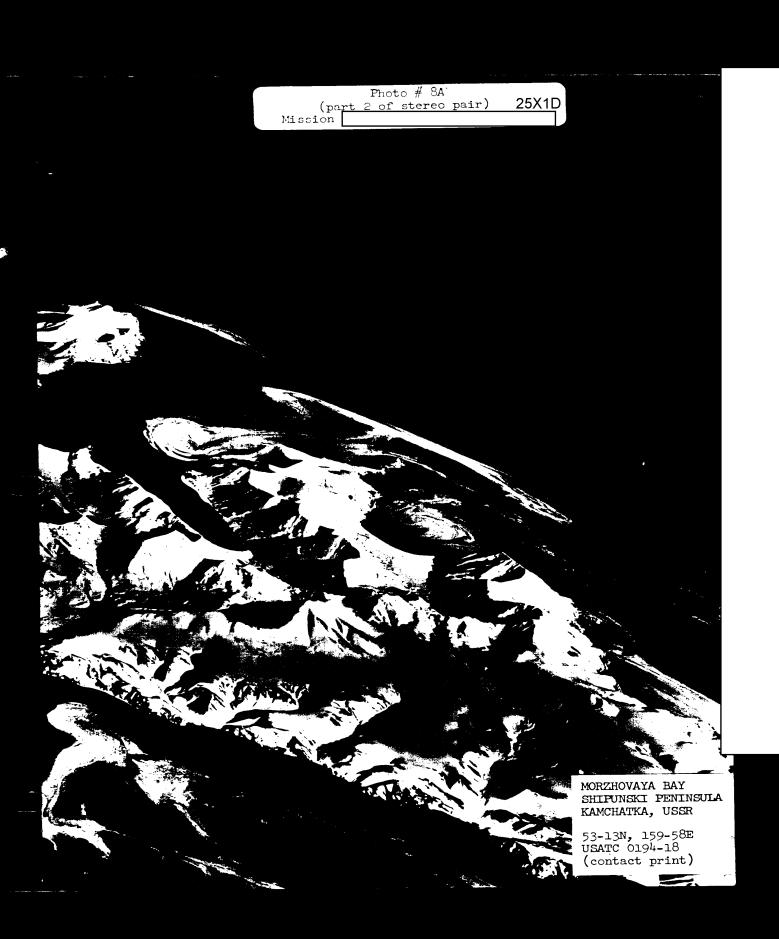
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point marked by a detached pillar rock about 400 yards off the point. This recess of the bay is locally known as Bukhta Malaya Medvezhka. Northward of the cliffs is the mouth of a broad valley with Ozero Kalygirskoye (Krugloye), a salt-water lake of considerable size separated from the bay by a narrow, long, and low sandy spit covered with grass and bushes. At the northeastern end of this spit, obstructed by a shallow bar, lies the entrance to Ozero Kalygirskoye. The little village Kalygir is situated on the sandy beach near the entrance; the inhabitants live by fishing and hunting. The shore eastward of the entrance is composed of steep brown cliffs, gradually rising and extending in an east-southeasterly direction for about 3 miles to Mys Kron'e. This section of the shore has a uniform appearance, but in a position about one mile westward of Mys Kron'e a sudden dip of the high shore marks a small semicircular cove fringed with a low sandy beach through which flows a rivulet. A fishing station stands at the mouth of the rivulet.

The northwestern part of the bay, where the depths 400 yards offshore do not exceed 7 fathoms, is the shoalest; the depths increase southward and eastward toward Mys Kron'e, the bottom being sand.

Anchorages.—It is reported that there is anchorage in 6½ fathoms, sand and shell, about 600 yards off the middle part of the cliffy shore immediately westward of Mys Kron'e; also farther westward, 600 yards off the cliffs nearest to the low-lying shore, in 8¾ fathoms. The anchorage should be approached from southeastward with caution, taking soundings continually.

Mys Sredniy is a high, rugged headland with precipitous gray cliffs; it is fringed with above-water rocks close inshore. An isolated submerged rock, marked by breakers, lies 600 yards northward of the headland; the depths 400 yards seaward of the breakers are 15 fathoms, sand

6-47 Bukhta Bol'shaya Medvezhka is a semicircular bay that recedes for about 2 miles in a southwesterly direction, and is entered between Mys Sredniy, on the north, and an unnamed point about 3 miles south-southeastward, on the south. The southwestern part of its shore is a spit ridged with accumulations of sand and gravel; the spit is backed by a lake which lies in a spacious valley and extends on its western side across the valley to the foot of the hills. The entrance to the lake lies at the southeastern extremity of the spit; a few houses and a fishing station stand nearby. Except for this low section the shore of the bay is hilly and covered with forest. This bay has not yet been surveyed but two rocky reefs have been noticed off the shores of this bay. One, with its end marked by breakers, lies 1,600 yards westward of the southern (nameless) entrance point, the other, comprising a group of above-water rocks, is located 11/2 miles southward of Mys Sredniy. Neither reef extends farther than 400 yards offshore. The depths in the entrance are from 16 to 20 fathoms.

Anchorage.—An anchorage, sheltered from winds from southeast, through south and west, to northwest, is obtainable, with local knowledge, in the Bukhta Bol'shaya Medvezhka in 11 to 12 fathoms, with the southern entrance point bearing 110°.

Mys Argali (53°19' N., 159°59' E., H. O. Charts 5811 and 5810) is the easternmost point of a small mountainous peninsula that projects from the mainland in a northeasterly direction and forms the southeastern shore of Bukhta Bol'shaya Medvezhka. The point is formed by a gray cliff more than 1,500 feet in height which fronts the sea with precipice about 1,000 feet

6-48 Bukhta Morzhovaya (H. O. Chart 5808) is an extensive bay entered between Mys Argali and Ostrov Morzhovyy (Benzengr Island), 4 miles south-southeastward. A rocky headland, nearly 300 feet high, standing at the

head of the bay about 4 miles-southwestward of Ostrov Morzhovyy divides the bay into two parts. The northern part is wide and exposed, and the southern part is a comparatively long and narrow arm completely sheltered from the winds and the sea. The northern part indents the coast for about 4 miles and is about 2½ miles wide with nearly parallel shores. The southern arm of the bay entered eastward of the headland referred to extends southward for a distance of nearly 2 miles and is about half a mile wide; there is a small sand and shingle beach at its head.

The shores of the entire bay are formed by steep slopes of mountains that surround the bay and rise to heights ranging from 1,500 to over 2,000 feet. With the exception of a short section of the western shore immediately northward of the headland referred to and a narrow ravine near the middle of the northwestern shore, the shores of the northern part of the bay are high and cliffy. Numerous rivulets flow into the bay.

6-49 Depths.—The depths at the entrance to the bay are 30 fathoms, sand, decreasing gradually to 6 fathoms, sand, about 1,200 yards off the head of the northern part of the bay; depths of 15 to 16 fathoms, sticky mud, prevail over the northern half of the southern arm, decreasing very gradually to 10 fathoms about 500 yards offshore at its head.

Dangers.—Some above-water rocks and submerged rocks are located from 2 to 2½ miles south-southwestward of Mys Argali and extend 600 yards offshore. A submerged reef extending 600 yards offshore lies about half a mile southward of Mys Argali; the outer end of the reef is marked by breakers and a small above-water rock stands on the reef close inshore. A shingle shoal with depths less than 9 feet extends about 300 yards off the eastern entrance point of the southern arm. The shoal is steep-to at its extremity.

Anchorage, well sheltered from winds and sea, is obtained in 10 to 12 fathoms near the head of the southern arm of Bukhta Morzhovaya. St. My mud provides excellent holding ground.

Fresh water can be obtained from waterfalls in the southern arm, particularly from the southernmost rivulet on the eastern shore of the arm; a vessel may haul her stern inshore and with a sufficiently long hose take water by gravity flow.

Tides in Bukhta Morzhovaya are of a mixed type; semidiurnal tides are observed when the moon is close to the equator. Springs rise about 5 to 5½ feet with a diurnal tide; neaps rise, with a semidiurnal tide about 1¼ feet. The mean high water level is 3 hours 15 minutes.

6-50 Directions.—During thick or foggy weather, which is very frequent during the summer, it is most difficult to make out the entrance to Bukhta Morzhovaya in a calm or with gentle onshore breezes; in such a case soundings are the only guidance. With moderate southeasterly or northeasterly winds the fog may clear up periodically under the lee side of the land; therefore with a southeasterly wind a vessel should make Ostrov Morzhovyy, and with a northeasterly wind, Mys Argali. A midchannel course in the bay and in the southern arm of the bay is recommended. Ordinarily a southeasterly wind spreads a fog over the whole northern part of the bay, but leaves the southern part fairly clear. Northeasterly winds are accompanied by foul weather, and the fog spreads over the entire bay, the fog being much denser around the mountain tops and considerably thinner closer to the shoreline.

Ostrov Morzhovyy (Benzengr), an island that forms the southern entrance point to Bukhta Morzhovaya, is separated from the mainland by an obstructed narrow passage too shallow even for small boats at low water. The island rises to a height of 630 feet and has on all sides grayish cliffs, which on its southern

. side are higher and steeper, and which descend to the northeastern end of the island in a series of gently sloping terraces. On its seaward side the island is steep-to, and depths of 30 to 35 fathoms are 400 yards off this side of the island. Several above-water rocks and submerged rocks lie close off the island. A small, low, abovewater rock lies 1,000 yards off shore about 600

yards southward of the island. in hight is in 6-51 Coast.—The coast approaches Ostrov Morzhovyy by a small, steep-sided, flat-topped headland 410 feet high. From this position the coast trends southward, southeastward, and eastward for a total distance of about 4 miles and forms a small bay with sloping sides and a shingle beach. This bay is exposed and is obstructed by a reef extending from its northern shore and also by detached rocks off its shore.

From the southern entrance point of this bay the coast trends southward for about 41/2 miles to Mys Shteyna; along this section the mountains, over 2,500 feet in height, rise steeply from the coast, fronting the sea with grayish and brownish precipices. Close offshore stand several small pillar-rocks, the outermost of which, well outside the others, stands about 800 yards offshore.

Mys Steyna, a high cliffy point, is the northern limit of an elevated tableland, which extends here to the coast. It greatly resembles the cape, located about 3 miles southward of it, by the name Mys Shipunskiy, which forms the southeastern extremity of Poluostrov Ship-

Poluostrov Shipunskiy, a mountainous peninsula of considerable size, projects from the mainland in a southeasterly direction. The interior of the peninsula consists of high, steep, craggy mountains rising to heights of 1,500 to 2,000 feet, which, however, do not extend to its southernmost part consisting of an elevated

The entire section of the shore between Ostrov Morzhovyy and Mys Shipunskiy is steepto; depths of 40 to 45 fathoms are at a distance of about 11/4 miles offshore. The bottom in the vicinity of Ostrov Morzhovyy is mostly sand, and in the vicinity of Mys Shipunskiy, mostly shingle.

6-52 Mys Shipunskiy (53°06' N., 160°02' E., H. O. Charts 5811 and 5810).—The elevated tableland that forms the southernmost part of the Poluostrov Shipunskiy terminates on its southern side in two small projections, the eastern of which is Mys Shipunskiy.

A mountain situated about 5 miles northwestward of Mys Shipunskiy has a sharp jagged summit rising to a height of 3,218 feet and makes a very conspicuous landmark when sighted from either eastward or westward.

A palisade-like formation of pillar-rocks extends 1,600 yards east-southeastward from Mys Shipunskiy and terminates in a large pillar rock, about 75 feet high, which is in line with the rest of the rocks, but is separated by about 100 yards of water from the rest of the row. A dangerous line of rocks, both above water and submerged, extends from the western projection in a south-southwesterly direction for about 11/4 miles to a submerged rock marked by breakers; thence it changes its direction and extends east-southeastward for about 1,600 yards, terminating in a rock-islet, 12 feet high, situated about 11/4 miles south-southwestward of Mys Shipunskiy. This rock-islet is the outermost danger off Mys Shipunskiy.

Both these lines of rocks are visible from about 10 to 12 miles offshore and form a good landmark. These rocks are steep-to; there are depths of 27 to 30 fathoms at a distance of less than one-half mile southward of the outermost rock-islet, and depths of about 49 fathoms at a distance of 1,600 yards eastward of the easternmost rock. Both chains of rocks are frequented

by seals.

Mys Shipunskiy Light is shown from a trilateral wooden pyramid, 15 feet high.

A radiobeacon is located at Mys Shipunskiy.

6-53 Kamchatka current.—Between Mys Shipunskiy and Mys Vertikalnyy the main stream of the constant Kamchatka current flows in a general south-southwesterly direction and has a velocity from 0.7 to 0.9 knot; southward from Mys Shipunskiy, a narrow branch of the main Kamchatka current flows in the direction of Mys Nalachëva and has a velocity of 0.5 knot.

Tidal currents.—In the vicinity of Mys Shipunskiy the tidal currents attain a rate of 1½ to 2 knots at springs and 1 knot at neaps. The tide wave advancing from the ocean divides at Mys Shipunskiy, one branch setting northward and the other northwestward along the coast. The two branches of the ebb currents meet about 10 miles southeastward of Mys Shipunskiy and form eddies and also a very confused short sea when the wind is fresh.

6-54 Directions.—Very dense fogs are prevalent in the vicinity of Mys Shipunskiy. A vessel approaching Mys Shipunskiy in thick weather should sound continually and should navigate in depths of not less than 60 fathoms. With smooth water the eddies will give a warning of the proximity to the cape. The bottom shelves more steeply off the eastern side than off the southern, and particularly the southwestern, side of the cape. The bottom is mainly shingle, changing to sand northward of the cape and to rock as the cape is approached.

6-55 MYS SHIPUNSKIY TO AVA-CHINSKAYA GUBA—Landmarks.—Sopka Koryatskaya (Strelochnaya) is an extinct volcano situated about 22½ miles southwestward of Sopka Zhupanova (see Sec. 6-34); its well-shaped conical summit rising to a height of 11,345 feet makes it a very conspicuous landmark particularly from the Avachinskaya Guba (Avacha Bay).

Sopka Avachinskaya, an active volcano, stands about 5 miles southeastward of Sopka Koryatskaya; its double-crateral summit rises to a height of 8,960 feet and ordinarily is identified by a light smoke rising from one of its

craters. There is never any snow near its summit owing to internal heat.

Sopka Kozel'skaya, an extinct volcano rising to a height of 7,178 feet, stands about 2½ miles southeastward of Sopka Avachinskaya. Its conical summit with gentle slopes is a particularly excellent landmark for the approach to Avachinskaya Guba, because it is situated only 10 miles inland and the white stripes of snow on its black slopes can be discerned through a light fog that may be sufficient to obscure other peaks.

6-56 Coast.—From Mys Shipunskiy the coast trends almost in a straight line northwestward to the southeastern entrance point of Bukhta Bechevinskaya. This elevated and bluff coast is backed by a mountain range with numerous sharp peaks rising to heights from 1,500 to almost 2,000 feet at about 1½ to 2 miles inland. Numerous small spurs of this mountain range extend to the coast and terminate in small slightly projecting headlands fringed with rocks and reefs that extend a short distance offshore; these headlands are separated by small coves with creeks and sandy beaches suitable for landings from ships' boats.

The depths about 1,600 yards offshore range from 14 to 16 fathoms, sand, and steadily increase seaward.

Landing in small boats can be conveniently made in either of the two small coves located respectively 3¼ miles and 7 miles northwestward of Mys Shipunskiy.

Warning.—The entire water area westward of a line commencing at the southeastern entrance point of Bukhta Bechevinskaya and extending approximately 229° for about 59 miles to Mys Krutoy is dangerous for navigation. For pilots to enter this area, see Section 6-105.

6-57 Bukhta Bechevinskaya (H. O. Chart 6810) is a bay entered between Mys Vkhodnoy, its southeastern entrance point, located 12 miles northwestward of Mys Shipunskiy, and Mys Lovushek (meaning "Cape of Traps"), located about 1½ miles

E. COAST OF KAMCHATKA FROM MYS AFRIKA TO MYS LOPATKA

farther northwestward. This bay indents the land in a northeasterly direction for over 5 miles and has a uniform width of slightly over 1 mile. About 2 miles within the entrance of the bay a shingle spit extends from either side of the bay toward its middle; the spits approach each other at almost a right angle, leaving between their extremities a narrow passage not exceeding 80 yards in width. These spits divide the area of the bay in two nearly equal parts. The southwestern part of Bukhta Bechevinskaya is accessible to vessels. The western shore is high and cliffy; the eastern shore is lower but is precipitous and fringed by a narrow shingle and gravel beach, which in places becomes submerged at high water. Several rivulets flow into the bay. In 1919 the area around the bay was uninhabited.

6-58 Depths—Dangers.—At the entrance to Bukhta Bechevinskaya and somewhat closer to its northwestern entrance point the depths are about 8 fathoms. However, it should be noted that the entrance to this bay is fronted particularly on its eastern side by an area with an uneven bottom that has numerous patches with least depths of 4½ and even 3¾ fathoms. Depths of 5 fathoms or greater extend for a distance of less than 1 mile inside the entrance.

The depth in the passage between the spits is 2½ fathoms, but a narrow channel with a least depth of ½ fathoms in the fairway leads to the passage.

The northeastern half of the bay has not been completely surveyed, but several lines of soundings show, northward of the spits, an almost immediate increase in depths that range between 23 and 28 fathoms in the greater part.

The southern side of Mys Lovushek terminates in two small projections; it is fringed with rocks and reefs that extend from it southward and southwestward for a distance of 600 yards and terminate among depths of 7 to 8 fathoms. This point should not be approached from southwestward. A short rocky ledge extends from the southeastern entrance point in a southwesterly direction, and terminates in a

submerged rock 240 yards offshore.

Lights.—A light is shown on Mys Vkhodnoy, from an unpainted wooden truncated pyramid. Another light is shown on Mys Lovushek from a similar structure.

Landmark.—The entrance points to Bukhta Bechevinskaya are not conspicuous from the offing, but grayish-yellow cliffs immediately northward of Mys Lovushek stand out conspicuously against the generally darker background, and as there is no other place in the vicinity with similar coloring, this is an excellent landmark.

Anchorages.—Vessels with local knowledge may anchor in the southwestern half of Bukhta Bechevinskaya in depths from 3 to 6 fathoms, sand. A good position is in 5½ fathoms, sand, with the two projections of Mys Lovushek in range, bearing 256°, and the southeastern entrance point bearing 175°.

6-59 Tides and tidal currents.—The mean high water interval in Bukhta Bechevinskaya is 3 hours 6 minutes. Springs rise 4½ feet; neaps, 4 feet. The tidal currents in the bay are almost imperceptible except in the passage between the spits, where, with the spring tides, the currents attain a velocity of 6 to 7 knots.

6-60 Ostrov Krasheninnikova—Dangers (plan on H. O. Chart 5810).—Ostrov Krasheninnikova, an island lying 6 miles westward of Mys Lovushek and less than 1 mile offshore, is precipitous and rises to a height of 679 feet. This island is surrounded by rocks, and a detached pillar-rock stands half a mile south-southwestward of its southern extremity. About 1 mile southward of the island there are even depths of 14 to 16 fathoms, but the area neighboring the island has not been surveyed.

The entire area normward of a line connecting the island with the entrance to Bukhta Bechevinskaya is obstructed by scattered sunken dangers, the outermost of which is an isolated submerged rock, only occasionally marked by breakers at low water, located 2½ miles east-northeastward of the southern extremity of the island.

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