

U. S. DEPARTMENT OF COMMERCE
COAST & GEODETIC SURVEY

The attached geographic positions, which are printed on yellow paper, or are reproduced by a photographic process, are unadjusted field values. The adjusted values for this area are not available.

In some cases there will be a delay of many months between the field computation and final adjustment. Some areas cannot be adjusted at the present time due to incomplete field observations.

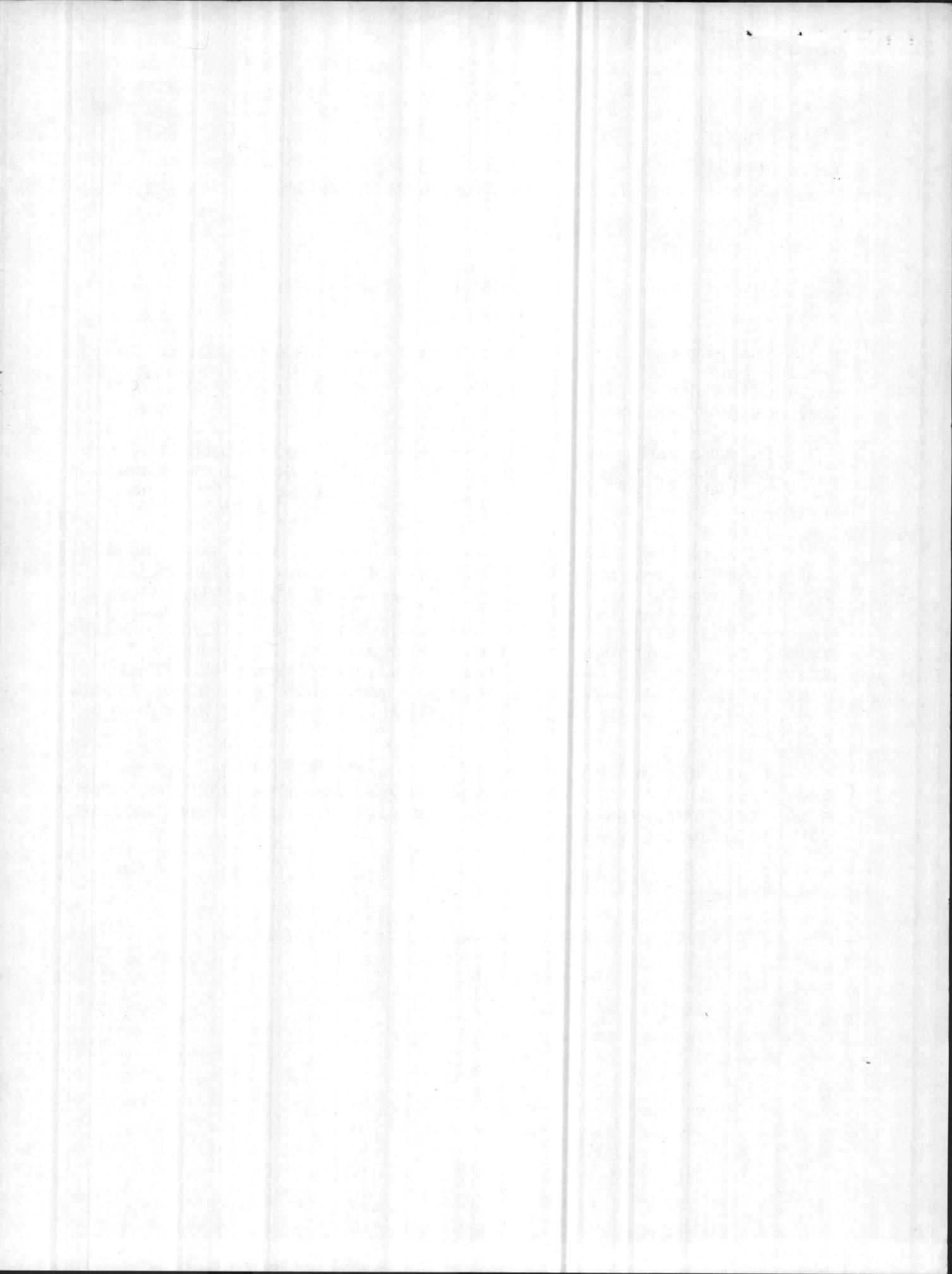
In all cases unadjusted values should be used with caution. Some stations may appear on this list which were adjusted in previous projects. In the field computation the positions are computed starting with fixed positions on one side of an area, or arc, and carried through the unadjusted observations to fixed values on the other side. Thus the position of an adjusted station may appear on this list which is different than that previously published. In some cases more than one value for a station will appear due to the method of computing through the scheme.

These unadjusted values will probably not change enough in the adjustment to affect the accuracy of map construction. For most other purposes it would be advisable to contact this Office for the adjusted values.

Plane coordinates are not furnished for unadjusted field computations.

For further information write to:

The Director
Coast and Geodetic Survey
U. S. Department of Commerce
Washington 25, D. C.



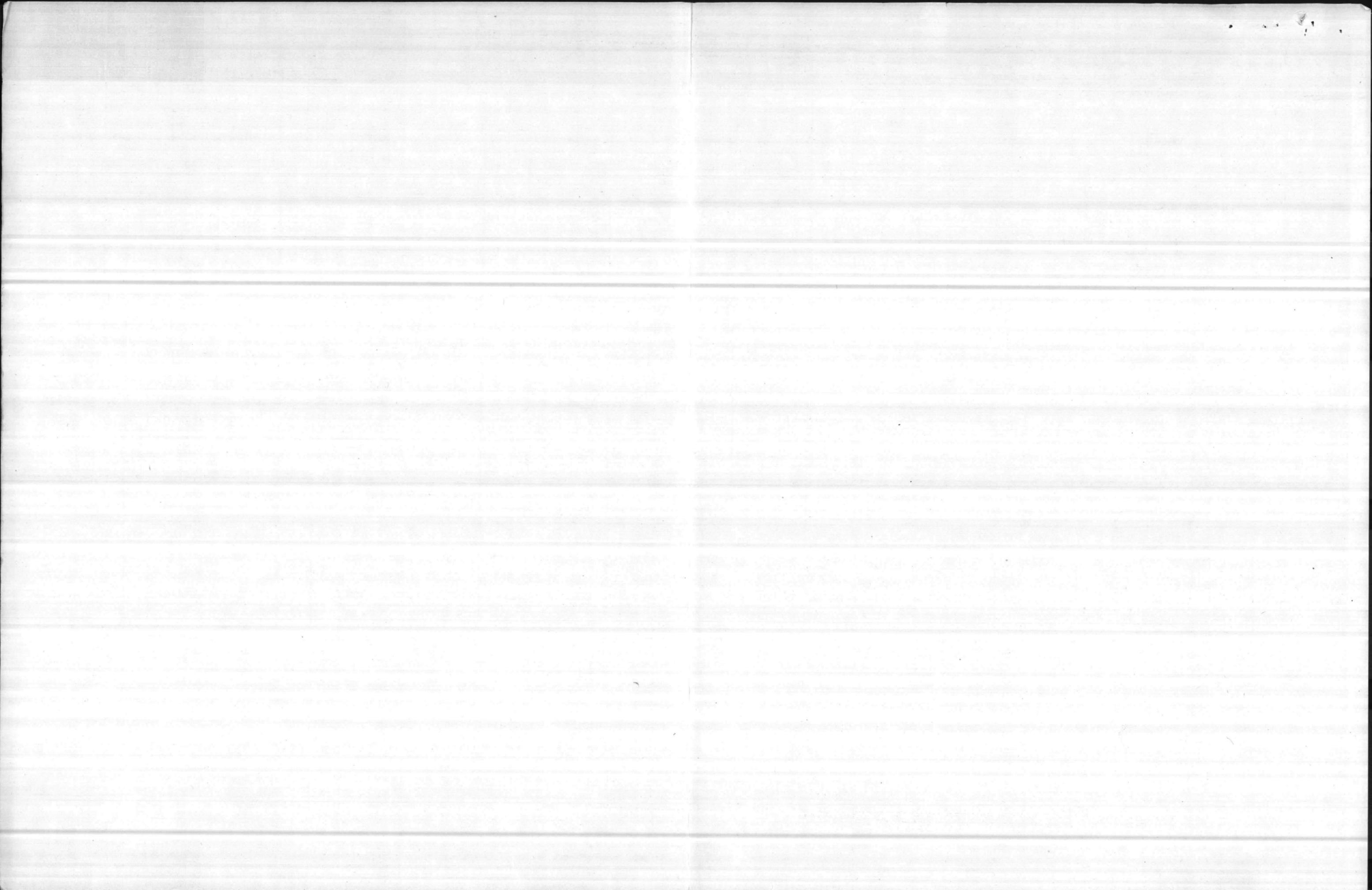
GEOGRAPHIC POSITIONS FIELD

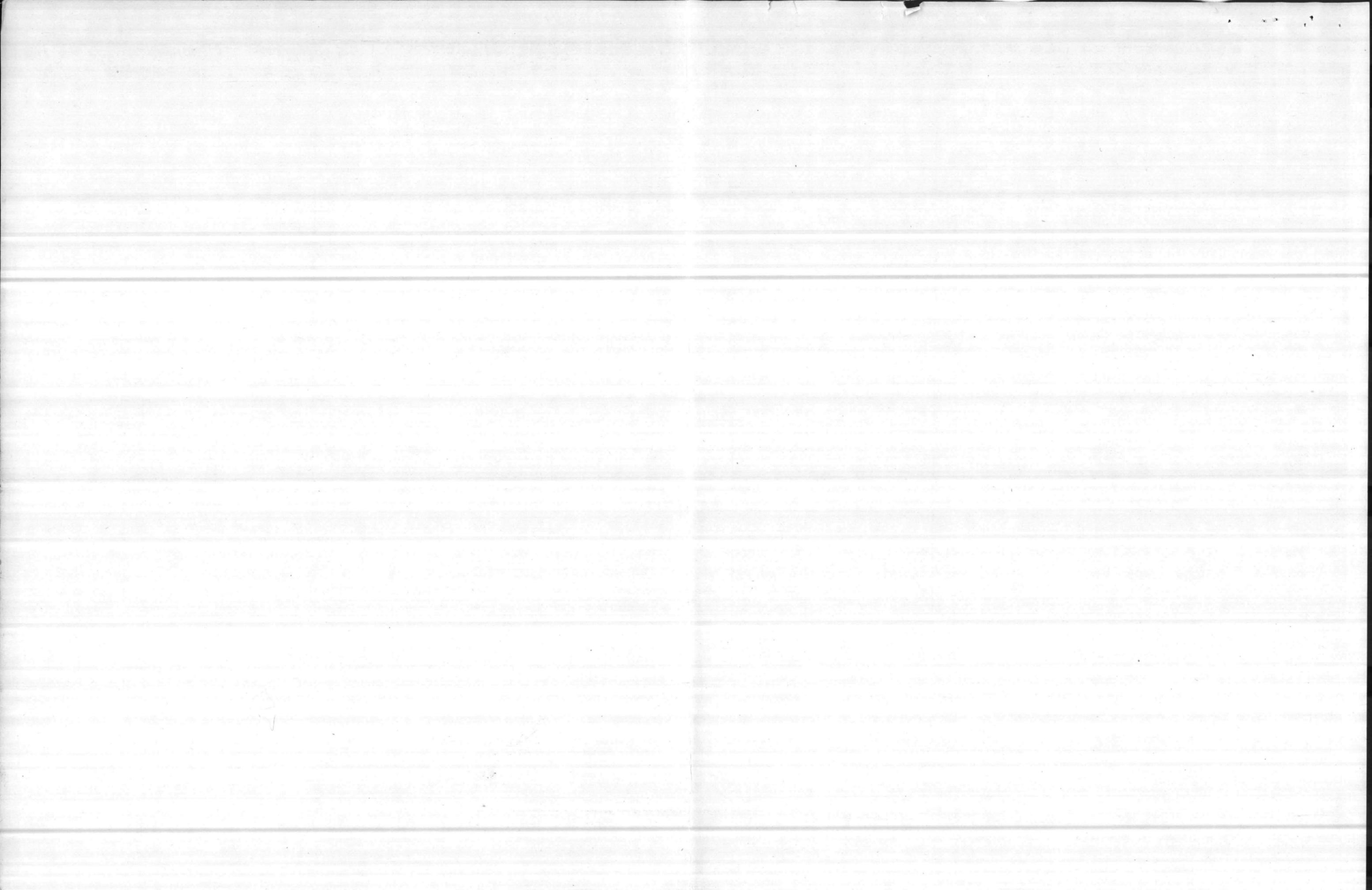
Accession No. of Computation: G-12998

Locality Outer Banks North American 1927 Datum 3 rd. - order Triangulation. State N. Carolina

STATION	LATITUDE AND LONGITUDE	SECONDS IN METERS	AZIMUTH	BACK AZIMUTH	TO STATION	DISTANCE		
						LOGARITHM (METERS)	METERS	FEET
Morehead City, Carolina Tel. & Tel. Relay Tower	34 43 14.74		309 43 24.4	129 44 37.4	NEW MACON 1886		4242.86	
	d. 76 42 53.42		47 16 22.5	227 15 37.3	CASH 2 1956		2750.56	
Swansboro, North Carolina Teachers Assn., Water Tank	34 40 23.08		26 25 35.5	206 24 38.6	BEAR 1914		5644.52	
	d. 77 08 29.23		341 43 50.3	161 44 13.5	BECKY 1962		3311.66	
Swansboro, Municipal Water Tank.	34 41 20.53		331 57 42.3	151 58 37.5	GUARD 1962		5259.40	
	77 07 23.87		33 23 05.9	213 22 35.1	QUEEN 1914		2507.33	
Harkers Island, Methodist Church Spire r. '62	34 41 43.07		337 16 15.3	157 17 30.7	RIM 1960		8742.37	
	d. 76 33 42.14		31 36 08.3	211 35 19.1	BALD 1962		4200.32	
Harkers Island Light	34 41 17.56		333 43 30.4	153 44 50.6	RIM 1960		8115.60	
	d. 76 33 50.58		35 26 13.1	215 25 28.7	BALD 1962		3425.88	
Onslow Beach, Military Observation Range Tower	34 34 48.07		38 04 21.9	218 04 21.8	THURST 1960		9.040	
The Harkers Island, Church of Jesus Christ of Latter Day Saints, Spire	34 41 41.45		338 45 11.9	158 46 21.5	RIM 1960		8597.96	
	d. 76 33 31.85		34 55 28.9	214 54 33.9	BALD 1962		4302.17	
Harkers Island, Pentecostal Holiness Church, Spire	34 41 47.48		334 31 50.3	154 33 17.5	RIM 1960		9081.78	
	d. 76 34 02.85		24 15 42.2	204 15 04.8	BALD 1962		4073.23	

¹ No check on this position. Abbreviations used: d.=described; m.=marked; n.=not; r.=recovered; l.=lost; p.=probably. (Examples: n. d.=not described; p. l.=probably lost.)





GEOGRAPHIC POSITIONS , Field

Accession No. of Computation: 9-12988
Traverse

Locality Outer Banks, North Carolina

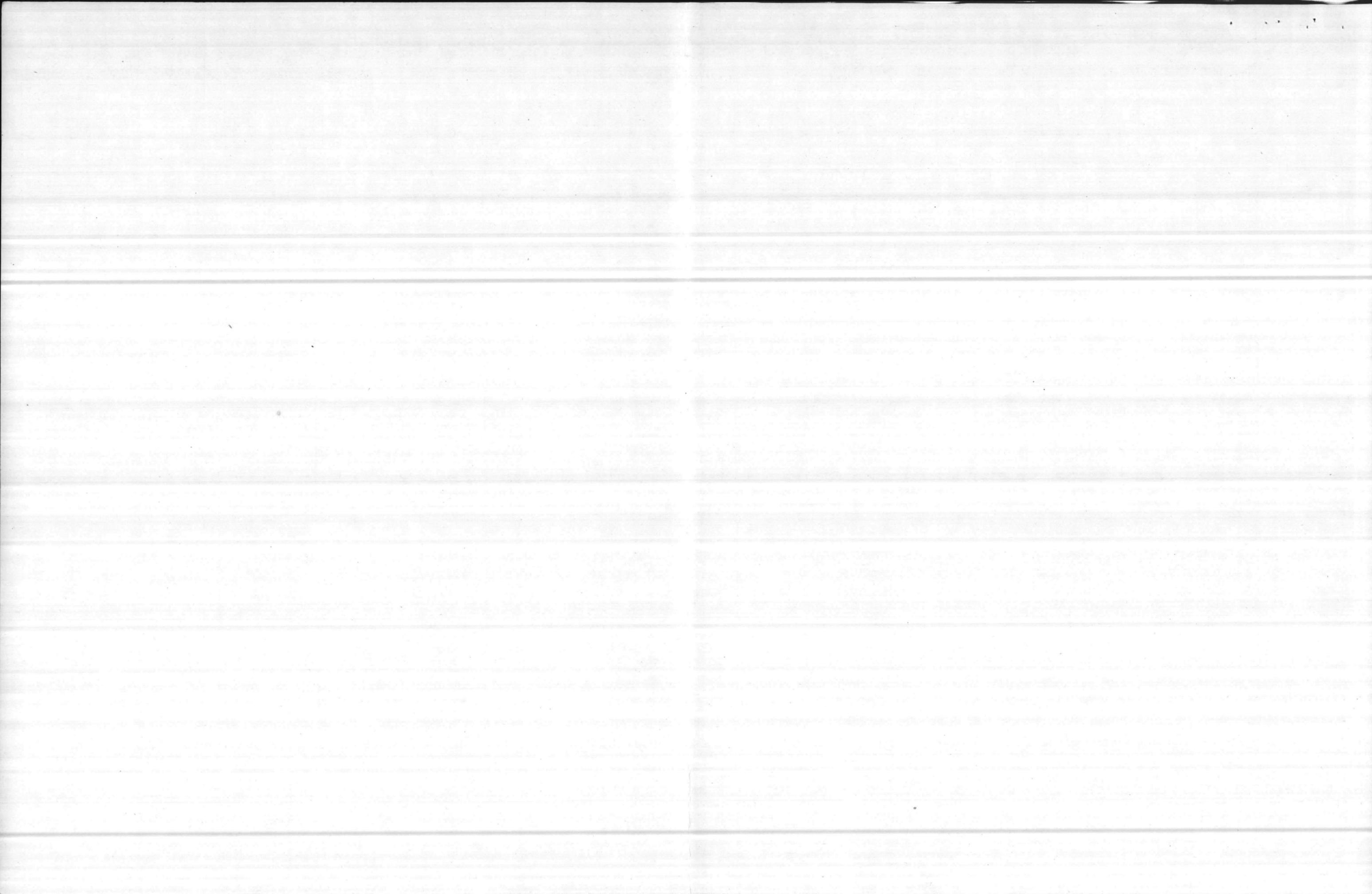
North American 1927 Datum 2nd

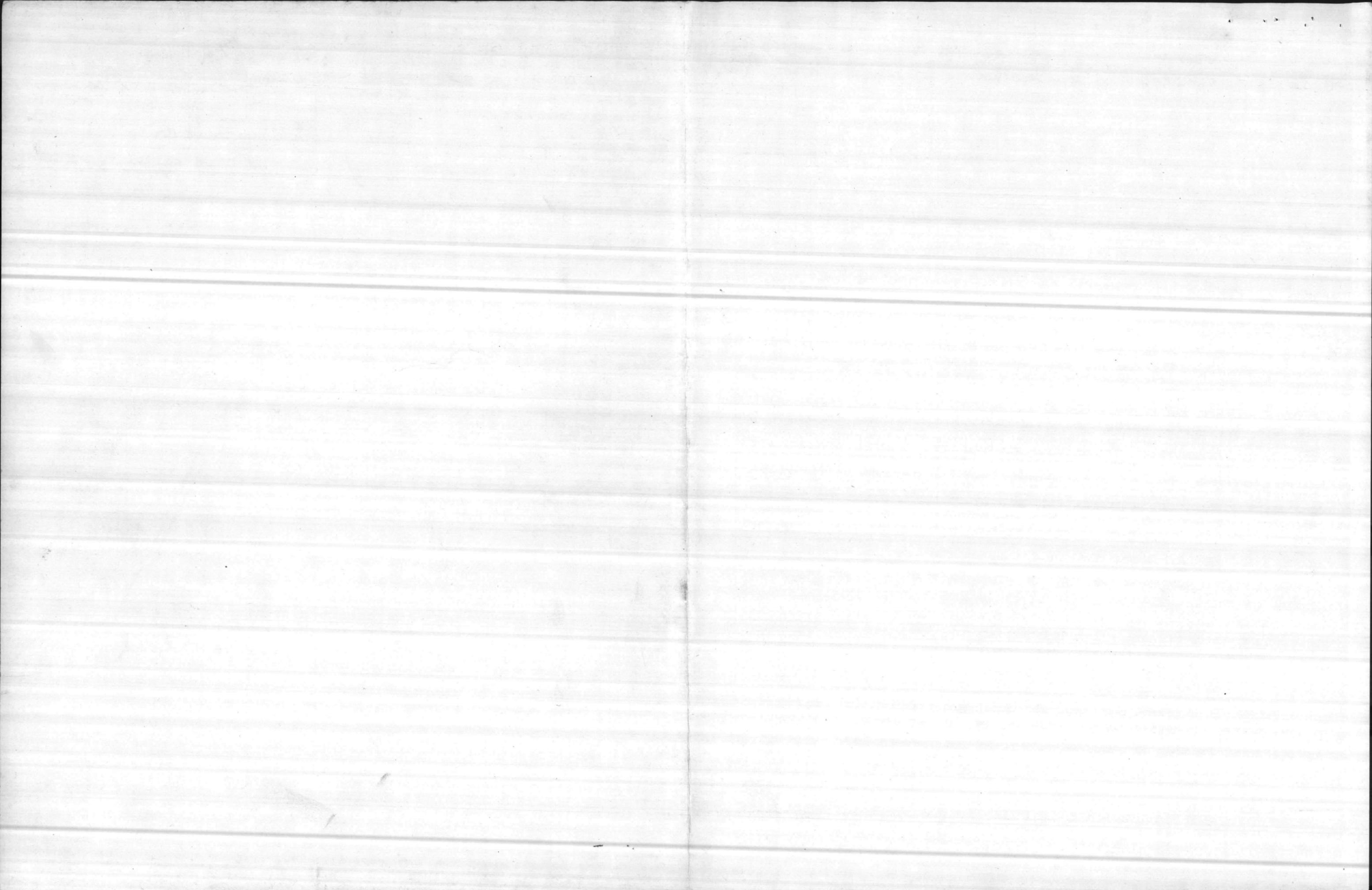
-order Triangulation. State North Carolina

STATION	LATITUDE AND LONGITUDE	SECONDS IN METERS	AZIMUTH	BACK AZIMUTH	TO STATION	DISTANCE		
						LOGARITHM (METERS)	METERS	FEET
✓ GUARD 1962 d.m.	34 38 49.87 ✓ 77 05 46.79 ✓		188 02 09.89 ✓	08 02 14.08 ✓	Bogue 1908 1933		1341.313 ✓	
			123 30 17.51 ✓	303 28 51.49 ✓	Queen 1914		4618.689 ✓	
			84 58 08.94 ✓	264 56 59.83 ✓	Becky 1962		3108.003 ✓	
			63 03 15.72 ✓	242 57 49.24 ✓	Thurst 1962		16432.712 ✓	
			151 58 37.5 ✓		Swansboro Municipal Water Tank			
✓ BOGUE 1908 1933 d.m.	34 39 32.97 ✓ 77 05 39.43 ✓		106 49 38.69 ✓	286 48 08.46 ✓	Queen 1914		4219.423 ✓	
			08 09 06.0 ✓		Bogue Inlet Coastguard Tower			
✓ BECKY r 1962 d.m.	34 38 41.01 ✓ 77 07 48.36 ✓		61 43 36.28 ✓	241 42 17.06 ✓	Bear 1914		4031.392 ✓	
			140 12 05.99 ✓	320 11 56.55 ✓	Bank 1914		660.811 ✓	
			264 37 35.6 ✓		Bogue Inlet Coastguard Tower			
✓ QUEEN 1914 d.m.	34 40 12.58 ✓ 77 08 18.06 ✓		344 59 35.80 ✓	164 59 52.69 ✓	Becky 1962		2921.502 ✓	
			74 44 10.27 ✓	254 42 13.75 ✓	Russell R. M. No. 4 1932 1962		5407.503 ✓	
			154 18 54.3 ✓		Azimuth Mark			
✓ BANK 1914 d.m.	34 38 57.48 ✓ 77 08 04.97 ✓		52 17 46.58 ✓	232 16 36.80 ✓	Bear 1914		3952.761 ✓	
			193 21 03.0 ✓		Swansboro Municipal Water Tank			
✓ BEAR 1914 d.m.	34 37 39.02 ✓ 77 10 07.74 ✓		232 16 36.80 ✓	52 17 46.58 ✓	Bank 1914		3952.761 ✓	
			94 07 05.08 ✓	274 05 35.72 ✓	Bear Creek 1962		4015.915 ✓	
			94 12 13.2 ✓		Military Observation Range Tower			
✓ BEAR CREEK 1962 d.m.	34 37 48.35 ✓ 77 12 44.99 ✓		35 39 36.88 ✓	215 38 07.97 ✓	Thurst 1962		6844.347 ✓	
			91 54 04.7 ✓		Azimuth Mark			
✓ RUSSELL R. M. NO. 4 1932 1962 d.m.	34 39 26.34 ✓ 77 11 42.93 ✓		254 42 13.75 ✓	74 44 10.27 ✓	Queen 1914		5407.503 ✓	
			257 11 05.6 ✓		Azimuth Mark			

* No check on this position.

Abbreviations used: d.=described; m.=marked; n.=not; r.=recovered; l.=lost; p.=probably. (Examples: n. d.=not described; p. l.=probably lost.)





Form 525b
(11-8-55)

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

Traverse
DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Onslow Beach, Military Observation Range Tower

CHIEF OF PARTY: S.C. Miller **YEAR:** 1962 **STATE:** North Carolina **COUNTY:** Onslow

Description, including sketch of object: Station is located on the Camp Le Jeune Marine Reservation, at Onslow Beach which was formerly known as Hurst Beach, on top of a sand dune, about 1 mile northeast of the U.S. Marine Officer's Beach Area.

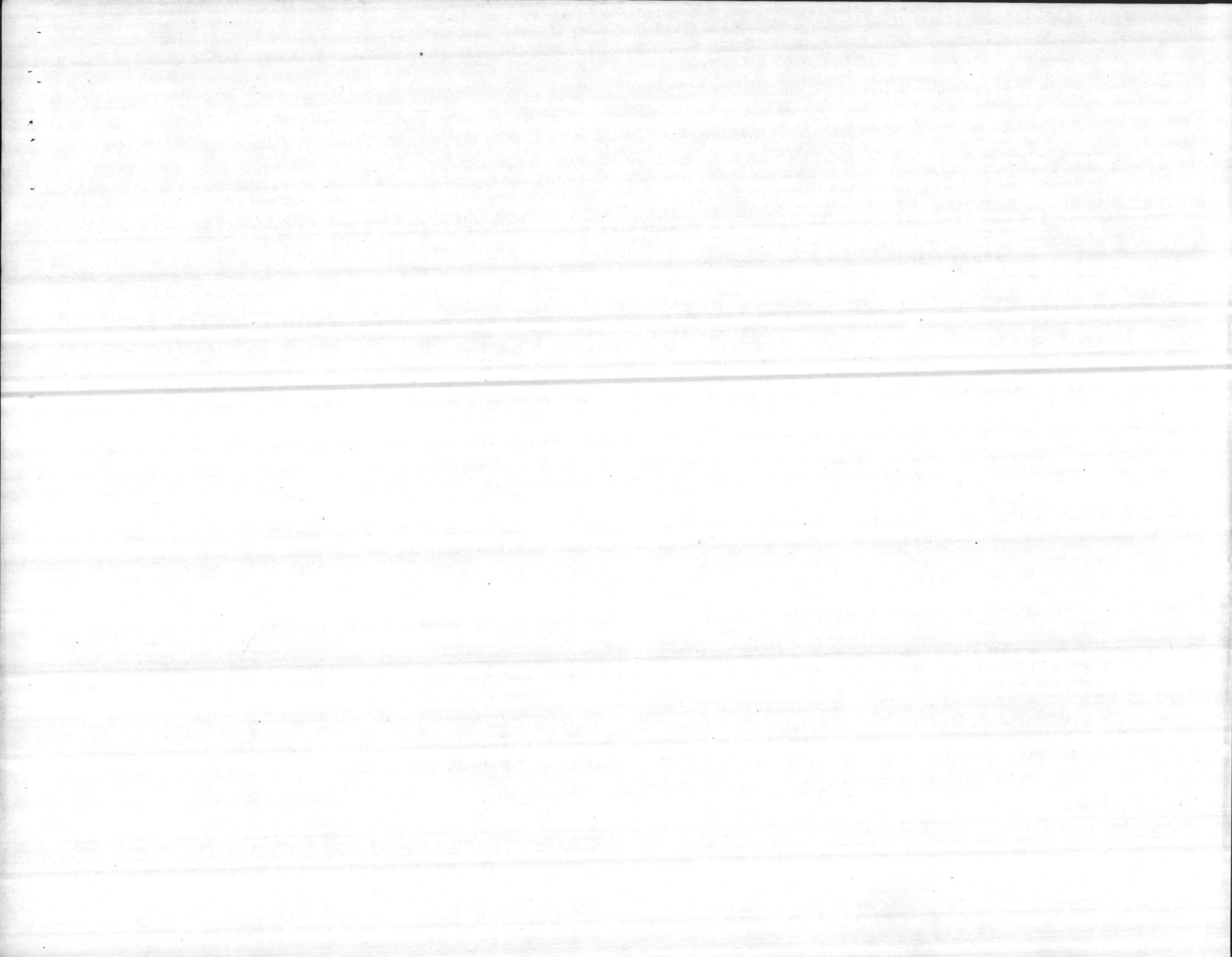
Station is constructed of wood. It has a wood observation platform which is supported by 4-large round wood legs.

The tower is about 45 feet in height and the platform is white in color.

A traverse connection was made from triangulation station THURST to the center of the base of the tower, distance being 9.040 meters or 29.66 feet.

The center of the tower is northeast of station THURST station mark.

N.E. Matlock
Described by N.E. Matlock



Form 525b
(11-8-55)

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

DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: SWANSBORO, MUNICIPAL WATER TANK

CHIEF OF PARTY: S.C. Miller YEAR: 1962 STATE: N. Carolina COUNTY: Onslow

Description, including sketch of object:

Station is located in the northwest part of Swansboro, about 0.1 mile south-southeast of State Highway 24.

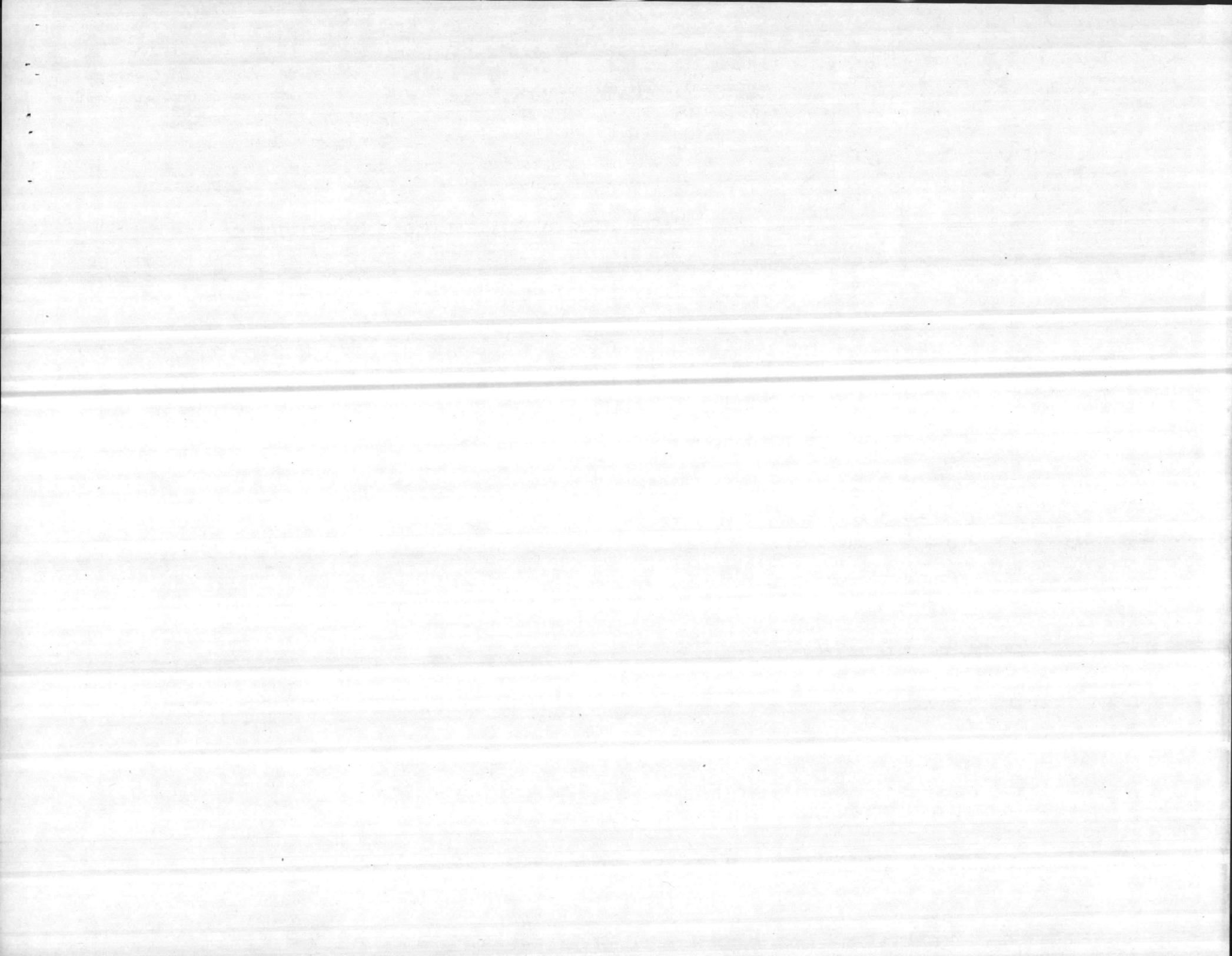
Intersection point is the ball at top of the tank.

The double ellipsoidal tank is supported by four tubular columns with a riser in the center. It is about 80 ft. high and painted silver.

Described by G. F.

AEYM

COMM-DC 34313



Form 525b
(11-8-55)

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

DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Swansboro, North Carolina Teachers Association, Water Tank
CHIEF OF PARTY: S.C. Miller YEAR: 1962 STATE: N. Carolina COUNTY: Onslow

Description, including sketch of object:

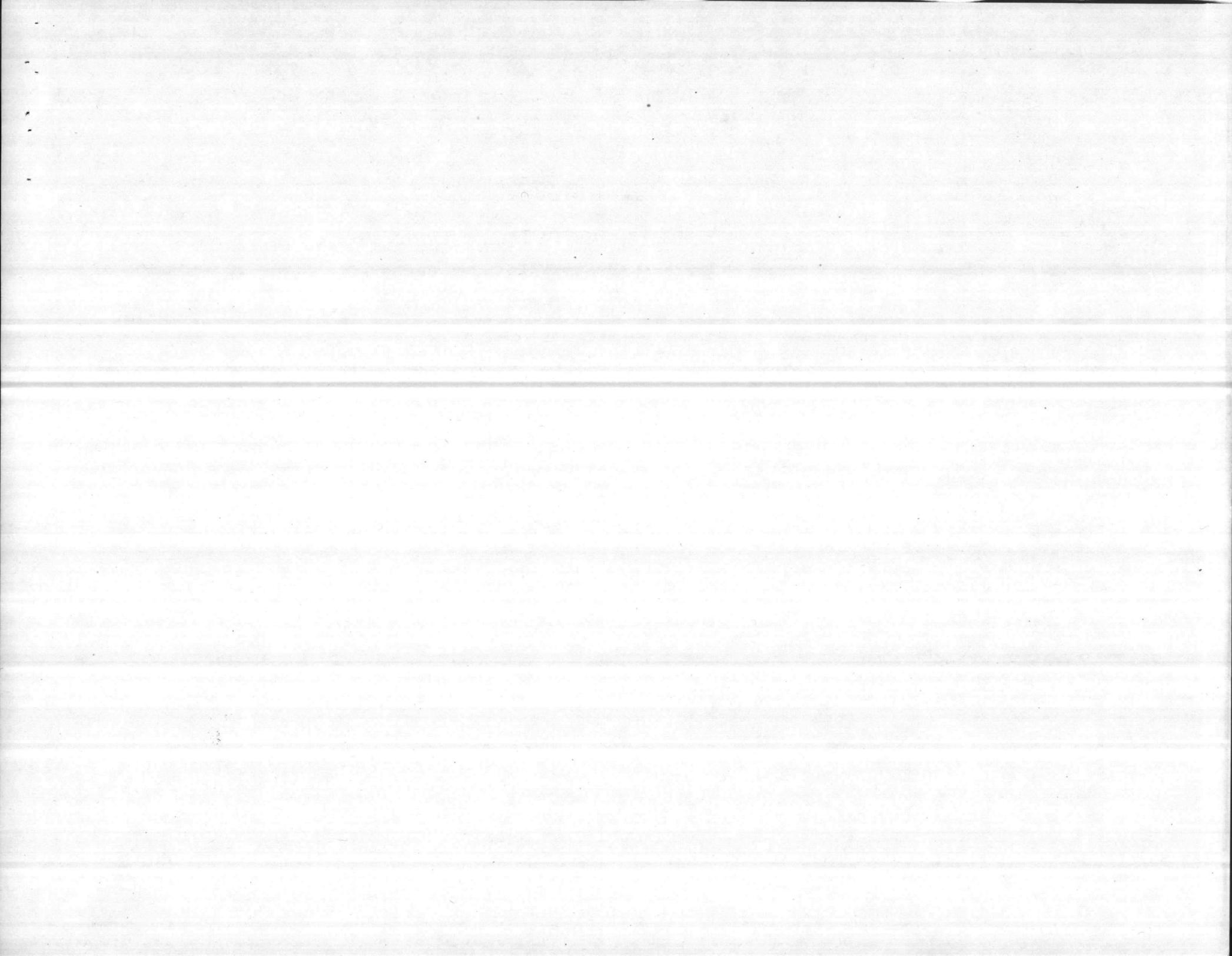
Station is located at west edge of school grounds, about 2 miles west of Swansboro and about 0.2 mile north of the Intracoastal Waterway.

Intersection point is the ball at the top.

The small steel tank has a conical roof and is supported by four steel-channel legs. It is about 110 feet high and is black in color.

Described by G.F.

LNE M
Comm-DC 34313



RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: PINE
 ESTABLISHED BY: R.P.S. YEAR: 1914 STATE: North Carolina
 RECOVERED BY: S.C. Miller YEAR: 1962 COUNTY: Onslow

HEIGHT OF TELESCOPE ABOVE STATION MARK 1.69 METERS, HEIGHT OF ^{stand} ~~TELESCOPE~~ ABOVE STATION MARK 1.40 METERS.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
THURST				000 00 00.0
Reference Mark No. 2	SE	68.69	20.938	82 58 52
Onslow Beach, Water Tank	SW	(about 1 1/4 mile)		128 49 41.6
Reference Mark No. 1	SW	82.41	25.120	146 57 15

Station and reference mark No. 1 were recovered and found in good condition. Reference mark No. 2 was established and is as described. It is marked by a standard disk clamped to the top of a 5/8 inch copper weld rod that is driven 32 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The disk is stamped PINE NO 2 1914 that projects 6 inches above the surface of the ground.

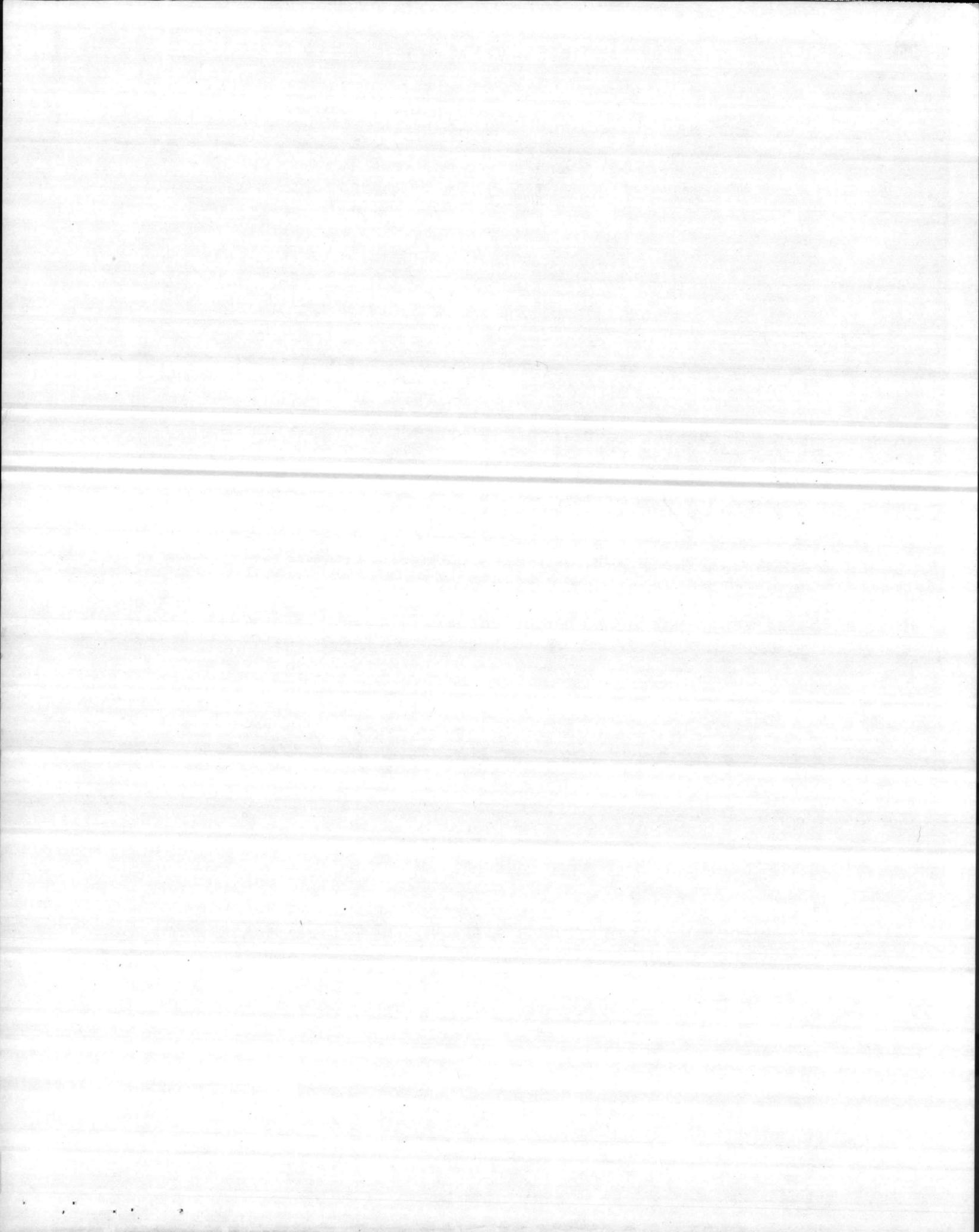
A new to reach follows: To reach the station from the junction of State Highway No. 24 and State Highway No. 172; east of Hubert. Go south-erly on State Highway No 172 for 4.4 miles to the entrance gate to Camp Le Jeune Marine Base, continue southerly on State Highway No. 172 for 5.5 miles to a road fork. Take left fork and go southeasterly on surfaced road for 0.5 mile to a sideroad left and sign "Onslow Beach". Turn left and go east and southeast on surfaced road for 1.1 mile to a fork, keep left fork and go east for 0.3 mile to station on the left.

H.C. Hawes

*Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE - One of these forms must be used for every station recovered.

USCOMM-DC 27173-P59



DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: TRAPS

STATE: North Carolina COUNTY: Onslow

CHIEF OF PARTY: S.C. Miller

YEAR: 1962

DESCRIBED BY: H.C. Howes

NOTE: * HEIGHT OF TELESCOPE ABOVE STATION MARK 1.2 METERS, † HEIGHT OF LIGHT ABOVE STATION MARK 0.9 METERS.

Desc.	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION				
		OBJECT	BEARING	DISTANCE		DIRECTION‡
				FEET	METERS	
		THURST				00 00 00.0
		Onslow Beach, Water Tank	NE	(about 4 miles)		00 27 40.5
Desc.		Reference Mark No. 2	E	35.19	10.726	23 37 38.6
Desc.		Reference Mark No. 1	NW	46.84	14.278	266 31 54

Detailed description:

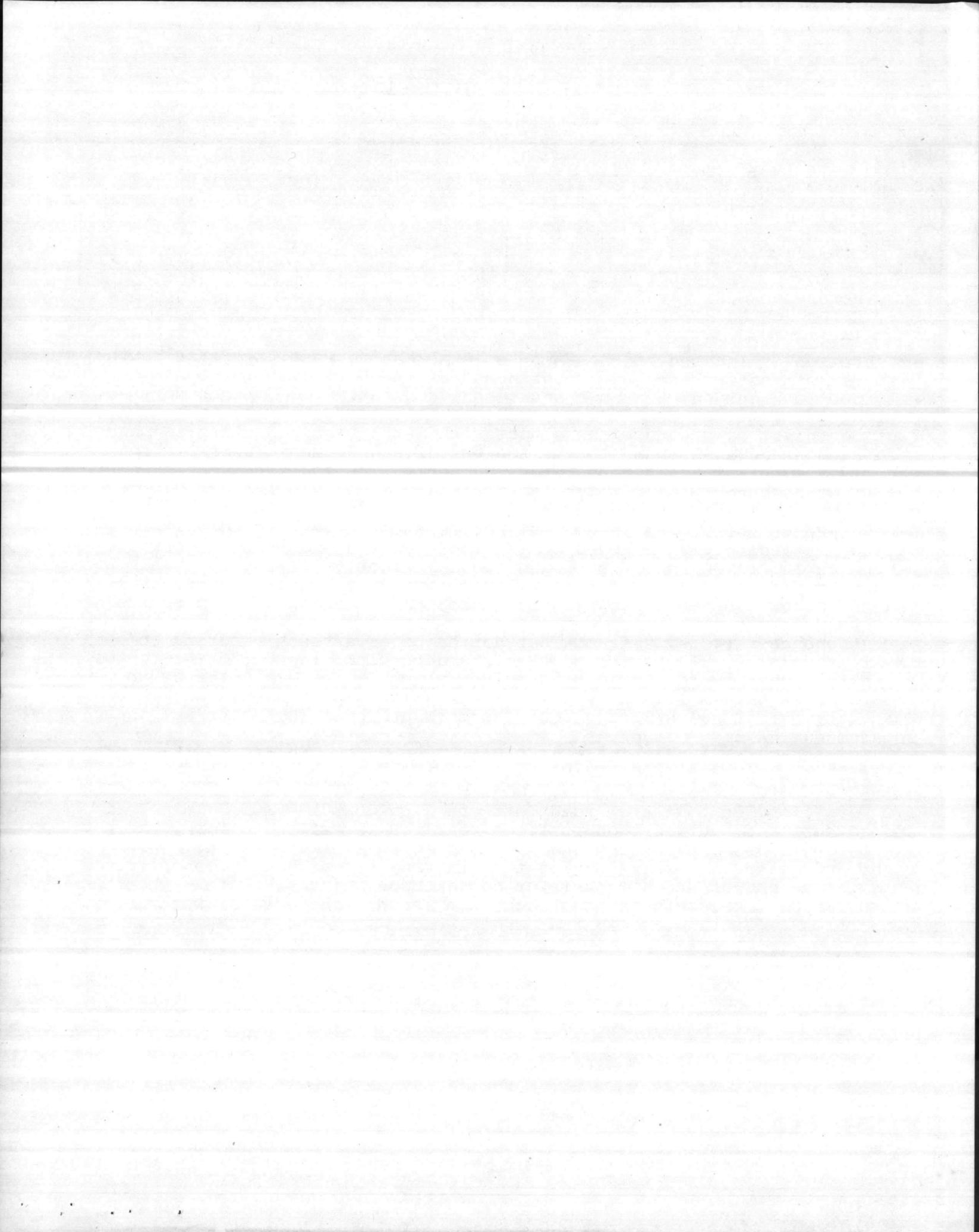
Station is located at the Camp Le Jeune Marine Base, near the southwest end of Onslow Beach, just northeast of the New River Inlet at the entrance to Traps Bay and on a small sand dune about 1000 yards northeast of the water edge. It is 32 feet northeast of a beach road and 3.5 feet northeast of a wood witness post with metal sign. Station is marked by a standard disk clamped to the top end of a 5/8 inch copperweld rod that is driven into the ground about 32 feet. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The mark projects 24 inches and the disk is stamped TRAPS 1962.

Reference Mark No. 1 is 50 feet northeast of a beach road. It is marked a standard disk clamped to the top end of a 5/8 inch copperweld rod which is driven into the ground about 24 feet. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The mark projects 18 inches and the disk is stamped TRAPS NO 1 1962.

Reference Mark No. 2 is 66 feet northeast of a beach road and on a small sand knoll. It is marked by a standard disk clamped to the top of a 5/8 inch copperweld rod that is driven about 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The mark projects 10 inches and the disk is stamped TRAPS NO 2 1962.

To reach from the junction of State Highways No. 24 and 172 east of Hubert, go southerly on State Highway No. 172 for 4.4 miles to the entrance gate to Camp Le Jeune. Continue southerly on State Highway No. 172 for 5.5 miles to a side road left and sign ONSLOW BEACH. Turn left and go east and southeast on surfaced road for 1.1 miles to fork. Keep right fork, pass over bridge and go 0.6 mile to T intersection. Turn right and go south for 1.35 miles to a landing net parking area on right. This is the end of truck travel for conventional trucks. With 4 wheel drive vehicle, go southeast to beach. Go south along edge of water for 3.35 miles to Station on right as described.

*Refers to notes in manuals of triangulation and state publications of triangulation. ‡Direction-angle measured clockwise, referred to initial station.
†To nearest meter only, when no trigonometric leveling is being done.



DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: THURST

STATE: North Carolina COUNTY: Onslow

CHIEF OF PARTY: S.C. Miller

YEAR: 1962

DESCRIBED BY: N.E. Matlock

NOTE.*	HEIGHT OF TELESCOPE ABOVE STATION MARK 23 METERS, †		HEIGHT OF LIGHT ABOVE STATION MARK 26 METERS.			
	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION				
		OBJECT	BEARING	DISTANCE		DIRECTION
FEET	METERS					
Desc.	PINE 1914				0 00' 00.0"	
Desc.	Reference Mark # 2	W	78.09'	23.800'	27 53' 08"	
Desc.	Military Observation Range Tower (Center)	NE	29.66'	9.040'	150 28' 59.8"	
Desc.	Reference Mark # 1	NE	63.57'	19.376'	166 34' 12."	
	Onslow Beach, Water Tank (V.G.)	SW	about 1 1/2 miles		344 37' 19.2"	

Detailed description:

Station is located on the Camp Le Jeune Marine Reservation, at Onslow Beach which was formerly known as Hurst Beach, on top of a sand dune and is 29.66 feet southwest of the center of a Military Observation Tower.

Station is reached from the post office in the small village of Hubert. Go east on State Highway 24 for 0.05 mile. Turn right and go south on State Highway 172 for 4.4 miles to a Camp Le Jeune Marine Sentry Post (Triangle Outpost). Continue south on Highway 172 for 5.8 miles to a Y-fork. Keep left and continue on Highway 172 for 0.35 mile to a road left and sign, "Onslow Beach" on the right. Turn left and continue on a macadam road for 1.0 mile to a Fork; Keep right and continue on macadam road, crossing a bridge for 0.7 mile to a T-road at Onslow Beach Area. Turn left and continue on road for 0.6 mile to the end of the road. From this point, a 4-wheel drive vehicle will be needed to drive to the station. Turn right and continue through a cut in the sand to the beach. Turn left and continue along the beach for 0.5 mile to the range tower and station on the left.

All marks are standard disks, clamped to the top of 1-inch copper rod which is driven into the ground about 24 feet. The rod is incased within a 2-inch galvanized pipe.

Station mark is stamped THURST 1962 and projects about 10 inches. It is 1.3 feet south-southeast of a round, wood witness post which has a metal witness sign attached.

Reference mark number 1 is stamped THURST NO 1 1962 and projects about 6 inches. It is 63.2 feet east-northeast of the witness post and 36.1 feet east of the center of a range tower (Observation).

Reference mark number 2 is stamped THURST NO 2 1962 and projects about 5 inches. It is 77.1 feet west of the witness post.

Military Observation Range Tower is a square wood observation platform supported by 4-large wood pole legs. It is about 45 feet in height, has a metal ladder on the southwest side which leads from the ground to the platform. The platform is white in color.

No azimuth mark, but the Onslow Beach, Water Tank is visible from the station mark.

*Refers to notes in manuals of triangulation and state publications of triangulation. †Direction angle measured clockwise, referred to initial station.
†To nearest meter only, when no trigonometric leveling is being done.

ORA



DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: RUSSELL RM 4

STATE: North Carolina COUNTY: Onslow

CHIEF OF PARTY: S.C. Miller

YEAR: 1962

DESCRIBED BY: H.C. Howes

NOTE.*	HEIGHT OF TELESCOPE ABOVE STATION MARK 27.51 METERS, †		HEIGHT OF LIGHT ABOVE STATION MARK 29.98 METERS.		
	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION			
	OBJECT	BEARING	DISTANCE		DIRECTION †
			FEET	METERS	
11a	QUEEN 1914 1932				000 00 00.0
16a	Azimuth Mark	E	0.25 mile		02 28 51.9
1a	RUSSELL 1932 1962 Trav. Dist.	N	143.67	43.791	278 07 12.7
11a	Reference Mark No. 3	NW			251 35 44

Station is located about 4 miles southeast of the village of Hubert and about 2½ miles east of the north gate of Camp Le Jeune Marine Base. It is 47 feet north of the center of County Route No. 1503, 38 feet west of center of County Route No. 1501 and 21½ feet east of a 12 inch oak tree. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that is flush with the surface of the ground. The disk is stamped RUSSELL 1932 1962 NO 4.

This station was established to supplement station RUSSELL 1932 which could not be occupied.

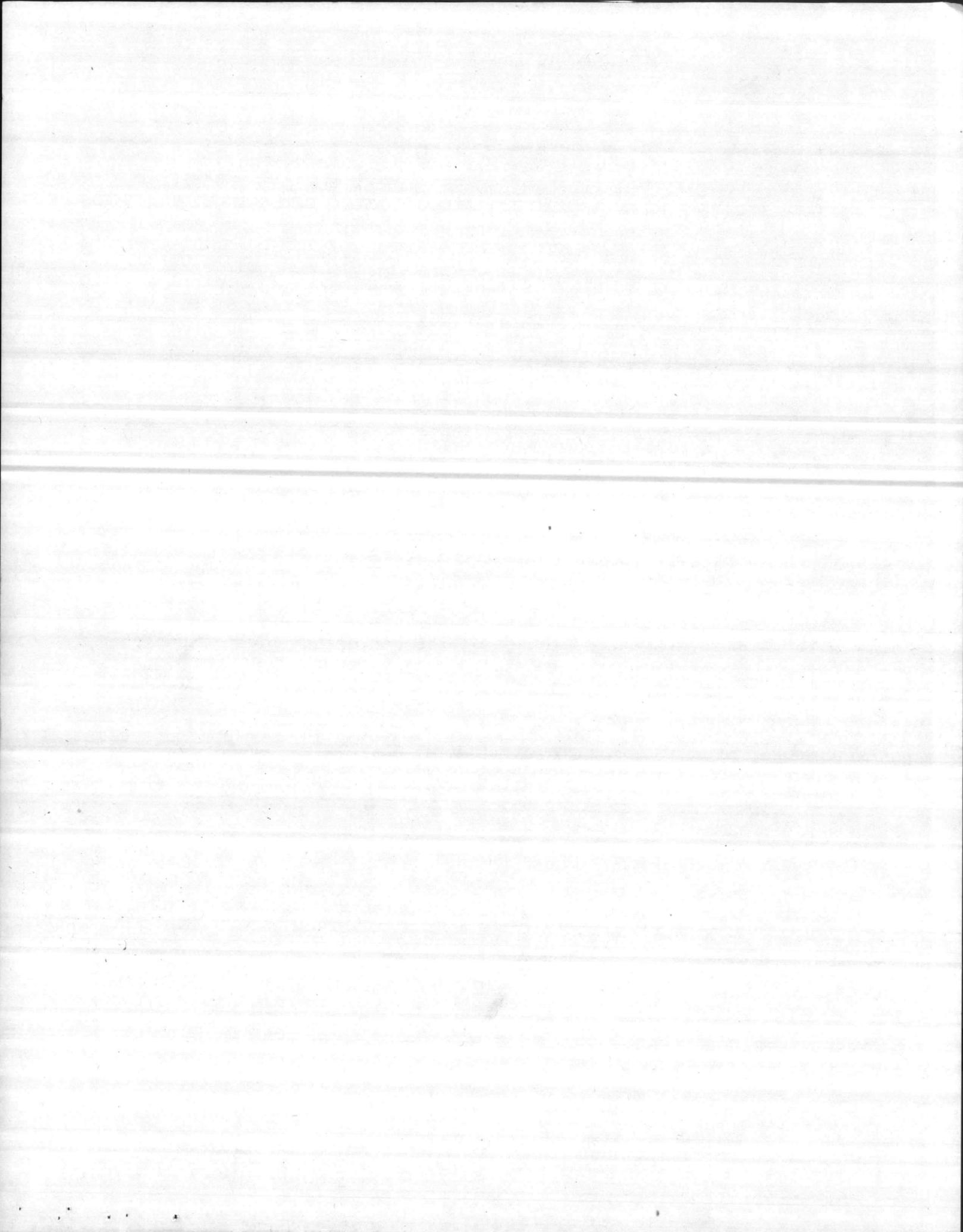
To reach the station from the junction of State Highway No. 24 and State Highway No. 172 east of Hubert, go southerly on State Highway No. 172 for 4.4 miles to a sideroad left, (this is just before the entrance gate to Camp Le Jeune Marine Base). Turn left on County Route No. 1503 and go easterly for 2.35 miles to the station on the left as described. Continue easterly for 0.2 mile to azimuth mark on the right.

Azimuth Mark is 36 feet southwest of the centerline of surfaced road, 4 feet west of powerline pole No. P29 and 2.3 feet west of witness post with sign. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that is flush with the surface of the ground. The disk is stamped RUSSELL 1962.

Reference Mark No. 3 could not be measured at this time due to trees and graveyard. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 3 inches above the surface of the ground and the disk is stamped RUSSELL NO 3 1932.

---H.C. Howes---

*Refers to notes in manuals of triangulation and state publications of triangulation. †Direction-angle measured clockwise, referred to initial station.
† To nearest meter only, when no trigonometric leveling is being done.



Fw

DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: BEAR CREEK

STATE: North Carolina COUNTY: Onslow

CHIEF OF PARTY: S.C. Miller

YEAR: 1962

DESCRIBED BY: H.C. Howes

NOTE.*	HEIGHT OF TELESCOPE ABOVE STATION MARK 23.44 METERS, †		HEIGHT OF LIGHT ABOVE STATION MARK 25.93 METERS.		
	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION			
	OBJECT	BEARING	DISTANCE		DIRECTION †
			FEET	METERS	
1a					000 00 00.0"
7a					56 14 27.8'
16a	Azimuth Mark	W	0.15 mile		136 11 10'
11a	RM No. 2	N	105.56'	32.175	224 26 30'
11a	RM No. 1	E	92.92'	28.322	

Station is located near the G 7 Range Control Tower of Camp Le Jeune Marine Base, about 6 1/4 miles southwest of Swansboro, about 6 miles south of Hubert and about 1/2 mile east of State Highway No. 172. It is 88 feet west of the northwest leg of control tower, 68 feet southeast of telephone pole and 41 feet south of junction of sand roads. Station is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 2 inches above the surface of the ground and the disk is stamped BEAR CREEK 1962.

To reach the station from the junction of State Highway No. 24 and State Highway No. 172 (east of Hubert). Go southerly on State Highway No. 172 for 4.4 mile to entrance gate to Camp Le Jeune, continue southerly on State Highway No. 172 for 1.65 mile to a sideroad left; and sign Range G 7. Turn left on dirt road and go easterly for 0.2 mile to a cleared area, turn left and go northeast for 0.2 mile to a telephone line and track road. Turn right on track road and follow telephone line east and north for 0.6 mile to the azimuth mark on the left. Continue north on track road for 0.15 mile to a road junction and station on the right as described.

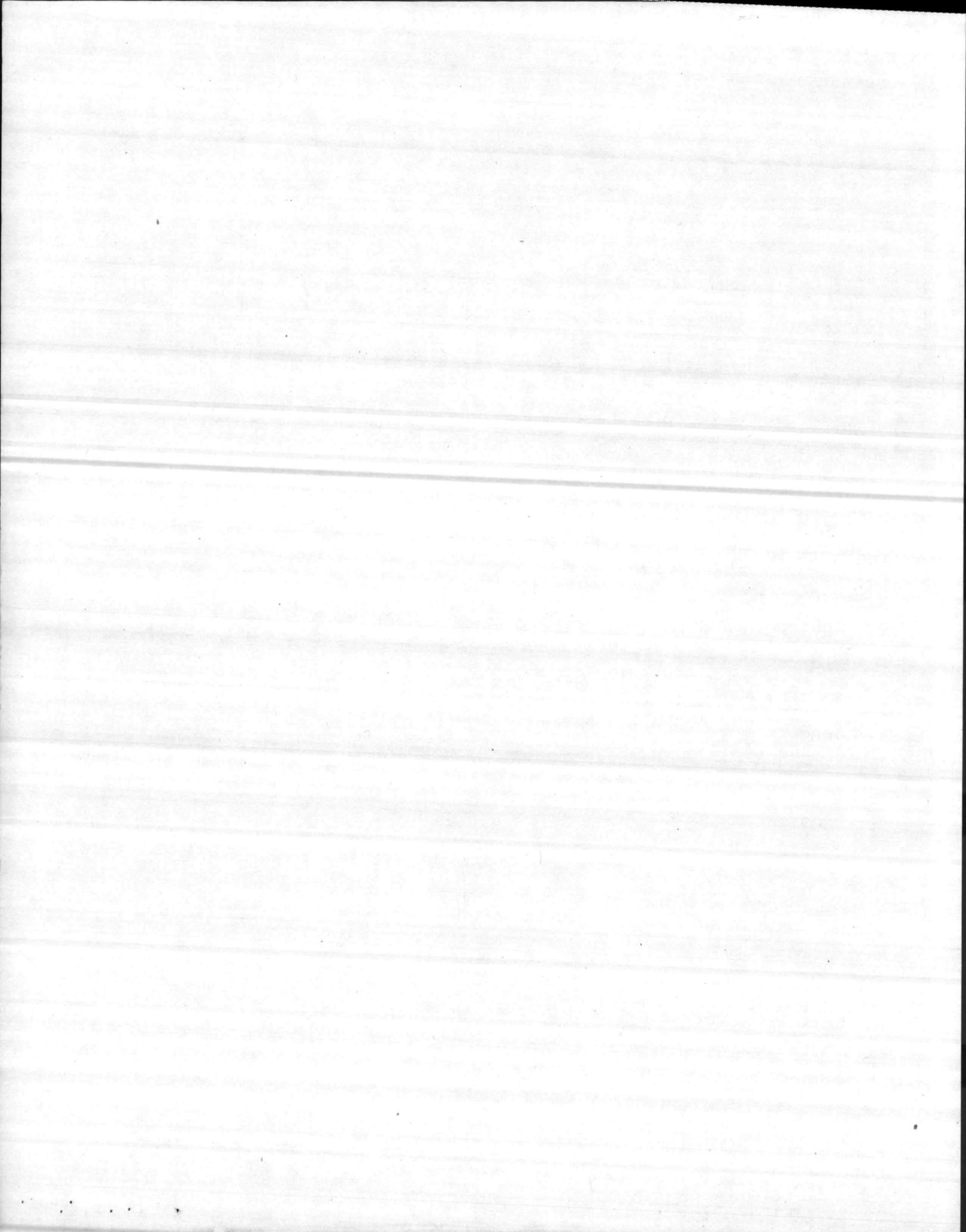
Reference Mark No. 1 is under control tower. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 3 inches above the surface of the ground and the disk is stamped BEAR CREEK NO 1 1962.

Reference Mark No. 2 is 65 feet north of junction of roads and 18 feet northeast of the approximate centerline of road. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 3 inches above the surface of the ground and the disk is stamped BEAR CREEK NO 2 1962.

Azimuth Mark is 78 feet west of telephone pole and 10 feet northwest of the approximate centerline of road. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 2 inches above the surface of the ground and the disk is stamped BEAR CREEK 1962.

*Refers to notes in manuals of triangulation and state publications of triangulation. †Direction-angle measured clockwise, referred to initial station.
†To nearest meter only, when no trigonometric leveling is being done.

R10V



Form 526
(11-8-55)

U.S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY
RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: BEAR

ESTABLISHED BY:

YEAR: 1914 STATE: North Carolina

RECOVERED BY: S.C. Miller

YEAR: 1962 COUNTY: Onslow

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts:
Station was recovered and found to be in good condition. The reference marks could not be found.

Reference marks 3 and 4 were set and established for the station.

Both reference marks are standard reference mark disks, clamped to the top of copper rod that is driven into the soil for about 24 feet and encased with 2-inch galvanized pipe.

Reference mark disk number 3 is stamped BEAR NO 3 1914 and projects 6 inches. It is 33.7 feet east of a round, wood witness post which has a metal witness sign attached.

Reference mark disk number 4 is stamped BEAR NO 4 1914 and projects 4 inches. It is 31 feet west of the witness post.

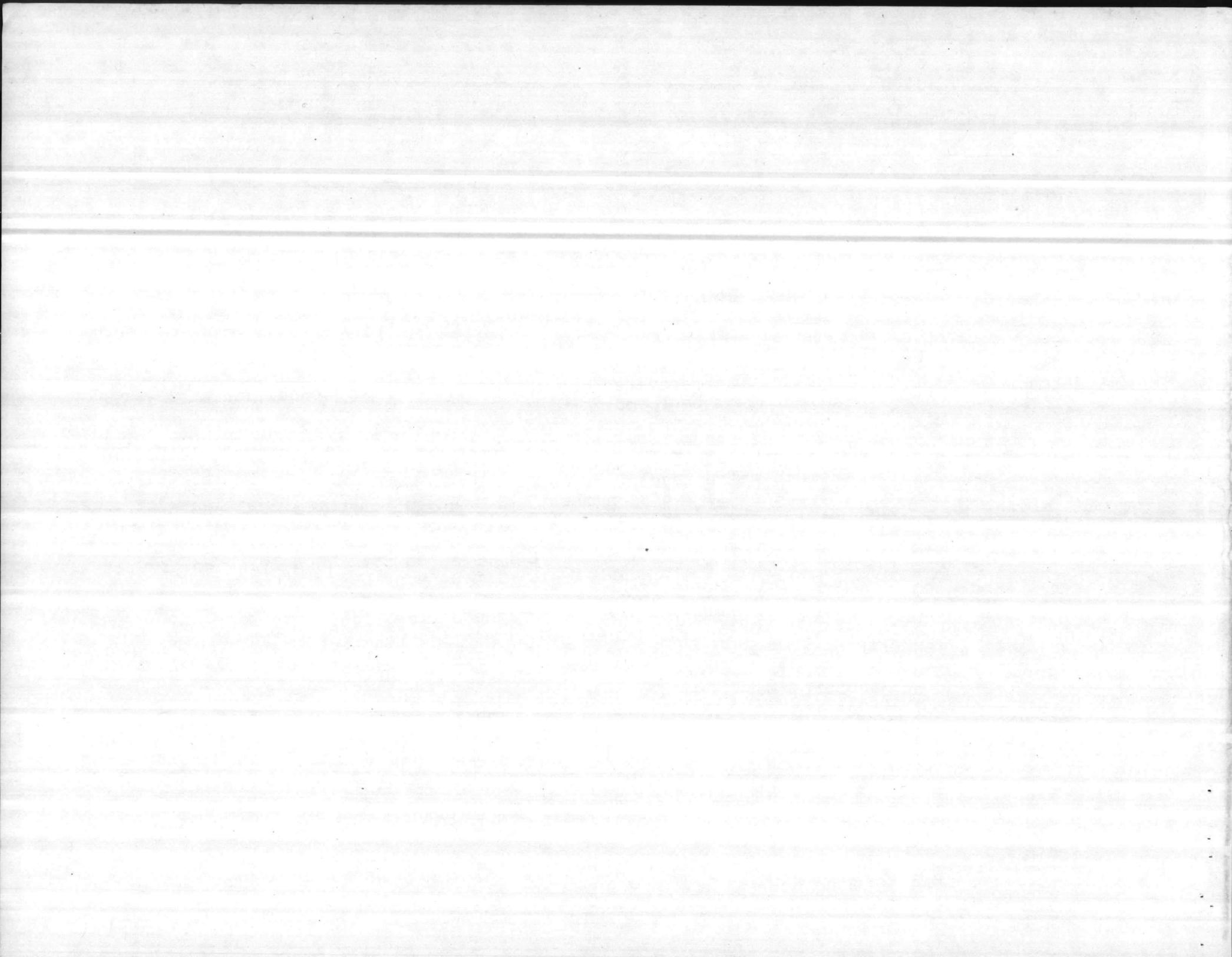
Station mark is 1 foot north-northwest of the witness post and about 45 feet south-southeast of the water line at low tide.

Object	Note	Bearing	1962 Distance		1962 Direction		
			Feet	Meters	0	00	00.0
BEAR CREEK							
RM # 3	Desc.	E	34.45	10.502	163	57	20
Swansboro, Mun-							
icipal, Water Tank		NE	About 5 miles		117	18	24.5
RM # 4	Desc.	W	30.33	9.243	353	30	46

* Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE.—One of these forms must be used for every station recovered.

W. E. Matlock *H. W.*
Comm-DC 34314 *plus*



RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: BANK

ESTABLISHED BY: R.P.S.

RECOVERED BY: S.C. Miller

YEAR: 1914

YEAR: 1962

STATE: North Carolina

COUNTY: Onslow

HEIGHT OF TELESCOPE ABOVE STATION MARK

METERS,

HEIGHT OF LIGHT ABOVE STATION MARK

METERS.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN
FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
BEAR 1914				000 00 00.0
North Carolina Teachers Association Water Tank	N	(about 2	miles)	114 34 42.2
Swansboro, Municipal Water Tank	NE	(about 2	miles)	141 03 16.4
Reference Mark No. 2	NE	65.55	19.980	168 59 07
Reference Mark No. 1	E	61.47	18.738	190 02 00

Station and reference mark No. 1 were recovered. A check was made for distance and direction to reference mark No. 1 and a difference was found. 1962 observations are shown above.

Reference mark No. 2 was established, and is as described. It is marked by a standard disk clamped to the top of a 5/8 inch copper weld rod that is driven 24 feet into the ground. The rod is within a 2 inch by 5 foot galvanized pipe. The disk is stamped 1962 BANK NO 2. The mark projects 10 inches above the surface of the ground.

Station was reached by boat from Swansboro.

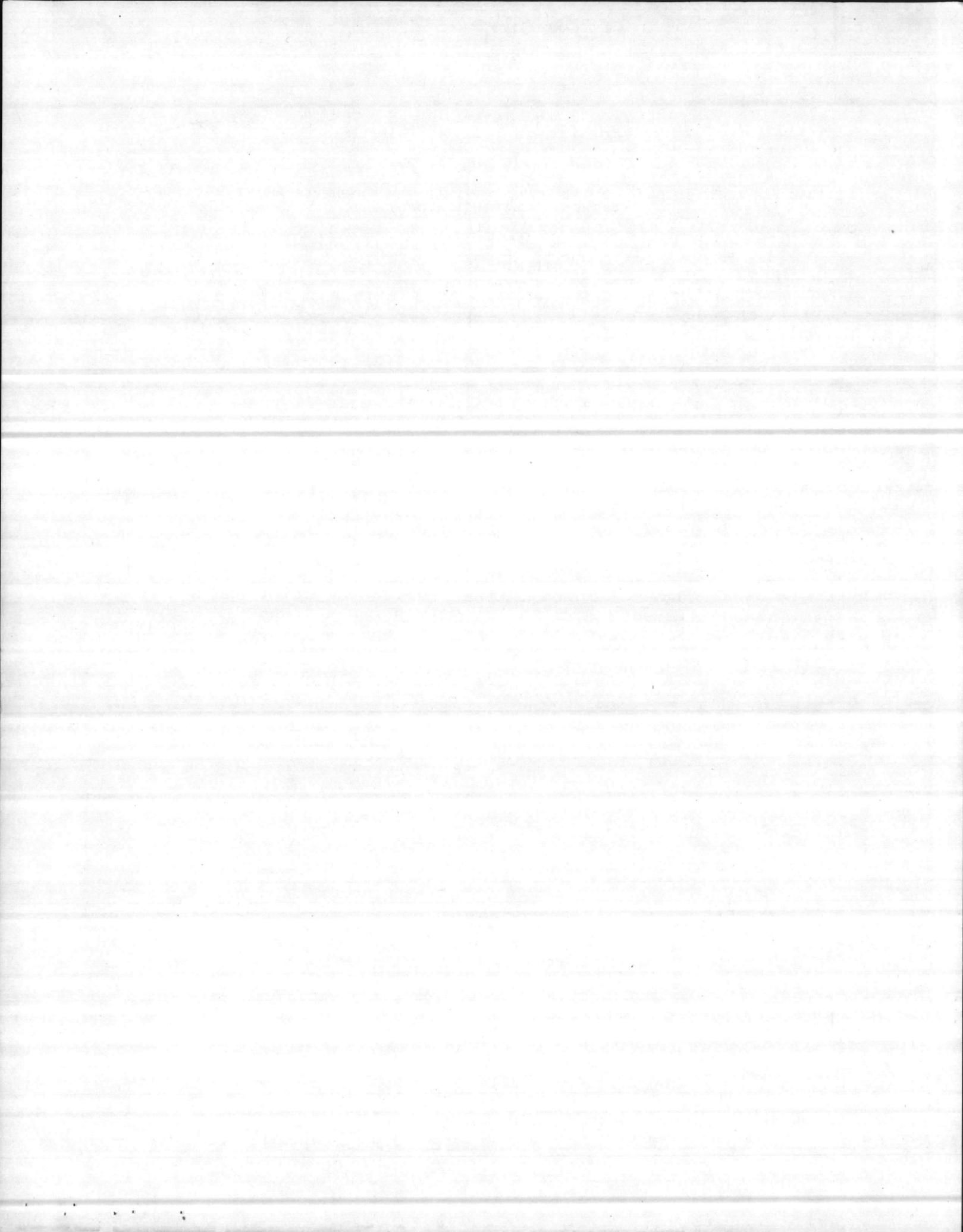
*Note the sand ridge mentioned in the previous description is nearly gone. Station and reference mark No. 2 are under water when there is a high-high tide. The last storm made a new cut and it is doubtful if the station will stay much longer.

H.C. Howes

*Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE - One of these forms must be used for every station recovered.

W. T. B.
USCOMM-DC 21174 REV



- 040 R

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: QUEEN

ESTABLISHED BY: R.S.P.

YEAR: 1914

STATE: North Carolina

RECOVERED BY: S.C. Miller

YEAR: 1962

COUNTY: Onslow

HEIGHT OF TELESCOPE ABOVE STATION MARK 23.58 METERS, HEIGHT OF LIGHT ABOVE STATION MARK 26.25 METERS.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
GUARD				000 00 00.0
Reference Mark No. 4	NW -			188 04 01 -
Azimuth Mark	N -	0.3 mile		210 50 02.8 -
Reference Mark No. 2	NE -	305.51	(93.112)	287 57 19 -

Station, reference mark No. 2, reference mark No. 4 were recovered and found in good condition. Reference mark No. 3 (azimuth mark) was searched for but could not be found; and is believed destroyed by road improvement. A new azimuth mark was established, and is as described below.

A distance check could not be made to reference mark No. 4 due to a canal that has been cut between station and reference mark No. 4.

A new description follows; Station is located about 2 miles southwest of downtown Swansboro, about 1 mile southwest of the mouth of the White Oak River and on property owned by John L. Hurst. It is on the north bank of the Intracoastal Waterway, 155 feet east of the southeast corner of house,

56 feet southeast of a canal and 26 feet north of water edge at high tide. Station is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that is flush with the surface of the ground. The disk is stamped QUEEN 1914 1932.

To reach the station from the west end of the bridge that crosses the White River in Swansboro, go northwest on State Highway No. 24 for 0.65 mile to a side road left, turn left and go west on County Route No. 1512 for 0.2 mile to the end of surfaced road. Continue straight ahead west on gravel and dirt road for 1.0 mile to crossroad. Turn left and go south on County Route No. 1511 for 0.75 mile to azimuth mark on the left, continue south on sand road for 0.25 mile to a T intersection. Turn left and pass to the left of old house and go southerly for 0.05 mile and station as described.

Azimuth Mark is 25 feet northeast of center of road and 1.8 feet southeast of witness post with sign. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 4 inches above the surface of the ground. The disk is stamped QUEEN 1962.

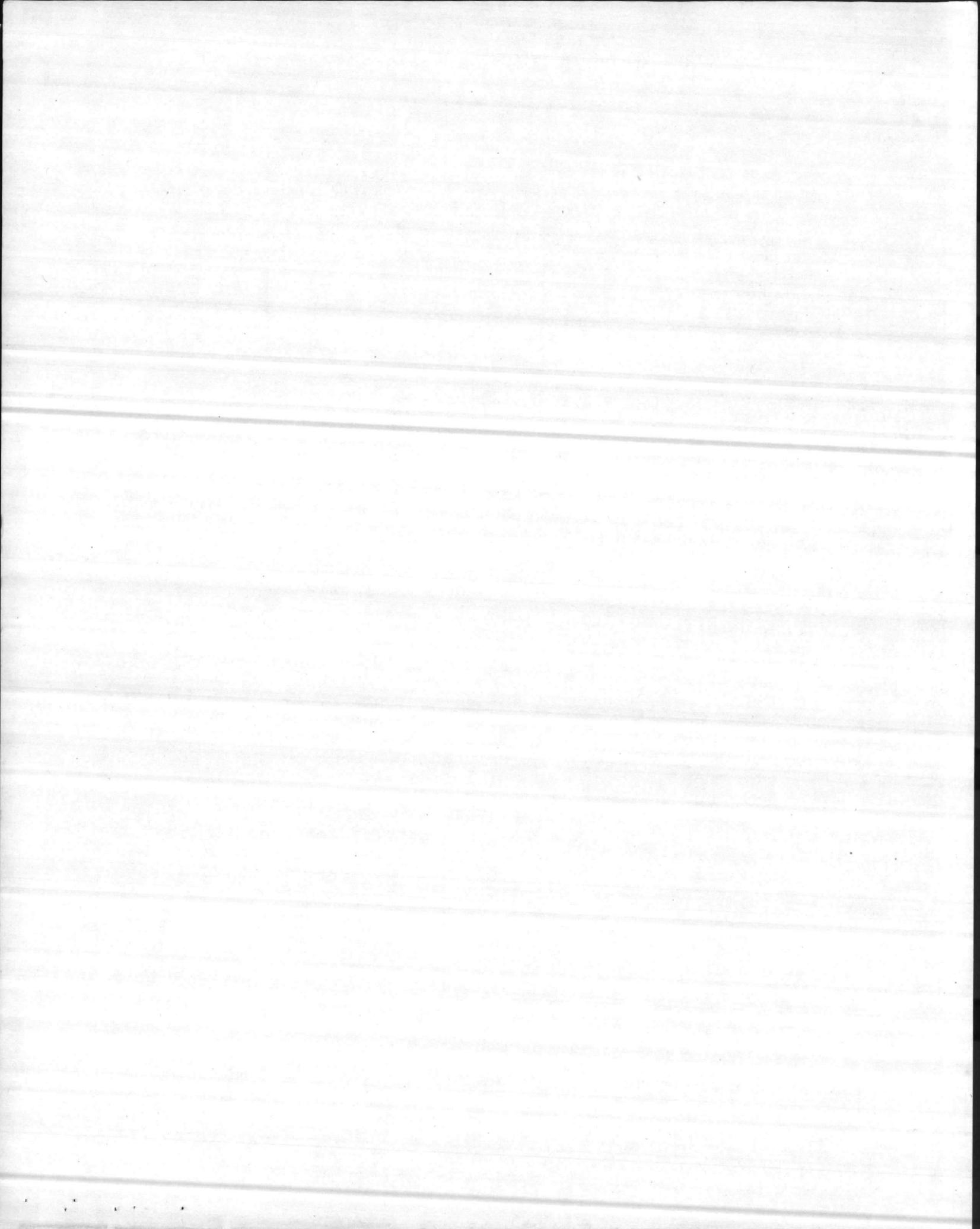
Reference Mark No. 2 is 129 feet northwest of the northeast corner of house, 100 feet west of a powerline pole and 22 feet southeast of the center of road. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument that projects 6 inches above the surface of the ground. The disk is stamped QUEEN NO 2 1932.

Reference Mark No. 4 is 125 feet northeast of a canal, 62 feet southeast of the southeast corner of a store. It is marked by a standard disk cemented in the top of a 12x12 inch concrete monument. The disk is stamped QUEEN NO 4 1932. The mark projects 6 inches above the surface of the ground.

Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE - One of these forms must be used for every station recovered.

USCOMM-DC 27173-P59



DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: BECKY

STATE North Carolina COUNTY: Onslow

CHIEF OF PARTY: S.C. Miller

YEAR: 1962

DESCRIBED BY: H.C.H.

NOTE.*	HEIGHT OF TELESCOPE ABOVE STATION MARK 3.54 METERS,†		HEIGHT OF LIGHT ABOVE STATION MARK 3.25 METERS.		
	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION			
Desc.	OBJECT	BEARING	DISTANCE		DIRECTION‡
			FEET	METERS	
	BEAR 1914				00 00 00.0
	Swanaboro, Municipal Water Tank	N	about 3	miles	125 30 00.0
	Bogue Inlet US Coast Guard Tower	E	about 2	miles	202 53 59.3
Desc.	R.M. No. 1	SE	31.35	9.555	235 41 46
Desc.	R.M. No. 2	SW	31.11	9.482	327 45 11

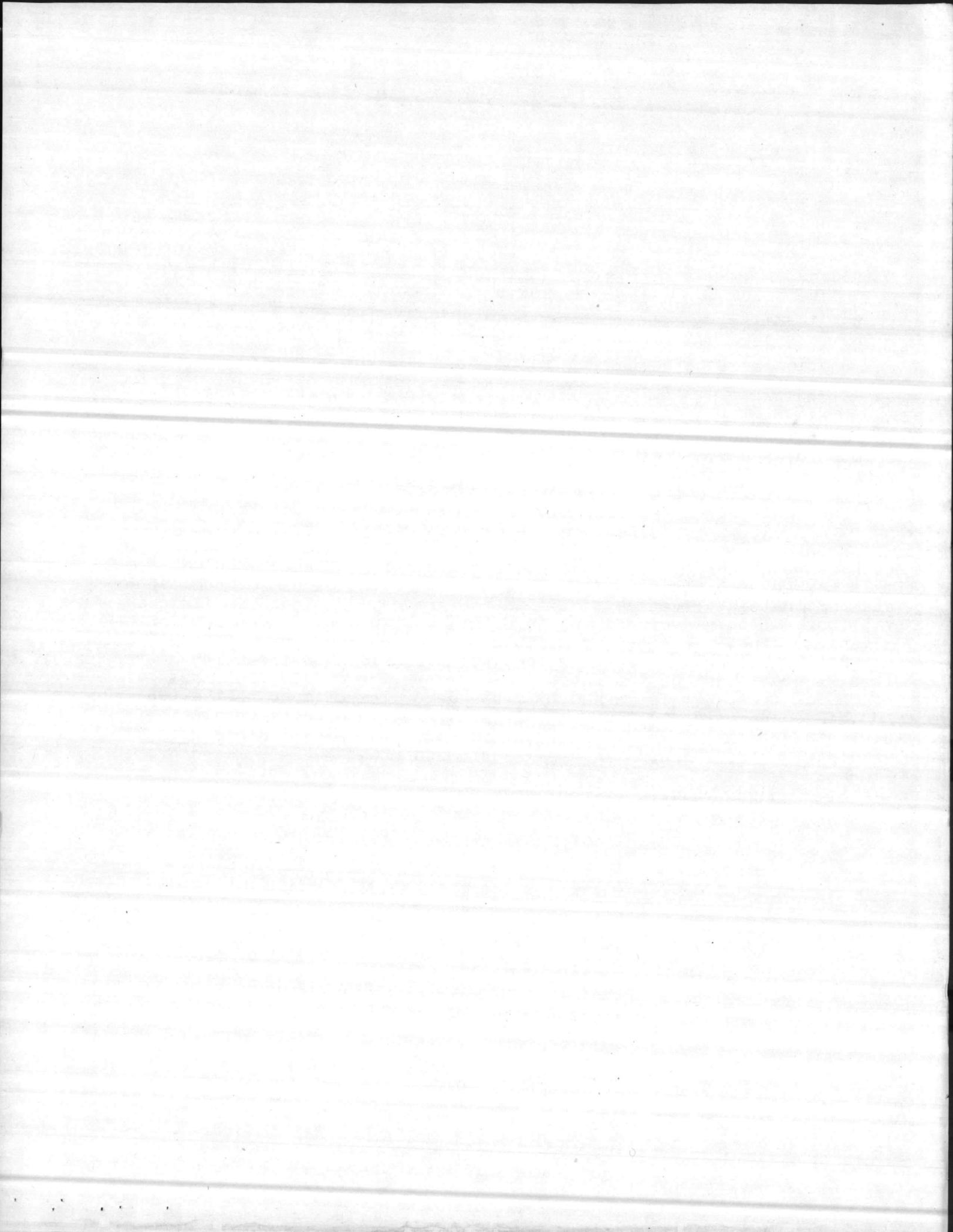
Detailed description: Station is located about 3 miles southwest of Swansboro, about 2 miles west of the Swansboro Bogue Inlet U.S. Coast Guard Station in low marsh land near the northwest point of Bear Beach on the west side of Bogue Inlet and to the west of a large sand dune. Station is 20 feet north-east of a 10 inch oak tree with triangle blaze, 17 feet south of water edge at low tide and 2.5 feet west of a witness post with metal sign. Station is marked by a standard disk clamped to the top of a 5/8 copperweld rod that is driven into the ground about 32 feet. The rod is within a 1 inch by 5 feet galvanized pipe and within a 2 inch by 5 foot galvanized pipe. The mark projects 10 inches and the disk is stamped BECKY 1962.

Reference Mark No. 1 is 33 feet west of a 10 inch oak tree, 28 feet south of water edge at low tide and 27 feet north of an 8 inch oak tree. It is marked by a standard disk clamped to the top of a 5/8 inch copperweld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 feet section of galvanized pipe. The disk is stamped BECKY NO 1 1962 and projects 6 inches.

Reference Mark No. 2 is 22 feet west of a 10 inch tree with a triangle blaze, 17 feet east of the water edge at low tide and 14 feet north of an 8 inch oak tree. It is marked by a standard disk clamped to the top of a 5/8 inch copperweld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The disk is stamped BECKY NO 2 1962 and projects 6 inches.

Station was reached by boat from Swansboro.

*Refers to notes in manuals of triangulation and state publications of triangulation. †Direction-angle measured clockwise, referred to initial station.
‡To nearest meter only, when no trigonometric leveling is being done.



RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: BOGUE 1908 1933
 ESTABLISHED BY: J.S.H. YEAR: 1908 STATE: North Carolina
 RECOVERED BY: S.C. Miller YEAR: 1962 COUNTY: Carteret

HEIGHT OF TELESCOPE ABOVE STATION MARK METERS, HEIGHT OF LIGHT ABOVE STATION MARK METERS.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION				
OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
GUARD				000 00' 00.0'
Bogue Inlet US Coast Guard Tower	S	about 1 mile		00 06 51.9
Reference Mark No. 3	N	52.90	16.125	179 04 19
Reference Mark No. 1	N	40.79	12.432	179 13 42
Reference Mark No. 2	SE	51.00	15.545	285 49 04

Station and Reference Mark No. 1 was recovered as described in 1933 and found in good condition. Reference Mark No. 2 and Reference Mark No. 3 was established and are as described.

Reference Mark No. 2 is 35 feet northeast of a small oak tree and 15 feet west of water edge at low tide. It is marked by a standard disk clamped to the top of a 5/8 inch copper weld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe that is within a 2 inch by 5 foot galvanized pipe. The disk is stamped BOGUE NO 2 1962 and projects 12 inches above the surface of the ground.

Reference Mark No. 3 is 60 feet west of water edge at low tide and 30 feet east of water at low tide. It is marked by a standard disk clamped to the top of a 5/8 inch copper weld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe that is within a 2 inch by 5 foot galvanized pipe. The disk is stamped BOGUE NO 3 1962 and projects 18 inches above the surface of the ground.

1962 observations were taken from a 4 foot wooden stand.

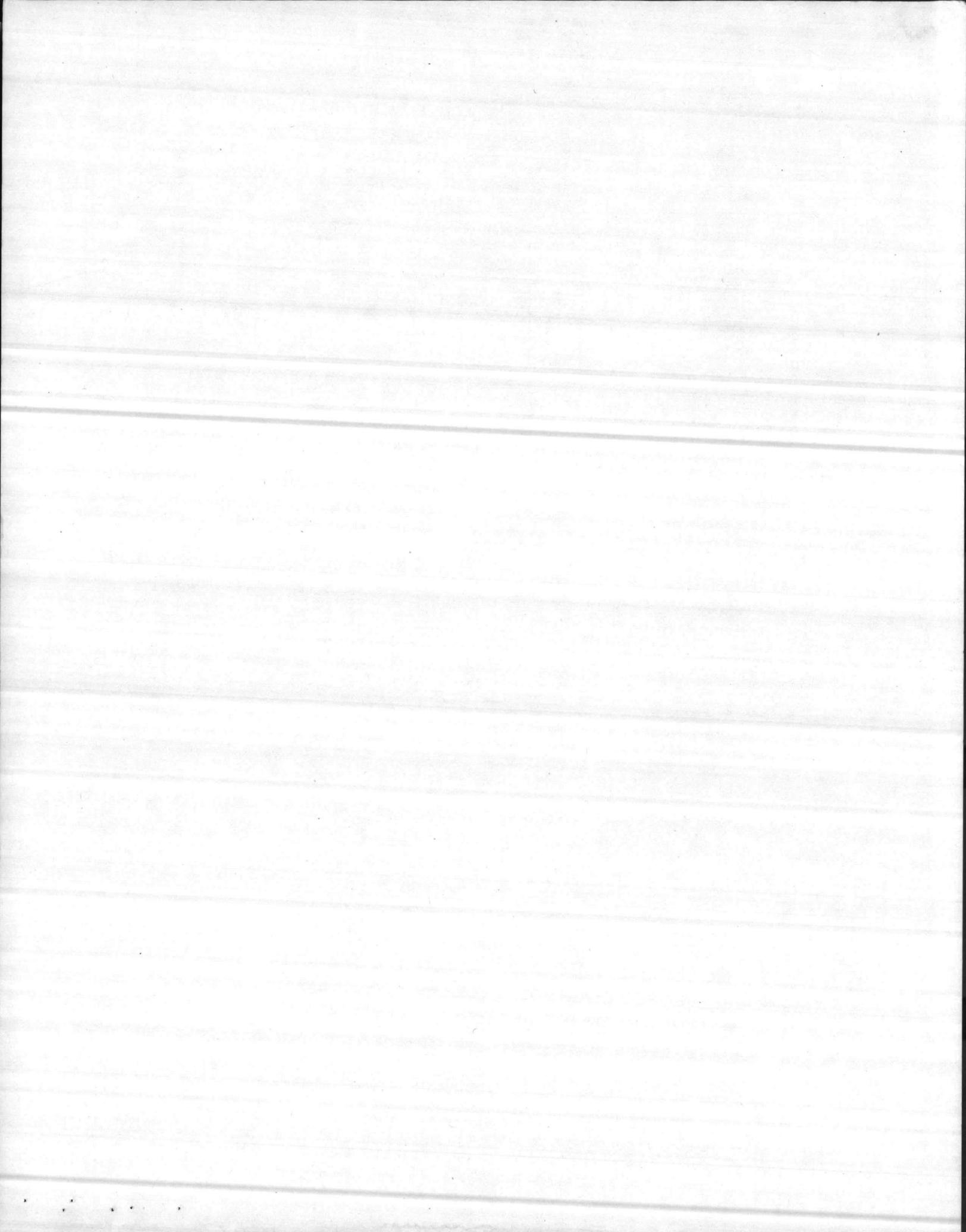
Station was reached by boat from Swansboro.

H.C. Howes

*Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE - One of these forms must be used for every station recovered.

Alv. G. J. USCOMM-DC 27173-P



DESCRIPTION OF TRIANGULATION STATION

F1

NAME OF STATION: GUARD

STATE: North Carolina COUNTY: Carteret

CHIEF OF PARTY: S.C. Miller

YEAR: 1962

Described by: H.C. Howes

NOTE: HEIGHT OF TELESCOPE ABOVE STATION MARK 19.00 METERS. HEIGHT OF LIGHT ABOVE STATION MARK 21.76 METERS.

NOTE*	HEIGHT OF TELESCOPE ABOVE STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION				
		OBJECT	BEARING	DISTANCE		DIRECTION†
				feet	meters	
desc.	Surface-station mark, Underground-station mark					
		BECKY				000 00' 00.0"
		Swansboro Municipal Water Tank	NW	(about 3 miles)		67 00 20.6
desc.		Reference Mark No. 1	SE	50.39	15.360	243 40 36.7
desc.		Reference Mark No. 2	S	60.08	18.312	348 18 23.8

Detailed description: Station is located about 3 miles southeast of Swansboro, on the west end of Bogue Banks and at the Swansboro, Bogue Inlet US Coast Guard Station. It is 93 feet southwest of boat ramp, 57½ feet south of the approximate center of signal tower and 40½ feet east of loading platform. Station is marked by a standard disk clamped to the top of a 5/8 inch copper weld rod that is driven 32 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe that is within a 2 inch by 5 foot galvanized pipe and the disk is stamped GUARD 1962 and projects 10 inches above the surface of the ground.

Reference Mark No. 1 is 50 feet west of a sand track road. It is marked by a standard disk cemented in drillhole of old building platform that projects about 20 inches above the ground and the disk is stamped

GUARD NO 1 1962.

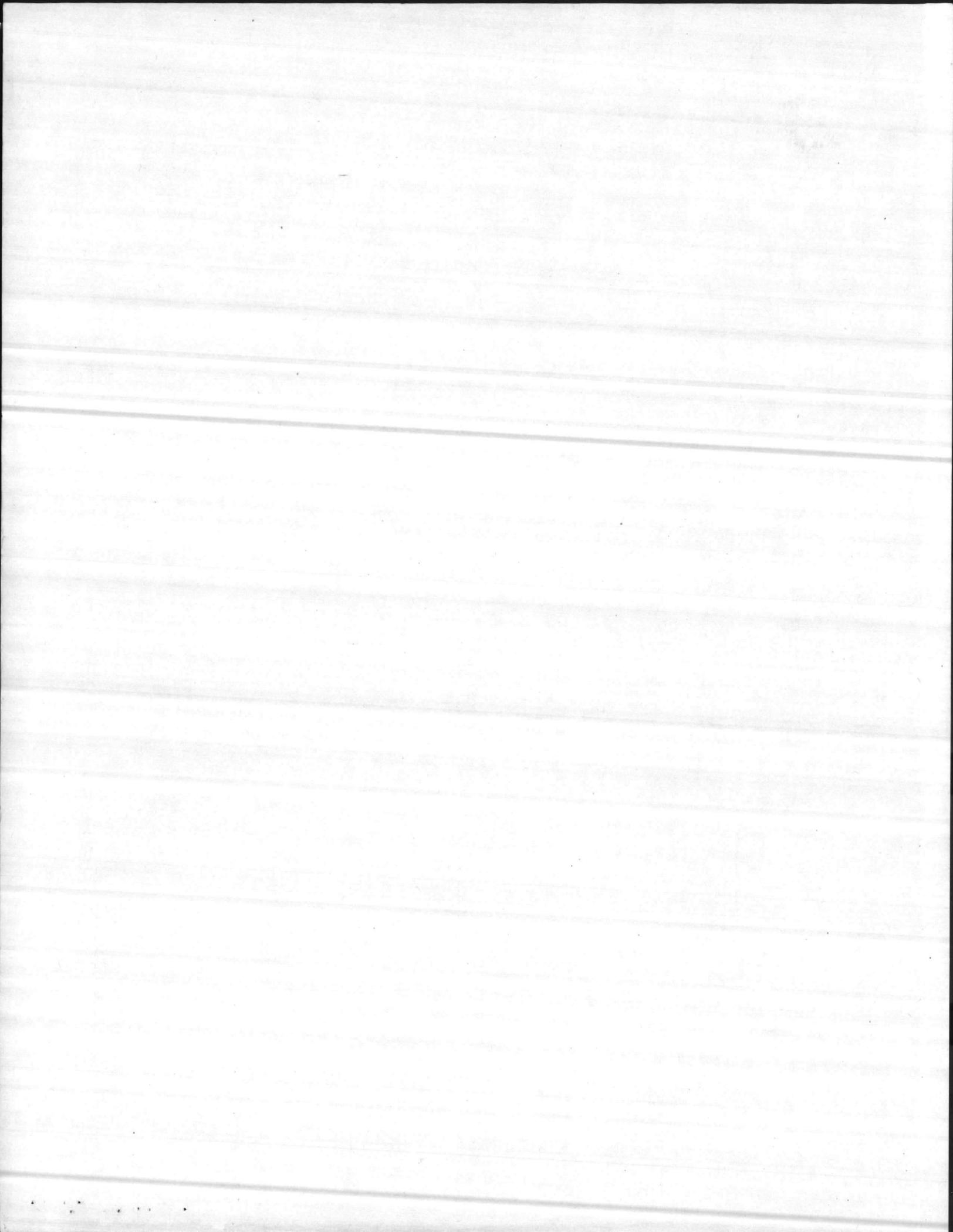
Reference Mark No. 2 is 18½ feet south of the southwest corner of loading platform. It is marked by a standard disk clamped to the top of a 5/8 inch copper weld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe that is within a 2 inch by 5 foot galvanized pipe. The disk is stamped GUARD NO 2 1962 and projects 8 inches above the surface of the ground.

Station was reached by boat from Swansboro.

* Refers to notes in manuals of triangulation and state publications of triangulation.
† To nearest meter only, when no trigonometric leveling is being done.

‡ Direction-angle measured clockwise, referred to initial station.

Handwritten initials or mark.



Form 526
(11-8-55)

U. S. DEPARTMENT OF COMMERCE - COAST AND GEODETIC SURVEY
RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: TOWER NINE
ESTABLISHED BY: C.R.R. YEAR: 1947 STATE: North Carolina
RECOVERED BY: * S.C. Miller YEAR: 1962 COUNTY: Onslow

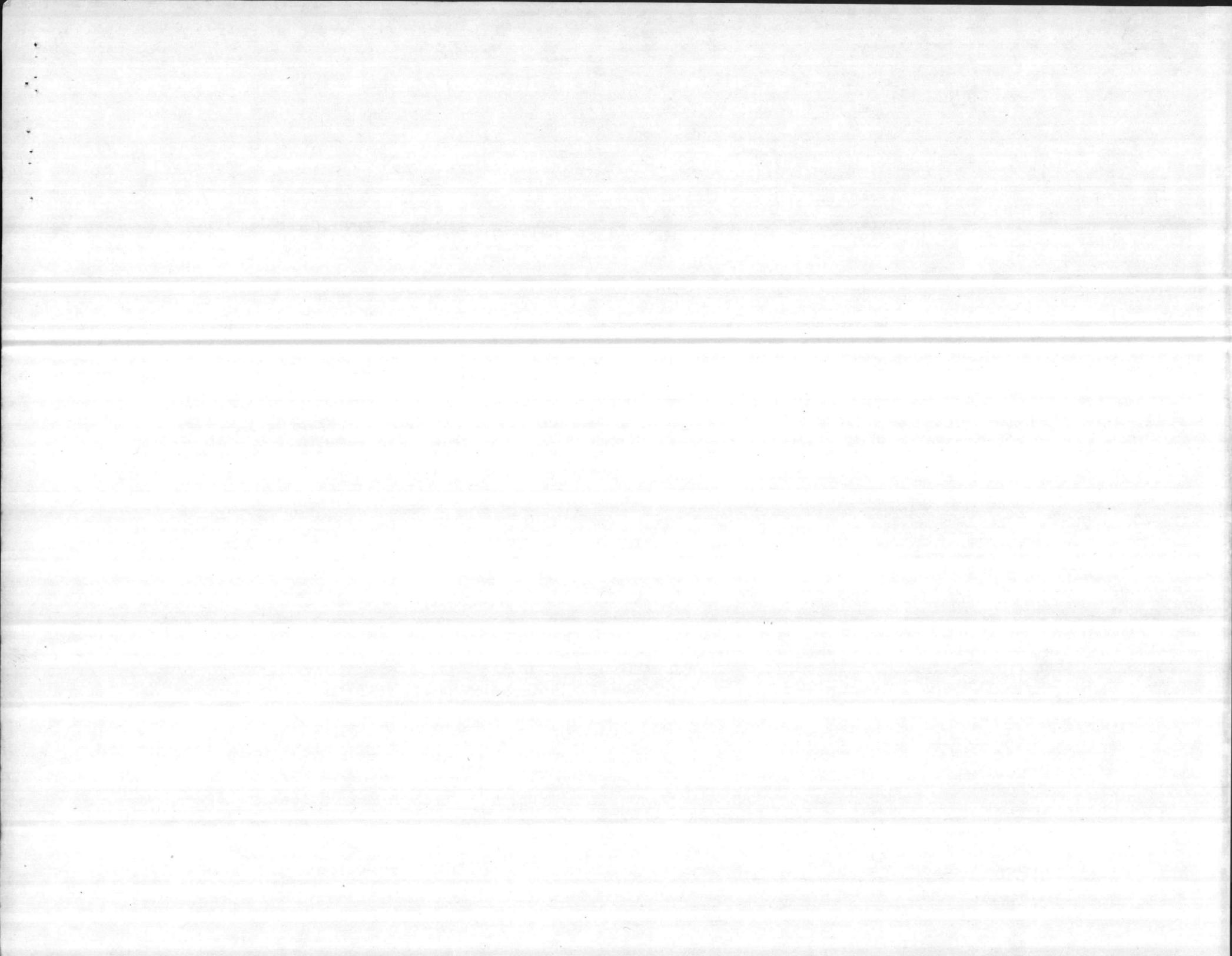
Detailed statement as to the fitness of the original description, including marks found, stampings, changes made, and other pertinent facts:

Station recovered as described in good condition. Reference Mark No. 1 and Line Mark EIGHT were recovered in good condition as described.

Object	Bearing	1962 Distances		1962 Directions		
		feet	meters	00	00	00.0
ASHE						
Camp Lejeune, U.S.M.C.						
Courthouse Bay Water Tank	N	about 5 $\frac{1}{2}$ miles		102	46	41.6
Reference Mark No. 1	SE	15.80	4.816	265	10	
Line Mark EIGHT	SW	16.99	5.178	359	36	

W. Willard
* Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.
NOTE.—One of these forms must be used for every station recovered.

Comm-DC 34314



Form 526
(11-8-55)

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

RECOVERY NOTE, TRIANGULATION STATION

R

NAME OF STATION: VIEW
ESTABLISHED BY: A.P.R. YEAR: 1932 STATE: North Carolina
RECOVERED BY: * S.C. Miller YEAR: 1962 COUNTY: Onslow

Detailed statement as to the fitness of the original description; including marks found, stampings, changes made, and other pertinent facts:

Station recovered in good condition and as described with the exception that the marks were found without stampings. The marks were stamped as follows:

Station is marked by a standard disk stamped VIEW 1932.

Reference Mark No. 1 is marked by a standard disk stamped VIEW NO 1

1932.

Reference Mark No. 2 is marked by a standard disk stamped VIEW NO 2

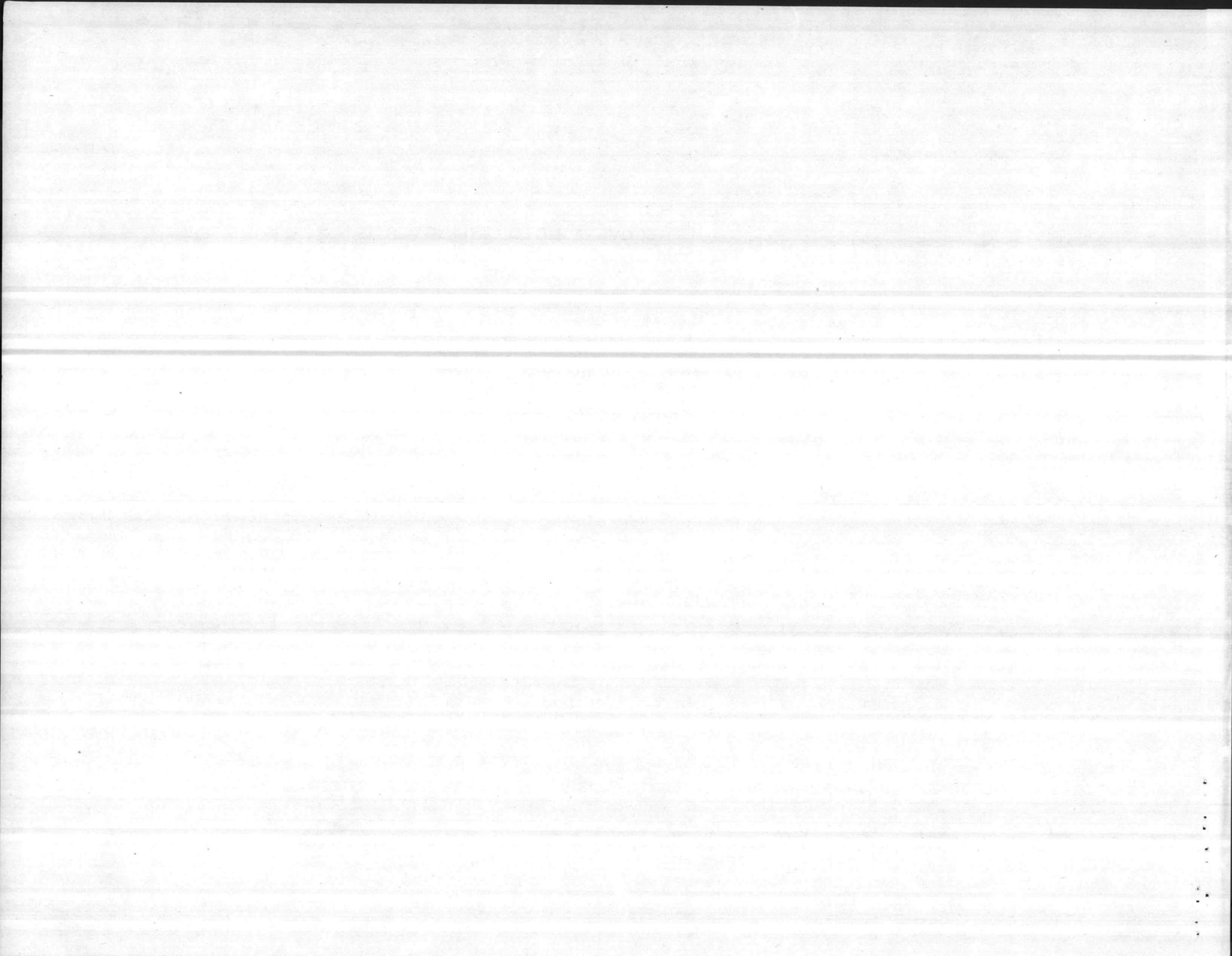
1932.

Object	Bearing	1962 Distances		1962 Directions		
		feet	meters	00	00	00.0
TRAPS						
Reference Mark No. 1	E	109.97	33.52	11	24	22 ✓
Reference Mark No. 2	SE	109.45	33.36	128	26	26 ✓
Camp Lejeune, U.S.M.C., Courthouse Bay Water Tank	NE	about 6 miles		291	04	22.4 ✓

* Name of chief of party should be inserted here. The officer who actually visited the station should sign his name at the end of the recovery note.

NOTE.—One of these forms must be used for every station recovered.

Comm-DC 34314



DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: ASHE STATE: North Carolina COUNTY: Onslow
CHIEF OF PARTY: S.C. Miller YEAR: 1962 DESCRIBED BY: H.C. Howes

NOTE.*	HEIGHT OF TELESCOPE ABOVE STATION MARK 19.5 METERS.†		HEIGHT OF LIGHT ABOVE STATION MARK 21.8 METERS.		
Desc.	SURFACE-STATION MARK, UNDERGROUND-STATION MARK	DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION			
	OBJECT	BEARING	DISTANCE		DIRECTION‡
			FEET	METERS	
	TOWER SEVEN 1947				80 00 00.0
	New River Light 23	SW	about 1/2 mile		49 36 34.7
Desc.	Reference Mark No. 1	NW	64.73	19.730	78 29 35
Desc.	Reference Mark No. 2	NE	60.23	18.358	153 21 45

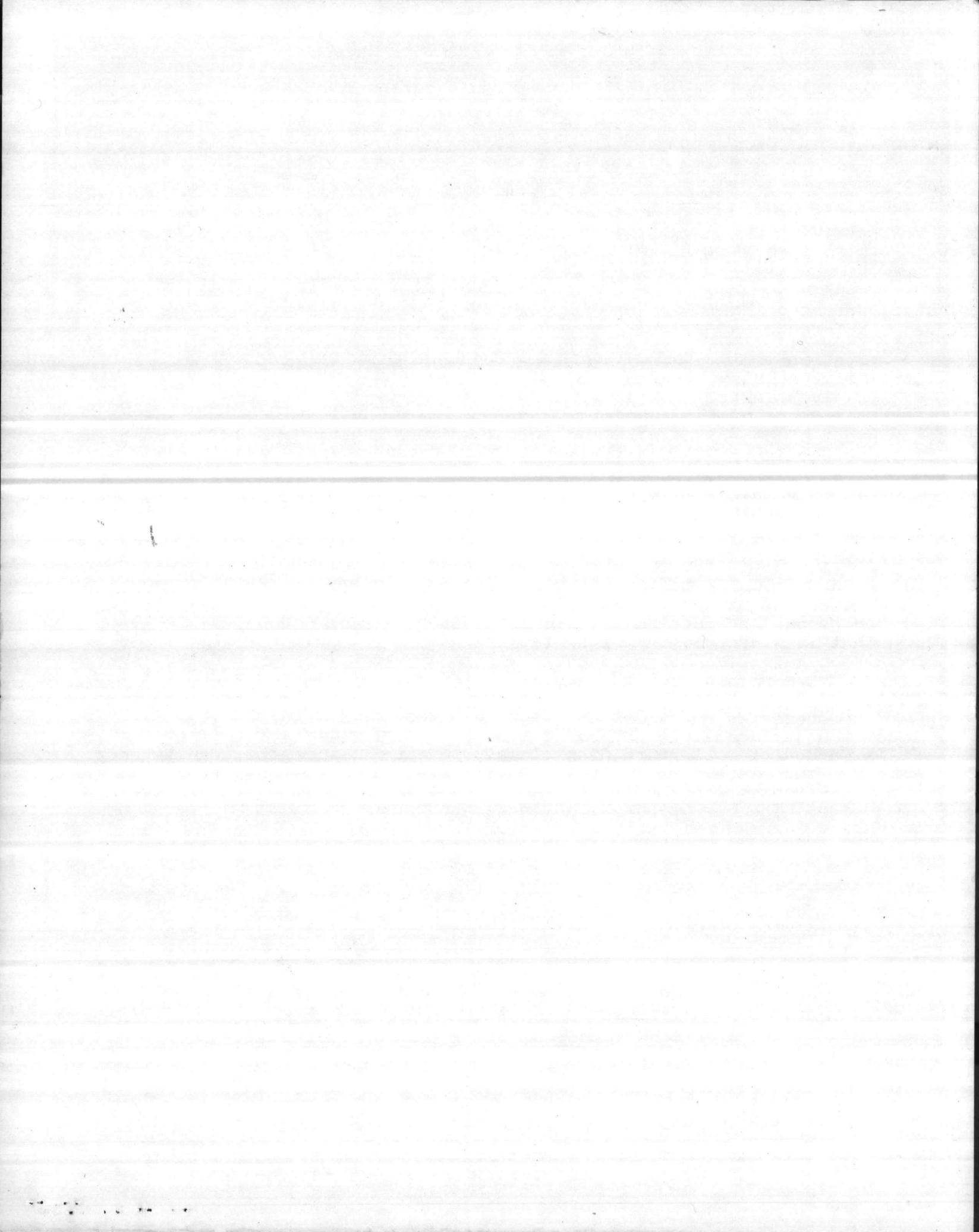
Detailed description: Station is located on Topsail Island about 10 miles northeast of Surf City, about 9 miles east of Holly Ridge and about 4 miles southwest of New River Inlet. It is 91 feet west of powerline pole no. N 345, 63 feet northwest of the approximate centerline of surfaced road, 62 feet northeast of powerline pole and 2.2 feet west of a wooden witness post with metal sign. Station is marked by a standard disk clamped to the top of a 5/8 inch copperweld rod that is driven 32 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch galvanized pipe. The mark projects 15 inches and the disk is stamped ASHE 1962.

To reach from the junction of State Highway No. 50 and State Highway No. 210 in Surf City, go northeast on State Highway No. 210 for 10.0 miles to Station on left (northwest) side of highway as described.

Reference Mark No. 1 is 92 1/2 feet north of a powerline pole. It is marked by a standard disk clamped to the top of a 5/8 inch copperweld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The mark projects 15 inches and the disk is stamped ASHE NO 1 1962.

Reference Mark No. 2 is 89 feet northwest of the approximate centerline of a surfaced road and 58 feet northwest of powerline pole No. N345. It is marked by a standard disk clamped to the top of a 5/8 inch copperweld rod that is driven 24 feet into the ground. The rod is within a 1 inch by 5 foot galvanized pipe which is within a 2 inch by 5 foot galvanized pipe. The mark projects 18 inches and the disk is stamped ASHE NO 2 1962.

*Refers to notes in manuals of triangulation and state publications of triangulation. †Direction-angle measured clockwise, referred to initial station. ‡To nearest meter only, when no trigonometric leveling is being done.



Form 525b
(11-8-55)

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

DESCRIPTION OF TRIANGULATION INTERSECTION STATION

NAME OF STATION: Swansboro, Municipal Water Tank

CHIEF OF PARTY: S.C. Miller **YEAR:** 1962 **STATE:** N. Carolina **COUNTY:** Onslow

Description, including sketch of object:

Station is located in the west part of Swansboro, one block south of State Highway 24.

It is a steel tank, supported by 4- steel channel laced legs. Tank is about 110 feet in height, silver in color and has a steel ball on top.

Point intersected is the steel ball on top.

Described by _____

G.F.
G.F.

Comm-DC 34313

