1. DATE - TIME GROUP	2. LOCATION
25 Mar 53 25/2123Z	Rabat, French Morocco
3. SOURCE Air Crew Members Radar Pers	**10. CONCLUSION** 1. A/C 2. Gd Light 1. Obj meets description of a/c. Confirmed by preparing officer, a French C-54 landed at Nauasseur AFB at 2120 hrs. 2. Obj on ground and stationary for 15-20 min assumed to be ground light.
4. NUMBER OF OBJECTS xxx one	
5. LENGTH OF OBSERVATION 1. 5 min 2. 15-20 min	**11. BRIEF SUMMARY AND ANALYSIS** White obj was sighted making a traffic pattern while an a/c was making final approach for a landing. Obj passed C-47 at an alt of 2000' at approx 400 mph. Obj was also observed on radar. Light on ground circled for 15-20 min. @ 3 A/c in area, 4 blips on radar.
6. TYPE OF OBSERVATION Gd & Air Visual Gd Radar	
7. COURSE varied	
8. PHOTOS ☐ Yes X ☐ No	
9. PHYSICAL EVIDENCE ☐ Yes ☐ No	

FORM
FTD SEP 63 0-329 (TDE) Previous editions of this form may be used.

AF FORM 112—PART II
APPROVED 1 JUNE 1948

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 8 OF 8 PAGES
Directorate of Intelligence Headquarters 5th Air Division	23-53	

COMMENTS of the Preparing Officer:

1. The following personnel made the observations of the unidentified flying object and their identification and flying experience are listed below:

Lt Colonel Gilmer E. Walker, Jr., AO 396494 (Senior Pilot) 8 years flying experience (2,625 hours)

Major Norman I. Radin, AO 802884 (Senior Pilot), 10 years flying experience (2,344 hours)

1st Lt Leo C. Fletcher, AO 683985 (Pilot), 8 years flying experience (2,634 hours)

2. In reference to the statement made by Lt Colonel Gilmer E. Walker, Jr., concerning the fact that GCA could only identify three of the four objects picked up on the GCA, it was later confirmed by the Preparing Officer that the unidentified object was a French commercial aircraft (C-54) which landed at Nouasseur Air Base at 2120 hours.

3. Upon interrogation of the ground party, no further information was available and the Airdrome Officer conducted aerial reconnaissance over the area where the object was last reported with negative results.

4. The Daily Report of the Controller of the Tower at Nouasseur Air Base was inspected by the Preparing Officer with no further information available.

5. A sketch was prepared by Lt Colonel Gilmer E. Walker, Jr. and is reproduced herewith as further details of approximately 45 minutes of personal observation.

Glenn D. Adams
GLENN D. ADAMS
1st Lt, USAF
Preparing Officer

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COUNTRY	REPORT NO.	(LEAVE BLANK)
French Morocco	23-53	

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT

FLYOBRPT, Nouasseur Air Base, French Morocco

AREA REPORTED ON	FROM (Agency)
Nouasseur Air Base, French Morocco	Directorate of Intelligence Headquarters 5th Air Division

DATE OF REPORT	DATE OF INFORMATION	EVALUATION
1 April 1953	25 March 1953	

PREPARED BY (Officer)	SOURCE
Glenn D. Adams, 1st Lt, USAF	Air Crew of C-47 Aircraft No. 9181

REFERENCES (Control number, directive, previous report, etc., as applicable)

TWX, DIOC 01698, 26 March 1953

SUMMARY: (Enter concise summary of report. Give significance in final one-sentence paragraph. List inclosures at lower left. Begin text of report on AF Form 112—Part II.)

1. An unidentified flying object was sighted at Nouasseur Air Base, 33°22'N 07°35'W, 25 March 1953 at 2123 hours, by the crew of a C-47 on a routine training flight. The air crew of the above aircraft was interviewed and an investigation was conducted at Nouasseur Air Base by the Preparing Officer.

2. The following is the verbatim report derived from the investigation, 27-30 March 1953.

APPROVED:

William B. Merrill Jr

WILLIAM B. MERRILL, Jr.
Lt Colonel, USAF
Director of Intelligence

_____ INCLS.

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 2 OF 8 PAGES
Directorate of Intelligence Headquarters 5th Air Division	23-53	

1. The following information was received from Lt Colonel Gilmer E. Walker, Jr., AO 396494, assigned to Headquarters 5th Air Division:

"a. On the night of 25 Mar 53, I acted as pilot on a routine night training flight from Sale Airdrome, French Morocco, to return Sale via Safi, French Morocco; Nouasseur, French Morocco; Sidi Slimane, French Morocco. Major Norman I. Radin was acting as Instructor Pilot on this night round robin; also aboard was a Lt Fletcher as alternate pilot and the airman engineer. USAF aircraft C-47-D 43-49181 was used for this flight. Following take-off at Sale at 1915Z hours, the flight proceeded without incident with position reports being furnished Casablanca Air Traffic Control over Safi, French Morocco, at approximately 2035Z hours and directly over Nouasseur at 2120Z hours.

"b. The position report rendered Casablanca Air Traffic Control at 2120Z was made directly over Nouasseur Air Base at an altitude of 5,000 ft. on a heading of 061°. The aircraft was on automatic pilot at the time, and a change in course to 071° was made at this time for the purpose of proceeding to Sidi Slimane. The weather conditions were clear and visibility was excellent and there was fairly bright moonlight. There was some evidence of small patches of ground fog in the area. These were relatively few and widely scattered at this time.

"c. At approximately 2123Z, I observed what appeared to be an approaching aircraft directly ahead and some 2,000 to 3,000 ft. above. The automatic pilot was immediately turned to the off position which is customary when passing other aircraft. There were no red and green running lights visible, but the light which was detected appeared to be of the normal size and intensity of a white aircraft running light. The rate of closure was quite rapid, and the light passed overhead and slightly to the right still some 2,000 to 3,000 ft. above our own aircraft. There was no evidence of a trail or exhaust or of any red or green running lights. Major Radin, who was acting as Instructor Pilot and in the right seat watched the light from the right window as it passed overhead and shortly after turned and remarked to me that this appeared to be a very unusual aircraft light. I immediately made a turn to the left to see if the object could be seen again. Upon completion of this turn, we were almost directly over Nouasseur Air Base still at 5,000 ft., and the light was visible at a slightly greater altitude than ours and apparently several miles south of Nouasseur. It was in a turn to the left at this time. We continued to turn and observe the light which continued to turn above us. During this time, the radius of turn was continually decreased and the speed noticeably diminished. At one time we reversed the direction of our turn in order to keep the light in sight and eventually were in an extremely tight turn to the right. During this period of some two to three minutes, I had contacted Casablanca Air Traffic Control and requested any information as to traffic reported over Nouasseur. Receiving a negative reply, I contacted Nouasseur tower and inquired if there were any known jet air traffic in the vicinity. Again, the reply was negative. The behavior of the light at this time was certainly very different from the movement normally associated with aircraft, and this fact was reported to Nouasseur tower. There were noticeable and abrupt changes in direction and in speed, though generally the motion was in a smooth curve. After several 360° turns which were required to retain the light in view, it moved south of Nouasseur at a very rapid rate and in a turn of extremely large radius and began to descend rapidly. The speed at this time appeared to be the maximum, and I would judge it to be well in excess of 400 miles per hour. The light passed through our altitude which was still 5,000 ft. shortly after commencing this descending turn, and this fact was reported to Nouasseur tower. After a rapid descent to a point which I estimate to be some 6 to 8 miles southeast of Nouasseur, the light proceeded to move in a straight line directly toward that air base and at greatly reduced speed. The direction of movement was at an angle of some 40° to the north-south runway which would make the true heading at that time approximately 320°. The light continued on this course at greatly reduced speed until it reached a point approximately one mile south of the south

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 3 OF 8 PAGES
Directorate of Intelligence Headquarters 5th Air Division	23-53	

end of the runway. At that point it made a rather abrupt turn, moved almost due south for what I estimate to be 300 to 400 yards and stopped abruptly. I advised Nouasseur tower that the position of the light was approximately 1½ miles south of the south end of the runway and slightly to the right of the runway center line. The light was stationary and still clearly visible but did evidence a change in intensity immediately after coming to a halt. This change in intensity continued growing alternately dim and bright but with no apparent regularity.

"d. At this time we had advised Casablanca Air Traffic Control that we were remaining temporarily in the Nouasseur local area and were at an altitude of 4,000 ft. We continued to circle the light which remained stationary and appeared to be at ground level. After some five minutes, the patches of ground fog visible in the area were increasing, and the Nouasseur tower advised us that there was only a one point spread in temperature and dewpoint. After reporting the position of the object once again, we advised Nouasseur tower that we were proceeding on course to Sidi Slimane. We returned to 5,000 ft. and so advised Casablanca Control.

"e. During this entire period from the first sighting at approximately 2123Z to the grounding of the object at approximately 2128Z, we were advised by Nouasseur that there were two other C-47 aircraft in the area; one at 6,000 ft. to the north of the field and one in the traffic pattern preparing for a landing. Both of these aircraft were located visually, and their position was checked continually during the period the light was also being observed. The landing C-47 was on base leg and almost directly below us at the time the light approached to the nearest point to the field. The landing C-47 turned almost directly over it, or what appeared to be almost directly over it, on the final approach to a landing.

"f. Outbound from Nouasseur, we were again contacted by Nouasseur tower and requested to furnish our exact position. I would estimate that this contact was made at approximately 2135Z. The tower operator also informed us that Nouasseur GCA was reporting four (4) blips on their radar screen but that only three aircraft were known to be in the area. Shortly thereafter, Nouasseur tower requested that we return to the vicinity of Nouasseur and continue to circle in the vicinity where the object was last reported. This was done after securing the necessary clearance from Casablanca Air Traffic Control.

"g. Upon return to Nouasseur, the light was still plainly visible on the ground and in the same location and still exhibiting the same irregular fluctuation in intensity. This was reported to Nouasseur tower, and we set up a circle at 4,000 ft. above the position. During this time, we were advised that the Airdrome Officer at Nouasseur was directing a ground party to the vicinity. The circling continued for what I estimate to be some 15 to 20 minutes. At approximately 2215Z, my attention was distracted from the point on the ground momentarily; turning back, the light was no longer visible. This was also reported to Nouasseur tower. The ground fog was increasing at this time, and a patch of fog was visible in the vicinity; however, judging from other lights in the area, the fog had not yet reached sufficient intensity to have caused this disappearance. Shortly thereafter, we were requested to fly over the area where the object was last seen and turn on our landing lights directly over the spot. This was accomplished at an altitude of 1500 ft. A second circuit was made at an altitude of 1,000 ft. above the ground, and we discharged a green flare to further identify the location. This green flare was answered with a red flare discharged from the ground party to show their location at that time. The ground fog was increasing in intensity and became obvious that further search of the area was useless. We advised Nouasseur tower that we were returning to Sale and after obtaining the necessary clearance from the Casablanca Control for this change in flight plan, we landed at Sale at approximately 2315Z.

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AIR INTELLIGENCE INFORMATION REPORT

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"h. To the best of my knowledge, there was no meteorlogical condition which could account for this sighting. At no time was there any evidence of form or shape to the object. It was particularly noticeable because the dark outline of the other two C-47 aircraft in the area could be discerned.

"i. At no time was there any direct movement on the part of the object which would indicate an attempted interception of our aircraft, nor did we take any interception action. As pointed out earlier, there were two other aircraft in the vicinity at the time of the sighting, but both of these were observed and their position noted while watching the course of the unidentified object.

"j. The movement of this object was observed almost entirely during the period in question by all three officers aboard the aircraft including myself. At one time during the contact with Nouasseur tower we were advised of two obstruction lights 1.6 miles south of the south end of the runway and asked to fix the location of the object in relation to these lights. I estimate this location to be 200 to 300 yards north and 150 to 200 yards west of the obstruction lights in question. These lights were clearly visible during the entire time we were in the vicinity of Nouasseur."

2. The following information was received from Major Norman I. Radin, AO 302384, assigned to Headquarters 5th Air Division:

"a. A C-47 aircraft No. 9181, flying a routine training mission from Sale to Safi, Nouasseur, Sidi Slimane and returning to Sale, was flying a 71o course at 5,000 feet from Nouasseur to Sidi Slimane when a white light was sighted over Nouasseur Air Base. At the time of the initial sighting, our air speed indicator reading was 155 miles per hour. Lt Col Walker was piloting at the time on automatic. When the sighting was made, he immediately changed to manual operation.

"b. When we first sighted the object, we assumed the light came from another aircraft in the vicinity because we had passed a number of aircraft during the flight. However, on closer observation of the object and inquiries to Casablanca and Nouasseur Control Tower, we believed it was something other than a light from a conventional aircraft.

"c. The object first passed to the right of the plane at approximately 1,500 feet above our aircraft at high speed. We then circled in the area of Nouasseur Air Base while Lt Col Walker constantly observed the object. During the course of one of these turns, I looked to the south and observed the object moving in a northerly direction at approximately 12,000 feet. We then called Casablanca Control who is supposed to know the location of all aircraft. They had no record of aircraft in that vicinity at that altitude. We continued to circle for approximately 15 minutes and observed the object making a pattern similar to an aircraft traffic pattern at Nouasseur Air Base and the object stopped near the south end of the runway. Another C-47 was then making a final approach landing.

"d. We reported to Nouasseur tower and then departed for Sidi Slimane Air Base. Approximately 30 miles northeast of Nouasseur, we were requested to return to aid in attempting to locate the object that had been sighted. We then returned and observed the object in the same position of rest about 1.5 miles south of the runway near two red lighted obstruction markers. We circled the object for approximately 45 minutes and were in contact with Nouasseur tower during this time.

"e. A ground crew was sent out in a jeep to locate the object from the air strip. We fired a flare to identify the spot and blinked our landing lights while making a pass over the object. The fog started rolling in and we lost sight of the object. The Nouasseur Tower informed us that their GCA had picked up four objects on their scope but could only account for three aircraft in the area."

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 5 OF 8 PAGES
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3. The following information was received from 1st Lt Leo C. Fletcher, AO 683985, assigned to Headquarters 5th Air Division:

"a. The light was first observed at a position just five miles northeast of Nouasseur Air Base at an approximate altitude of 7,000 feet on a heading of approximately 240° at about 2123 hours. The only indication at this time was a rather bright yellow white light. No other running lights, or features, were visible. Estimated speed was about 400-500 miles per hour. The maneuvers seemed to be conventional with no particular erratic movements.

"b. After passing overhead, and slightly to right of our aircraft, the light circled behind us and began descending in a series of spirals. The descent was fairly rapid and when near the runway appeared to slow abruptly and on reaching a point approximately 1.5 miles south of Nouasseur Air Base runway, appeared to stop or 'hover'. The light remained stationary at this point until our aircraft departed and at times varied in intensity; however, with no particular time interval. Ground fog began forming at about 2245 hours and light was no longer visible.

"c. Weather at time of sighting was clear with no cloud formations in view.

"d. Attempt was made to locate light for ground party from Nouasseur Air Base, but no report was received of results of search."

4. The following Controllers's Special Journal was received from the Directorate of Operations, Headquarters 5th Air Division:

"2521582 - From CZ Flight Service - Radar at Nouasseur picked up an unidentified aircraft over Nouasseur at 2150Z. C-47 number 9131, on a local flight from Sale, over Nouasseur and in contact with Nouasseur tower and standing by for instructions. Pilot Major Radin. Called Staff Duty Officer.

"2522042 - From CZ Flight Service - Pilot of 9131 reports a stationary light approximately one to one and one-half miles South of Nouasseur and it does not seem to be a conventional aircraft. Called Staff Duty Officer.

"2522232 - Called Nouasseur Operations (Sgt Callan) - C-47 number 9131 over object which is stationary. Airdrome Officer and OSI, with a radio controlled jeep, going out to investigate. Called-Staff Duty Officer.

"2522252 - From CZ Flight Service - Light is on the ground. 9131 circling the spot. Airdrome Officer and OSI going out to the area. Called Staff Duty Officer, no instructions. Asked if I should get in touch with Director of Operations. Negative.

"2522402 - Called Flight Service, CZ - No further information.

"2522452 - Called Nouasseur Control Tower - Airdrome Officer and OSI have not returned as yet. C-47 number 9131 cleared from Nouasseur due to fog. No further information. Called Staff Duty Officer.

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 6 OF 8 PAGES
Directorate of Intelligence Headquarters 5th Air Division	23-53	

"2523092 - From CZ Flight Service - Port Lyautey picked up an unidentified object between 5,000 and 9,000 feet over Casablanca, on their radar and they believe that it is a jet aircraft. CZ says we do not have any jet aircraft flying in this area. C-47 number 9181 departed the Nouasseur area back for Sale approximately twenty minutes ago. Called Staff Duty Officer.

"2523202 - Called Site 11, Lt Gaylord, at Colonel Hudson's suggestion, and tried to get some information from them. They would not give me any so I transferred the call to Colonel Hudson. Called M Sgt McDowell.

"2523352 - Called Nouasseur Operations (Sgt Callan). Airdrome Officer and OSI returned from their investigation. Fog came in so fast that they could not locate the object. Sgt Callan believes that the base is on an alert for the remainder of the night.

"2523412 - Called Port Lyautey, (ZEP). Same object or a different one at a heading of 280 degrees 27 miles, closing. Called Staff Duty Officer.

"2523472 - Port Lyautey called. Same object just faded from the screen at the same heading and same distance as above.

"2523502 - From Port Lyautey. Objects picked up on radar at 235 degrees, 28 miles, 11,000 feet, opening; 345 degrees, 33 miles, 11,000 feet, opening; 333 degrees, 42 miles, 13,000 feet, closing. Called Staff Duty Officer. He informed me that Site 11 and Port Lyautey are working in coordination with each other.

"2600572 - Colonel Harvey was notified of all the above information by M Sgt McDowell and T Sgt Ociepka. Was told to keep monitoring, maintaining a complete log and if anything further develops to notify him immediately, otherwise have a complete log ready for Colonel Harvey in the morning.

"2601502 - Called HJI at Site 11 and they stated that the last time they had contact with an unidentified object was at 252330Z.

"2603152 - Called HB at flight service to see if there were any aircraft between the hours of 251200Z and 260300Z flying locally, departing or entering French Morocco which were unaccounted for. All aircraft were accounted for.

"2607252 - Called HB at flight service requesting the following information:

a. Altitude of object
b. Direction from Nouasseur
c. Intensity of light
d. How long object was seen
e. Person who first observed object"

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APPROVED 1 JUNE 1948

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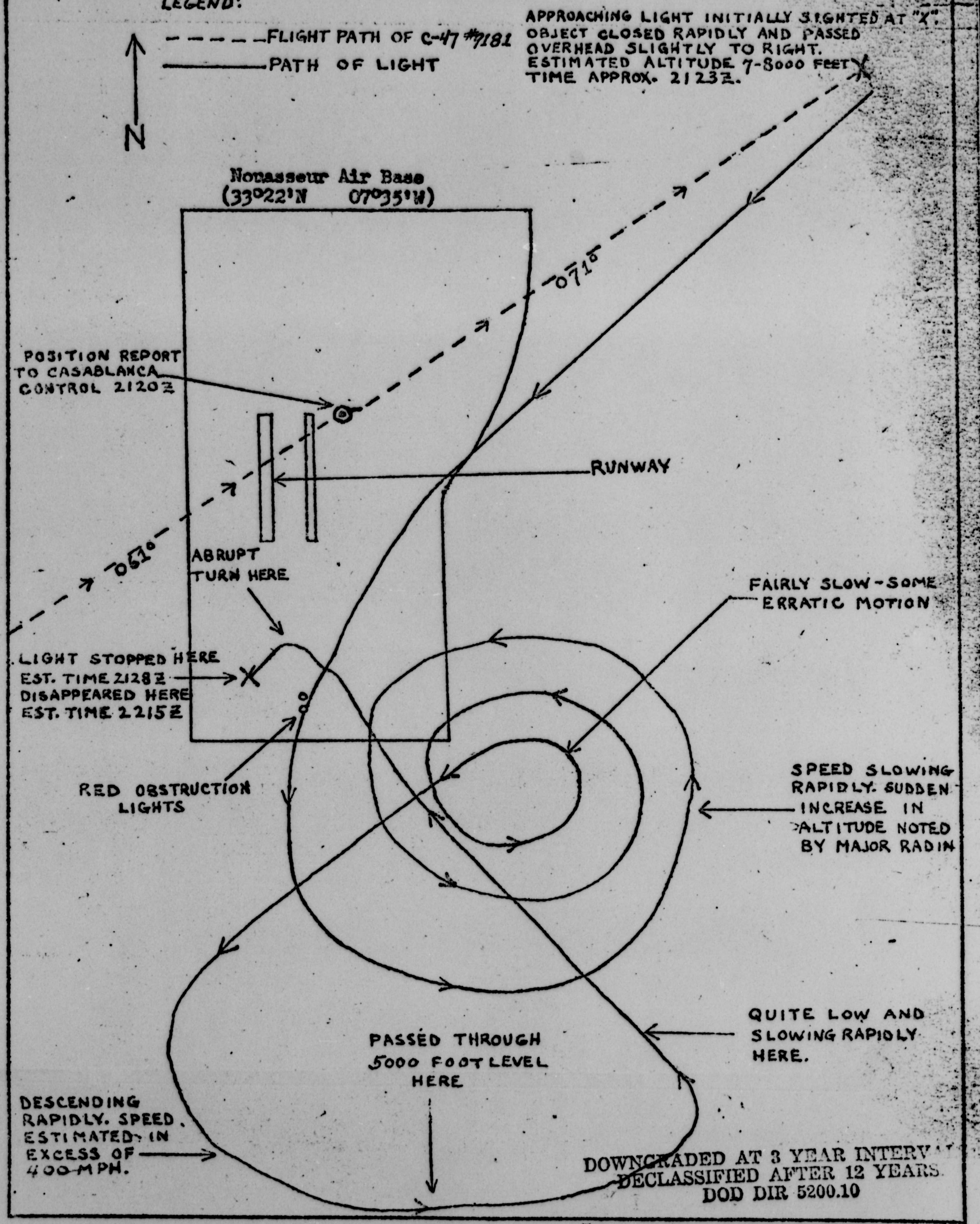
AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 7 OF 8 PAGES



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COORDINATION

INSERT ORGNL CODE AND FULL SIGNATURE

M.D. Zuttah
ATIAE-5
1 Apr 53
R.M. Olson
Actg Chief USAFE
Whitmarsh
ATIAE
2 apr 53
Joseph A Callahan
Chief ATIA
2 Apr 53

Multiple

[redacted]

10

In reply refer to UNCLASSIFIED
AFOIN-ATIAE-5

MGF/jos/65365

2 APR 1953

SUBJECT: (UNCL) Electronic Sighting of Unidentified Aerial Object

TO: Commanding General
5th Air Division
APO 118, c/o PM
New York, New York

1. Your message reporting a combined visual and radar sighting of an unidentified aerial object on 25 Mar 53 at 2123Z near Bouasseur Air Base (33°22'N-07°35'W) has been received by the Air Technical Intelligence Center. It will be appreciated if you will give us the correlation between the radar and visual contacts.

2. The Air Technical Intelligence Center is attempting to gather all the facts surrounding the incident and, therefore, is inclosing an Electronics Data Sheet to be filled out by the radar personnel involved.

3. This information will be used to attempt an evaluation of the unidentified aerial object. We will appreciate your action in completing the inclosed questionnaire and forwarding it to this Center at your earliest convenience.

FOR THE COMMANDING GENERAL

2 Incls
1. Elec Data Sheet
2. Return Env

ROBERT C. BROWN
Major, USAF
Air Adj. Gen.

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SECURITY INFORMATION

AMC Form 8 (Rev 17 May 50) Supersedes AMC Form 8, Rev 1 Apr 48, which will be used. Air Force-WPAFB-L-23 JUL 52 3500M

AF FORM 112
APPROVED 1 JUNE 1948

[redacted]

UNCLASSIFIED

COUNTRY: French Morocco

REPORT NO.: 28-53 (LEAVE BLANK)

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT: FLYOBRPT, Nouasseur Air Base, French Morocco

AREA REPORTED ON: Nouasseur Air Base, French Morocco

FROM (Agency): Directorate of Intelligence, Headquarters 5th Air Division

DATE OF REPORT: 20 April 1953

DATE OF INFORMATION: 25 March 1953

EVALUATION:

PREPARED BY (Officer): Glenn D. Adams, 1st Lt, USAF

SOURCE: Port Lyautey Naval Station Radar Site

REFERENCES (Control number, directive, previous report, etc., as applicable): TWX, DIOC 01698, 26 March 1953; Headquarters 5th Air Division IR 23-53, 1 April 1953

SUMMARY: (Enter concise summary of report. Give significance in final one-sentence paragraph. List inclosures at lower left. Begin text of report on AF Form 112—Part II.)

1. An unidentified flying object was sighted at Nouasseur Air Base, 33°22'N 07°35'W, 25 March 1953 at 2123 hours, by the crew of a C-47 on a routine training flight. The air crew of the above aircraft was interviewed and an investigation was conducted at Nouasseur Air Base by the Preparing Officer.

2. Reference letter, Air Technical Intelligence Center, Wright-Patterson Air Force Base, Ohio, AFOIN-ATIAE-5, 2 April 1953, requesting specific electronics data on ground radar, further investigation reveals that the only radar site that observed an unidentified target was the Port Lyautey Naval Station, (34°18'N 06°36'W), from 2200Z to 2355Z, 25 March 1953. The following report is based on ATIC Form 332, Electronics Data Sheet (Ground Radar).

APPROVED:

William B. Merrill, Jr.

WILLIAM B. MERRILL, Jr.
Lt Colonel, USAF
Director of Intelligence

1 INCLS.
Target Track

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

DISTRIBUTION BY ORIGINATOR

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AF FORM 112—PART II
APPROVED 1 JUNE 1948

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 2 OF 5 PAGES
Directorate of Intelligence Headquarters 5th Air Division	28-53	

ELECTRONICS DATA SHEET
(GROUND RADAR)

1. Station observing target: Port Lyautey Naval Station, FPO 214, c/o U. S. Navy, ASR Site.

2. Date of report: 25 March 1953.

3. Date target observed: 25 March 1953, 2200Z to 2355Z.

4. Exact location of station (coordinates): 34°18'N 06°36'W

5. Observers:

Name	Rank	Duty	No. of Years Exp. in Radar
Krzympiec, Joe G.	RDSN	Watch Stand-Radar	5 yrs
Waltenburg, Charles G.	ET3	ASR Technician	3 yrs

6. Was a visual sighting made by any personnel of the station? No.

7. Have you heard of anyone not at the radar station making a visual sighting at approximately the same time the radar contact was made? Yes.

COMMENT: Navy 214 Air Control Tower reported AF aircraft (C-47) had visual sight of target in the area of Nouasseur Air Base.

8. Radar scope photos: Negative.

9. Track data: Negative.

10. Were aircraft scrambled to intercept the target? Negative.

11. Were any nearby radar installations queried whether they had observed the same target or track? Yes.

If so, which stations? 549th AC&W Group, Site 11, with negative results.

12. Was the target observed on search radar? Yes.

Nomenclature of equipment: Mobile SPIM (Navy).

13. Was the target observed on height finding radar? Yes.

Nomenclature of equipment: Mobile SPIM (Navy).

14. Have there been any recent maintenance difficulties? Yes.

COMMENT: 6SG7 was replaced in the receiver 12 days prior to this sighting.

15. What type modulator is used in the radar equipment? Line type, wave guide.

16. Was the AFC circuit operating Properly? Yes.

COMMENT: AFC was on during this operation and appeared to be in excellent condition.

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APPROVED 1 JUNE 1948

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 3 OF 5 PAGES
Directorate of Intelligence Headquarters 5th Air Division	28-53	

17. Has interference from another radar set been observed recently? Yes.

COMMENT: "Jack rabbits" on "A" and PPI scope from GCA and TPS1B at ASR site.

18. Are personnel familiar with the effects caused by an interfering signal? Yes.

COMMENT: Past experience includes ship radars in convoys and also ship to shore.

19. Are personnel familiar with the effects of anomalous propagation as they pertain to this type of radar? Yes.

20. Has anomalous propagation been observed to extend the range of the ground clutter of this radar at this site? Yes.

COMMENT: Equipment is supplied with a sea return and ground return depression switch.

21. Was anomalous propagation extending the range of the ground clutter at the time the target was observed? No.

COMMENT: The range and altitude of target did not permit use of depressor.

22. How did the target appear in size and shape as compared to conventional aircraft targets? The size of the blob on PPI scope was the same but appeared much stronger and fluctuated more rapidly. On the "A" scope, it was very strong.

23. Performance of target:

a. Remained consistent in size:	Yes	Changed size rapidly:	No
b. Speed was constant:	No	Speed was variable:	Yes
c. Followed consistent track:	No	Appeared, disappeared, then reappeared in new loaction:	Yes
d. Fuzzy compared to aircraft target:	No	Sharp compared to known aircraft target:	Yes
e. Same as aircraft target:	Yes		

24. Were other targets (known) observed in the same general area, at approximately the same time and at the same altitude as the unusual target? Yes.

COMMENT: Report was given to the site that a USAF C-47 had spotted and pursued an unusual target. The C-47 and the unusual target were at approximately the same altitude but greater range for about three minutes.

25. What type indicators were used to follow the target? "A" and PPI scopes.

Describe the signal: On "A" scope, it was strength No. 6 (Navy - very strong); on PPI, same as aircraft (jet size).

26. What was the radar scan rate? 6 RPM.

27. What was the frequency of the transmitter? 2800 mc

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE 4 OF 5 PAGES
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28. Did any of the observers have any opinions as to the nature of the target? Yes.

Krzympiec, Joe G. - Fast Jet
Waltenburg, Charles G. - Conventional Plane

29. Additional comments of the observers:

The following information was derived from a report written about the unknown target sighted on radar, 25 March 1953:

"As the target approached land, a great deal of radio interference was observed on the PPI and "A" scopes. From past experience, this was not due to weather conditions or normal radio interference. Its appearance suggested jamming. Each time the target faded, this interference became heavy and covered about 5 degrees from 10 to 25 miles and from 0 to 10,000 in altitude. When the target appeared again, tha interference faded. The fact that the target changed altitudes quickly caused me to believe it was a jet plane."

The following was extracted from the ASR Site log, Port Lyautey Naval Station, 25 March 1953:

Time	Bearing	Range	Remarks
2200	240	60 mi.	Unidentified..15,000 feet
2205			Target faded.
2210	245	10 mi.	Unidentified, 0 altitude.
2215			Target faded.
2225	286	60 mi.	Aircraft,5,000 ft..closing.
2231	266	56 mi.	Aircraft,9,000 ft..closing.
2237	248	58 mi.	Aircraft,8,000 ft..opening.
2255			Aircraft faded.
2304	235 to 230	10 to 25 mi.	Radio interference,0 to 10,000 ft.
2310			Interference faded.
2330	255	38 mi.	Aircraft,9,000 ft..closing.
2335	260	34 mi.	Aircraft,9,500 ft.
2337	270	30 mi.	Aircraft,9,000 ft..closing.
2340	280	27 mi.	Aircraft,9,000 ft.
2344			Aircraft faded.
2347	335	28 mi.	Aircraft,11,000 ft..opening.
2350	345	33 mi.	Aircraft,11,000 ft.
2352	333	42 mi.	Aircraft,13,000 ft..closing.
2355			Aircraft faded. Secured Radar upon notification from Port Lyautey Control Tower.

COMMENTS of the Preparing Officer:

1. This report was checked out with all AC&W sites in the area with negative results. A complete coverage was not made since the Naval Station at Port Lyautey did not come into operation until 2200 hours and the first visual sighting was made at Nouasseur at approximately 2123 hours.

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AF FORM 112—PART II
APPROVED 1 JUNE 1948

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AIR INTELLIGENCE INFORMATION REPORT

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2. It would appear significant that the light disappeared at approximately 2215 hours, and according to the radar log maintained at the Port Lyautey Naval Station, the unidentified target being tracked faded at 2215 hours.

3. During the tracking of the unidentified object by the Port Lyautey Naval Station and upon transferring the available data to a WAC, the object was at no time over the area indicated in the previous report. It is estimated that the object sighted by radar was from 10 to 60 miles out from the land area where the ASR site is located.

Glenn D. Adams

GLENN D. ADAMS
1st Lt, USAF
Preparing Officer

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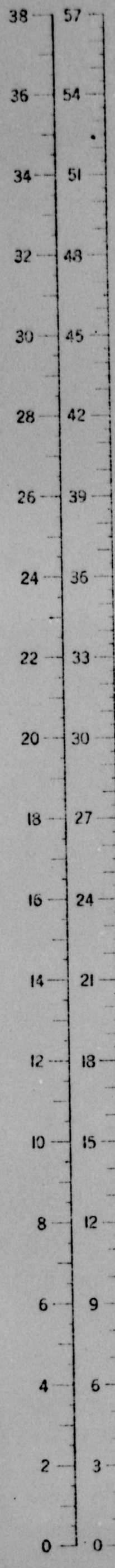
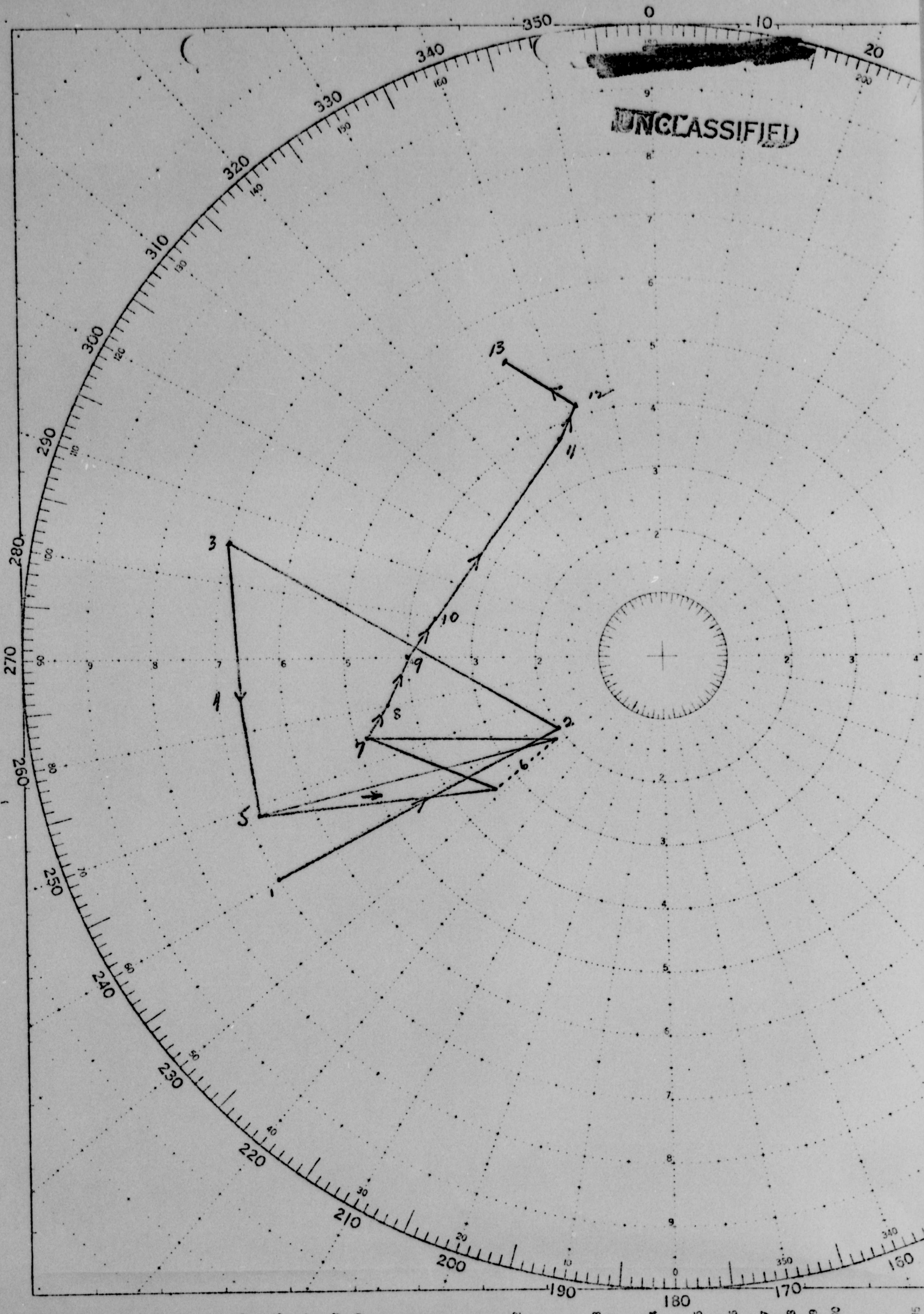
SCALES

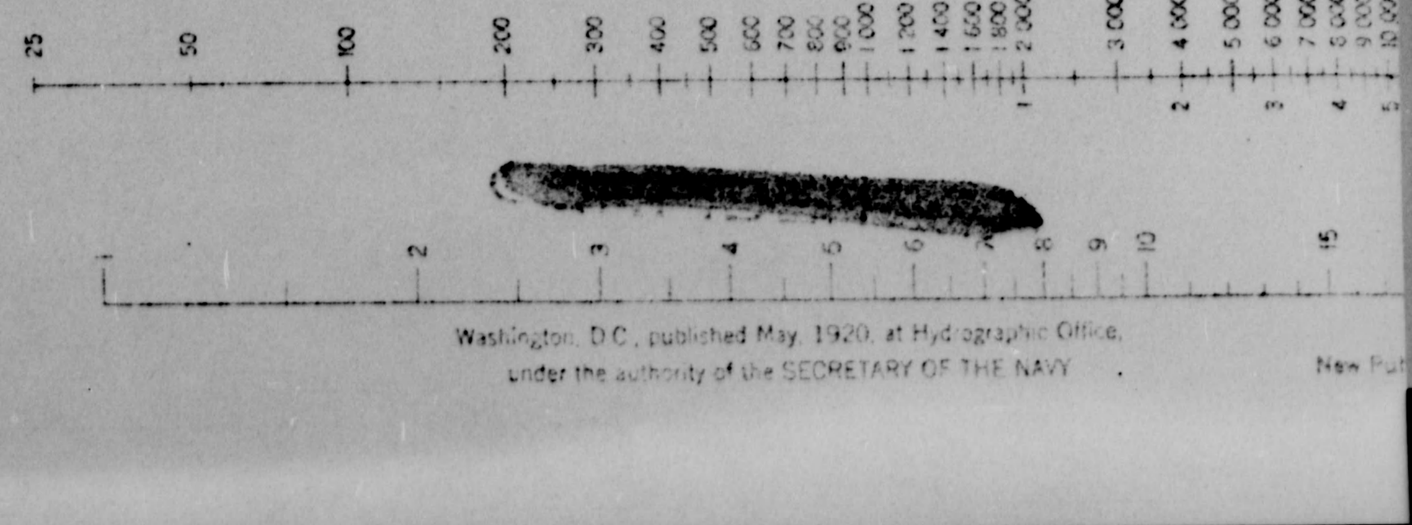
2:1 3:1





LOGARITHMIC SCALE

UNCLASSIFIED



Given any two corresponding quantities, solve for third by laying rule through points on proper scales and read intersection on third scale.

MANEUVERING BOARD

Price 75 cents (per pad of 50)

Washington, D.C., published May, 1920, at Hydrographic Office, under the authority of the SECRETARY OF THE NAVY.

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SCALES
4:1 5:1

4:1	5:1
76	95
72	90
68	85
64	80
60	75
56	70
52	65
48	60
44	55
40	50
36	45
32	40
28	35
24	30
20	25
16	20
12	15
8	10
4	5
0	0

TIME in minutes

DISTANCE in yards
Relative or actual
DISTANCE in miles

Encl 1

SPEED in knots
Relative or actual

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

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Washington, D.C., published May, 1920, at Hydrographic Office,
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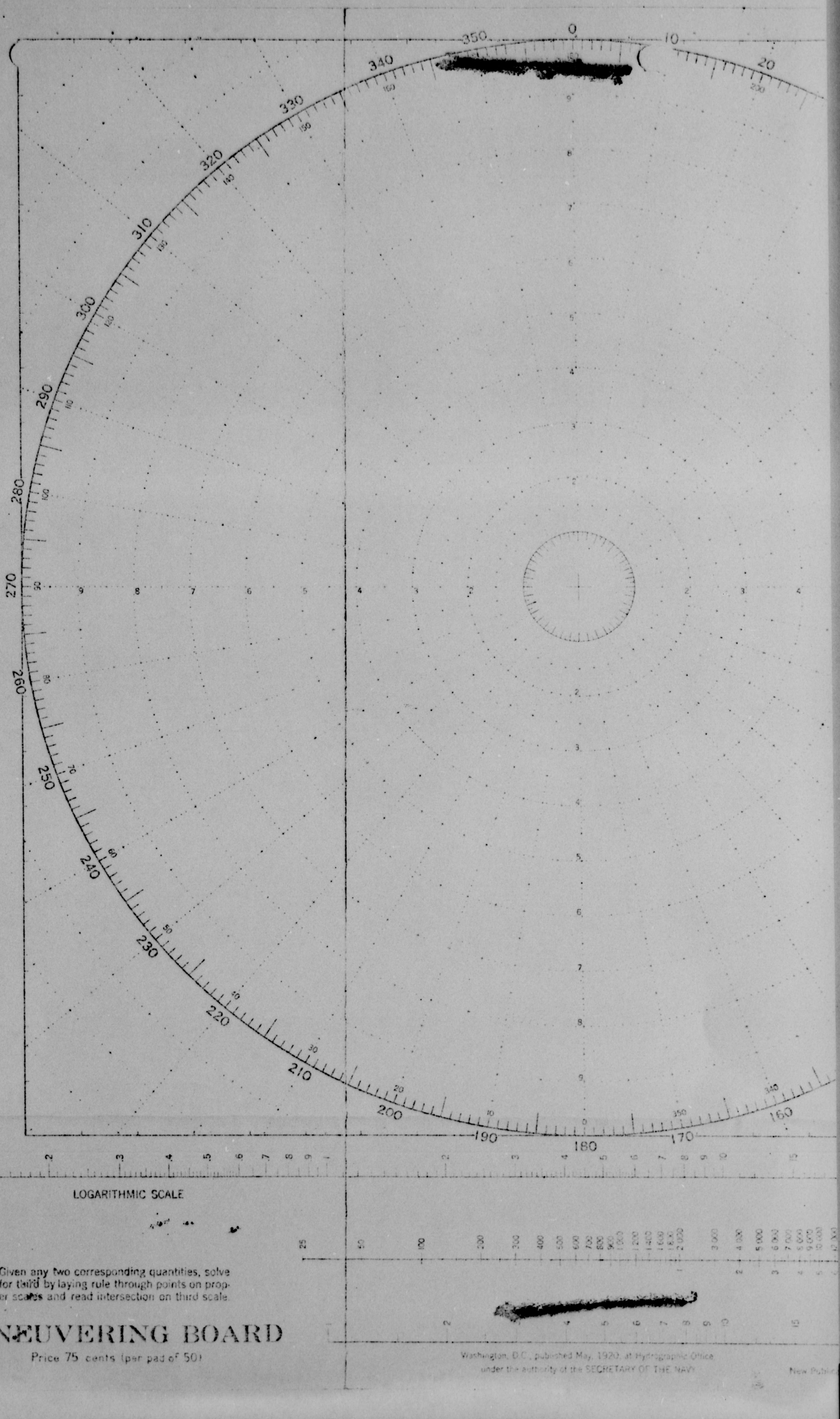
New Publication: 4th. Ed., Apr., 1938 4th. Edition, April 1938 No. 2665 a

SCALES

2:1 3:1

38 57
36 54
34 51
32 48
30 45
28 42
26 39
24 36
22 33
20 30
18 27
16 24
14 21
12 18
10 15
8 12
6 9
4 6
2 3
0 0



LOGARITHMIC SCALE

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SCALES
4:1 5:1

TIME in minutes

DISTANCE in yards
Relative or actual
DISTANCE in miles

SPEED in knots
Relative or actual

Washington, D.C., published May, 1920, at Hydrographic Office
under the authority of the SECRETARY OF THE NAVY

New Publication: 4th. Ed., Apr., 1938

4th. Edition, April 1938

No. 2665 a

THE OHIO STATE UNIVERSITY
HOWARD L. BEVIS, *President*
COLUMBUS 10

EMERSON McMILLIN OBSERVATORY

19 May 53

1st Lt. Robert Olsson
Wright-Patterson AFB.

Dear Lt. Olsson;

This is a belated report on the last batch which I received at the end of April.

Just as soon as our plans for employing Miss Gluck officially go through, I shall be able to send you a sheet with comments on each individual case, so that you will have my comments on each folder. The letter method ~~x~~ has obvious drawbacks. But until that time comes and she can handle my typing and completion of forms, I had better stick to this letter method.

In this latest batch we have only 4 really interesting cases. I might mention a 5th, 28 March 53, Scott AFB, which is the 1st report I've seen of an honest to goodness mirage. 6 Cases have only one observer and I'M following my usual rule of discounting those.

8 April was a meteor.

The Great Falls 3 April case was Venus if reported time was in error.

28 March Albrook AFB was probably Venus.

31 March Honshu, and 30 March Lyle, Wash., are puzzling but could possibly have been balloons.

~~The 8 April~~ Greenland case was an obvious meteor.

This brings us to the interesting cases:

25 March San Antonio could hardly have been a mirage and I'm surprised there was no radar pickup. Was there any aircraft like helicopters that might explain this. Anything more come in on this one? Don't think this is good enough for a pinch-bottle but it should be listed as Nocturnal meandering Light.

29 March Spooner, Wisc: Duration times needs checking here. Hard to to believe that object could have done all that in 15 seconds. An interesting case and one of the regular questionaires should be sent to Mr. Gilette.

Next is the 12 April Stead AFB. I think this is the most interesting case of the batch, and I hope you receive more dope on it. Questionaires should be sent. I'd like to see Menzel explain this one! Is there any possibility that these could have been aircraft? Apparently ducks have been eliminated.

~~As for the~~ 26 March, Equasseur AFB although NML, the data are ~~con~~ tradictroy and insufficient. Perhaps this was a helicopter? We ought to ~~have~~ have much more information on this one. Has this been received?

Sincerely,

Allen Hynek

(420) GRAND ATLAS

N3200-W300/400x700

10 0 10 20 30 40 50 60 70 80 90
STATUTE MILES

10° 9°

(Joins 348-Water)

(Joins 347)

(Joins 419)

12°W

36°

35°

34°

460 450 440 430 420 410 400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160
KILOMETERS

ALTITUDE TINT LEGEND
HIGHEST ELEVATION KNOWN IS
12303
9000
7000
5000
3000
2000
1000
Sea Level
ELEVATIONS ARE IN FEET

CONVERSION OF ELEVATIONS

Feet	Meters
13,000	4,000
12,000	3,500
11,000	
10,000	3,000
9,000	
8,000	2,500

N O R T H A T L A N T I C O C E A N

12°W

122°

CASABLANCA CONTROL

CAZES
197 LH 60
Airport of Entry
CASABLANCA AIRPORT
3255 118.1 mc

CS
CASABLANCA CONTROL
4220 122.1 mc

CS
CASABLANCA APPROACH
3270 · 119.7 mc

CASA
222

WORLD AERONAUTICAL CHA

110 120 130 140 150 160 170 180 190 200 210 220 230
STATUTE MILES

8° 7° 11°W 6°

(Joins 347)

36°

35°

34°

ANNUAL MAGNETIC CHANGE
DECREASE

0 30 60 90 120 150 180 210 240 270 300 330

PROHIBITED AREA

Gp Fl 15 sec 162
Barbate O
Cabo de Trafalgar

Punta Carn

Gp Fl

STRAI

M RBn
CABO SPARTEL
294.5 SP

Gp Fl 20 sec 3

TANG

Cabo Spartel

TANGIER
33 N 56
Airport of Entry

CS-DF
TANGIER
6510 CNC

Interpation

SP
MO

Arzila

Gp Fl 15 sec 261

CS
LARACHE
333 ECS

LARACHE

Et Tleta

Douar Oulad Ahm

N A

AUMARA
33 - 33

Moulay bou Selham

Douar ed Dalaba

Laila Mimouna

Merdja Zerga

Karia Daouia

El Arb du Rha

Mechr

MERDJA DAOURA

231°

Allal Fazi

PORT LYAUTEY
16 LH 61
GCA
PORT LYAUTEY AIRPORT
3255 118.1 mc

CS
PORT LYAUTEY APPROACH
6440 116.1 mc

RBn
PORT LYAUTEY
414 NHY

PORT LYAUTEY CONTROL ZONE

Gp Occ 18 sec 242
Mehdia
PORT LYAUTEY
00 LS 100

Sidi Yahya du Rharb

PORT LYAUTEY

BEGRA
149 66

PORT LYAUTEY RANGE
245 NHY

SALE RANGE
363 KJ

Tiflet

Khemisset

Maaziz

N 85°

Tedders

Oulmes

Dar t
Am

Ka

TROPIC AREA

N A 211°

N A 101°

141°

RBn
SALE
383 KJ

SALE
245 LH 61
Airport of Entry
SALE AIRPORT
6440 118.1 mc

RABAT
230 -H 44

Gp Occ 8 sec
102

RABAT

Mohod

Temara

SALE CONTROL ZONE

Skhirat

Bouznika

Sidi Yahia

Ain el Aouda

Gp Fl 18 sec
95

FEDALA

Oued Cherrat

Oued Grou

Oued Bou Regreg

Mellil

RBn
CASABLANCA
408 CNO

Gp Fl
15 sec
213

CASABLANCA

CASABLANCA CONTROL ZONE

Ain Harrouda

Boulhaut

Sidi Hadjadj

Mellil

Sidi Bettache

Marchand

Ain Saierni

Bouskoura

Mediouna

MEDIOUNA
620 57

Bir Jedid
Saint Hubert

Douar

51°

Oued Nefifikh

Oued Mellah

Oued

Harcha

Oulmes

ABLANCA RADIO
2 KR

N

A

AL CHART

STATUTE MILES

220 230 240 250 260 270 280 290 300 310 320 330 340

6° 5° 4°

10°W

36° 35° 34°

NORTH FRONT
8 LH 53
GIBRALTAR TOWER
6440 118.1 mc

CS
GIBRALTAR APPROACH
122.22 mc

RBn
GIBRALTAR
360 GB

CHATHAM
00 LS 54

PROHIBITED AREA

Barbate

PROHIBITED AREA

Tahalilla

Los Barrios

Algeciras

San Roque

La Linea

GIBRALTAR
(Great Britain)

Point Europe

Gp Oc W - R SEC
30 sec 156

Punta Camarinal

(Joins 347)

Tarifa

Marroqui Rock

Gp Fl 10 sec 125

Scville 60 Miles from GIBRALTAR

STRAIT OF

CEUTA
00 66

Benzou

Gp Fl 10 sec 484

Punta Almina

CEUTA

Riffien

PROHIBITED AREA

Restinga

M E D I T E R R

Fl 5 sec 249

Zahara

Gp Fl 20 sec 312

TANGIER

Cabo Spartel

TANGIER
33 H 56
Airport of Entry

CS-DF
TANGIER
6510 CNC

RBn
SPARTEL
SP

Melousa

Rincon el Medik

Cabo Negra
Fl 2.6 sec 57

Rio Martine

TETOUAN

Lahoucine

Ain Djedida

International Zone

SPANISH MOROCCO

1000

SANIA-RAMEL
33 LH 25
Customs Airport
TETOUAN TOWER
6440

CS-DF
TETOUAN
333 ECQ

TETOUAN CONTROL ZONE

Arzila

Ercoulene

Tisgerine

3000

Punta Targa

Gozal

Bouharrak

Isla Jaegerschmidt

Targa

Fl 7.5 sec 137

Puerto Capaz

Villa Alhucem

Gp Fl 15 sec 403

Gp Fl 15 sec 154

Taghzout

Alcala

Aid

Aoulef

Et Tleta

5515

Xauen

7118

5295

Feddane

Mexerah

Douar Oulad Ahmed

Adeldane

6891

6398

Izhladene

3000

2000

Egaanene

Bourejt

Targuist

AUMARA
33 - 33

ALCAZAR QUIVIR

175°

Douar ed Dalaba

Laila Mimouna

OUEZZANE

Zoumi

Ratba

Taounat el Kchour

8056

Bouked

Karia Daouia

El Arboa du Rharb

Had Kourt

Ain Defali

Mechra bel Ksiri

Mjara

Rhafsai

(Undemarcated)

5089

Sker

Taounate

2000

5994

Taineste

5344

231°

Fes el Bali

Ain Aicha

Khemichet

Olad el Ahmar

Ouerrha

FES
1360 - 48
Airport of Entry
FES AIRPORT
6440 118.1 mc

DF
FES
327 CNA

RBn
TAZA
440 CNV

Karia ba Mohammed

Oued Sebou

281°

Sidi Slimane

Tissa

BEGRA
148 66

Petitjean

Dar bel Amri

El Kansera

Skirat

Moulay Yacoub

Sidi Abdallah

6493

Tahala

Moulay Idriss
3675

2000

FES

Bir Tentar

MEKNES

MEKNES RADIO
205 MK

Sefrou

Ahermoumou

Khemisset

Bataille

MEKNES
1809 LH 52
MEKNES AIRPORT
6440 118.1 mc

DF
MEKNES GONIO
119.7 mc

Immouzer

Tazouta

EL HAJEB
3937

El Hajeb

Annoceur

Tagnaneit

Agourai

Ifrane

IFRANE
5391

AZROU

Almis du Guigou

9171

Ait Makloufi

Cheikh Lansene ou Ali

Outmes

Lambert Conformal Conic Projection
Standard Parallels 33° and 45° Scale 1:1,000,000

(420)

300 310 320 330 340 350 360 370 380 390 400
STATUTE MILES

4° 3°

10°W

CS
GIBRALTAR APPROACH
122.22 mc

RBn
GIBRALTAR
360 GB

(Joins 347)
(Joins 346)
(Joins 421)

GpFl 10 sec 115
Isla del Alboran
(Spain)

36°

E D I T E R R A N E A N

S E A

M RBn
CABO TRES FORCAS
300 TF

Cabo Tres Forcas
GpFl 20 sec 367

GpOcc(U) 15 sec 160

CS
ATALAYON
333 ECR1

GpOcc 10 sec 131
MELILLA

CS
NADOR TAUIMA
333 ECR

Negri Point
Sammar
ATALAYON
00 S 99+
Nador

GpFl 10 sec 262
Cabo Quilates

Villa Alhucemas
GpFl 15 sec 403

EL HERRAIZ
48 33

Fl 7.5 sec 137
Puerto Capaz

GpFl 15 sec 154
Taghzout
Alcala
Mestassa

Ajdir
1020

Sidi Amar ou Moussa (shrine) 3489

Saint Jean des Mines
Souk-el-Khemis
Souk el-Arabaa
Zeluan
NADOR TAUIMA
20 39
Customs Airport

Kandousi
Ben Tieb

2000
Tafersit
5308
Boufarcout
Azib de Midar
Telamghecht

Egaagnene
Targuist
3000
3056

Dar Drius
Bate
Tistoutine
Ergada
Ziata
Toumiat Zaio
Afso
Syah
fort

SPANISH MOROCCO
MOROCCO
(French Protectorate)

6595
Tizi Ouzli
Bouked
Taounat el Kchour
(Unbdemarcated)
6088
Sker
Taounate
2000
5994
Taineste
Aknoul
5812
Hassi Mediam
Saka
6032
Camp Berteaux
Moul el Bacha

5344
Mezguitem
Taourirt

Ain Aicha
48 Entry
PORT
3.1 mc

RBn
TAZA
440 CNV

Tissa
N
TAZA
1600 34
TAZA
M'soun
Guercif
GUERCIF
1280 85

Zaouia beni Mahsene
CS
TAZA
336 CNV

Sidi Abdallah
A
6493
Tahala
Bechiine

Mahiridja
5214
Debdou

Bir Tenfate
Ras el Ksar
Bou Rached
Ain Guettara
El Ateuf

10°W
Ahermoumou
Oulad Ouaher
Berkine
Meski
Tazouta
Talzent
10488
10955
Regzou
Zerouileb
Tagnaneit
5000
Kraker
Ait Makhouf
9171
Cheikh Lansene ou Ali
Tsiouant
Outat el Haj

34°

SCALE 1:1,000,000
NAUTICAL MILES
240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80

CONVERSION OF ELEVATIONS

Feet	Meters
13,000	4,000
12,000	3,500
11,000	
10,000	3,000
9,000	
8,000	2,500
7,000	
6,000	2,000
5,000	1,500
4,000	
3,000	1,000
2,000	500
1,000	
0	0

KILOMETERS

34°

33°

32°

12°W

CASABLANCA

122°

CAZES
197 LH 60
Airport of Entry
CASABLANCA AIRPORT
3255 118.1 mc

CS
CASABLANCA CONTROL
4220 122.1 mc

CS
CASABLANCA APPROACH
3270 119.7 mc

DF
CASABLANCA GONIO
119.7 mc

FW-R SEC 148

Fl 5 sec 220

MAZAGAN
88 49

MAZAGAN

Azemmour

Douar el Hachmi ben Toumi

Sidi Smaine

Oulad Fkih

Oualidia

Sidi Bennour

El Khemis des Zemamra

Douar Allal beni Mohamm

Et Tnine Gharbia

Douar beni Haouari

Gp Fl 10 sec 217
Cap Cantin

Douar Sidi Aissa

Guerando

El Djema Sahim

147 SAFI 61
SAFI

Et Tleta de Sidi Embarek

Et Tnine Bouri

Louis Gentil

Chemaia

(Joins 419)

(Joins 454)

N

127°

A

12°W

10°

9°

NAUTICAL MILES

10 0 10 20 30 40 50 60 70

To Marrakech

285 B

(420)

PUBLISHED BY THE AERONAUTICAL CHART SERVICE,
U. S. ARMY AIR FORCES, WASHINGTON, D. C.,
NOVEMBER 1943 (C&GS) Revised SEPTEMBER 1946 (ACS) BASE NO. 2R

Lines of equal magn

CASABLANCA CONTROL AREA

CASABLANCA CONTROL ZONE

PORT LYAUTEY CONTROL ZONE

SALE CONTROL ZONE

CASABLANCA RADIO
222 KR

RBn
CASABLANCA
408 CNO

CASABLANCA
Gp Fl 15 sec 213

RBn
SALE
383 KJ

SALE
245 LH 61
Airport of Entry
SALE AIRPORT
6440 118.1 mc

RABAT
230 -H 44

MEDIOUNA
620 57

FEDALA
Gp Fl 18 sec 95

PORT LYAUTEY
Gp Occ 18 sec 242
00 LS 100

RABAT
Gp Occ 8 sec 102

KHOURIBGA
2560 -H 66
KHOURIBGA AIRPORT
6440 118.1 mc

CS
KHOURIBGA
6490 FWV

SIDI LASSENE
1250 39

GHEZAZRA
2575 30

QUED ZEM
2756 65

MAZAGAN
Fl 5 sec 220

FW-R SEC 148

101°
122°
141°
211°
270°
51°
220°
31°
11°W

Casablanca, Mediouna, Bir Jedid Saint Hubert, Azemmour, Douar el Ghenadra, Mazagan, Douar el Hachmi ben Toumi, El Had, Oulad Said, Sidi Smaine, Oulad Fkih, Douar Caid Tounsi, Douar Allal beni Mohammed, Douar el Mehazil, Douar Chafai, Douar el Marsa, Guerando, Koudia Cheikh Salah, Et Tnine Bouchane, Louis Gentil, Benguerir, Sidi Zitone, Chemaia, Sed el Mejnoun, Oulad Kalib, El Kelaa des Srarhna, El Gantra, Sidi bou Okba, Douar Ould Zidouh, Ouzoud, Douar Oulad Aissa, El Jediane, Et Tleta, Fkih beni Salah, El Borouj, Douar Cheikh Miloudi, Berrechid, Boucheron, Foucauld, Benahmed, Ras el Ain, Sidi Bennour, El Khemis des Zemamra, Douar beni Haouari, Douar Allal beni Mohammed, Mechra Benabbou, Oued Oum er Rbia, Oued Tessaout, Oued Beht, Oued Nefifikh, Oued Cherrat, Oued Grou, Oued Bou Regreg, Oued Ykem, Oued Korifla, Oued Mellah, Oued Ouaddi, Oued Tiflet

PORT LYAUTEY
414 NHY

PORT LYAUTEY CONTROL ZONE

Kourt
Ain Defali
Mechra bel Ksiri
Meera
Fes el Bali
Taouna
Ouerrha
Oued Sebou
Klemichet
Oiad el Ahmar
Karia ba Mohammed

FES
1360 46
Airport of Entry
FES AIRPORT
6440 118.1 mc
DF
FES
327-CHA

Gp Occ 18 sec 242
Mehdia
PORT LYAUTEY
00 LS 100
PORT LYAUTEY
Sidi Yahya du Rharb
BEGRA
148 66
Sidi Slimane
Petitjean
Dar bel Amri
El Kansera
Moulay Yacoub
Skhirat
Moulay Idriss
3675
2000
LS
34°

Gp Occ 8 sec
102
SALE
RABAT
Mono

PORT LYAUTEY RANGE
245 NHY

SALE RANGE
363 KJ

Tenmara
Sidi Yahia
Ain el Aouda
Tiflet
Khemisset
Oued Grou
Oued bou Regreg
Maaziz
Batanie

MEKNES
1800 LH 52
MEKNES AIRPORT
6440 118.1 mc
MEKNES GONIO
118.7 mc

MEKNES
MEKNES RADIO
205 MK
Sefrou
Immouzer
EL HAJEB
3937 30
Annoceur
El Hajeb
Agourai
Ifrane
IFRANE
5581 66
AZROU
Almis du Guigou
Sidi Bettache
Marchand
Tedders
Harcha
Oulmes
Ain Leuh
Lias
Timhadit
Christian
Moulay Bouazza
Taziot
Aguelmous
Djemaa de Mrirt
El Hammam
Bou Anguer
El Krapulat
El Bordi
33°
35°
Tallalit
Koudia bou Alouane
QUED ZEM
2756 65
Bou Djeniba
Sidi Lamine
Kenifra
Itzer
Assara n'Tebahirt
Khouribga
QUED ZEM
Andre Delpit
Kerrouchene
Boujad
Takebalt
Kebbab
Bou Mia
Midelt
KASBA TADLA
1722 30
Kasba Tadla
KASBA TADLA SOUTH
1673 59
El Ksiba
7472
Tamalout
DJEBEL AYACH
12303
Et Tleta
Fkih beni Saleh
Douar Oulad Aissa
El Jediane
Tizi n' Isly
Tadiount
Tounfite
Massou
BENI MELLAL
1722 49
Taghzirt
Beni Mellal
Douar Ould Zidouh
Oulad Embarek
6966
7885
Aneregou
Ksar Ait Atta
Amougueur
Ouaouizarht
Bin el Ouidane
10574
10119
10280
Ou Tarbat
Tana
Ouzoud
Azilal
10157
10522
Tamesloht
32°
(Joins 454)
(Joins 453)
10°W
6°
5°
NAUTICAL MILES
140 150 160 170 180 190 200 210 220 230 240 250

NOTE: Military users of this chart will mark hereon corrections and additions which come to their attention and mail direct to "HEADQUARTERS, AERONAUTICAL CHART SERVICE, ARMY AIR FORCES, WASHINGTON, D. C."

This chart is prepared for use at night under white, ultra-violet, red, and amber lights.

Lithographed by AMS.
Aero Overprint by

GRAND ATLAS (420)

FRENCH AND SPANISH MOROCCO - INTERNATIONAL ZONE

N3200-W300/400x700

SCALE 1:1,000,000

7th EDITION

AIR INFO CURRENT OCT 1949

d by AMS, 8-49, 341455
reprint by ACS, 10-49

Sbai
Tequinate
Sher
Taineste
Ain Richa
Tissa
RBn TAZA 440 CNV
TAZA
1600 34
M'soun
Mezguitem
Sidi Abdellah
Zaouia beni Mahsene
CS TAZA 936 CNV
Bechiine
Tahala
Bir Tentane
Sefrou
Ahermoumou
Tazouta
Tagnaneit
Tetzent
Berkine
Reggou
Meski
Kraker
Ait Makilouf
Cheikh Lansene ou Ali
Tsiouant
Outat el Hadj
Enjil
MISSOUR 2985 66
Doulrat
Missour
Teggour
Tallalit
Assaka n'Tebahirt
Ksabi
Cuizért
Meslakh
Meridja
Midelt
Ait Hammou Hedda
Amersid
Tagentatcha
Mougueur
Gourrama
Richi
Mzizel
Kerrando
Ksar Aggadim
Inegol
Atchana
Tazzougert
KSAR ES SOUK 3445 39
Ksar Kaddou
Oulad Ousher
Zerouileb
Mahiridja
Debdou
Ain Guettara
El Ateuf
Guercif
GUERCIF 1280 85
Taourirt
Medlam
Camp Perteaux
Bacha
Ain el Gaultier
Oued Moulouya
Oued Inaouene
Oued Amlil
Hassi Smar
Hassi el Khmar
Oulad el Hadj
Puits de Tawaja
Talsint
Anoual
Meridja
Ksar des Ait Ichchou
Beni Tadjit
BENI TADJIT 3445 44
Bou Anane
BOUDENIB 3068 28
(Joins 421)
(Joins 453)
Oued Ait Atsou
Oued Khenifra el Hatlane
Hassi Hadjarine
Hassi Ouled Ahmed

AERONAUTICAL CHART SUPPLY

(Ref: AAF Reg. 65-82)

1. **Aeronautical charts, maps and publications** distributed by the Aeronautical Chart Service are indexed or listed in the current edition of the USAF "Catalog of Aeronautical Charts and Related Publications."

2. **Requisitioning.**

a. Outside Continental United States:

(1) USAF activities are to submit requisitions thru the supply channels designated by the Theater Commander for maintenance and distribution of aeronautical charts and maps.

(2) Theater supply facilities are to submit requisitions for replenishment of stocks of aeronautical charts and maps thru channels to Headquarters, Aeronautical Chart Service, USAF, Washington 25, D. C.

b. Within Continental United States: Requisitions from USAF activities within Continental United States are to be submitted to USAF Aeronautical Chart Service Store, Washington 25, D. C. Except when emanating from an Air Force, Wing, or Command Headquarters, requisitions are to bear the signature or approval by indorsement of the Base or Station Operations Officer. Quantities of charts and maps requested are to be such as to assure the maintenance of a 30-day supply at all times but not to exceed a 60-day supply. (Clearing stations authorized by AAF Regulation 61-4, will submit requisitions direct to USAF Aeronautical Chart Service Store).

3. **Requirements for Special Purpose Maps and Charts.**

a. Maps and charts for special purposes, specific missions, and also those maps and charts published by other Government agencies, which are not listed in the principal types of aeronautical charts, in the current edition of the USAF "Catalog of Aeronautical Charts and Related Publications", should be requisitioned from Headquarters, Aeronautical Chart Service, USAF. Charts will be furnished, if available, when sufficiently identified in requisitions as to name or number, scale, projection and publisher.

b. Information regarding cloth reproduction of certain selected aeronautical charts and maps may be obtained on request to Headquarters, Aeronautical Chart Service, USAF.

4. **Obsolete Charts.**

a. Aeronautical charts rendered obsolete-for-air by a new edition, when not practicable to correct for conformity with new edition, are to be salvaged if feasible, or else destroyed. Disposition by salvage or destruction is to be made in accordance with provisions of AR 380-5.

5. **Aeronautical Charts for Civilian Use.**

a. The U. S. Coast and Geodetic Survey, Department of Commerce, Washington 25, D. C., is responsible for the sale and distribution of aeronautical charts required for civilian use. Inquiries from United States civilians regarding price, coverage, distribution, etc., should be submitted direct to that agency.

MAKE EXTRA FOLD HERE TO RETURN TO HDQRS., ACS

FROM _____

_____

_____

_____

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

OFFICIAL BUSINESS
PERMIT NO. 1054

STAPLE HERE

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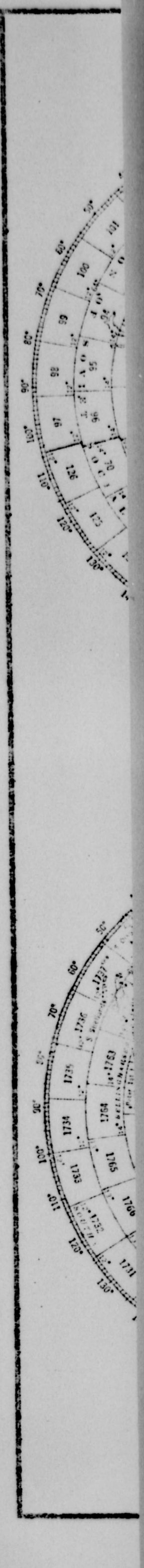
To:

Commanding Officer
Aeronautical Chart Service, USAF
Washington 25, D. C.



CORRECTION INSTRUCTIONS

1. **Military users of this chart** are urged to mark hereon any errors or omissions. Corrections of radio and airway information, drainage, cultural features (roads, canals, power lines, etc.) should be marked on the face of the chart or on an overlay of the area. In reporting elevation corrections, state method used by observer in making the determination.

2. **Every effort** is being made to furnish the user with accurate charts. The user will materially assist in this effort by:

a. Marking correction on face of chart or under "Remarks", below.

b. Folding chart along regular fold lines, but with back out.

c. Making an extra fold along dotted line and stapling at points so marked.

3. **Corrected chart** may then be dropped in any U.S. mail box.

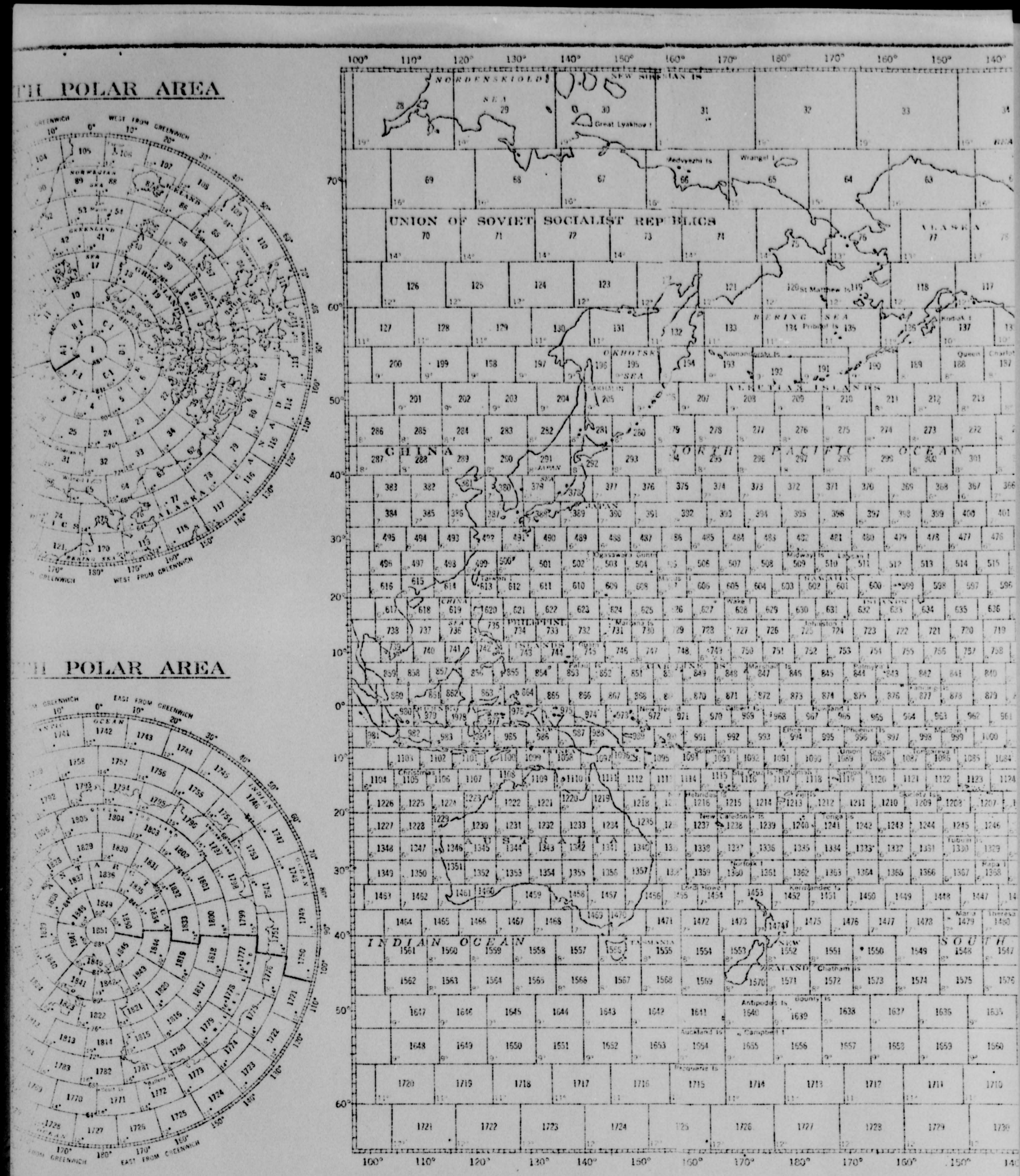
REMARKS: _____

_____

_____

AIRPORTS—
services, comple
cable) passenger
ramp with hauli

SEAPLANE LAN



AERONAUTICAL SYMBOLS

AERODROMES

…E FACILITIES Refueling …helter, and (where appli- …rvices and/or seaplane …ities.

AIRFIELDS—LIMITED FACILITIES Refueling services for normal traffic and limited repair facilities.

	SEAPLANE	LANDPLANE	
…ilitary Base			Military
Civil			Civil
Joint Civil and Military Base			Joint Civil and Military

LANDING GROUNDS and ANCHORAGES

AERO…

All freq…
Methods of indi…

Radio Range
(With voice)

Radio Range
(Without voice)

Non-Directional Radio Beacon
(With voice)

D AERONAUTICAL CHART INDEX

Scale of Series 1:1,000,000

AERONAUTICAL SYMBOLS

RADIO FACILITIES

All frequencies are kilocycles unless otherwise stated
Methods of indicating specific voice and CW calls are shown below

WOODY RADIO 291 AB ·—·· ···

Radio Communication Station (With voice)

CS GOWEN AIRWAYS 4765

WILLOW RANGE 320 KB —·— ···

Radio Communication Station (Without voice)

CS KAZAN 5200 WYZW

RBn EVERETT BEACON 224 MMC —— ·—· ·—·

Radio Broadcasting Station

BS WOL 1260

RBn EVERETT

Radar Beacon (Racon)

RACON CHANNEL X

TOPO

CITIES and TOWN

Metropolitan Areas ..... NEW Y

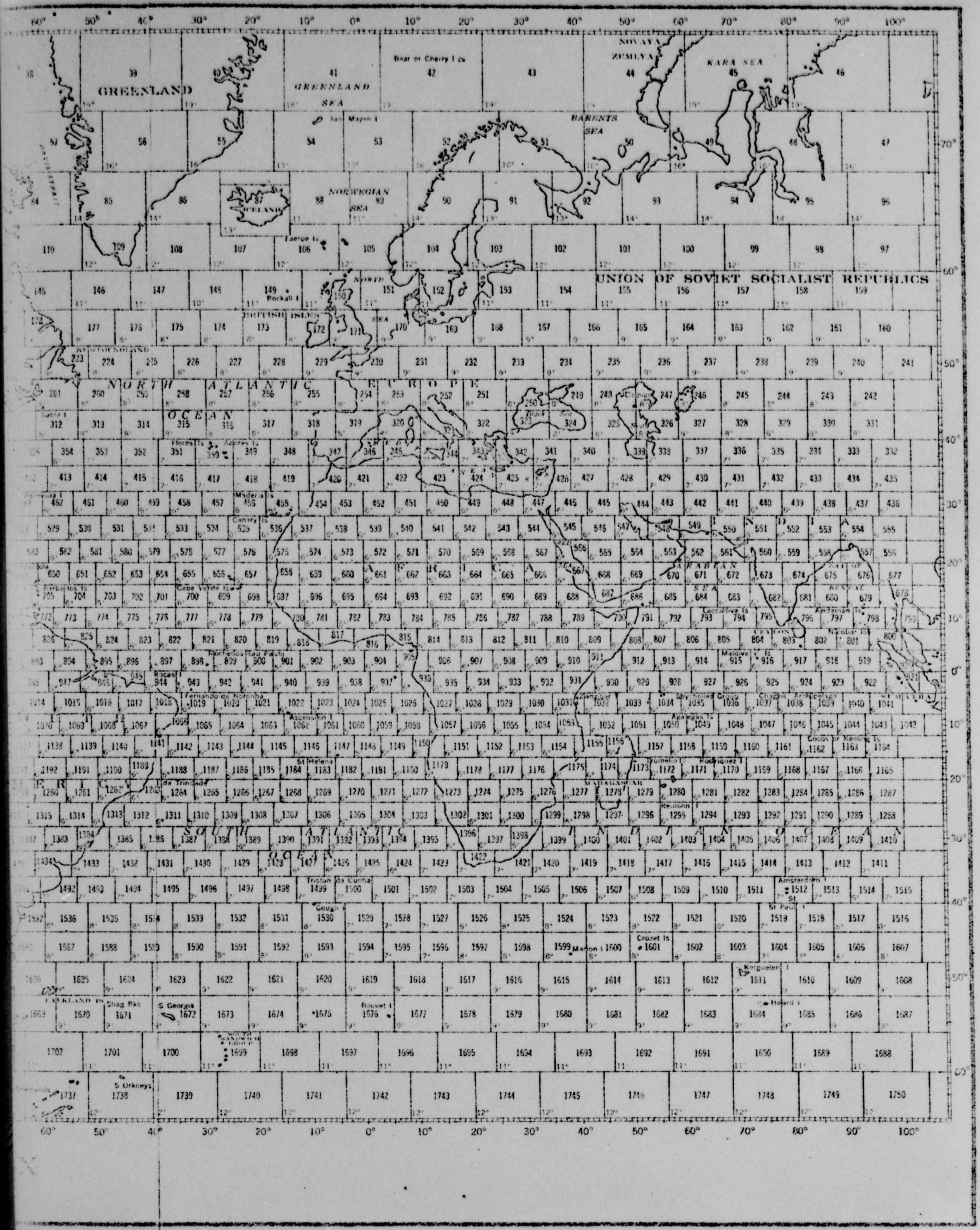
Large Cities ..... RICH

Cities ..... ARI

Small Cities .....

Large Towns .....

Towns & Villages .....



WAC (8U 7)

TOPOGRAPHICAL SYMBOLS

CITIES and TOWNS

Metropolitan Areas	NEW YORK
Large Cities	RICHMOND
Cities	ARLINGTON
Small Cities	SANGATE
Large Towns	Corville
Towns & Villages	Arcola

HIGHWAYS and ROADS

Dual Lane Highways	
Primary Roads	
Secondary Roads	
Trails	
U. S. Road Markers	60
National, State or Provincial Road Markers	37
Road Names	ALASKA HIGHWAY

RELIEF FEATURES

CS
GOWEN AIRWAYS
4765

CS
KAZAN
5200 WYZW

BS
WCL
1260

RACON
CHANNEL X

Commanding Officer
Aeronautical Chart Service, USAF
Washington 25, D. C.

STAPLE HERE

STAPLE HERE

CORRECTION INSTRUCTIONS

1. **Military users of this chart** are urged to mark hereon any errors or omissions. Corrections of radio and airway information, drainage, cultural features (roads, canals, power lines, etc.) should be marked on the face of the chart or on an overlay of the area. In reporting elevation corrections, state method used by observer in making the determination.

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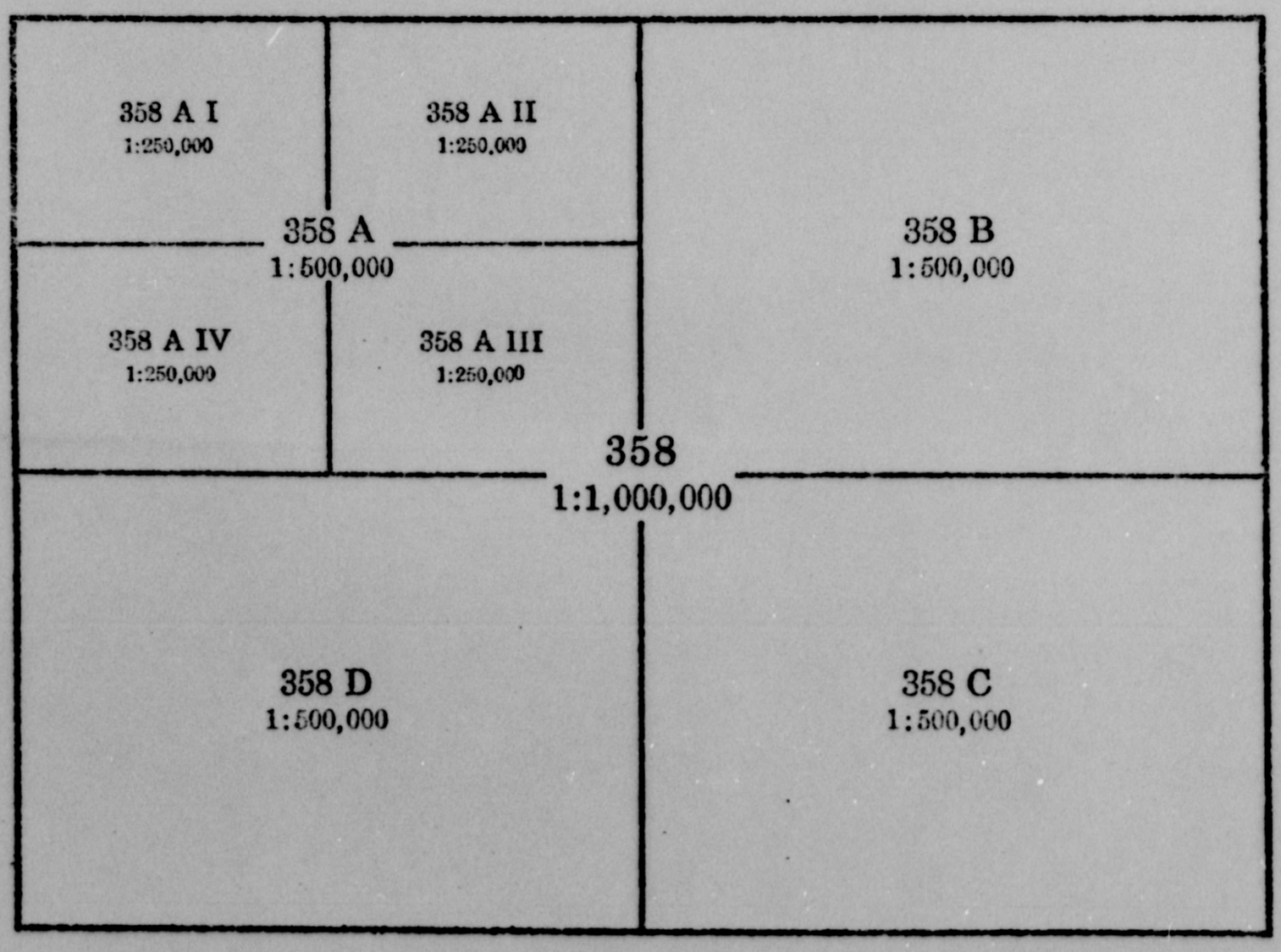
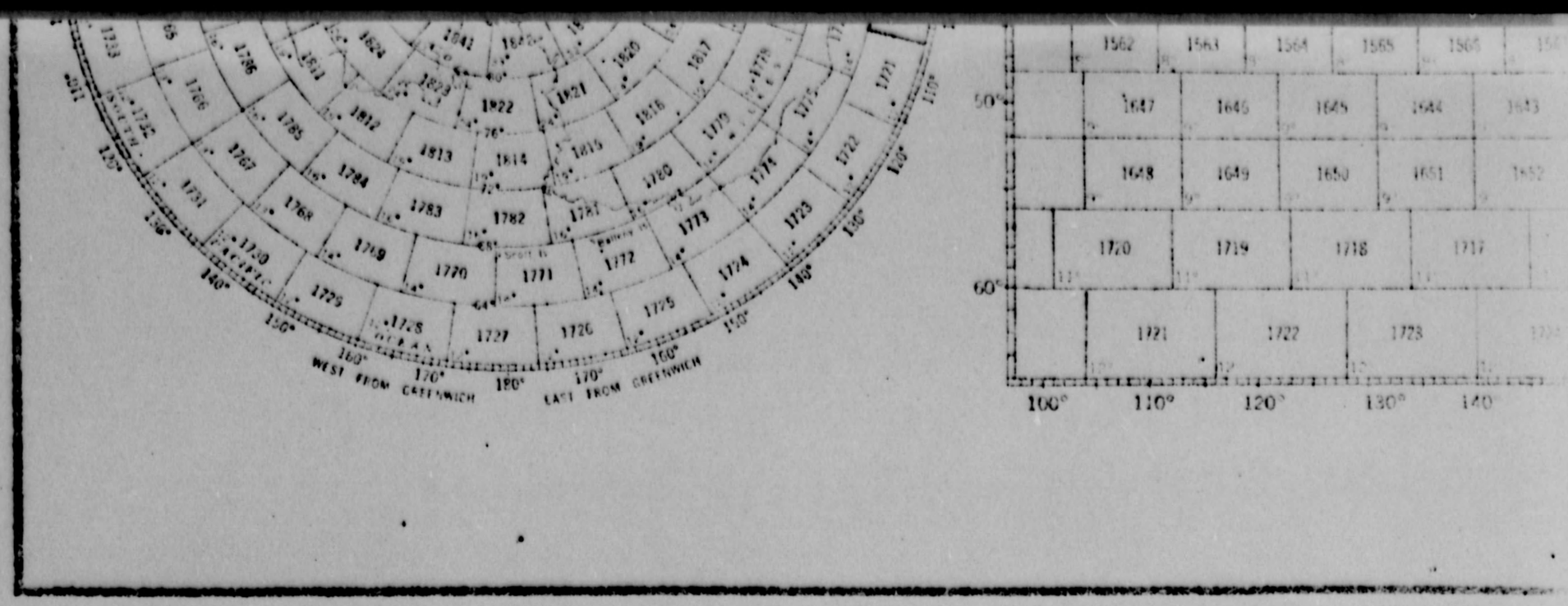
REMARKS: .....

INTERCHART RELATIONSHIP



Each chart is a component section of 1:1,000,000 World Aeronautical Chart Series, and is indexed within the series as indicated on diagram.



STAPLE HERE

AERONAUTICAL SYMBOLS

AERODROMES

AIRPORTS—COMPLETE FACILITIES Refueling services, complete repairs, shelter, and (where applicable) passenger or cargo services and/or seaplane ramp with hauling-out facilities.

AIRFIELDS—LIMITED FACILITIES Refueling services for normal traffic and limited repair facilities

SEAPLANE	LANDPLANE		SEAPLANE	LANDPLANE	
⚓	⚓	Military Base	⚓	⚓	Military
⚓	⚓	Civil	⚓	⚓	Civil
⚓	⚓	Joint Civil and Military Base	⚓	⚓	Joint Civil and Military

LANDING GROUNDS and ANCHORAGES

Emergency Landing Ground with Landing Strip — Very limited or no facilities or complete information not available

Emergency Landing Ground — Very limited or no facilities or complete information not available

Sheltered Anchorage — Very limited or no facilities

AIRFIELD DATA

300	Elevation in feet
L	Minimum lighting; obstruction, boundary or runway lights, aeronautical light and lighted wind indicator
H	Hard surface runway, normally all-weather
S	Normally sheltered take-off area
60	Length of longest runway to nearest hundred feet

SKYVIEW 300 LH 60

TARANTO 3 LS 99

When specific information pertaining to airfield data is lacking, or unconfirmed, the respective character is replaced by a dash (-).

ASANSOL 300 -H 60

TARANTO 3 -- 99

AIR NAVIGATION LIGHTS

Numerals in italics indicate elevation above mean sea level.

Rotating or Oscillating Light 110

Rotating Light (With flashing code lights) .....

Rotating Light (With course lights and site number) 15

Flashing Light .....

Flashing Light (With code) .....

Obstruction Light .....

Marine Light (Elevations of marine lights are above high water) ..... Occ WRG 92

Lightship .....

F—Fixed Fl—Flashing | Qk Fl—Quick Flashing I Qk Fl—Interrupted Quick Flashing | Occ—Occulting Alt—Alternating | Gp—Group R—Red | W—White G—Green | B—Blue (U)—Unwatched | SEC—Sector sec—Second

Marine lights are white unless colors are indicated; alternating lights are red and white unless otherwise indicated.

MISCELLANEOUS

Mooring Mast .....

Dirigible Base .....

Prominent Transmission Line .....

Ocean Station Vessel (Normal position) .....

Lighted Obstruction .....

Visual Ground Sign .....

Town having Visual Ground Sign ..... HOUSTON

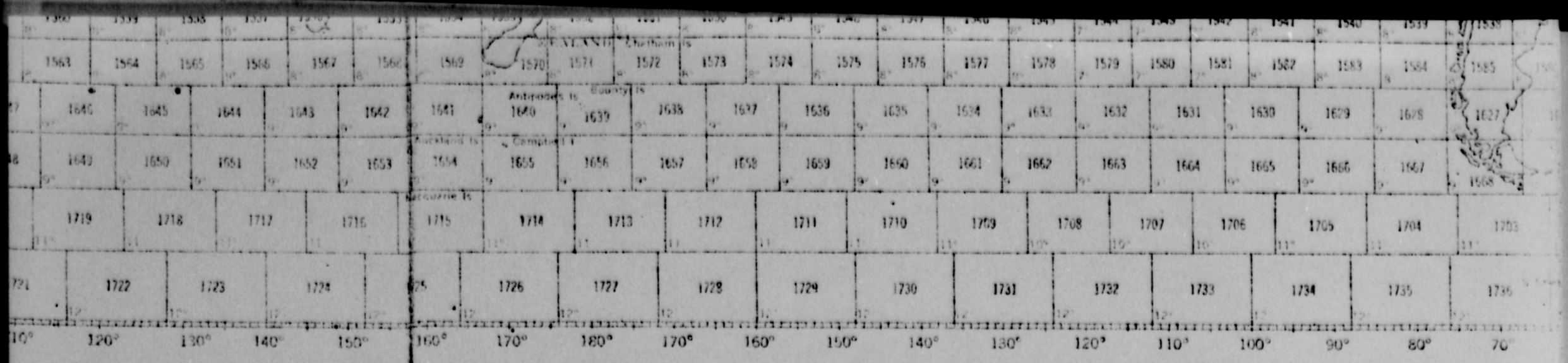
High Explosives Area (Marked) .....

High Explosives Area (Unmarked) .....

Group Obstruction .....

Obstruction (Numerals in italics indicate elevation above sea level of obstruction top. Vertical numerals within parentheses indicate heights above ground.) 1108 (259)

Line of Equal Magnetic Variation ..... 4°E



WORLD AERONAUTICAL CHART INDEX

Scale of Series 1:1,000,000

AERONAUTICAL SYMBOLS

RADIO FACILITIES

All frequencies are kilocycles unless otherwise stated
Methods of indicating specific voice and CW calls are shown below

Radio Range (With voice) — WOODY RADIO 291 AB

Radio Range (Without voice) — WILLOW RANGE 320 KB

Non-Directional Radio Beacon (With voice) — R Bn EVERETT BEACON 224 MMC

Non-Directional Radio Beacon (Without voice) — R Bn EVERETT 224 MMC

Marine Radio Beacon — M R Bn ISLAND 309 80

Radio Direction Finder (With voice) — DF MANUA HOMER 116.1 mc

Radio Direction Finder (Without voice) — DF MANUA 4595 VFPW

Radio Communication Station (With voice)

Radio Communication Station (Without voice)

Radio Broadcasting Station

Radar Beacon (Racon)

Radio Fan Marker Beacons

International Boundary (Closed to passage of aircraft except through air corridor)

AIRCRAFT LANDING FACILITY INFORMATION

RAMEY AFB
18 LH 46
Airport of Entry
ILS GCA
RAMEY TOWER
278 116.1 mc

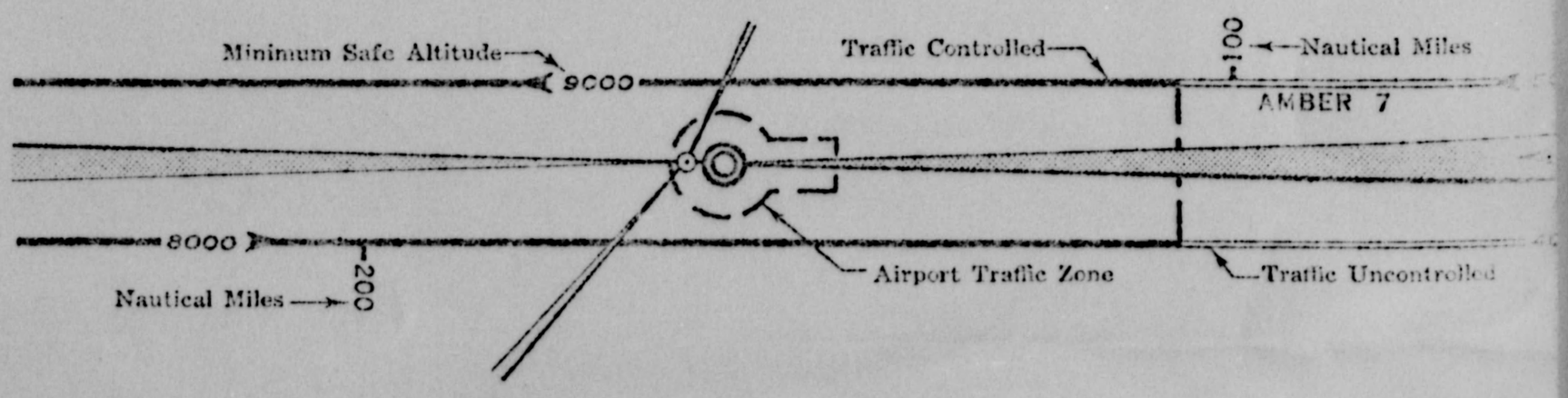
RADIO FIXES

Reporting point.

CASE INTERSECTION

BRANT INTERSECTION

AIRWAYS & RADIO RANGE (AURAL)



AIRSPACE RESTRICTED AREAS

PROHIBITED AREA — Prohibited Area — Flight of aircraft prohibited except by specific authority

DANGER-RESTRICTED OR WARNING AREA — Danger, Restricted or Warning Area — Invisible hazards to air navigation (Specific authority required prior to entry of Danger Area)

CAUTION AREA — Caution Area — Visible hazards to Air Navigation (Avoid if practical)

—LIMITED FACILITIES Refueling
al traffic and limited repair facilities.

OPLANE

Military

Civil

Joint Civil and Military

no facilities or
ion not available

information not available

SKYVIEW
300 LH 60

TARANTO
3 LS 99

ANSOL
-H 60

TARANTO
3 -- 99

code)

ions of marine lights — Occ W R G
ve high water) — 92

B—Blue
(U)—Unwatched
SEC—Sector
sec—Second

nless otherwise indicated.

M

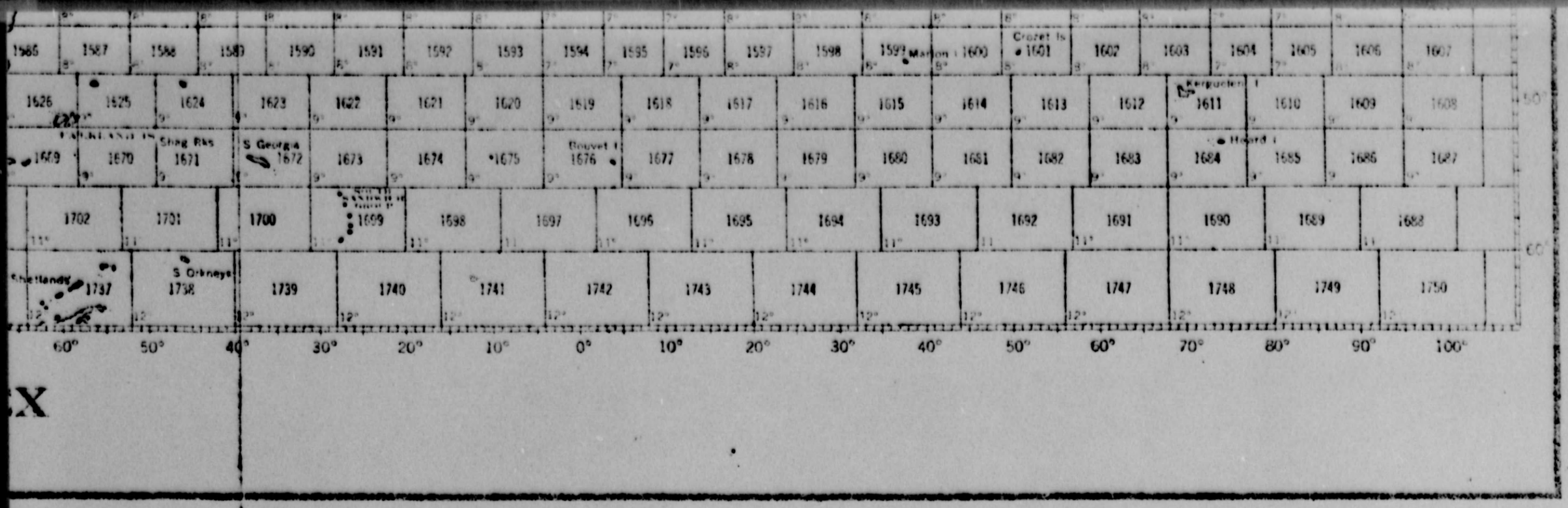
Ground Sign — HOUSTON

ea (Marked) — HI⊖X

ea (Unmarked)

1108
(259)

4°E



WAC (BU-7)

TOPOGRAPHICAL SYMBOLS

CITIES and TOWNS

- Metropolitan Areas — NEW YORK
- Large Cities — RICHMOND
- Cities — ARLINGTON
- Small Cities — SANGATE
- Large Towns — Corville
- Towns & Villages — Arcola

HIGHWAYS and ROADS

- Dual Lane Highways
- Primary Roads
- Secondary Roads
- Trails
- U. S. Road Markers — 50
- National, State or Provincial Road Markers — 37
- Road Names — ALASKA HIGHWAY

RELIEF FEATURES

- Contours: Reliable; Depression; Approximate — 1000
- Bluffs, Cliffs & Escarpments
- Sand: Dunes; Areas; Ridges

HYDROGRAPHIC FEATURES

- Swamps & Marshes
- Mud & Tidal Flats (Exposed at low tide)
- Fathom Line (Dots uniformly spaced) (1 fathom, 6 ft. below mean low water level)
- Danger Line (Dots grouped in pairs) (2 fathoms, 12 ft. below mean low water level)
- Charted Rocks
- Shoals, Sand Bars, etc. (Exposed at low tide)
- Springs
- Wells & Water Holes
- Reefs, Coral & Rocky Ledges (Awash at low tide)
- Streams & Rivers: Perennial; Intermittent; Probable or Unsurveyed; Braided
- Intermittent Lakes
- Drainage Ditches
- Canals: In use; Abandoned
- Flood Marked Areas
- Sand Deposits in river bed
- Dry Washes
- Glaciers

CULTURAL and MISCELLANEOUS

- Power Transmission Lines
- Telephone & Telegraph Lines
- Dams
- Elevations (In feet): Highest in a General Area (Highest on chart is devoid of tint) — • 5287; Spot — •4291
- Mines and Quarries
- Mountain Passes
- Lookout Towers (Elevation is base of tower) (Height above ground in magenta) — 2495 / 75
- Forts — Fort Lewis
- Pipelines
- Race Tracks
- Stranded Wrecks
- Boundaries: International; State & Provincial*

*The same as International symbol on older style charts

- Railroads: Abandoned or Under Construction; Single Track; Double Track; Sidings & Spurs; Overpass; Underpass
- Bridges: Railroad; Highway
- Tunnels: Railroad; Highway