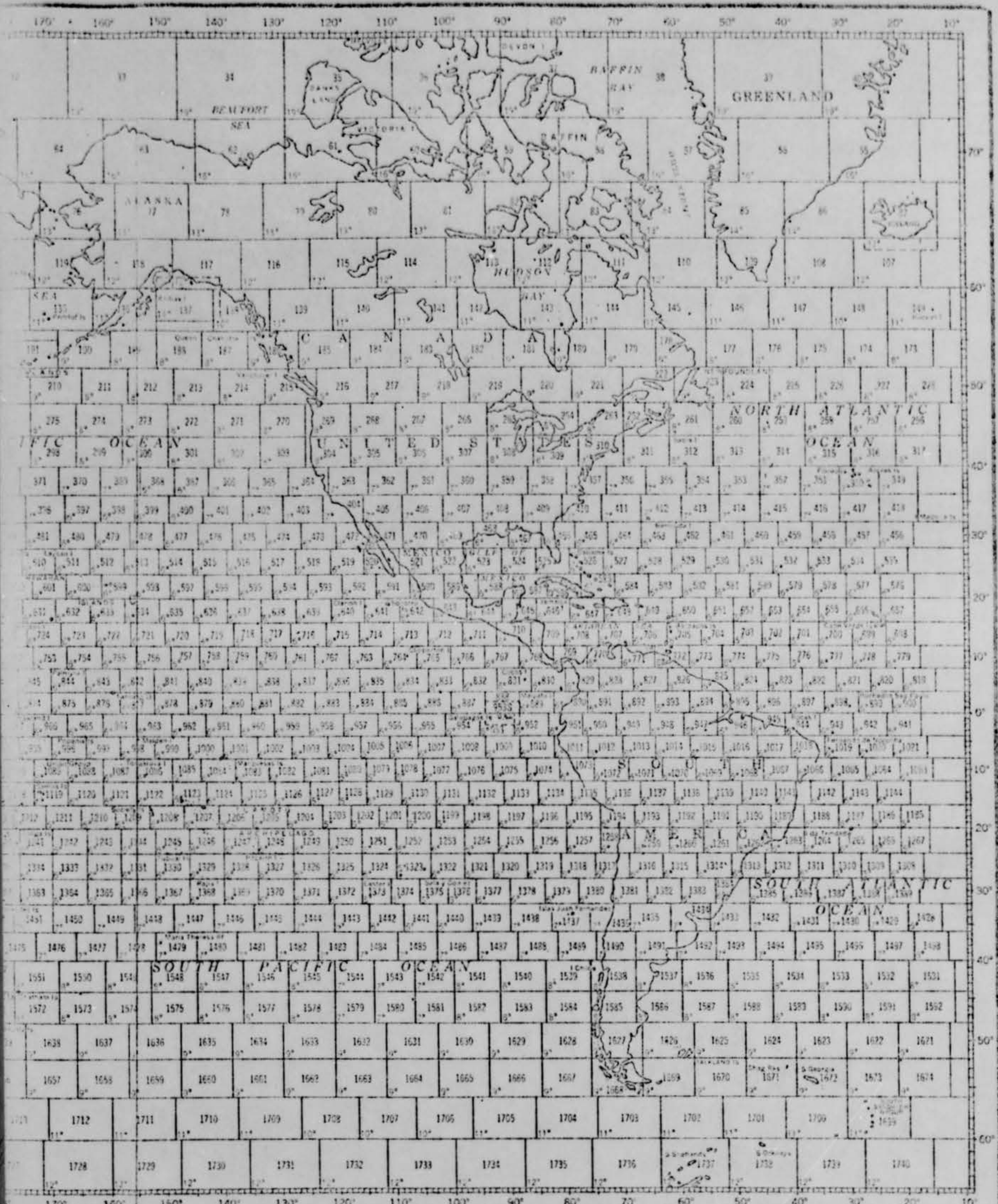


<b>1. DATE - TIME GROUP</b> 23 March 53 24/0412Z	<b>2. LOCATION</b> Pasadena, Texas
<b>3. SOURCE</b> Varied	<b>10. CONCLUSION</b> BALLOON
<b>4. NUMBER OF OBJECTS</b> One - Four	Object meets the description of a Radiosonde Weather Balloon.
<b>5. LENGTH OF OBSERVATION</b> 30 Minutes	<b>11. BRIEF SUMMARY AND ANALYSIS</b>  At 0412 a blip appeared on radar scope for a period of approx 25 sec. At 0415 object was sighted visually appearing to be a reddish colored light circling around (5 times) Pasadena then disappearing to the NNE.
<b>6. TYPE OF OBSERVATION</b> Radar Ground-Visual - Ground	
<b>7. COURSE</b> Circling	
<b>8. PHOTOS</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>9. PHYSICAL EVIDENCE</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	





**UNIVERSAL WATER CHARTS**  
 Universal Water Charts (Scale 1:1,000,000; size 29 x 22 inches) covering 1° of lat. have been published for use in place of the World Aeronautical Charts in water areas. The user must insert the appropriate long. values for the particular area desired. Water tint is printed within the normal geographical limits and the chart is designed for use in both north and south latitudes.  
**NOTE:** Reproduction these charts by name and latitude interval.  
 Example: WAC-225 would be WATER-45/52

Charts published   
 Charts not published

**TOPOGRAPHICAL SYMBOLS**

**CITIES AND TOWNS**

- Metropolitan Areas ..... **NEW YORK**
- Large Cities ..... **RICHMOND**
- Cities ..... **ARLINGTON**
- Small Cities ..... **Freehold**
- Large Towns ..... **Corville**
- Towns & Villages ..... **Arcola**

**HIGHWAYS AND ROADS**

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

**RELIEF FEATURES**

facilities.  
 CS  
 GOWEN RADIO  
 4170  
 CS  
 KAZAN  
 1200 CRNK  
 BS  
 GFRB  
 1010  
 RACON  
 1236 2-1-2



- b. Fold chart along regular fold lines, but with back out.
- c. Make an extra fold along dotted line and staple at points so marked.
- d. Fill in the return address and drop the chart in any U.S. mail box. Postage is not required.

Remarks: .....

.....

.....

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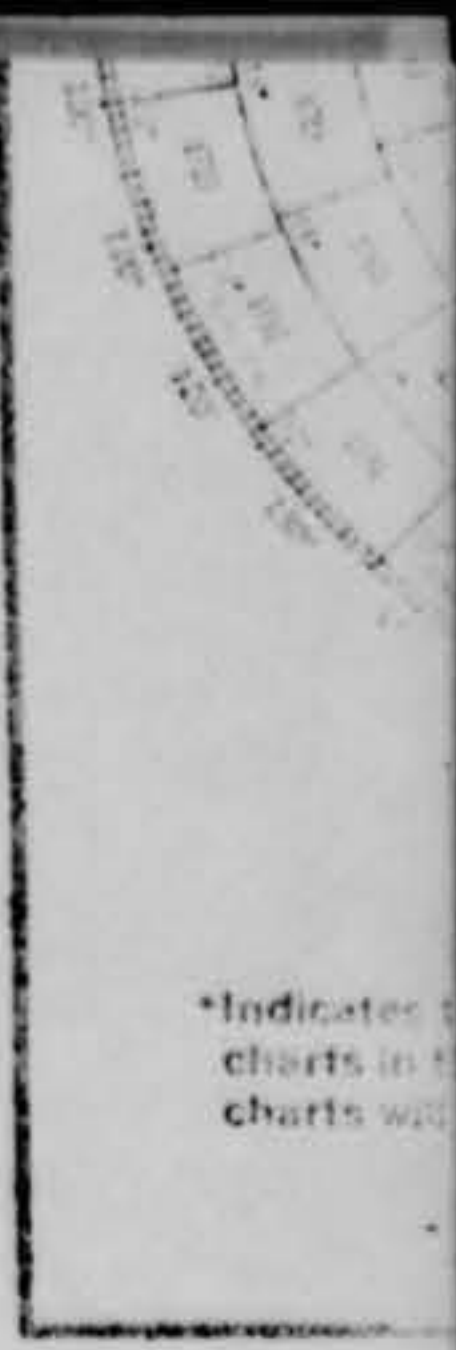
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\*Indicates charts in charts w

STAPLE HERE

STAPLE HERE

FROM .....

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.....

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

OFFICIAL BUSINESS  
PERMIT NO. 1009

To:  
The Director  
U.S. Coast and Geodetic Survey  
Washington, 25, D.C.

STAPLE HERE

STAPLE HERE

MAKE EXTRA FOLD HERE TO RETURN TO DIRECTOR, USC&GS

U. S. DANGER AREAS ON WORLD AERONAUTICAL CHART 468

NO.	NAME	ACTIVITY	USING AGENCY	ALTITUDE	TIME
W-92	New Orleans	Gunnery, Bombing, Rocket Firing	NAS New Orleans, La.	To 20,000	Unld.
C-137	New Orleans	Aerobatics	NAS New Orleans, La.	4,000-20,000	0800-1630
D-138	Pearl River	Strafing, Rocket Firing, Glide and Dive Bombing	NAS New Orleans, La.	Unld.	0800-1630
W-223	Matagorda Island	Aerial Gunnery	8th Air Force, Carswell AFB, Tex.	To 50,000	Days
D-229	Camp Polk	Field Artillery Firing	4th Army, Camp Polk, La.	To 50,000	Unld.
D-230	Camp Polk	Field Artillery Firing	4th Army, Camp Polk, La.	To 50,000	Unld.
W-377	Gulf of Mexico	Air-to-Air Gunnery by Jet Aircraft	Tactical Air Command	To 40,000	Days

Altitude given in feet. AR - Airspace Reservation (Prohibited) C - Caution D - Danger W - Warning 8-12-52

No person shall operate an aircraft within an Airspace Reservation or Danger Area unless permission for such operation has been issued by appropriate authority.

Aircraft are not restricted from flying through Caution Areas, however, extreme caution should be exercised by pilots flying through such areas.

Rotating

Rotating

Rotating

Flashing

f - Fixed

fl - Flashing

Obstruction

(Narrow)

Group

Prominent

Mooring

Isogon

Residual

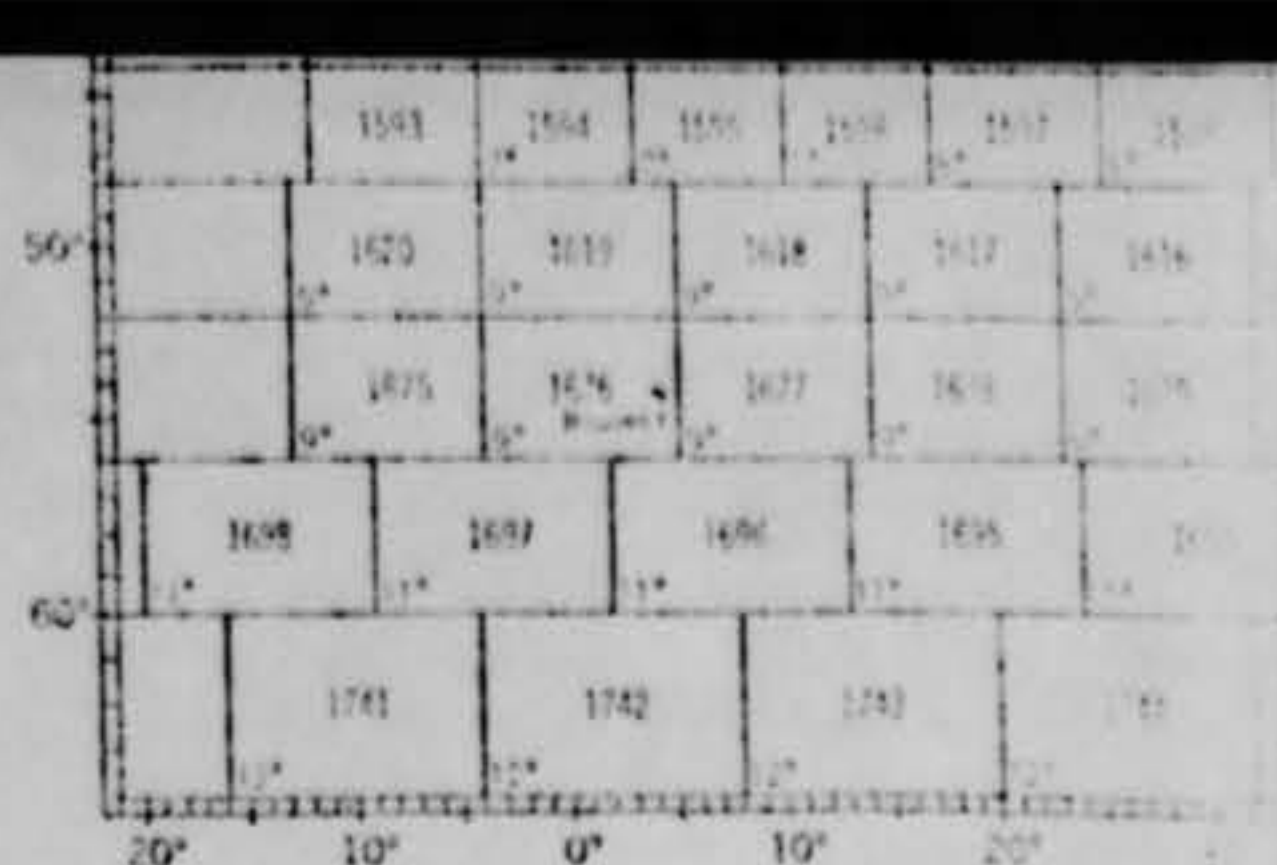




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PRIVATE USE TO AVOID OF POSTAGE, \$300

STAPLE HERE



\*Indicates that there is not sufficient information available to compile charts in this area at a scale of 1:1,000,000. Requisitions for these charts will be filled with the appropriate Universal Water Chart.

## AERONAUTICAL SYMBOLS

### AERODROMES

#### Aerodromes with facilities

LAND



WATER



Civil

Joint Civil and Military

Military

#### Aerodromes with emergency or no facilities

LAND



WATER



Landing Area

Sheltered Anchorage

### AERODROME DATA AND LANDING FACILITIES INFORMATION

LAND

WATER

BARGERSVILLE  
908 L H 41  
Airport of entry  
GCA SYSTEM  
278 126.18

908 Elevation in feet  
L Minimum lighting  
H Hard surfaced runway  
41 Length of longest runway in hundreds of feet

00 Elevation in feet  
L Minimum lighting  
S Normal sheltered take-off area  
62 Length of longest runway in hundreds of feet

NAS ANACOSTIA  
00 L S 62  
2870

The facility code character is replaced by a dash if specific information is not available or if the facility itself is not available.

GCA SYSTEM - Ground Control Approach System. Other controlled approach systems by appropriate abbreviation.  
278 126.18 2870 - Control tower transmitting frequencies

### AIR NAVIGATION LIGHTS

Rotating Light ..... ★

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

Rotating Light (With course lights and site number) ..... 12 ★

Flashing Light ..... FI ★

Flashing Light (With code) ..... FI

Lightship ..... Lightship

Marine Light ..... Occ W

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

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

### MISCELLANEOUS

Obstruction ..... 1108 A

(Numerals in italics indicate elevation above sea level of obstruction top.)

Group Obstruction ..... M

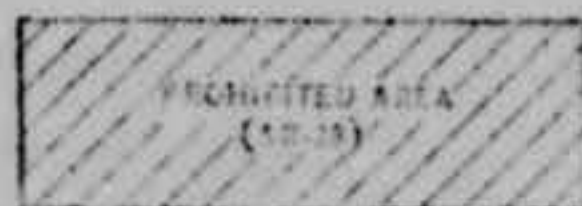
Prominent Transmission Line ..... T

Mooring Mast ..... M

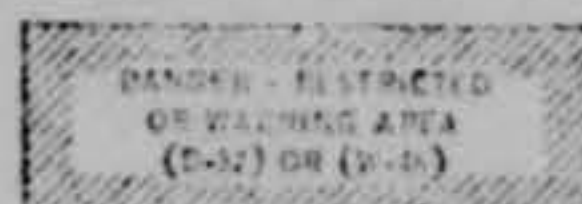
Isogonic Line ..... -4°E-

Values for 1950

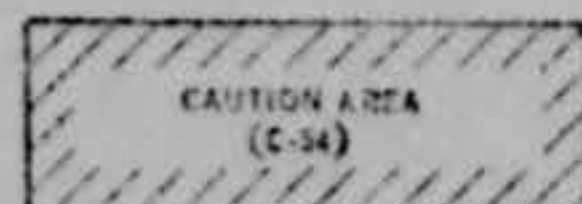
Restricted areas are numbered, and are indicated on the charts as follows:



Prohibited Area - Flight of aircraft prohibited except by specific authority of using agency



Danger, Restricted or Warning Area - Invisible hazards to air navigation



Caution Area - Visible hazards to air navigation

468

ALTITUDE	TIME
To 20,000	Unltd.
4,000-20,000	0800-1630
Unltd.	0800-1630
To 50,000	Days
To 50,000	Unltd.
To 50,000	Unltd.
To 40,000	Days

W - Warning 8-12-52

has been issued by

ing through such areas.



# WORLD AERONAUTICAL CHART INDEX

Scale of Series 1:1,000,000

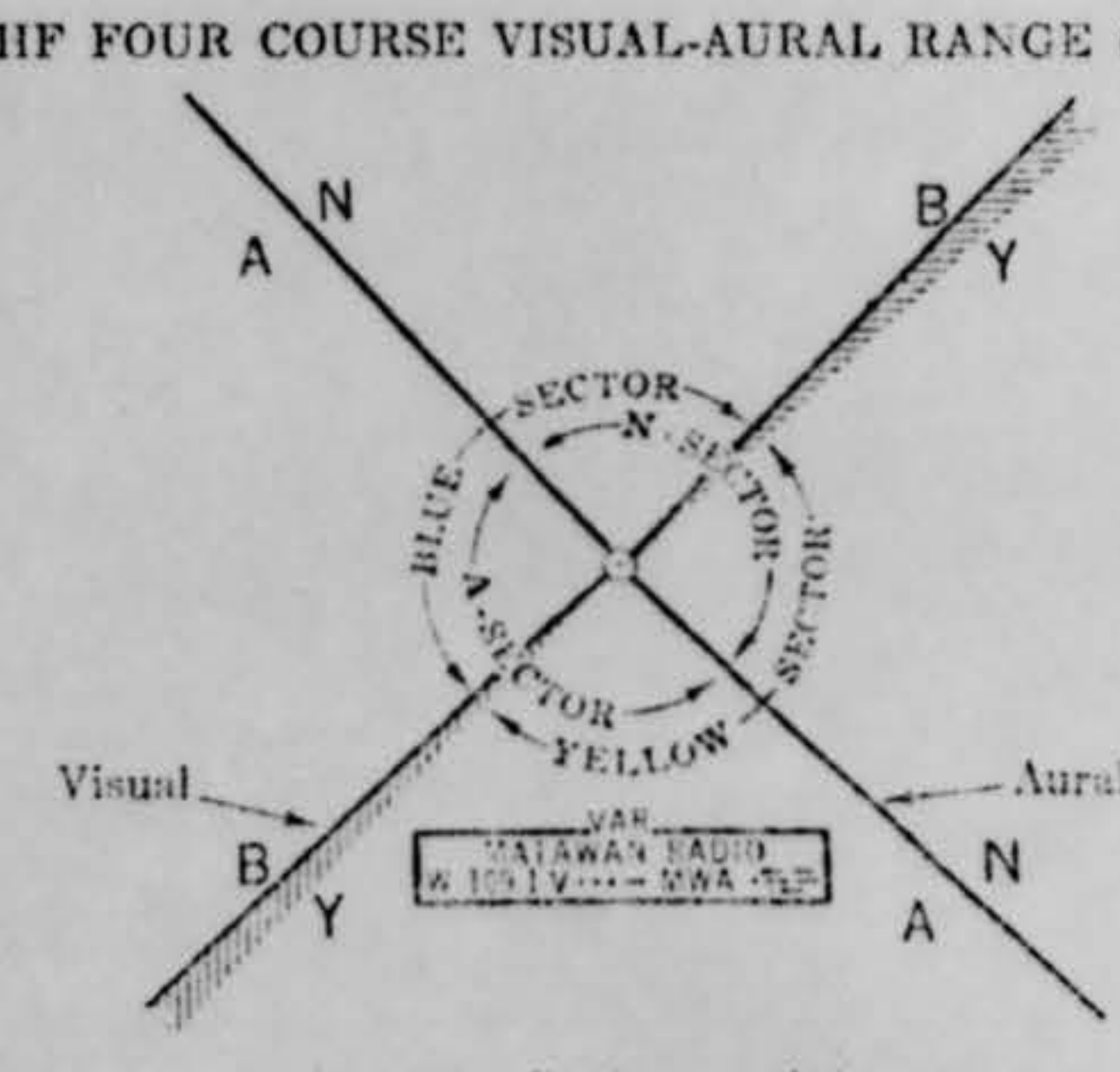
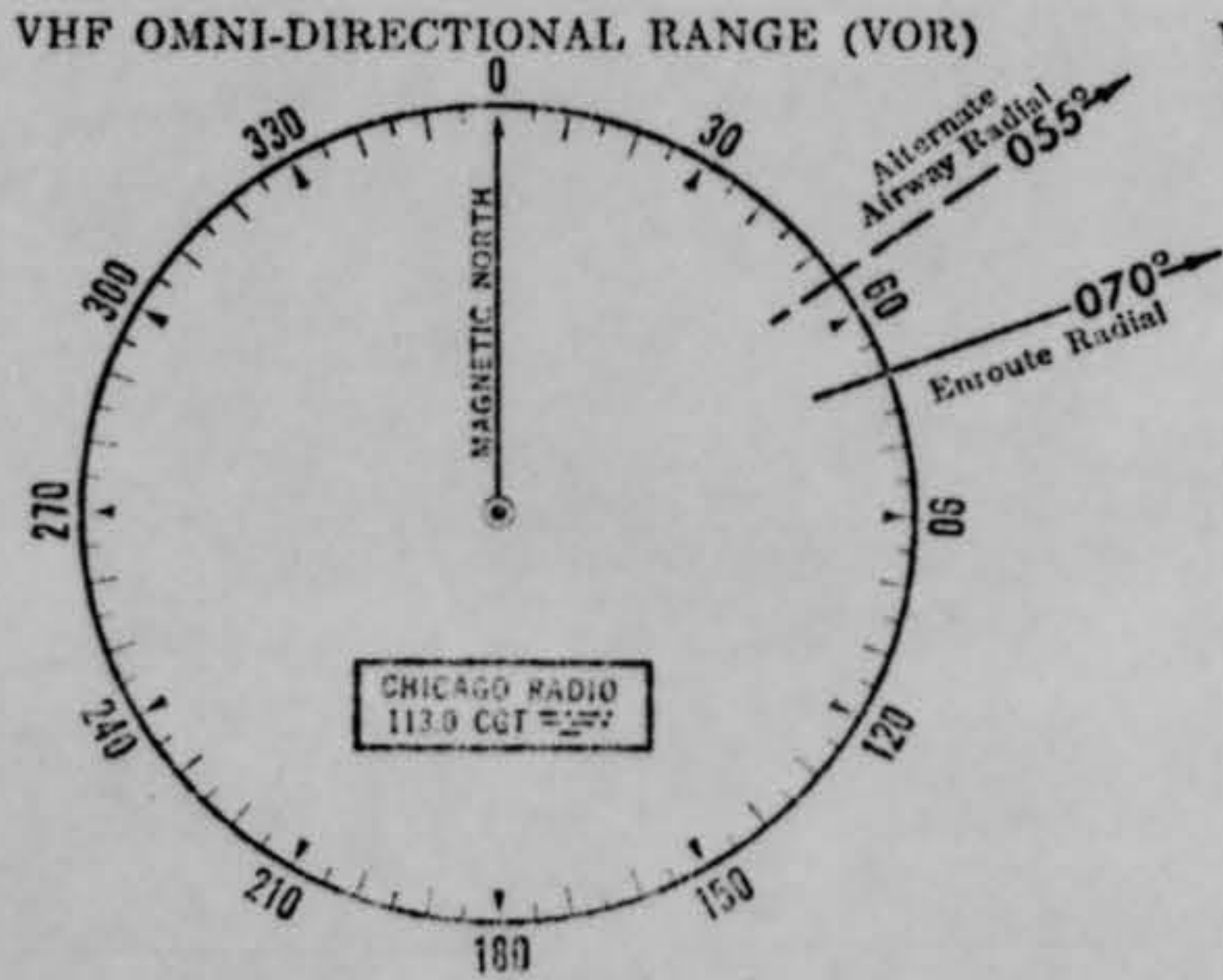
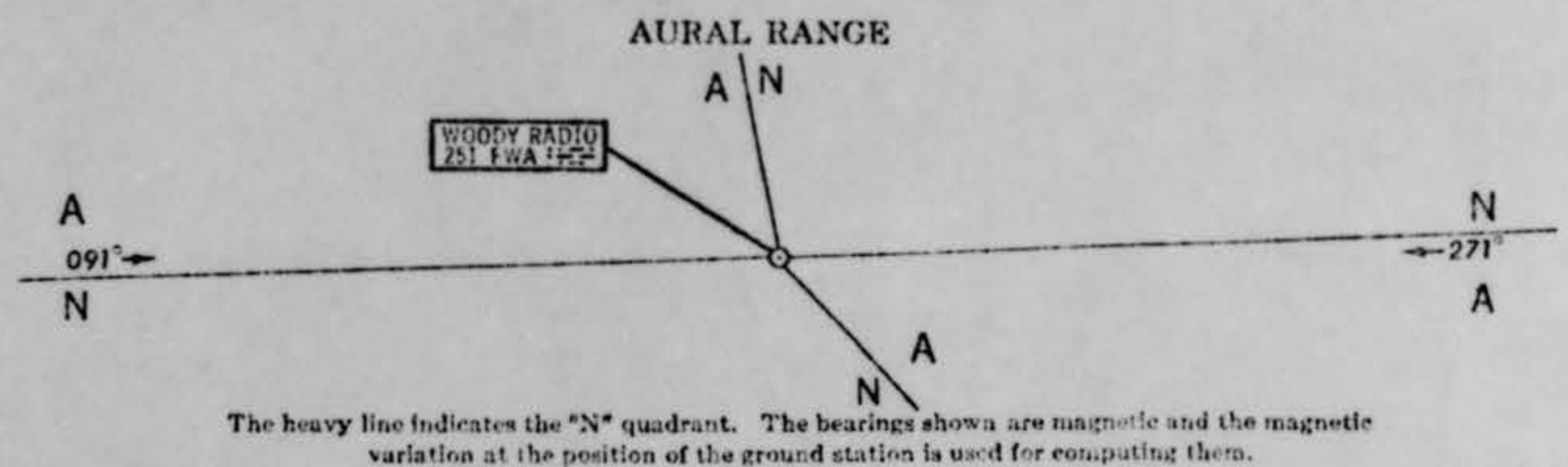
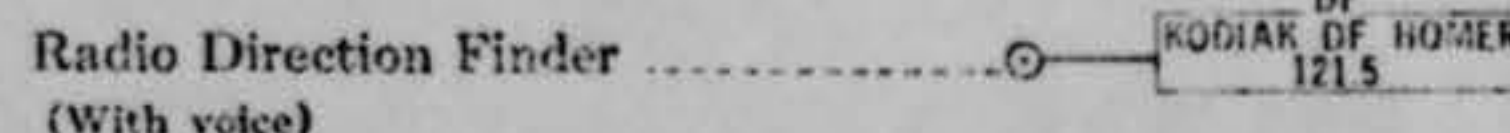
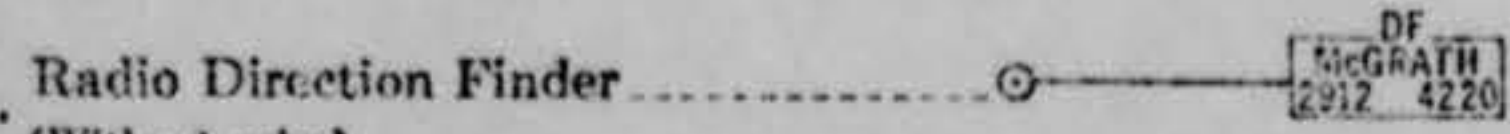
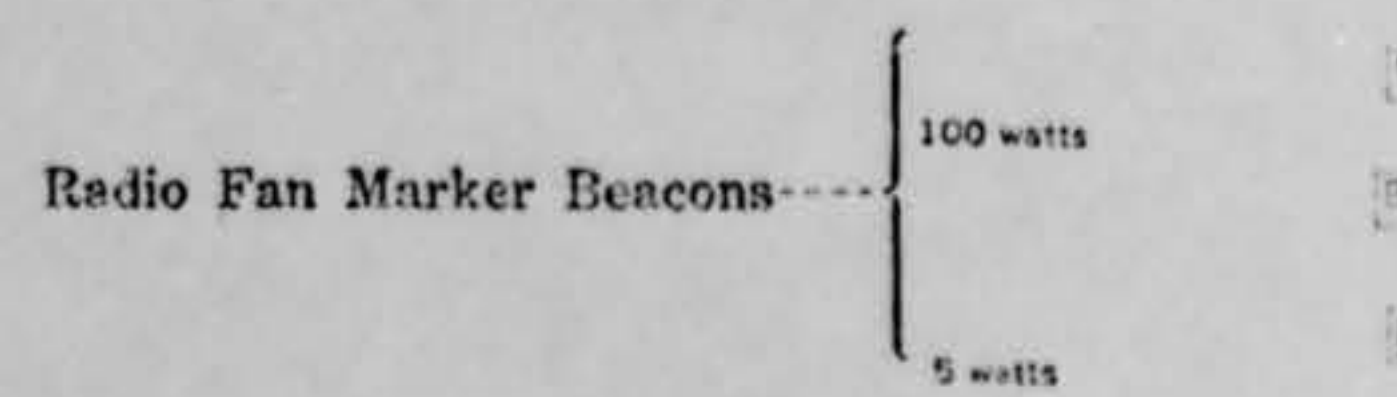
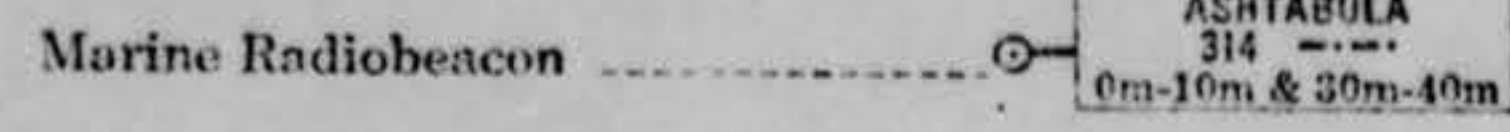
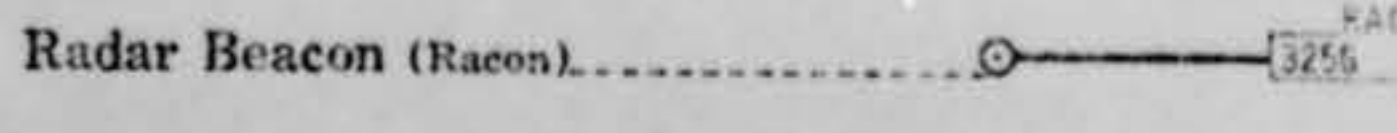
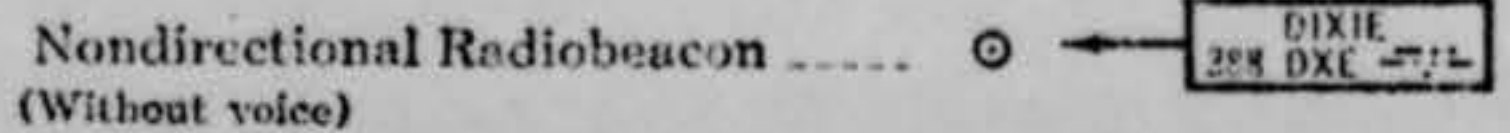
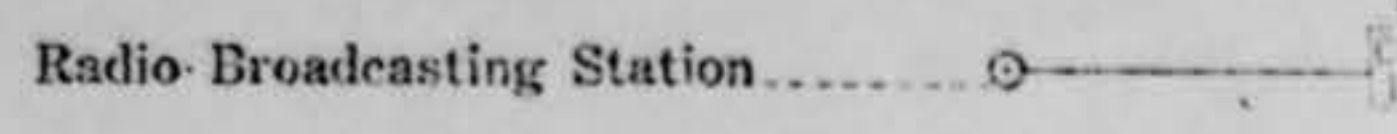
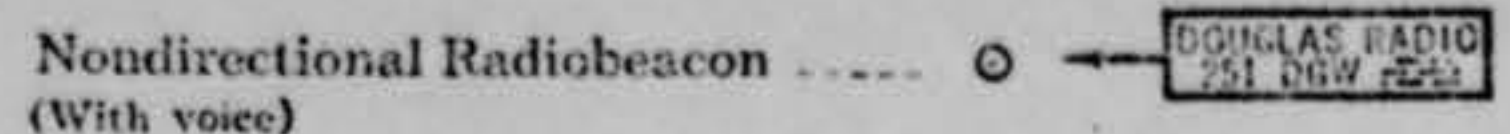
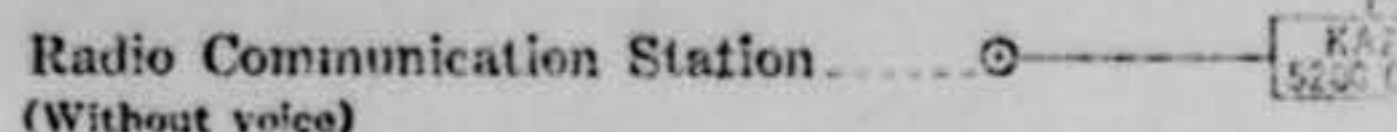
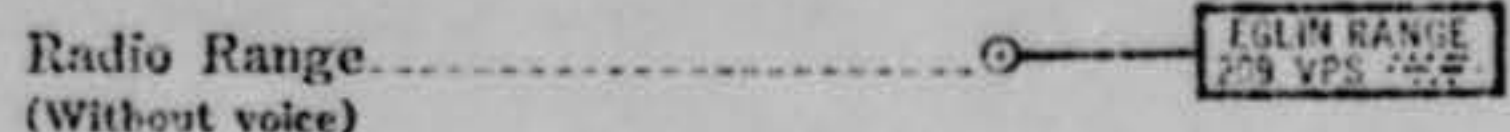
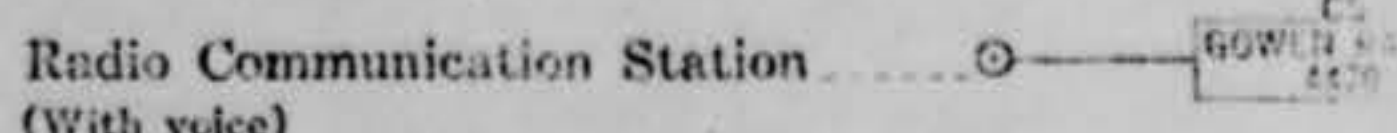
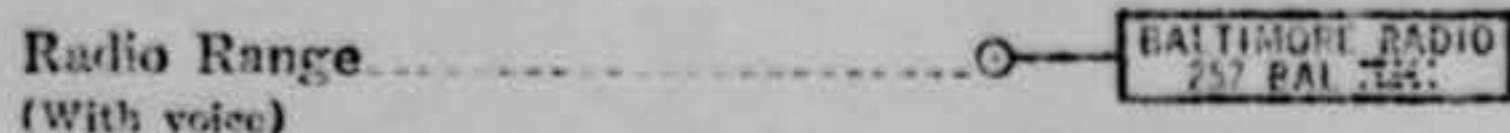
## AERONAUTICAL SYMBOLS

### RADIO FACILITIES

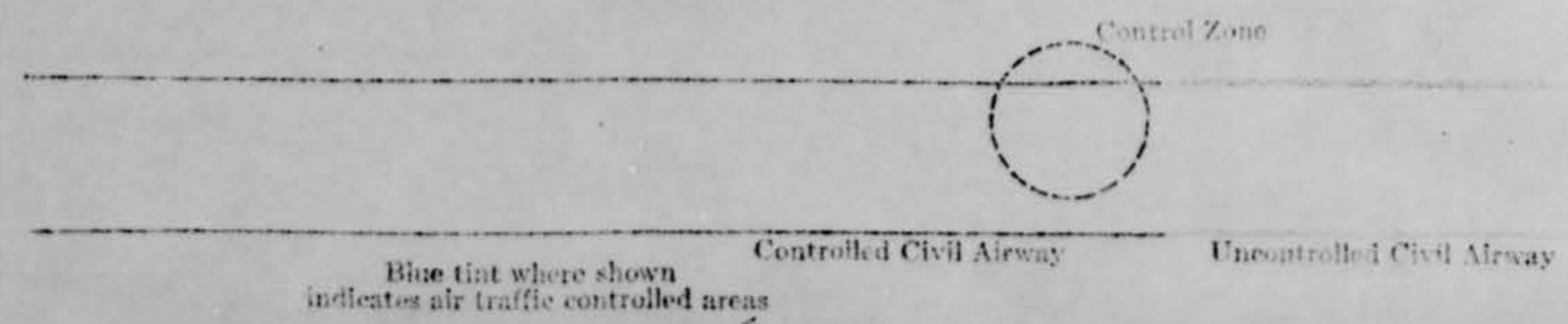
All radio facility data are printed in blue with the exception of certain LF/MF facilities such as tower frequencies, radio ranges and associated airways, which are printed in magenta.

Methods of indicating specific voice and CW calls are shown below

Use of the word "Radio" within the box indicates voice facilities



### AIR TRAFFIC CONTROL



no facilities

g Area

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NAS ANACOSTIA  
 00 L S 62  
 2970

FI ☆

Occ WRC ●

SEC--Sector  
 atched sec--Second  
 e indicated

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ication





**UNIVERSAL WATER CHARTS**

Universal Water Charts (Scale 1:1,000,000; size 29 x 22 inches) covering 4° of lat. have been published for use in place of the World Aeronautical Charts in water areas. The user must insert the appropriate long. values for the particular area desired. Water tint is printed within the normal geographical limits and the chart is designed for use in both north and south latitudes.

**NOTE:** Requisition these charts by name and latitude interval.  
*Example:* WAC-225 would be **WATER-48/52**

**DEX**

Charts published   
 Charts not published

**TOPOGRAPHICAL SYMBOLS**

**CITIES AND TOWNS**

- Metropolitan Areas ..... **NEW YORK**
- Large Cities ..... **RICHMOND**
- Cities ..... **ARLINGTON**
- Small Cities ..... **Freehold**
- Large Towns ..... **Corville**
- Towns & Villages ..... **Arcola**

**HIGHWAYS AND ROADS**

- Dual Lane and Super Highways .....
- Primary Roads .....
- Secondary Roads .....
- Trails .....
- U. S. Road Markers .....
- National, State or Provincial Road Markers .....
- Road Names .....

- indicates voice facilities.
- 
- 
- 
- 
- 
- 
- 

**RELIEF FEATURES**

- Contours { Reliable .....   
 Approximate .....   
 Depression .....
- Levees or Eskers .....
- Hachures .....
- Bluffs, Cliffs & Escarpments .....
- Sand { Dunes .....   
 Areas .....   
 Ridges .....
- Lava Flow .....

**HYDROGRAPHIC FEATURES**

- Swamps & Marshes .....
- Tidal Flats (Exposed at low tide) .....
- Danger Line .....
- Rocks Awash .....
- Shoals (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 (blue stipple) .....
- Drainage Ditches .....
- Canals { In use .....   
 Abandoned .....   
 Dry Lake Beds (brown stipple) .....
- Sand Deposits in river bed .....
- Dry Washes (brown stipple) .....
- Glaciers and Ice Caps .....

**CULTURAL AND MISCELLANEOUS**

- Landmarks (with appropriate note) (Numerals indicate elevation above sea level of top) .....
- Oil Tanks .....
- Oil Fields .....
- Dams .....
- Elevations (In feet) { Highest on chart (Highest on chart is devoid of tint) ..... **1115**  
 Highest in a general area ..... **1085**  
 Spot ..... **950**
- Mines and Quarries .....
- Mountain Passes .....
- Lookout Stations (Elevation to base of tower) .....
- Coast Guard Stations .....
- Pipe Lines .....
- Race Tracks or Stadiums .....
- Stranded Wrecks .....
- Boundaries { International .....   
 State & Provincial .....
- Railroads { Abandoned or Under Construction .....   
 Single Track .....   
 Multiple Track .....   
 Sidings & Spurs .....   
 Overpass .....   
 Underpass .....   
 Bridges { Railroad .....   
 Highway .....   
 Tunnels { Railroad .....   
 Highway .....

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271°  
A
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- B  
Y
- Aural
- N  
A
- Civil Airway



~~RESTRICTED~~  
(CLASSIFICATION)

UNCLASSIFIED / 5

COUNTRY USA	REPORT NO.	(LEAVE BLANK)
<b>AIR INTELLIGENCE INFORMATION REPORT</b>		
SUBJECT FLYOBRRPT		
AREA REPORTED ON Pasadena, Texas	FROM (Agency) 747th AC & W Sq	
DATE OF REPORT 31st March 1953	DATE OF INFORMATION 23 March 1953	EVALUATION C-1
PREPARED BY (Officer) CHESTER L CURVEY; Captain, USAF	SOURCE See Item 1 thru 7	
REFERENCES (Control number, directive, previous report, etc., as applicable) CADF Reg 200-5, AFL 200-5		

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.)

Report of FLYOBRRPT as seen by the following named persons;

- |                            |                                  |
|----------------------------|----------------------------------|
| 1. T/Sgt Patrick D Liggett | ) Radar Scope Presentation       |
| 2. A/lc C A Graves         | ) Visual Sighting                |
| 3. A/lc C w Olden          | ) " "                            |
| 4. A/3c Leonard Duresea Jr | ) " "                            |
| 5. Mrs [REDACTED]          | ) " "                            |
| 6. Mrs [REDACTED]          | ) " "                            |
| 7. 2nd Lt Robert K Smith   | ) Shooting of Stars with Sextant |

The following weather prevailed for 23rd March 1953.

AP around our station for 50 miles also extending to 100 miles in a northeastern and southwestern direction.

Ground clutter around station didnot permit continuous tracking.

Aircraft at this station: The director on duty notified Ellington AFB, Texas, but was informed no Aircraft or Pilots were available to become Airborne for Identification purpose.

There was no Aircraft at the time of observation

*Chester L. Curvey*  
CHESTER L CURVEY  
Captain, USAF  
Direction Center Chief

- 16 INCLS
- |                              |                       |
|------------------------------|-----------------------|
| Statement's of T/Sgt Liggett | WAC NO 468 (Weather)  |
| A/lc Graves                  | WAC NO 468 (Flyobrpt) |
| A/lc Olden                   | Photo (Weather day)   |
| Mrs [REDACTED]               |                       |
| Mrs [REDACTED]               |                       |
| 2nd Lt Smith                 |                       |

DISTRIBUTION BY ORIGINATOR

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

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE ACT, 50 U. S. C.—ND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. IT MAY NOT BE REPRODUCED IN WHOLE OR IN PART, BY OTHER THAN UNITED STATES AIR FORCE AGENCIES, EXCEPT BY PERMISSION OF THE DIRECTOR OF INTELLIGENCE, USAF.

Incl I

~~RESTRICTED~~  
(CLASSIFICATION)

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AF FORM 112—PART II  
APPROVED 1 JUNE 1948

**AIR INTELLIGENCE INFORMATION REPORT**

FROM (Agency)	REPORT NO.	PAGE	2	OF	7	PAGES
747th AC & W Sq						

At 0355 Z, Lt R K Smith called Base Operations and reported seeing a flying object over Pasadena, Texas. (See inclosures for Lt R K Smith's statement). Base Operations passed Lt Smith's information to the 747th AC & W Sq. T/Sgt Liggett, A/lc Graves, and A/lc Olden of the 747th AC & W Sq observed the object reported and made the following statement.

"We immediately Radar scanned the area and could not locate the object electronically. We went out side and sighted the object in a sector believed to be over Pasadena, Texas. The object showed a steady reddish light, which was not observed to change in color. The object was on a heading of approximately 355° to 040° degrees from this base ranging from 12 to 35 miles. The object made five circles over Pasadena, then went off in a NNW direction. The object was sighted visually at 0415 Z, 24th March 1953. At 0412 Z the object was sighted on the radar screen at this station. It was present for about 25 seconds which did not provide time to take a picture of the blip. At 0435 Z, 24 March 1953, this station notified 745th AC & W Sq that the object was headed in their direction."

Release of weather balloons at approximately the time of the sighting from Ellington AFB, Texas.

One weather balloon was released from Ellington AFB, Texas at 0815 Z, 23 March 1953, Climbed at a rate of a 1000 ft per min and rose to approximately 52,000 ft. At 0845 Z the second balloon was released and climbed at the rate of 1000 ft per min.

This is the track of the two Weather balloons

From surface to 5,000 ft track was SW due to NE wind at 10 Knots.  
From 5,000 to 10,000 ft track was NW due to SW wind at 40 Knots.  
From 10,000 ft to 18,000 ft track was NW due to SE wind at 50 Knots  
From 18000 ft to 23,000 ft track was NW due to SE wind at 80 Knots.

Weather balloons released after dark carry a 6 volt battery, which powers a small white light. This cannot be seen with the naked eye above approximately 12,000 feet. A picture inclosed which shows a weather balloon shortly after release. There are no facilities at this station to take photographs after dark.

Visual observation of weather balloons ascensions has disclosed that the suspended radiosonde osciletes considerably in rough air. Since the radiosonde is lighted at night it is considered possible that this oscilation might be misconstrued as the orbited movement of an unknown aerial object.

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

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	PAGE	3	OF	7	PAGES
747th AC & W Sq						

The statement of T/Sgt. Patrick D. Liggett, AF 17096050, AC & W Supervisor, at this station, is as follows:

On the night of March 23, 1953 at approximately 0410Z, I observed a strange object which was over Pasadena, Texas at the time of the sighting it was a constant light moving in a large circle over the city. The object seemed to be the same dull red color at all time's and didnot change. The estimated speed was 300 to 350 knots at 45,000ft, The object seemed to move left and then to the right. We at this station picked-up object on our scope, the object was on the scope for three (3) sweeps at 6 RPM. with the antenna tilt at 20o it was about the same size as any blip at that range, The object was heading north at 12 miles.

*Patrick D. Liggett*  
PATRICK D. LIGGETT  
T/SGT USAF  
AF. 170960050  
AC & W Supervisor.

Statement of Leonard Duresea, A/3c, Air Police Section, 747th AC & W Squadron.

On the 23 March 1953 between the hours of 2030 and 2200 while on duty at the Gate House, I noticed in the sky Northwest of the site, an object oval in shape that gave off light the color of a star. I could not identify the object, but it resembled somewhat a happening that occured approximately five nights before; however on the first night the object possessed more characteristics. The object traveled at an unstable rate of speed and the light flashed on and off. It seemed to stop at scattered intervals and it could not be traced after entering a path of light given off by a search light.

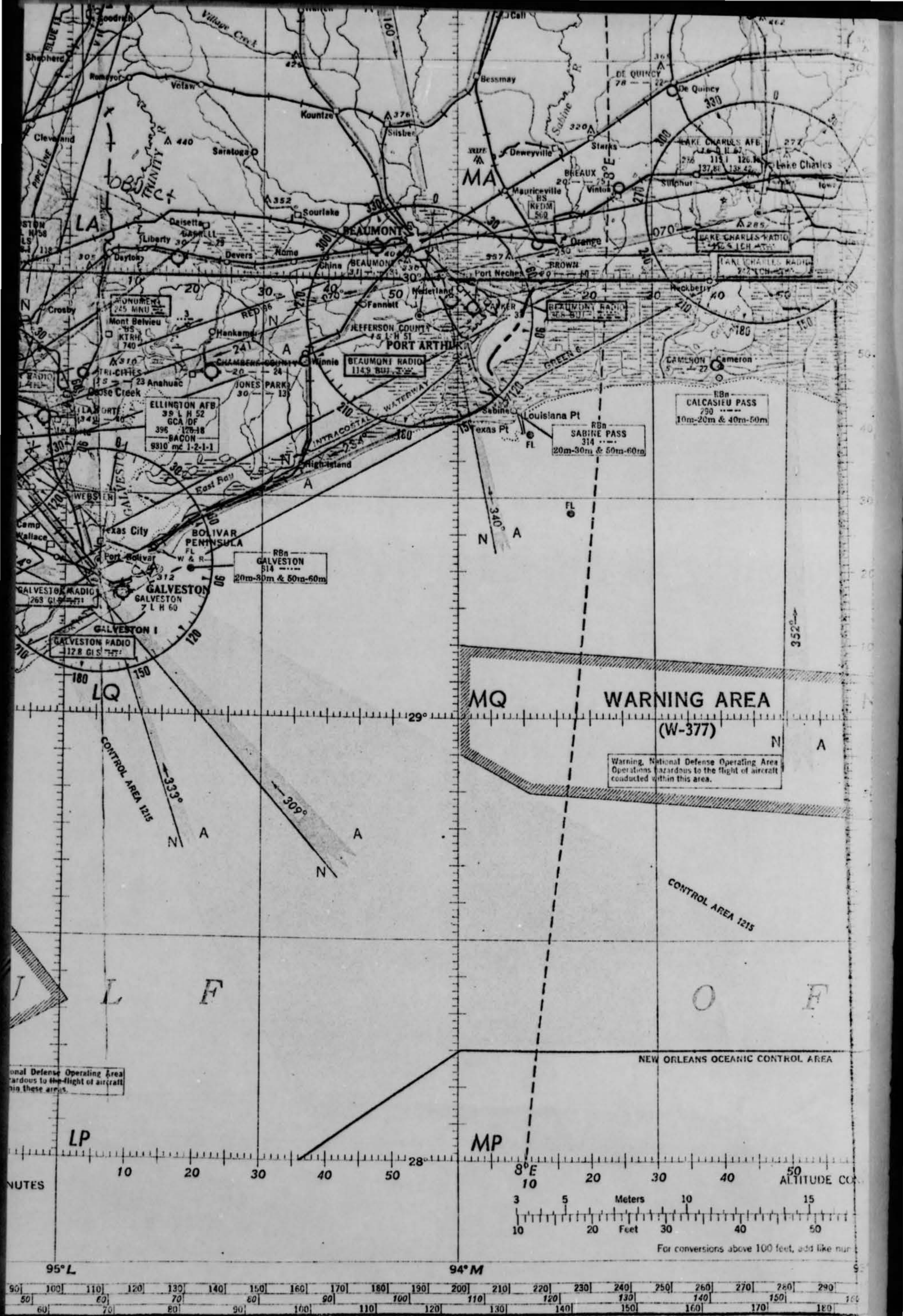
The happenings that occured on the first night I could not a-credit to any source. The happenings that occured on the 23 March I supposed to be the result of the weather station behind the site.

*Leonard Duresea Jr.*  
LEONARD DURESEA JR  
A/3c ; AF-18 419 404  
Air Policeman

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

UNCLASSIFIED





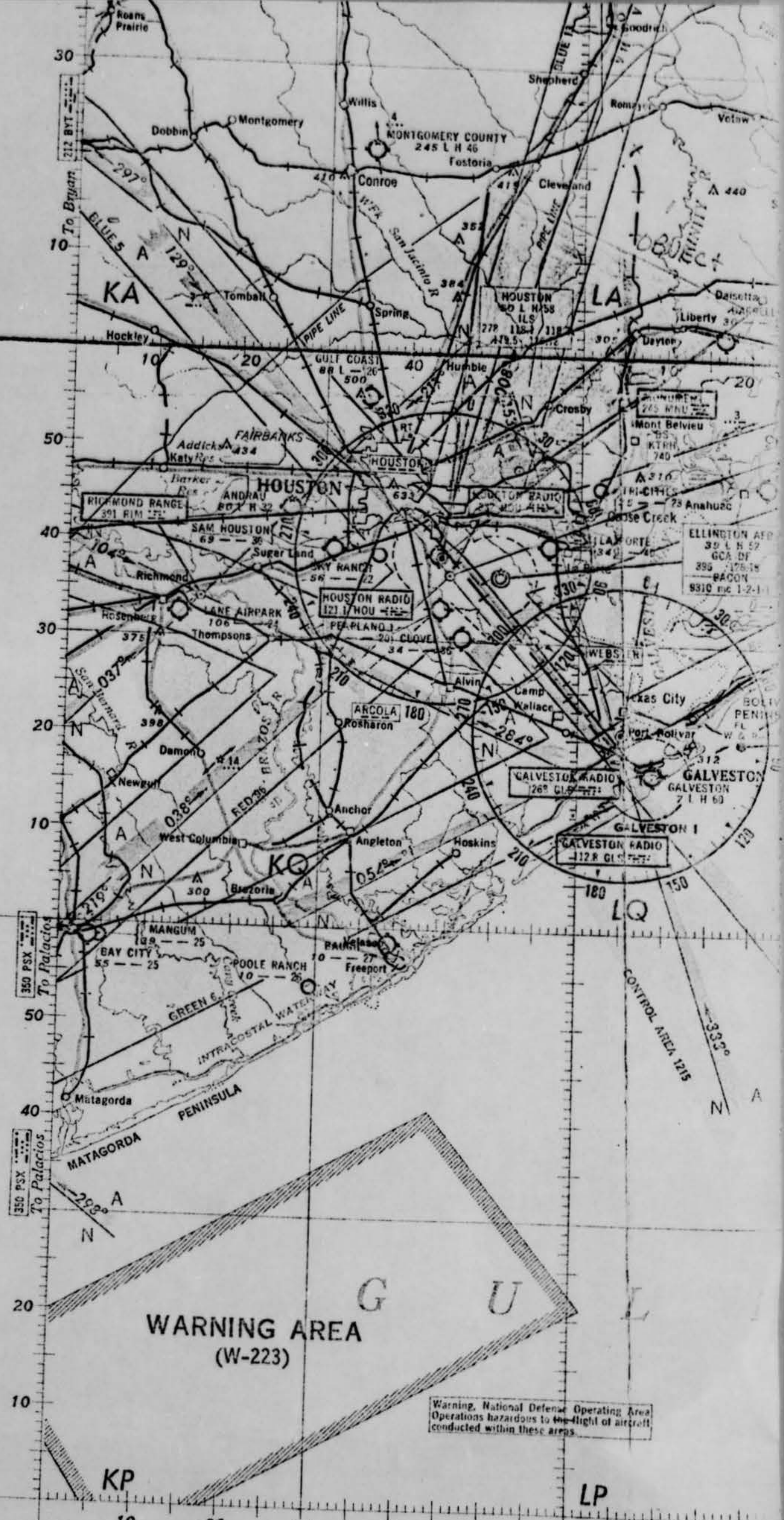
National Defense Operating Area  
Operations hazardous to the flight of aircraft  
conducted within this area.

Warning, National Defense Operating Area  
Operations hazardous to the flight of aircraft  
conducted within this area.





FJ  
A  
30°



Area Object was sighted in

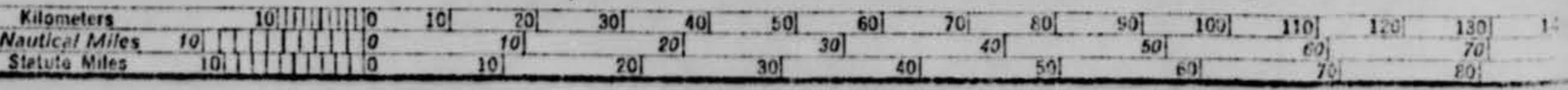
**WARNING AREA  
(W-223)**

Warning, National Defense Operating Area  
Operations hazardous to the flight of aircraft  
conducted within these areas

TO REFERENCE BY THE GEOREF (SHOWN IN BLUE) TO MINUTES  
(Select nearest intersection south and west of point)

- Sample Point: BRAZORIA
- 1. FH identifies basic 15° quadrangle
- 2. KQ identifies 1° quadrangle
- 3. 25 identifies Georef minute of longitude
- 4. 03 identifies Georef minute of latitude
- 5. Sample reference: FHKQ2503

FH



(468)

PRICE 25 CENTS

Principal Sources: U. S. Geological Survey, U. S. Army  
Corps of Engineers, U. S. Air Force, U. S. Dept. of Agriculture, Civil  
Aeronautics Administration, and the U. S. Coast and Geodetic Survey.

IMCL 3-1062



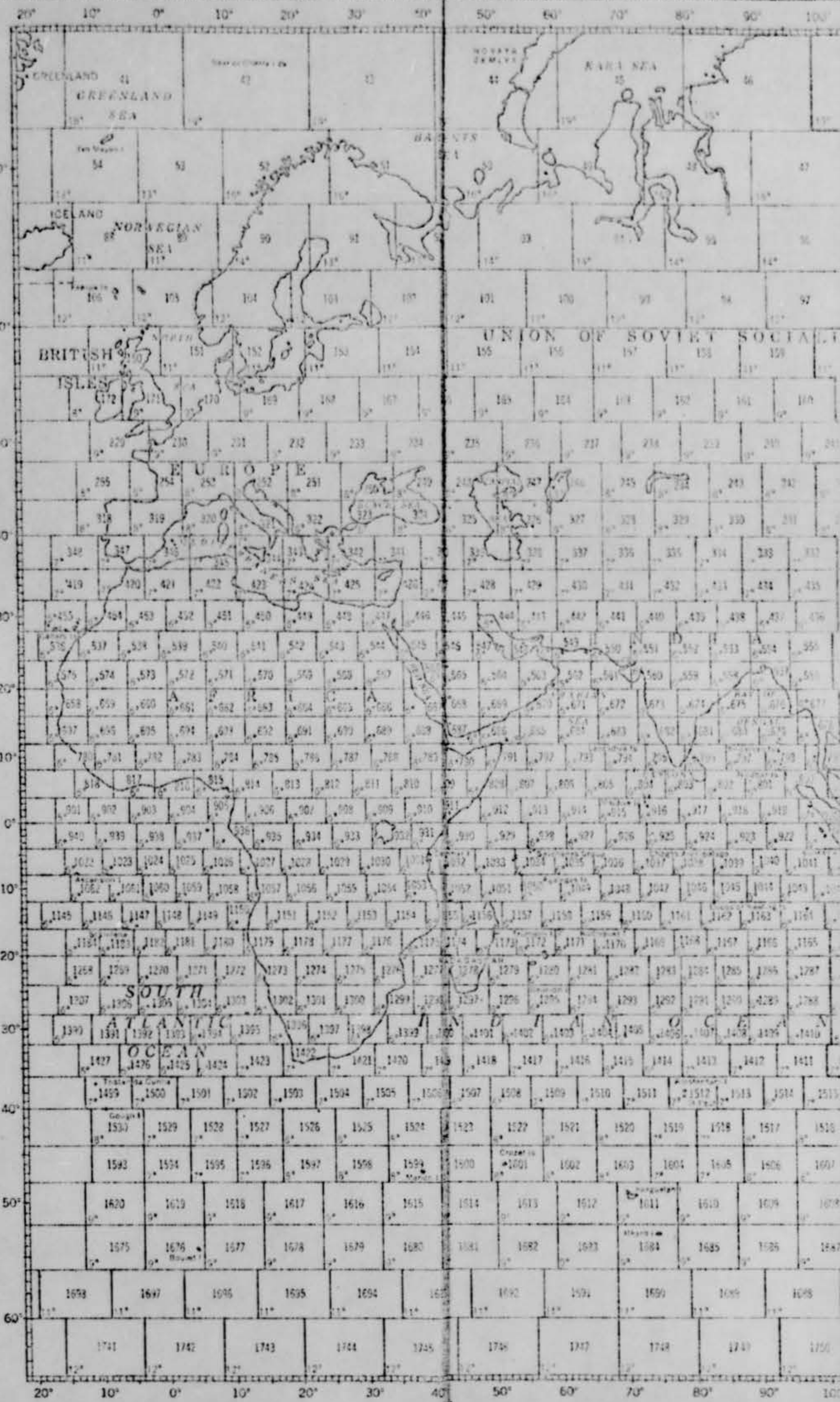
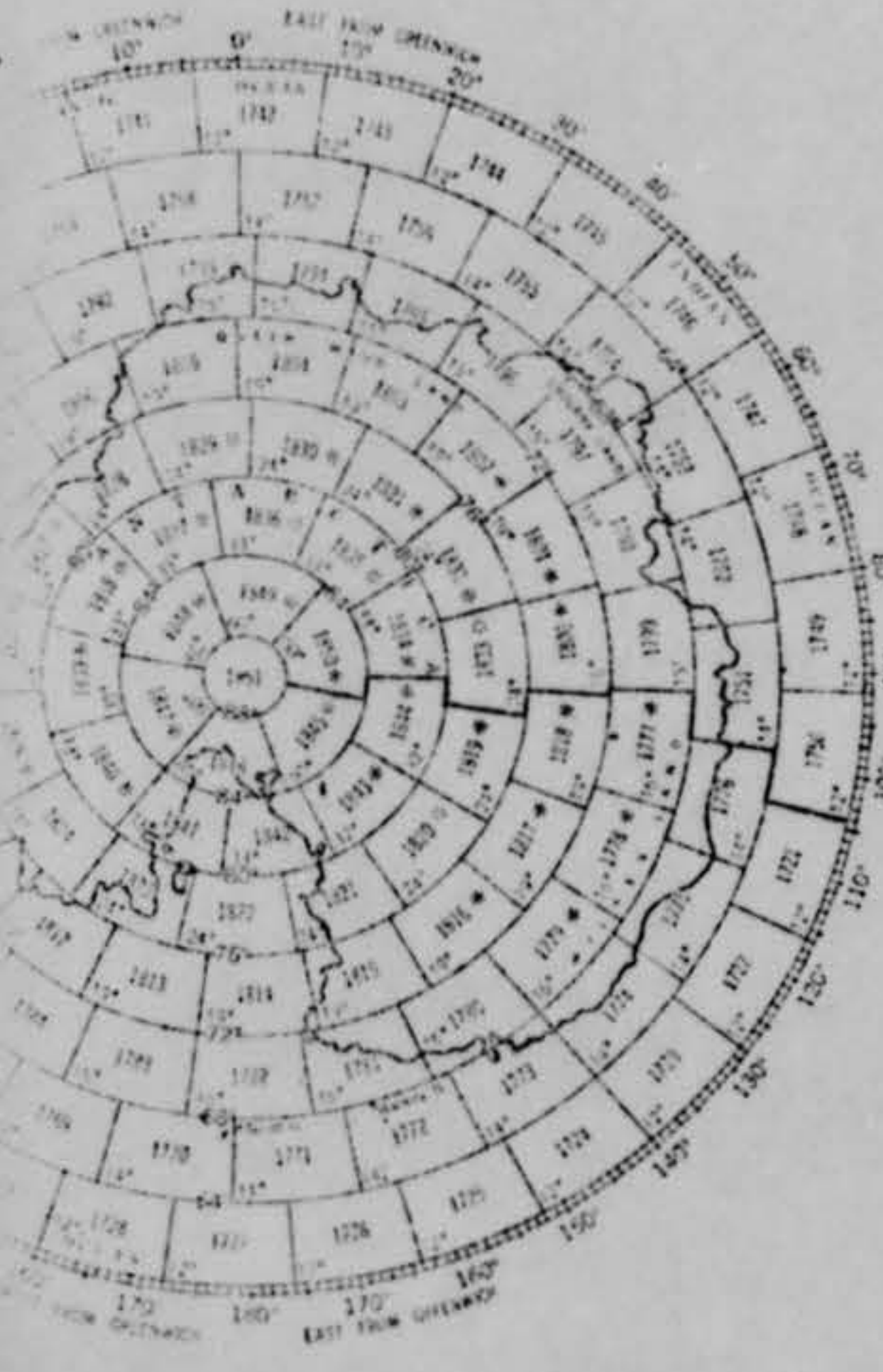




**TH POLAR AREA**



**TH POLAR AREA**



is not sufficient information available to compile at a scale of 1:1,000,000. Requisitions for these with the appropriate Universal Water Chart.

**WORLD AER**  
Sc

**AERONAUTICAL SYMBOLS**

**AERODROMES**

with facilities

- WATER
- Civil
- Joint Civil and Military
- Military

Aerodromes with emergency or no facilities

- LAND WATER
- Landing Area
- Sheltered Anchorage

All radio facility data as lower frequencies, Methods of indicating specific voice and CW rad

Radio Range (With voice)

Radio Range (Without voice)

Nondirectional Radiobeacon (With voice)

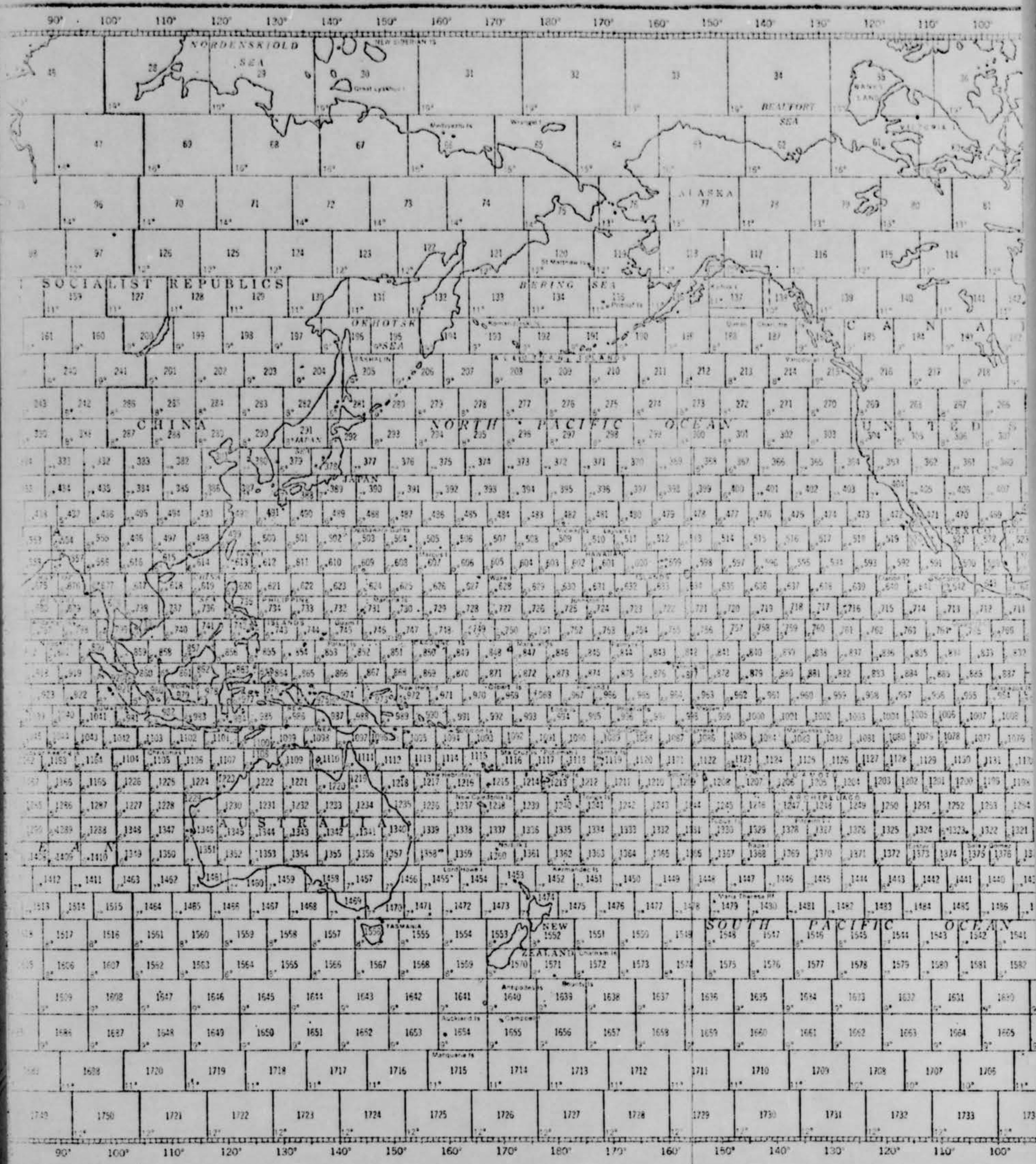
Nondirectional Radiobeacon (Without voice)

**AERODROME DATA AND LANDING FACILITIES INFORMATION**

LAND WATER

Elevation in feet





**AERONAUTICAL CHART INDEX**  
Scale of Series 1:1,000,000

Charts published   
Charts not published

**AERONAUTICAL SYMBOLS**

**RADIO FACILITIES**

Radio facility data are printed in blue with the exception of certain LF/MF facilities such as tower frequencies, radio ranges and associated airways, which are printed in magenta. Morse and CW calls are shown below.

Use of the word "Radio" within the box indicates voice facilities.

	BALTIMORE RADIO 257 BAL	Radio Communication Station (With voice)		GOWEN RADIO 4479
	EGLIN RANGE 309 VPS	Radio Communication Station (Without voice)		KAZAN 5200 CKNX
	DOUGLAS RADIO 251 DW	Radio-Broadcasting Station		CFPB 1019
	DIXIE 188 DXE	Radar Beacon (Racon)		NACON 3256 2-1-2

**TOPOG**

**CITIES AND TOWNS**

- Metropolitan Areas  NEW YORK
- Large Cities  RICHMOND
- Cities  ARLINGTON
- Small Cities  FREEDOM
- Large Towns  COLUMBIA
- Towns & Villages  COLUMBIA