PROJECT 10073 RECORD CARD

1. DATE

15 Dec 52

2. LOCATION

GREENSBORO, NORTH CAROLINA

3. DATE-TIME GROUP

Local 15/0925EST

GMT 15/1425Z

4. TYPE OF OBSERVATION

- ☐ Ground-Visual
- ☐ Ground-Radar
- ☒ Air-Visual
- ☐ Air-Intercept Radar

5. PHOTOS

- ☐ Yes
- ☒ No

6. SOURCE

AF Pilot

7. LENGTH OF OBSERVATION

20 seconds

8. NUMBER OF OBJECTS

One

9. COURSE

N

10. BRIEF SUMMARY OF SIGHTING

Bright silver spherical object traveling at an unestimated speed was sighted at 11 o'clock high to 6 o'clock high where observer lost visual contact. Observer was flying at 2500' traveling 300 mph.

11. CONCLUSIONS

- ☐ Was Balloon
- ☐ Probably Balloon
- ☒ Possibly Balloon
- ☐ Was Aircraft
- ☐ Probably Aircraft
- ☐ Possibly Aircraft
- ☐ Was Astronomical
- ☐ Probably Astronomical
- ☐ Possibly Astronomical
- ☐ Other
- ☐ Insufficient Data for Evaluation
- ☐ Unknown

12. COMMENTS

ATIC FORM 328 (REV 26 SEP 52)

[redacted] UNCLASSIFIED

(52 10

Hurstville, South Carolina 15 December 1952

I. Description of Incident

At 0915 EST an RF-80 over this location visually sighted a circular silver object about the size of a half-dollar. Object was seen for a period of 10 to 15 seconds and apparently was oscillating, losing and gaining altitude alternately. The pilot was on a 270° heading at 15,000 ft. and saw the unknown at a relative bearing of 330° at approximately 30,000 ft. The weather was clear with CAVU conditions.

II. Discussion of Incident

Since this sighting occurred 10 minutes before a similar one at Greensboro, North Carolina, the possibility of the two pilots actually seeing the same object has been looked into. The following conclusions have been drawn: The objects could not have been a single weather balloon launched at Hurstville, South Carolina, because the prevailing winds for the general area were from 360° at 75 knots, or blowing directly against a free floating object and carrying it south of the original observation point, nor north. Secondly, the objects could not have been a single jet aircraft traveling from Hurstville north to Greensboro. The distance is 115 miles between sightings and the sightings were 10 minutes apart thereby necessitating a ground speed of 690 mph. With a general wind from the north blowing at 75 knots at 25,000 ft. it seems unlikely that a jet could hit this speed. Furthermore the description of the unknown as "round and silver" from experienced fighter pilots indicates that the objects probably were not jets. Although there was much local air traffic in both sightings, aircraft has been eliminated as a possibility for the above reason.

Both sightings occurred within an hour of a scheduled rawinsonde weather balloon release at Greensboro, North Carolina, and an unscheduled release around the Hurstville area. Taking the descriptions given of both objects, which are, incidentally, very characteristic of balloon observations received by ATIC, the conclusion reached is that the object seen at Hurstville was possibly a balloon. At Greensboro probably a balloon.

III. Conclusion

Possibly a balloon.

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD D[illegible]

[redacted] UNCLASSIFIED

[redacted]

3 & 10

Greensboro, North Carolina 15 December 1952

I. Description of Incident

An RF-80 in flight over Greensboro sighted a spherical object with a bright silver color at about 0925 EST on 15 December 1952. It moved from a 12 o'clock high position to 6 o'clock high when the pilot lost contact with the unknown. Pilot was on a north heading at 25,000 feet traveling at 300 mph.

II. Discussion of Incident

Two aircraft from Shaw AFB were in the area at the time of sighting as was a balloon released from the weather station at Greensboro. The pilot probably could have recognized the aircraft but a silver, round, weather balloon might not be so easily recognized due to its small size. It appears that the latter explains the cause for this sighting.

III. Conclusion

Probably a balloon.

DOWNGRADED AT 3 YEAR
DECLASSIFIED AFTER 12
DOD DIR 5200.10

[redacted]

UNCLASSIFIED

t number.

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

(409)

Wind 360° at 75 knots at 25,000 ft

GJ

GREENSBORO RADIO
116.8 GSO

80° (Joins 358)

90 G° 36° (Joins 410)

81°K 2°W 3°W

3°W

Unsat 1025 Walhalla

Obj. seen at 0923 Maj. Gray

ELKIN 1100 — — 24
Yadkinville
BS WSJS 600
GREENSBORO RADIO 355 GSO
BS WBIG 1470
NORTH WILKESBORO 970 — —
North Wilkesboro
WINSTON-SALEM
WINSTON-SALEM RADIO 379 INT
GREENSBORO
HIGH POINT
Archdale FRALEY 900 — — 18
Climax
Thomasville THOMASVILLE 850
Randleman
Lexington
ASHEBORO 864 — — 24
A1262
Asheboro
112 FA BN (NG) 1130 — —
Lenoir
Taylorsville VAR
HICKORY RADIO V 108.2 HKY Voice 323
Stony Point
Granite Falls
HICKORY 1040 — — H 40
Valdese
STATESVILLE 990 — —
Statesville
Hickory
Newton
MOORESVILLE
NEWTON-CONOVER 1030 — — 15
Mooresville
Maiden
Salisbury
SALISBURY 784 L — 27
MILLER 975 — — 19
High Rock Res
Denton
GREENSBORO-HIGH POINT 973 L H 45 219 119.1 126.12
High Rock
Seagrove
KANNAPOLIS 750 — — 20
China Grove
Rockwell
Landis
CHINA GROVE 750 — — 21
Davidson
Cornelius
Kannapolis
JONES 960 — — 27
Lincolnton
HURRIS — — 11
Concord
CONCORD 700 — — 19
COLEY 790 — — 16
BROCKENBROUGH 800 — — 29
Albemarle
ALBEMARLE 535 — — 37
Badin
Badin Res
Troy
Star
Biscoe
LYNWOOD 1220 — H 16
Kings Mountain
Gastonia
PLAZA 740 — — 20
DELTA 750 — — 28
STANFIELD 700 — — 18
Norwood
Mt Gilead
Candor
CANDOR 710 — — 21
GASTONIA 1300 — H 30
CANNON 778 — — 23
CHARLOTTE
DOUGLAS 748 L H 52 INSTR LDG SYSTEM 336 120.7 125.18
BS WBT 1110
Blacksburg
Clover
Pineville
Ellerbe
Fort Mill
CHARLOTTE RADIO 212 CLT
SHUTE 680 — — 29
Monroe
WADESBORO 220 — — 19
Marshville
York
Rock Hill
RODDEY 730 — — 28
Wadesboro W & L 370 — — 30
Rockingham
ROCKINGHAM-HAMLET 358 — — 45
Jonesville
Lockhart CHESTER 709 — H 50
Pageland
CHERAW 725 — — 22
Cheraw
Lando
Chesterfield
Chester
Lancaster
Jefferson
Union
WARNING
Fort Lawn
COULSBURN 550 — — 32
Patrick
Carlisle
Magnetic variation in this area at ground elevation differs from normal as much as 16°W
Great Falls
Kershaw
Society Hill
KERSHAW 475 — — 21
Wateree Pond
McBee
HARTSVILLE 230 — — 25
DARLINGTON CO 190 — H 50
Winnsboro
Hartsville 820
Lydia
Darlington
WOODWARD 300 — H 30
BISHOPVILLE 220 — — 13
Bishopville
SHAW AFB 234 L H 68 RACON X-BAND 1-62
Florence
Lamar
Timmonsville
Elliott
HUGGINS 149 — — 20
320 FLO 115.5 FLO
To Florence
COLUMBIA 244 L H 56 336 120.9 125.1
DANGER AREA (D-118)
COLUMBIA
OWENS 192 — H 36
Lexington

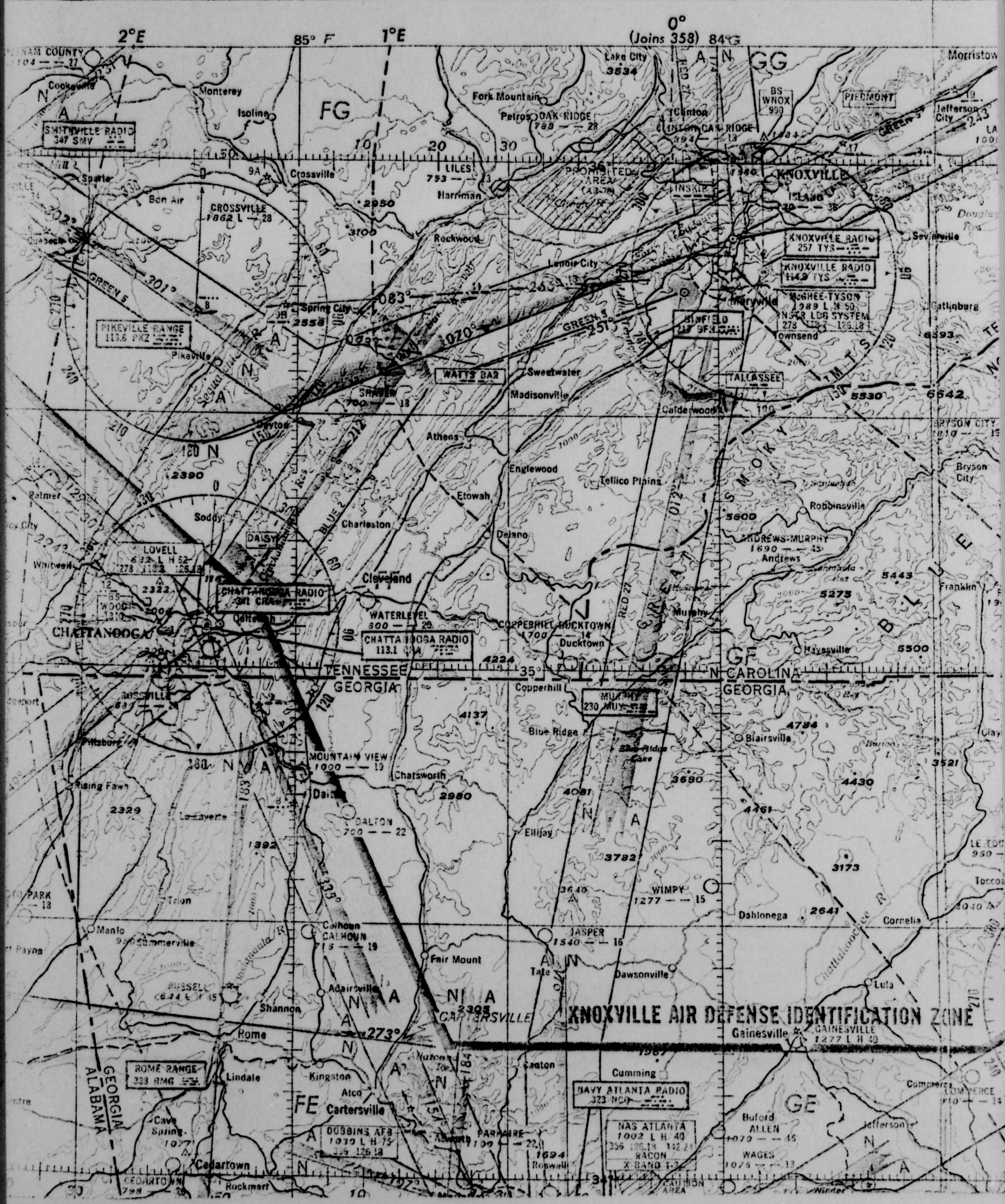
RONAUTICAL CHART

Compiled to ICAO Standards
ICAO number add 2000 to the chart number.

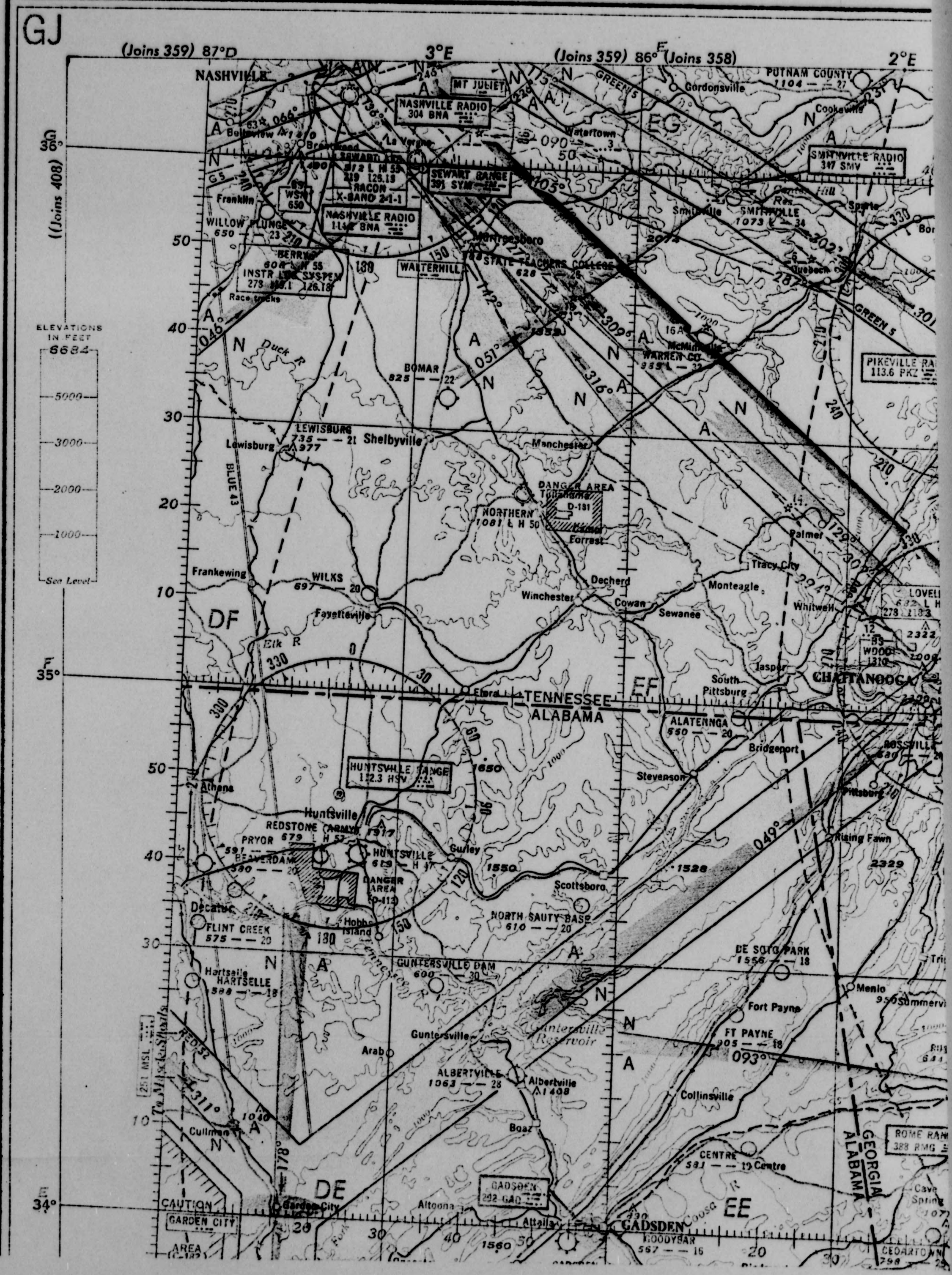
Morristown
Jefferson City
Greeneville
TUSCULUM 1500 — — 28
BULLS GAP
WHITE PINE 4160 — — 19
LAKESIDE 1000 — — 23
Newport
Douglas Res
Sevierville
Hot Springs
Marshall
Union
Erwin
5259
6313
Cranberry
5964
Boone
5522
Edgemont
Burnsville
5530
5516
4350
Spruce Pine
MT MITCHELL 6684
MORGANTON LENOIR 1253 — — 33
RIVERSIDE 1020 — — 22
1450A
Lenoir
Valdese
Morganton
Marion
MARION 1450 — — 19
1610A
Gatlinburg
6593
6422
TENNESSEE
NORTH CAROLINA
6840
6642
5330
ASHEVILLE 3200 — — 20
Black Mountain
ASHEVILLE BS WWNC 570 2525
5340±
Canton
BLACK MOUNTAIN 2270 — — 25
DOWEN 1988 — — 30
3100
BRYSON CITY 910 — — 19
6292
Waynesville
ASHEVILLE RADIO U 108.3 AVL
4249
ASHEVILLE RADIO 335 AVL
Bryson City
Sylva
SYLVA 2008 — — 29
6540
ASHEVILLE-HENDERSONVILLE 2103 L H 41 253 124.1
5085
East Laport
6275
Hendersonville
HENDERSONVILLE 2200 — — 30
RUTHERFORD 1012 — — 17
McDONALD 1000 — — 18
Rutherfordton
Spindale
Lawndale
BRIDGES 975 — — 18
Brevard
3662
A & H 2140 — — 18
Tryon
3226
Carolleen
Cliffside
Shelby
5445
Franklin
FRANKLIN 1995 — — 23
5127
Lake Toxaway
Cleveland
5500
3548
SPARTANBURG RADIO 115.7 SPA
Blacksburg
Gaffney
Inman
Cowpens
1045
Converse
SPARTANBURG
Traveler's Rest
GREENVILLE RADIO 281 GRL
1302 A
Pickens
GREENVILLE
Starr
1000
SPARTANBURG 816 L H 44 317 113.5 126.1
Jonesville
Clayton
3521
Easley
BS WFBC 1320
Liberty
Walhalla
Central
GREENVILLE 1043 L H 42 391 113.9 125.8
1058
Woodruff
Fountain Inn
Buffalo
Union
SPARTANBURG RADIO 248 SPA
Enoree
CLEMSON 900 — — 20
Westminster
Clemson
Pendleton
Piedmont
Pelzer
Williamston
DONALDSON AFB 959 L H 55 272 126.18
Carlisle
LE TOURNEAU 950 — — 15
Toccoa
2040 A
1200
Belton
LAURENS 700 — — 27
Clinton
Whitmire
ANDERSON RADIO 118.3 AND
Anderson
ANDERSON 783 L H 50
Honea Path
ANDERSON RADIO 236 AND
ASHLEY 780 — — 21
Ware Shoals
Laurens
WHITMIRE 500 — — 24
CRAWFORD 600 — — 22
Lavonia
Hartwell
Iva
Savannah R
Lake Greenwood
GREENWOOD COUNTY 629 — H 50
1050A
Abbeville
Greenwood
NEWBERRY 565 — — 22
Newberry
Prosperity
Ninety Six
COMMERCE 810 — — 14
Elberton
Comer
ELBERTON 710 — — 19
BENTLEY 500 — — 21
Calhoun Falls
825
Saluda
FICATION ZONE

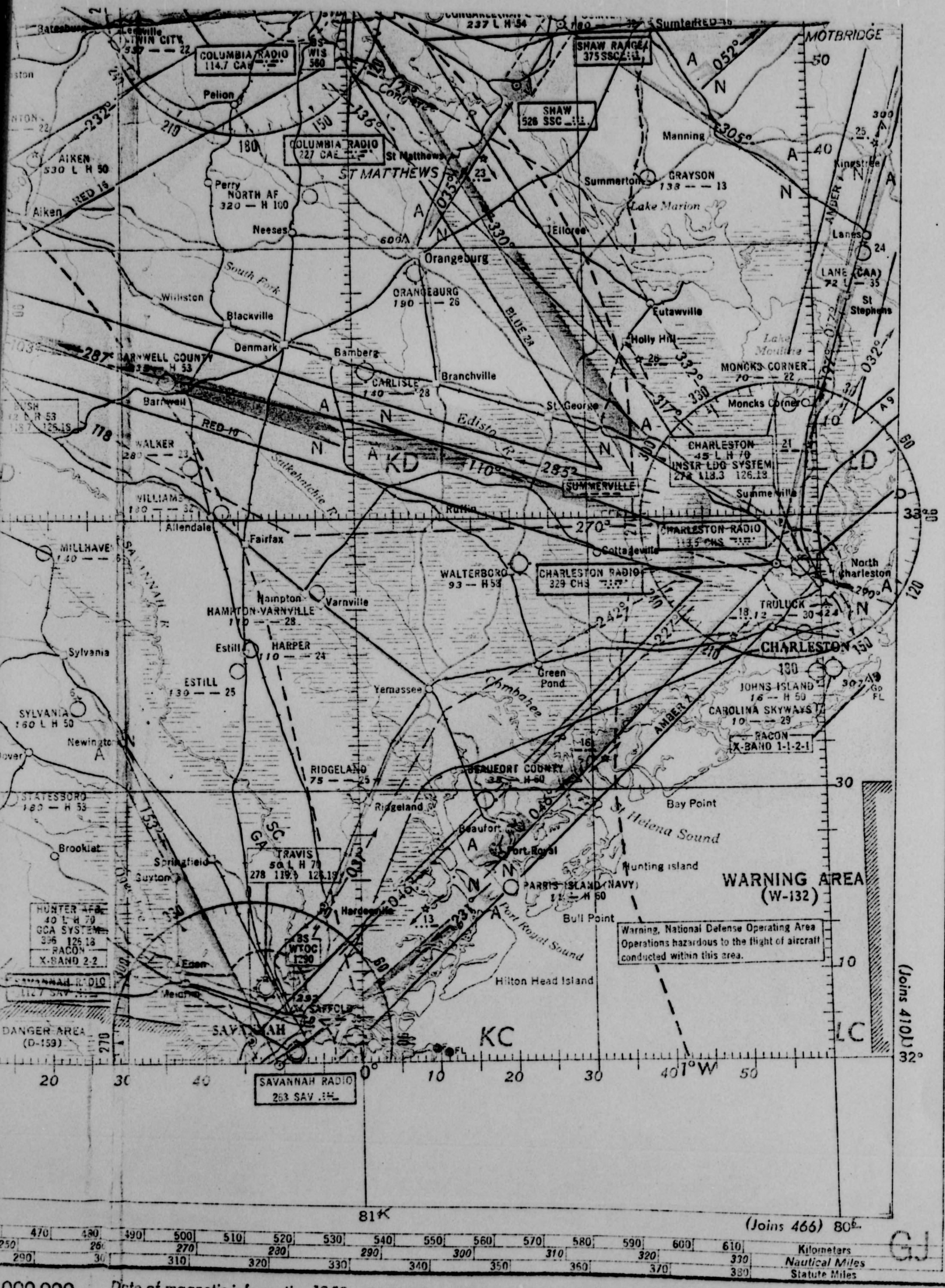
RONAUTICAL CHART

Compiled to ICAO Standards
For ICAO number add 2000 to the chart number.


0°
(Joins 358)
2°E
1°E
85° F
84° G
PUTNAM COUNTY
Cookeville
Monterey
Isoline
SMITHVILLE RADIO
347 SMV
Lake City
3534
Fork Mountain
Petros
OAK RIDGE
788 — 28
Clinton
CLINTON-OAK RIDGE
394 — 13
BS
WNOX
990
PIEDMONT
Morristown
Jefferson City
Sparta
Crossville
LILES
753 — 13
PROHIBITED AREA
Harriman
INSKIP
KNOXVILLE
ISLAND
30 — 35
Bon Air
CROSSVILLE
1862 L — 28
Rockwood
KNOXVILLE RADIO
257 TYS
KNOXVILLE RADIO
114.9 TYS
McGHEE-TYSON
1989 L H 50
INSTR LDG SYSTEM
278 126.18
Sevierville
Lenoir City
Maryville
Gatlinburg
Spring City
PIKEVILLE RANGE
113.6 PKZ
Pikeville
WATTS BAR
Sweetwater
Madisonville
TALLASSEE
Townsend
SMOKY MTS
5530
6642
Dayton
Athens
Calderwood
Englewood
Tellico Plains
Etowah
Robbinsville
5600
Soddy
Charleston
Delano
LOVELL
632 L H 52
278 118.3 126.18
DAISY
Cleveland
ANDREWS-MURPHY
1690 — 45
Andrews
5443
Franklin
CHATTANOOGA RADIO
381 CRA
WATERLEVEL
600 — 28
COPPERHILL-BUCKTOWN
1700 — 14
Ducktown
Murphy
CHATTANOOGA RADIO
113.1 CRA
4224
TENNESSEE
GEORGIA
NORTH CAROLINA
GEORGIA
Copperhill
MURPHY
230 MUY
Hayesville
5500
Blue Ridge
4137
4784
Blairsville
3521
MOUNTAIN VIEW
1000 — 19
Chatsworth
2980
3690
4081
4430
Rising Fawn
2329
DALTON
700 — 22
Ellijay
3782
4461
1392
3640
WIMPY
1277 — 15
3173
Trion
Menlo
Summerville
Calhoun
CALHOUN
15 — 19
Fair Mount
JASPER
1540 — 16
Dahlonega
2641
Cornelia
Tate
Dawsonville
Lula
RUSSELL
634 L H 15
Adairsville
Shannon
2305
CARTERSVILLE
KNOXVILLE AIR DEFENSE IDENTIFICATION ZONE
273°
Rome
Gainesville
GAINESVILLE
1277 L H 40
ROME RANGE
333 RMG
Lindale
Kingston
Canton
Cumming
NAVY ATLANTA RADIO
323 NCO
GEORGIA
ALABAMA
Atco
Cartersville
Cave Spring
1077
DOBBINS AFB
1030 L H 75
356 126.18
PARKAIRE
1100 — 22
1694
Roswell
NAS ATLANTA
1002 L H 40
356 126.18 142.7
RACON
X-BAND 1-2
Buford
ALLEN
1070 — 45
WAGES
1075 — 13
Jefferson
Cedartown
CEDARTOWN
798 — 35
Rockmart
CAUTION AREA
Winder
COMMERCE
910 — 14

(409) GRE[illegible]T S[illegible]OKY MOUNTAI[illegible]S





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Date of magnetic information 1950

Consult Coast and Geodetic Survey Radio Facility Charts and Civil Aeronautics Administration Airman's Guide for changes in aeronautical information of chart after *August 26,1951*

Next scheduled edition, February 1952

GREAT SMOKY MOUNTAINS (409)

UNITED STATES

U.S. AIR FORCE (BITIC)

Athens
POLO
720 — — 19
ATHENS
807 — H 40
Crawford
Watkinsville
Oconee R.
Union Point
Madison
MADISON
720 — — 26
Greensboro
096°
RED 19
Eatonton
Sparta
Milledgeville
MILLEDGEVILLE
360 — — 26
Haddock
HD
Sandersville
WASHINGTON CO
460 — — 35
Tennille
Gordon
SMART
H 47
ROBINS
359 WRB
Jeffersonville
ROBINS AFB
295 L H 70
264 126.18
DUBLIN
303 — H 50
Dublin
584
Dudley
RED DOG
305 — — 22
COCHRAN
324 L — 30
Cochran
Empire
EASTMAN
355 — — 29
Eastman
Cliftuncey
Helena
McRae
Abbeville
Ocmulgee R.
Little Ocmulgee R.
Lumber R.
CAROLINA
GEORGIA
McCormick
Lincolnton
Washington
THOMSON
525 — — 30
Crawfordville
Thomson
Warrenton
AUGUSTA RADIO
385 AGS
330
300
270
240
210
180
150
120
90
60
30
0
DANGER
AREA
(D-124)
AUGUSTA RADIO
1139 AGS
Stapleton
Wrens
St. Clair
PORT MAYBE
330 — — 40
Louisville
Waynesboro
Vidette
Brier C.
JD
Wadley
ACTON
200 — — 48
BIRDSVILLE
200 — — 22
Midville
Millen
MILLHAVEN
140 — —
Wrightsville
DUBLIN
303 — H 50
Dublin
584
Dudley
THOMPSON
300 — — 32
583
LINDSEY
300 — — 30
Swainsboro
Garfield
Graymont
Sylvania
SYLVANIA
160 L H 50
Dover
Newington
Statesboro
STATESBORO
180 — H 53
Metter
Brooklet
Soperton
Vidalia
Lyons
Collins
Mt Vernon
VIDALIA
274 — H 50
REIDSVILLE
205 — — 25
Reidsville
Claxton
Ohoopee R.
Lotts Creek
Ogeechee R.
Springfield
Guyton
Eden
Meldrim
Allendale
Williston
Barnwell
BUSH
142 L H 53
278 118.7 125.18
WALKER
280 — — 23
WILLIAMS
180 — — 32
DANIEL
427 — H 42
Twiggs
Granitville
Aiken
AIKEN
530 L H 50
Johnston
Edgefield
Trenton
TRENTON
600 — — 22
LEXINGTON
537 — — 22
088°
232°
210
060
103
287
118
150
180
203°
323°
339°
324°
139°
017°
227°
153°
HUNTER AFB
40 L H 70
GCA SYSTEMS
396 126.18
RACON
X-BAND 2-2
SAVANNAH RADIO
112.7 SAV
DANGER AREA
(D-159)
To Alma
242 AMG
To Alma
1150 AMG
To Alma
242 AMG
CONVERSION SCALE
20 25 30
60 70 80 90 100
ciphers to the figures on both sides of scale.
83H
(Joins 466) 82J
300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500
160 170 180 190 200 210 220 230 240 250 260 270
190 200 210 220 230 240 250 260 270 280 290 300 310

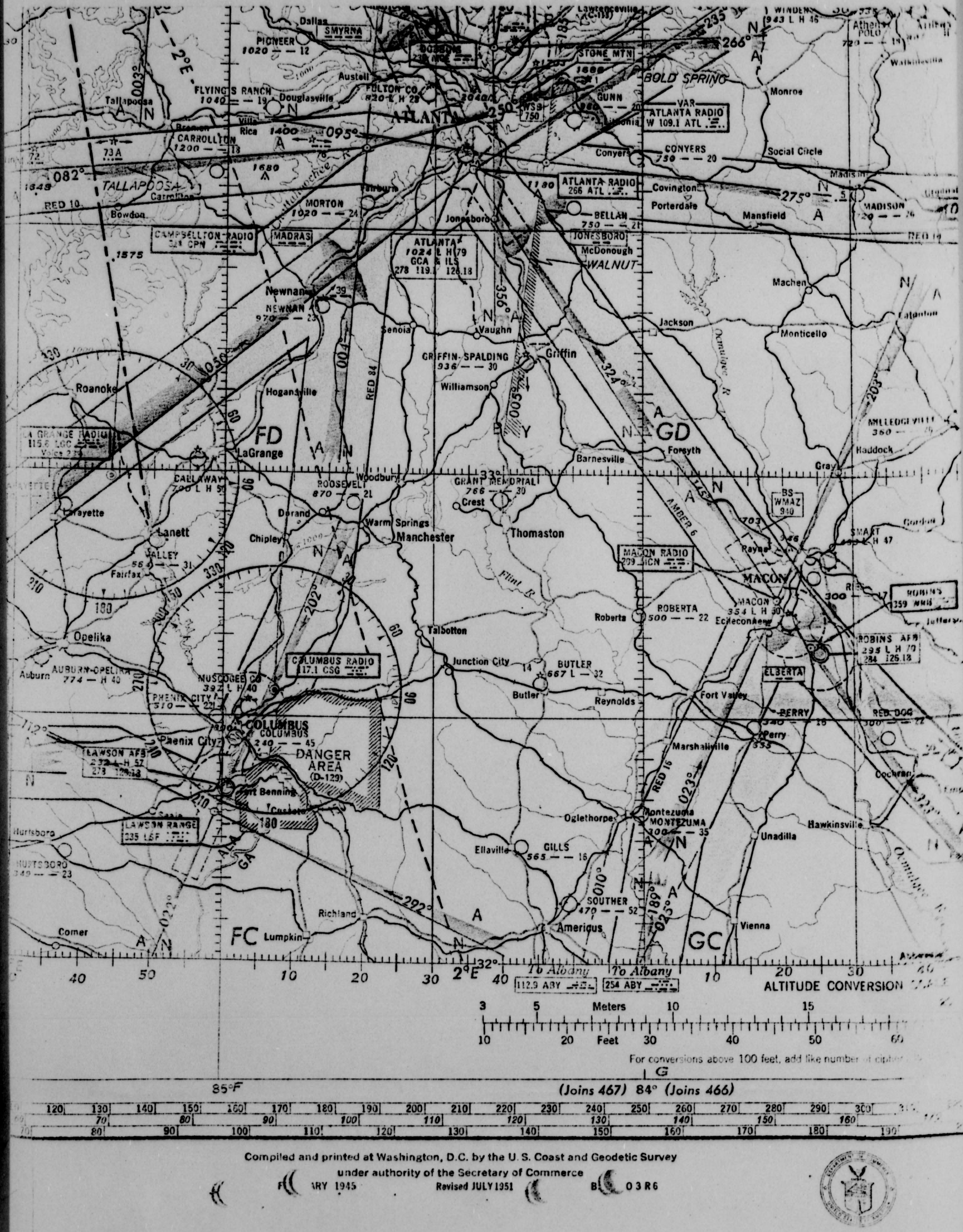
NOTE: It is requested that users of this chart indicate corrections and additions which come to their attention and notify "THE DIRECTOR, U.S. COAST AND GEODETIC SURVEY, WASHINGTON 25, D.C."

VERY HIGH FREQUENCIES (VHF) PRINTED IN BLUE
BLUE TINT INDICATES AIR TRAFFIC CONTROLLED AREAS

SCALE 1:1,000,000

GEOREF 8-51

Date of magneti
Consult Coast and G
Charts and Civil Aeronau
Guide for changes in aer
chart after August 2
Next scheduled e



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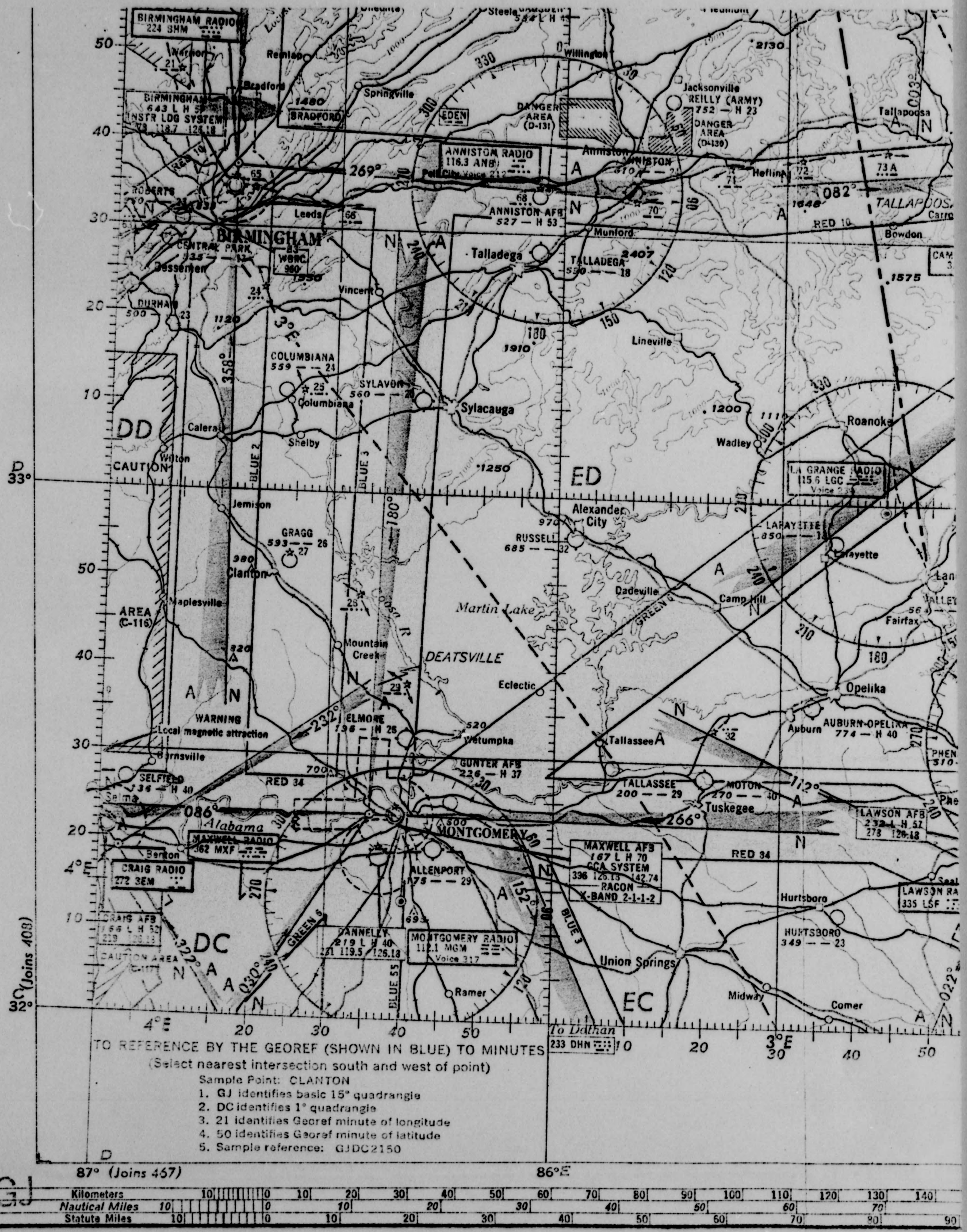
under authority of the Secretary of Commerce

FEBRUARY 1945 Revised JULY 1951 B 03R6



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

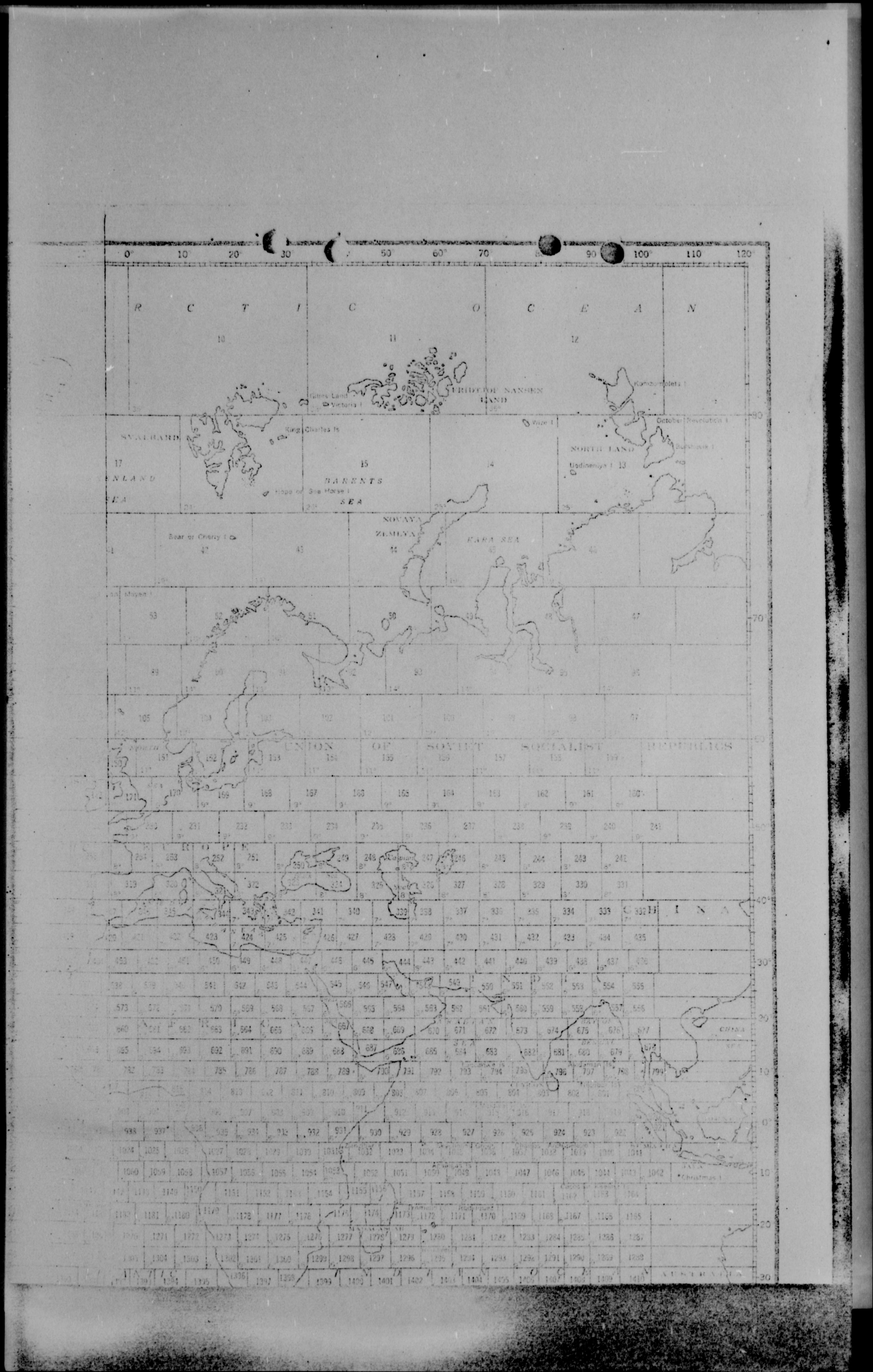
Sample Point: CLANTON

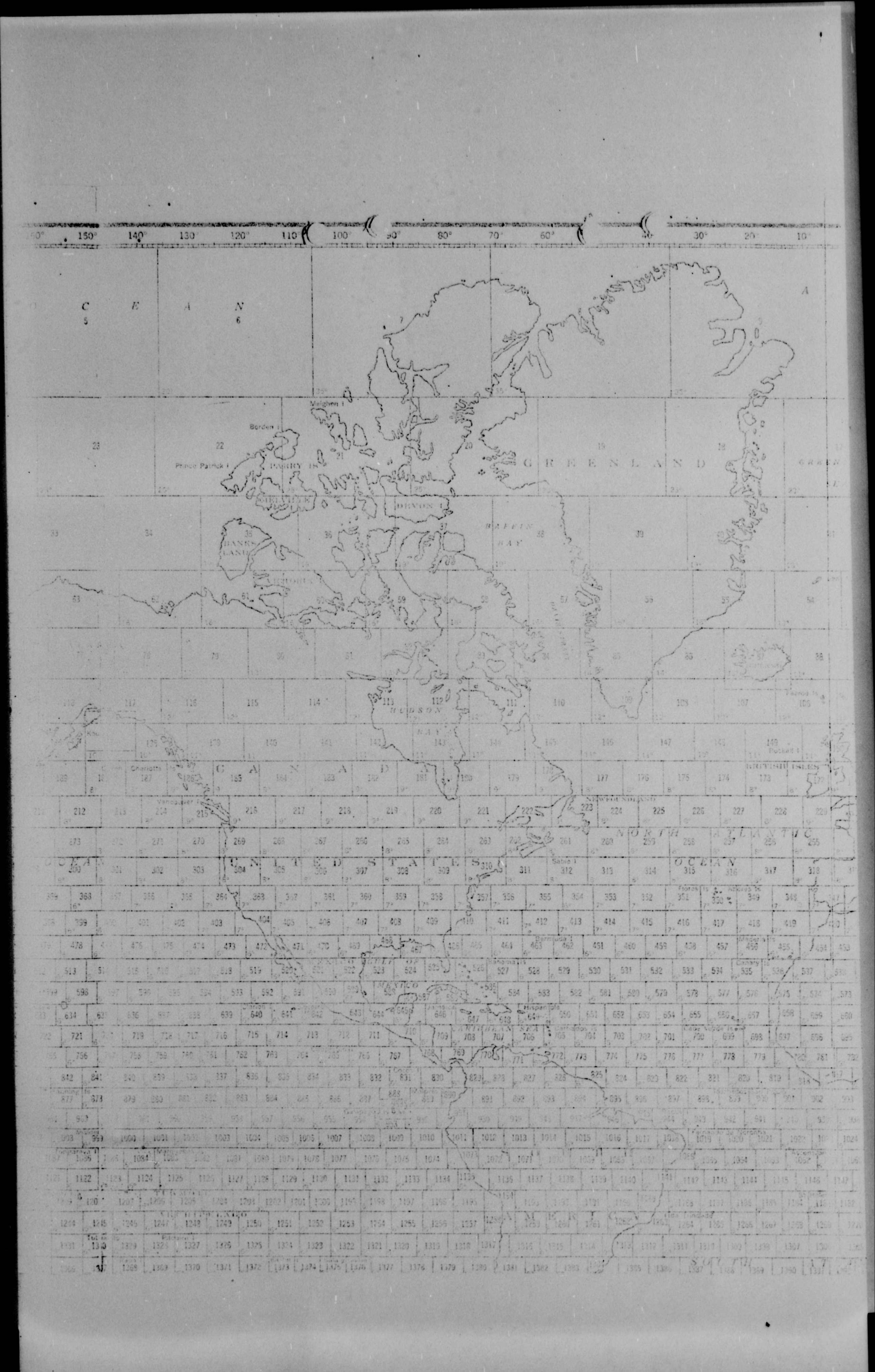
1. GJ identifies basic 15° quadrangle
2. DC identifies 1° quadrangle
3. 21 identifies Georef minute of longitude
4. 50 identifies Georef minute of latitude
5. Sample reference: GJDC2150

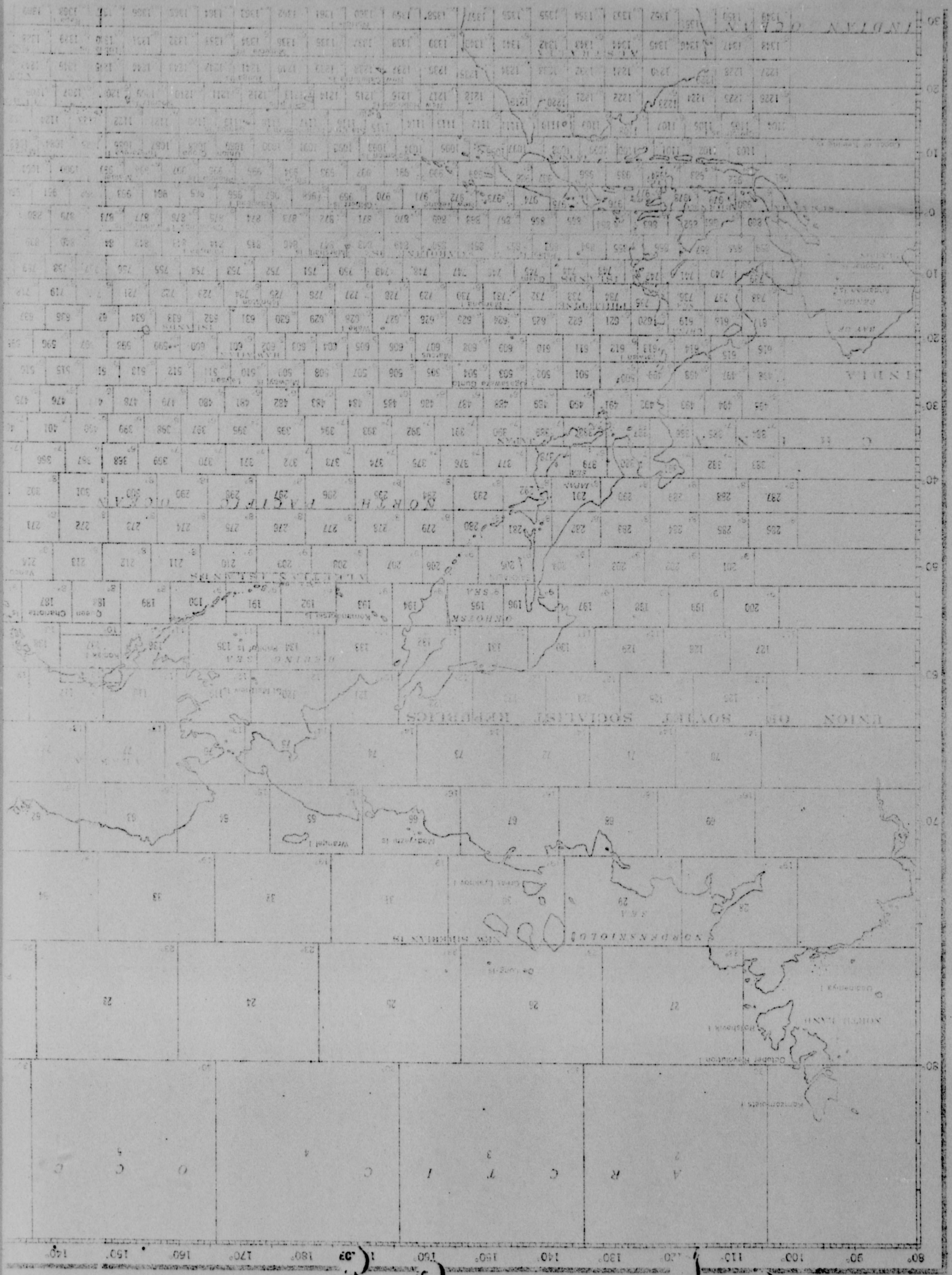
(409) PRICE 25 CENTS

THIRTEENTH (ON Aug 26, 1951

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


0°
10°
20°
30°
50°
60°
70°
90°
100°
110°
120°
80°
70°
60°
50°
40°
30°
20°
10°
0°
10°
20°
30°
ARCTIC OCEAN
10
11
12
BARENTS SEA
SVALBARD
17
15
14
13
NORTH LAND
Usdinenya I.
Gillies Land
Victoria I.
King Charles Is
Hope or Sea Horse I.
Wize I.
October Revolution I.
Bushuyev I.
Kanzomolets I.
BRIDGE OF NANSEN LAND
NOVAYA ZEMLYA
KARA SEA
Bear or Cherry I.
Mayen I.
42
43
44
45
46
47
48
49
50
51
52
53
UNION OF SOVIET SOCIALIST REPUBLICS
INDIA
CHINA
Christmas I.
Caspian Sea
Aral Sea
Andaman Is.
Nicobar Is.
Amirante Is.
Seychelles
Aldabra Is.
Farquhar Is.
Cosmoledo Is.
Assumption I.
Astove I.
Providence I.
Glorioso Is.
Juan de Nova I.
Europa I.
Bassas da India
Tromelin I.
Agalega Is.
Rodrigues
Mauritius
Reunion
Amsterdam I.
St. Paul I.
Kerguelen Is.
Heard I.
McDonald Is.
Crozet Is.
Prince Edward Is.
Marion I.
Gough I.
Tristan da Cunha
Bouvet I.
Diego Garcia
Cocos Is.
Christmas I.
Java
Sumatra
Timor
Australia


160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
60°
30°
20°
10°
CANADA
GREENLAND
UNITED STATES
MEXICO
Meighen I.
Borden I.
Prince Patrick I.
PARRY IS.
MELVILLE
DIXON I.
BANKS LAND
BAFFIN BAY
HUDSON BAY
Sable I.
Bermuda I.
Bahama Is.
Hispaniola
Jamaica
CARIBBEAN SEA
NORTH ATLANTIC OCEAN
PACIFIC OCEAN



AERONAUTICAL SYMBOLS

AERODROMES

LANDPLANE SEAPLANE

MILITARY BASE

CIVIL

JOINT CIVIL AND MILITARY BASE

OF MAJOR AERONAUTICAL IMPORTANCE

MILITARY

CIVIL

JOINT CIVIL AND MILITARY

OFFERING SERVICES THAT INCLUDE REPAIRS FOR NORMAL TRAFFIC AND/OR REFUELING

LANDING AREA OR ANCHORAGE

LANDING STRIP (MILITARY)

NO PUBLIC SERVICES AVAILABLE

AERODROME DATA

	LANDPLANE		SEAPLANE
18	ELEVATION IN FEET	00	ELEVATION IN FEET
L	MINIMUM LIGHTING	L	MINIMUM LIGHTING
H	HARD SURFACED RUNWAY	S	NORMAL SHELTERED TAKE-OFF AREA
46	LENGTH OF LONGEST RUNWAY TO NEAREST HUNDRED FEET	62	LENGTH OF LONGEST RUNWAY TO NEAREST HUNDRED FEET

HARMON FIELD
18 L H 46
Airport of entry
GCA SYSTEM
278 126.18

NAS ANACOSTIA
00 L S 62
2870

GCA SYSTEM - GROUND CONTROL APPROACH SYSTEM, OTHER CONTROLLED APPROACH SYSTEMS BY APPROPRIATE SYMBOL
278 126.18 2870 CONTROL TOWER TRANSMITTING FREQUENCIES
WHEN SPECIFIC INFORMATION PERTAINING TO LANDING FACILITY DATA IS LACKING, THE RESPECTIVE CHARACTER WILL BE REPLACED BY A DASH (—)

MERCED
152 — H 40

AIR NAVIGATION LIGHTS

ROTATING LIGHT

ROTATING LIGHT (WITH FLASHING CODE)

ROTATING LIGHT (WITH COURSE LIGHTS) 30

FLASHING LIGHT

FLASHING LIGHT (WITH CODE)

OBSTRUCTION LIGHT

MARINE LIGHT

LIGHTSHIP

MARINE LIGHT CHARACTERISTICS

F - fixed FL - flashing Occ - occulting Alt - alternating Gp - group R - red W - white (U) - unwatched SEC - sector sec - second G - green B - blue

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

RADIO FACILITIES

USE OF THE WORD "RADIO" WITHIN THE BOX INDICATES VOICE FACILITIES

RADIO RANGE (WITH VOICE) — WOODBY RADIO 251 FWA

RADIO RANGE (WITHOUT VOICE) — WILLOW RANGE 320 WLE

MARINE RADIOBEACON (WITHOUT VOICE) — RBn POINT ARENA 292 — 20m-30m & 50m-60m

VHF RADIO DIRECTION FINDER (WITH VOICE) — DF KODIAK DF HOMER 121.5

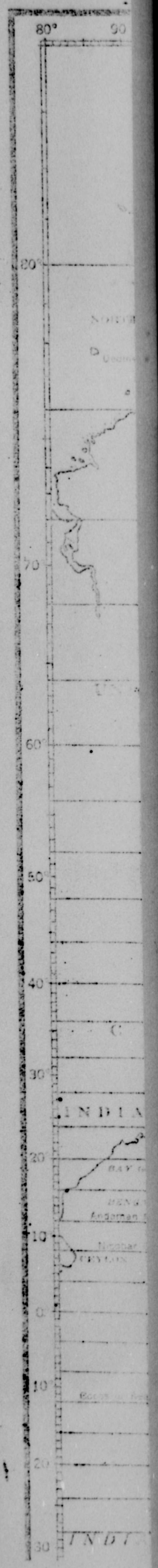
HF RADIO DIRECTION FINDER (WITH VOICE) — DF McGRATH AIRWAYS 2812 4220

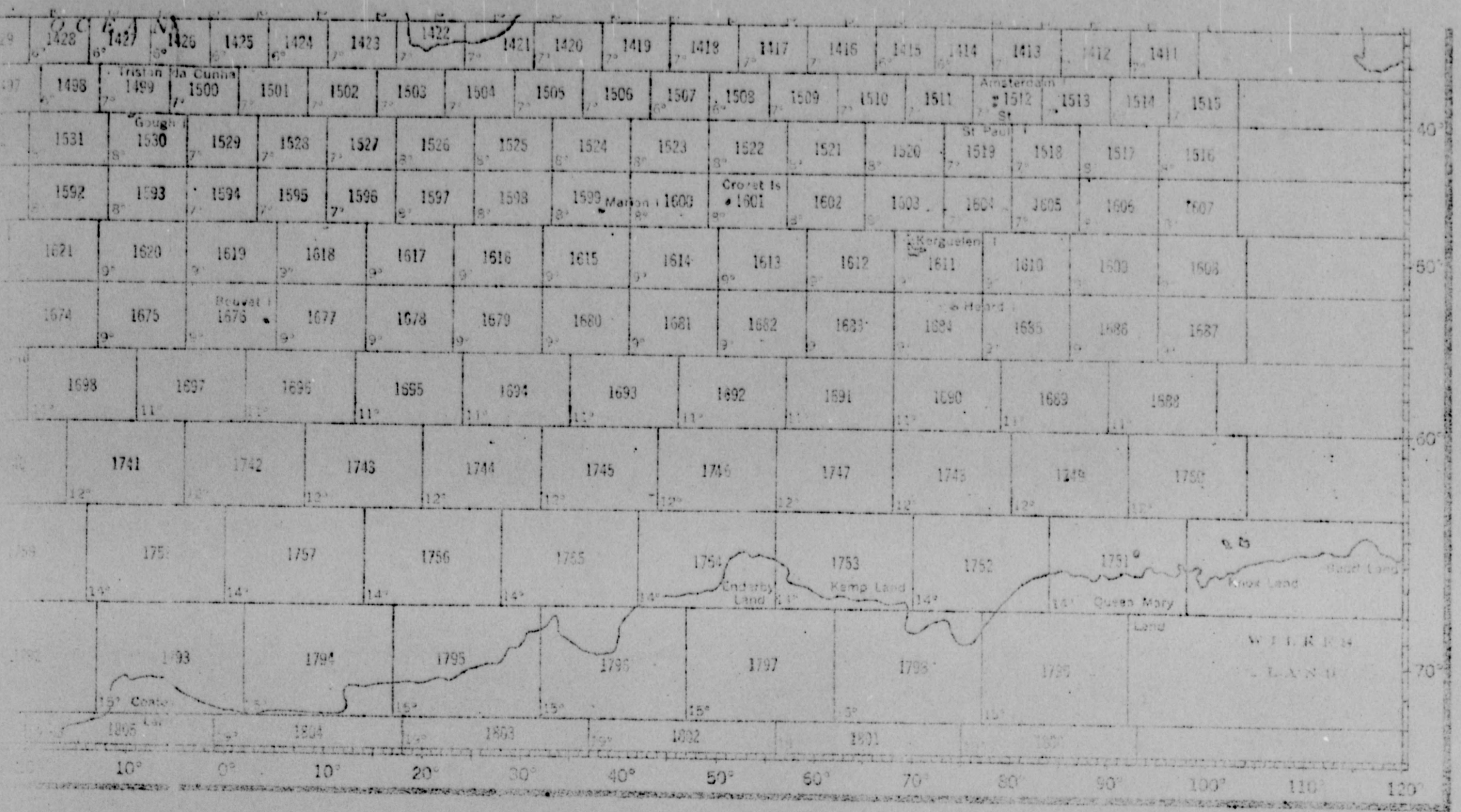
RADIO BROADCASTING STATION — BS WOL 1260

RADIO FAN MARKER BEACONS
EVERETT
200 watts — EASTON
5 watts — AVON

RADIOBEACON, NONDIRECTIONAL HOMING — FAIRFIELD RADIO 362 FFU

REPORTING POINT — BRANT





RELIEF FEATURES

LAKES
(PERENNIAL & NON-PERENNIAL)

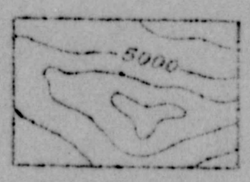
GLACIER

SALT PANS
(EVAPORATOR)

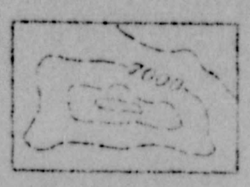
RICE FIELD

SWAMP

SPRING
WELL
WATER HOLE
RESERVOIR



CONTOURS

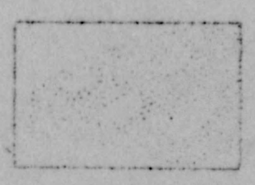


APPROXIMATE CONTOURS

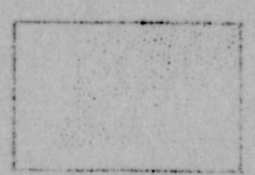
HACHURES

BLUFF, CLIFF OR ESCARPMENT

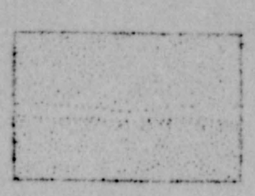
LAVA FLOW



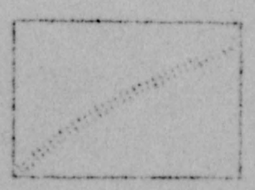
SAND DUNES



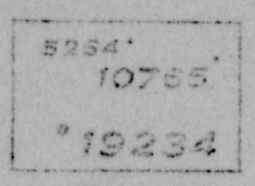
SAND AREA



SAND RIDGES



LEVEE OR ESKER



SPOT ELEVATIONS (IN FEET)

HIGHEST ELEV ON CHART (IN FEET)

RAILROAD (SINGLE TRACK)

RAILROAD (MULTIPLE TRACK)

RAILROAD (ABANDONED)

HIGHWAY (DUAL LANE)

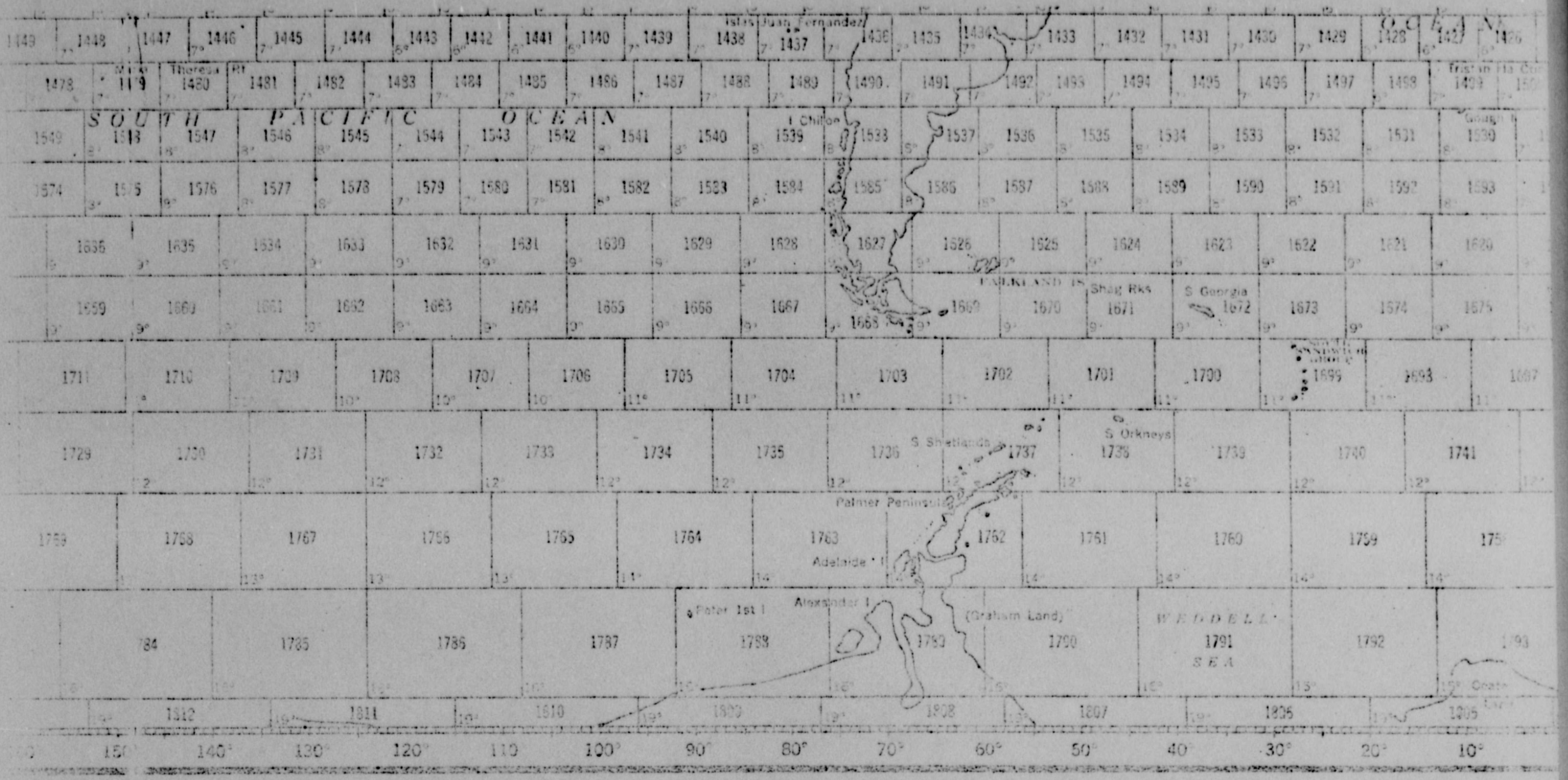
HIGHWAY (MULTIPLE LANE)

HIGHWAY (SECONDARY ROUTE)

TRAIL

PIPE LINE (OVERHEAD)

TUNNEL (HIGHWAY)



DRAINAGE FEATURES

SHORE LINES
(RELIABLE & UNRELIABLE)

MUD & TIDAL FLATS

CORAL REEFS & LEDGES

SHOALS & SAND BARS

CHARTED ROCK

DANGER LINES

RIVERS & LAKE
(PERENNIAL)

RIVERS & LAKE
(NON-PERENNIAL)

RIVERS & STREAMS
(UNRELIABLE)

RAPIDS & FALLS

WASH (BLUE AND BROWN)

CANALS

ABANDONED CANAL

TUNNEL (CANAL)

DRY LAKE BED (BLUE AND BROWN)

LAKES
(PERENNIAL & NON-PERENNIAL)

GLACIER

SALT PANS
(EVAPORATOR)

RICE FIELD

SWAMP

SPRING
WELL
WATER HOLE
RESERVOIR

CULTURAL FEATURES

PROMINENT LANDMARKS
(WITH APPROPRIATE NOTE)

OIL TANKS

OIL FIELD

LOOKOUT TOWER

RANGER STATION

COAST GUARD STATION

RACE TRACK or STADIUM

DAMS

PIPE LINE

BOUNDARY (INTERNATIONAL)

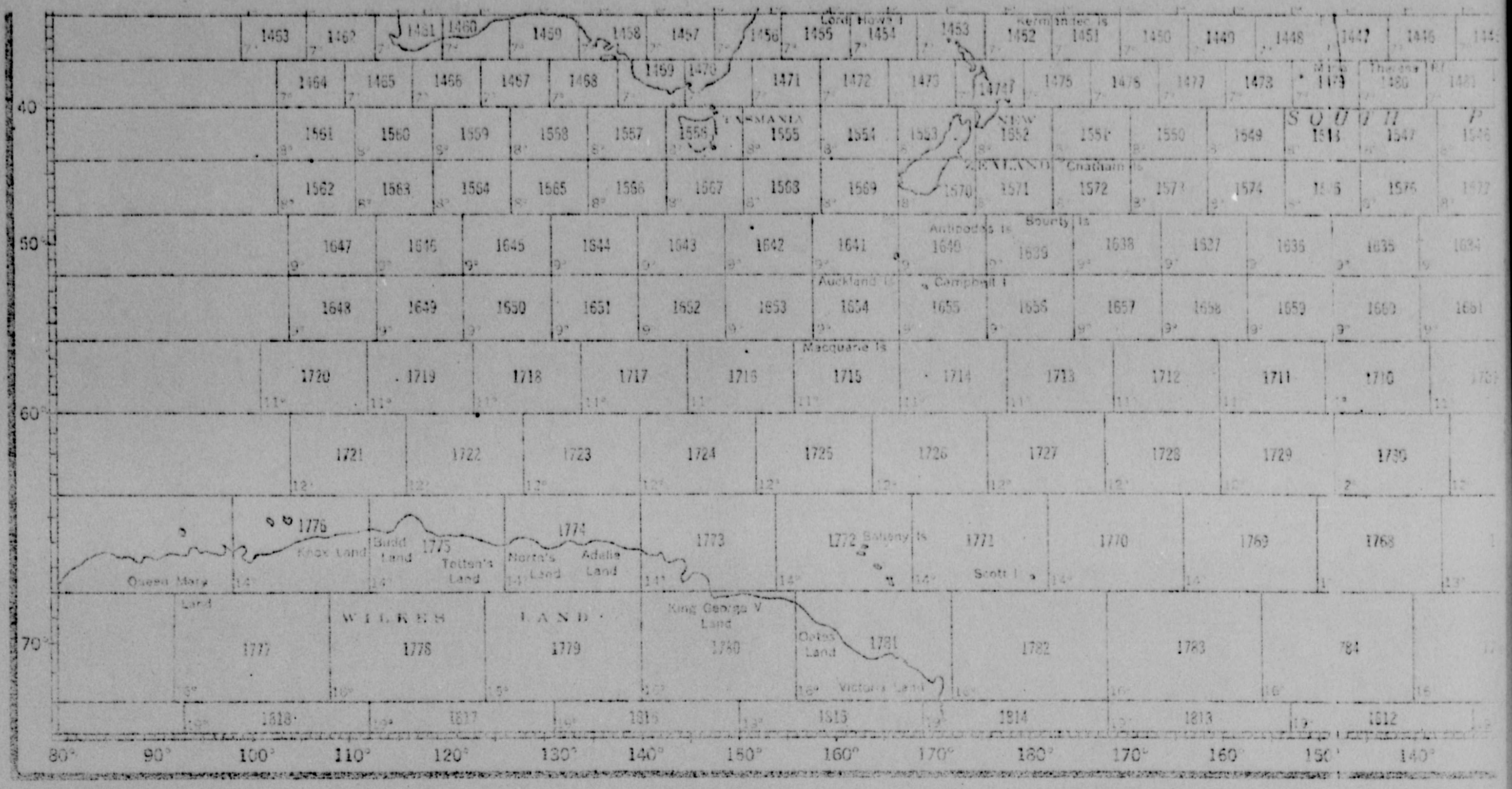
BOUNDARY (STATE)

OVERPASS (RAILROAD)

UNDERPASS (RAILROAD)

BRIDGE (RAILROAD)

TUNNEL (RAILROAD)



WORLD AERONAUTICAL CHART INDEX

Scale of Series 1:1,000,000

To insure that the airman has the latest information available, U. S. World Aeronautical Charts are revised at six-month periods and the Alaskan World Aeronautical Charts are revised at twelve-month periods. The time of the next scheduled printing is shown on the face of the chart below the date of the aeronautical information.

Chart users are advised to check the list Dates of Latest Prints on display with authorized agents.

CIVIL CHART SUPPLY

Authorized agents for the sale of aeronautical charts have been appointed at certain airports and principal cities throughout the United States. The charts may also be obtained from the Director, U. S. Coast and Geodetic Survey, Washington 25, D. C.

MILITARY CHART SUPPLY

(Ref: AF Reg. 67-3)

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, St. Louis, Mo. 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.

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 submitted in accordance with standard symbols, projection and numbers.

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 by the issue of a new edition, when not practicable to retain for conformity with new editions, are to be salvaged if feasible, or else destroyed. Disposition by salvage or destruction is to be made in accordance with provisions of AFR 395-1. New editions of charts available are announced in the Aeronautical Chart Service Bulletin published each monthly.

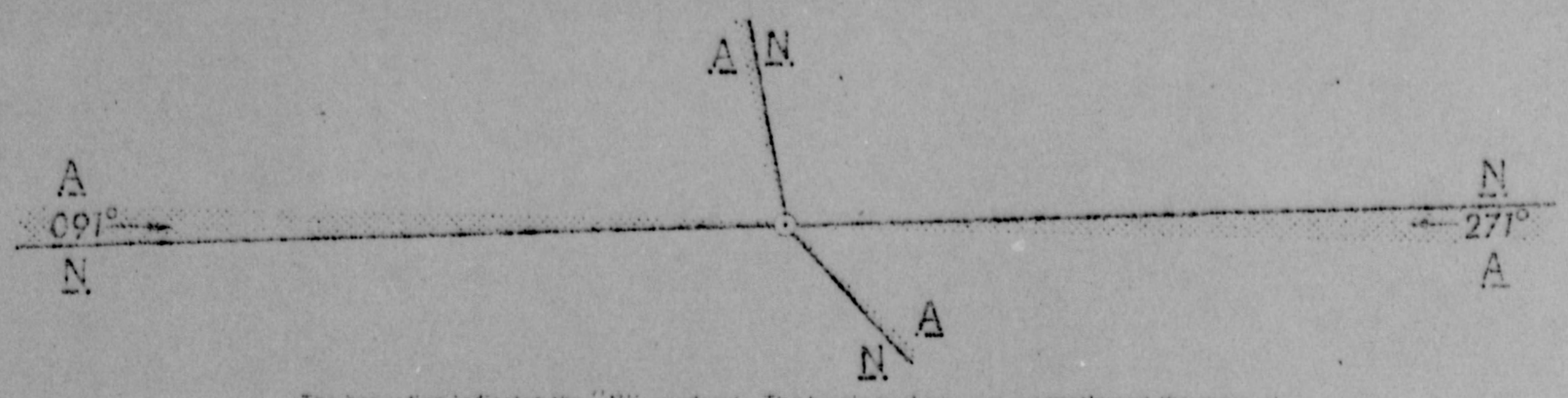
RADIO COMMUNICATION STATION (WITH VOICE)

CS
GOWEN RADIO
4735

RADAR BEACON

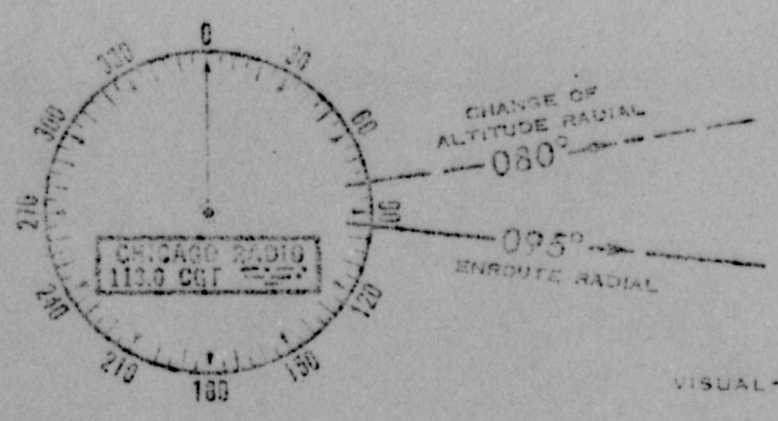
RACON
X-BAND 2 1-2 I

AURAL RANGE



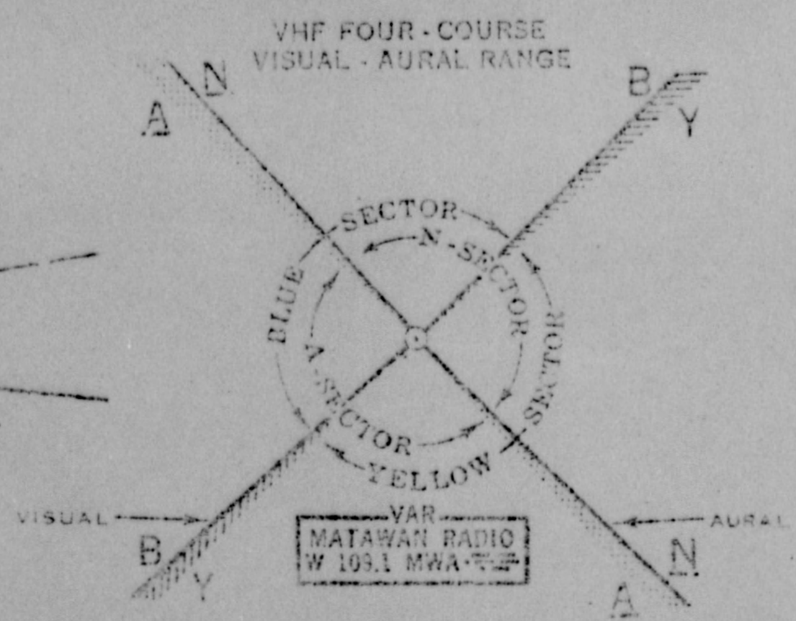
The heavy line indicates the "N" quadrant. The bearings shown are magnetic and the magnetic variation at the position of the ground station is used for computing them.

VHF OMNI-DIRECTIONAL RANGE



Bearings are magnetic from station.
Radius of circle is 15 nautical miles.

VHF FOUR-COURSE VISUAL-AURAL RANGE



Letter preceding frequency in box indicates channel identification

MISCELLANEOUS

MOORING MAST

ISOGONIC LINE OR ISOGONAL — 24°E —

OBSTRUCTION (NUMERALS IN ITALIC INDICATE ELEVATION ABOVE SEA LEVEL OF TOP) 1100

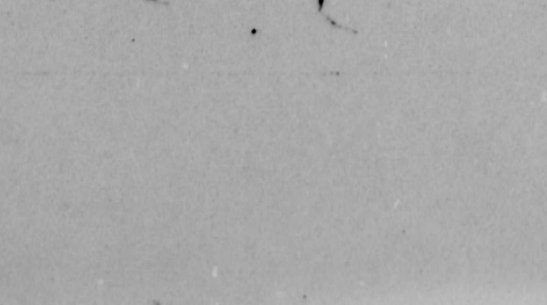
CIVIL AIRWAY-LIMIT OF — AMBER 2 (TRAFFIC CONTROLLED) (TRAFFIC UNCONTROLLED)

PROHIBITED AREA

DANGER RESTRICTED OR WARNING AREA

CAUTION AREA

PROMINENT TRANSMISSION LINE



BLUE TINT INDICATES EXTENT OF ALL CONTROLLED AIRSPACE

OPERATIONAL IMMEDIATE

15 DEC 1952 22 Z

NR

1. Ola
3. Alaa
3. C fole

ATIC

NFOR 7

19 DEC 15 17:4

RE069

WPB127

YDC069

VYC140

VMX087

JESDD 049

OPOP JEPHQ JEPLG JEDWP JEDEN JESDF 555

DE JESDD 26

OP 152000Z

FM CO THREE SIX THREE TACRECONWG SHAW AFB SC

TO JEPHQ/DIR OF INTELL HQ USAF WASH DC

JEDWP/AIR TECH INTELL CEN WRIGHT PATTERSON AFB OHIO

JEDEN/CG ENT AFB COLO SPRINGS COLO

INFO JEPLG/CG TAC LANGLEY AFB VA

JESDF/CG NINTH AF POPE AFB NC

/ R[redacted] RWOI 0503 PD ACTION ATTN CLN ATIAA-2C PD

FLYGBRPT FOL INFO SBMD ICW PAR 7C AFL 200-5 DTD 29 APR 52 PD

1. OBJ APPEARED TO BE SPHERICAL WITH TWO PROJECTIONS ON TOP PD SIZE UNK CMA COLOR A BRIGHT SILVER CMA NO VAPOR TRAIL OR EXHAUST CMA PRPLN SYS OR SPEED UNDETERMINED OBJ WAS SIGHTED AT ONE ONE ZERO ZERO HIGH TO ZERO SIX ZERO ZERO WHERE OBSV LOST VIS CONTACT PD

2. ZERO NINE TWO FIVE EASTERN CMA ONE FIVE DEC FIVE TWO PD APRX TWO ZERO SECONDS PD

3. VIS FR TWO FIVE ZERO ZERO ZERO CMA SPEED APRX THREE ZERO ZERO MPH CMA ROMEO FOXTROT EIGHT ZERO PD

UNK CMA COLOR A BRIGHT SILVER CMA NO VAPOR TRAIL OR EXHAUST CMA PRPLN

SYS OR SPEED UNDETERMINED OBJ WAS SIGHTED AT ONE ONE ZERO ZERO HIGH TO

ZERO SIX ZERO ZERO WHERE OBSV LOST VIS CONTACT PD

2. ZERO NINE TWO FIVE EASTERN CMA ONE FIVE DEC FIVE TWO PD APRX TWO ZERO

SECONDS PD

3. VIS FR TWO FIVE ZERO ZERO ZERO CMA SPEED APRX THREE ZERO ZERO MPH CMA

ROMEO FOXTROT EIGHT ZERO PD

Sighted by RF-8D in the daytime.

0925
5
1425 Z

4. OVER GREENSBORO CMA NORTH CAROLINA ON HEADING OF NORTH PD

5. LT USAF PILOT RELIABLE PD WEA CLEAR CMA NO RESTRICTION TO VIS PD

7. NONE

8. NONE

9. NONE

10. SEVERAL SHAW BASED ACFT IN AREA PD

15/2137Z DEC JESDD

OPERATIONAL IMMEDIATE NR

EA039

WPB124E

YDBD66

VYA105

VLY065

JESDD 048

OPOP JEPHQ JEPLG JEDWP JEDEN JESDF 555

ZE JESDD 25

OP 152206Z

FM CC THREE SIX THREE TACRECONWG SHAW AFB SC

TO JEPHQ/DIR INTEL HQ USAF WASHDC

JEPLP/AIR TECH INTEL CEN WRIGHT PATTERSON AFB OHIO

JEDEN/CG EIGHT AFB COLO

1. Attn
2. Attn
3. Cy to Ltr

INFO JEPLG/CG TAC LANGLEY AFB VA

JESDF/CG AF NINE POPE A(NC

/[redacted]RWOI 0534 PD FLYOBRPT FOL INFO SBMD ICW PAR 7C

AFL 200-5 DTD 29 APR 52 PD

1. ONE CIR SILVER OBJ APPEARED SIZE HALF DOLLAR FR DIS TEN MILES PD

APPEARED TO BE OSCILLATING AND LOSING AND GAINING APRX THREE ZERO ZERO

ZERO FEET AT RT FIVE ZERO ZERO ZERO FEET PER MINUTE PD

2. ZERO NINE ONE FIVE EASTERN CMA ONE FIVE DEC ONE NINE FIVE TWO PD

APRX ONE ZERO TO ONE FIVE SECONDS PD

3. VISUALLY FR ONE FIVE ZERO ZERO ZERO FEET CMA SPEED APRX THREE ZERO

ZERO KPH IN ROMEO FOXTROT EIGHT ZERO PD

4. OVER HARTSVILLE SOUTH CAROLINA ON HEADING TWO SEVEN ZERO DEGREES

PD OBJ SIGHTED RELATIVE BEARING APRX THREE THREE ZERO DEGREES CMA DIS

APRX ONE ZERO MILES CMA ALT THREE ZERO ZERO ZERO ZERO FEET PD

5. PILOT CMA MAJ CMA USAF CMA RELIABLE PD

6. WEA CLEAR NO RESTRICTION TO VISABILITY PD

7. NONE

8. NONE

9. NONE

10. CONSIDERABLE AIR TRAFFIC IN LOCAL AREA PD

13/2124Z DEC JESDD

AC FORM 112—PART I
APPROVED 1 JUNE 1948

UNCLASSIFIED
Herstelle pilot

COUNTRY	REPORT NO.	(LEAVE BLANK)
~~United States~~		

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT: Report of Unidentified Flying Object

AREA REPORTED ON	FROM (Agency)
SE - Shaw Air Force Base, South Carolina	363d Tactical Reconnaissance Group

DATE OF REPORT	DATE OF INFORMATION	EVALUATION
17 December 1952	15 December 1952	B-3

PREPARED BY (Officer)	SOURCE
Captain John E. Sandstrom	Major R.W. Gray and 1/Lt. R. Williams

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

Message, 363d Tactical Reconnaissance Wing RWOI 0503, 050[illegible]

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.)

An unidentified flying object was sighted on 15 December 1952 in the North Carolina - South Carolina area by pilots from Shaw Air Force Base.

This report is significant due to the fact that the same, or similar objects were sighted by two qualified Tactical Reconnaissance pilots within ten minutes of each other.

4 Incls:
1. Statement by Major R.W. Gray
2. Statement by 1/Lt. R.H. Williams
3. Diagram of object as seen by 1/Lt. Williams
4. US WAC Chart showing location of sightings.

APPROVED BY:

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

Roger K Rhodarmer
ROGER K RHODARMER
Major, USAF
Operations Officer

Evaluation:

No apparent tie-up between object seen at Herstelle, S.C. and one seen at Columbia, S.C. 10 minutes later. It appears that in both cases the pilots sighted two separate unrelated flights.

_____ INCLS.

Director of Intelligence, Hq, USAF, Washington 25, DC
~~Chief~~, Air Technical Intelligence Center, ATTN: ATIA A-2c, Wright-Patterson AFB, Ohio
Info Cys to: Director of Intelligence, Hq, Ninth Air Force, Pope AFB, Ft Bragg, N.C.

NOTE: THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE ACT, 50 U.S.C.—31 AND 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 USAF AGENCIES, EXCEPT BY PERMISSION OF THE DIRECTOR OF INTELLIGENCE, USAF.

(CLASS[illegible]) UNCLASSIFIED

16—55809-1 U. S. GOVERNMENT PRINTING OFFICE

[redacted] UNCLASSIFIED
(CLASSIFICATION)

AF FORM 112—PART II
APPROVED 1 JUNE 1948

AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)	REPORT NO.	
363d Tactical Reconnaissance Gp		PAGE 1 OF 1 PAGES

Major Gray:

On 15 December 1952 while flying straight and level at 15,000 ft, as number two man in a two ship formation (2RF-80's), I observed an unidentified object at 11 o'clock high position. The time was approximately 0915 and we were heading west over Hartsville, S.C. at the time of sighting. I first noted the object by it's silver color, reflections from it, and its oscillating movements. I was flying close formation at the time, approximately 300 mph, off of the right wing of the lead aircraft and observed a reflection approximately 6" to 12" above the leader canopy. At first I thought that it was another aircraft doing "Lazy Eights" at 30,000 ft or higher; however, from past observations of aircraft doing this maneuver at high altitudes, I decided that it was rising and falling too fast to be another aircraft. I called it to the attention of the flight leader, but he did not observe it. About that time we went into a bank, and I lost sight of the object and did not observe it again.

Since it was some distance away, I could not determine too much about it. However, from my position it appeared about the size of a 50 cent piece and I felt that it was at least 10 miles away. As a rough estimation, it appeared to be loosing and gaining about 3,000 ft. at a rate of about 5,000 ft. per minute. It appeared circular in shape, but distance precluded an accurate description.

Shortly thereafter another two ship element reported an unidentified object. Recognizing their call sign as two pilots in my squadron, I requested that they try to get a good observation since I too had noted it.

1/Lt. Williams:

I was in a flight of two RF-80's flying north at approximately 300 mph at 25,000 ft. I spotted an object over Greensboro, North Carolina. It was first seen at 11 O'clock high (approximately 35,000 ft.) and it made an arc around to our 6 O'clock position. I called it to the leader's attention and he also spotted the object. Time was 0925. It was observed for approximately 45 seconds. Speed and size unknown. The object was bright silver in color and appeared to be spherical in shape with two projections on top.

I was undetermined whether the object was moving or hovering after it went to our 6 O'clock position. We did not try to intercept the object.

Winds aloft at this time were reported at 360° at 75 knots.

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

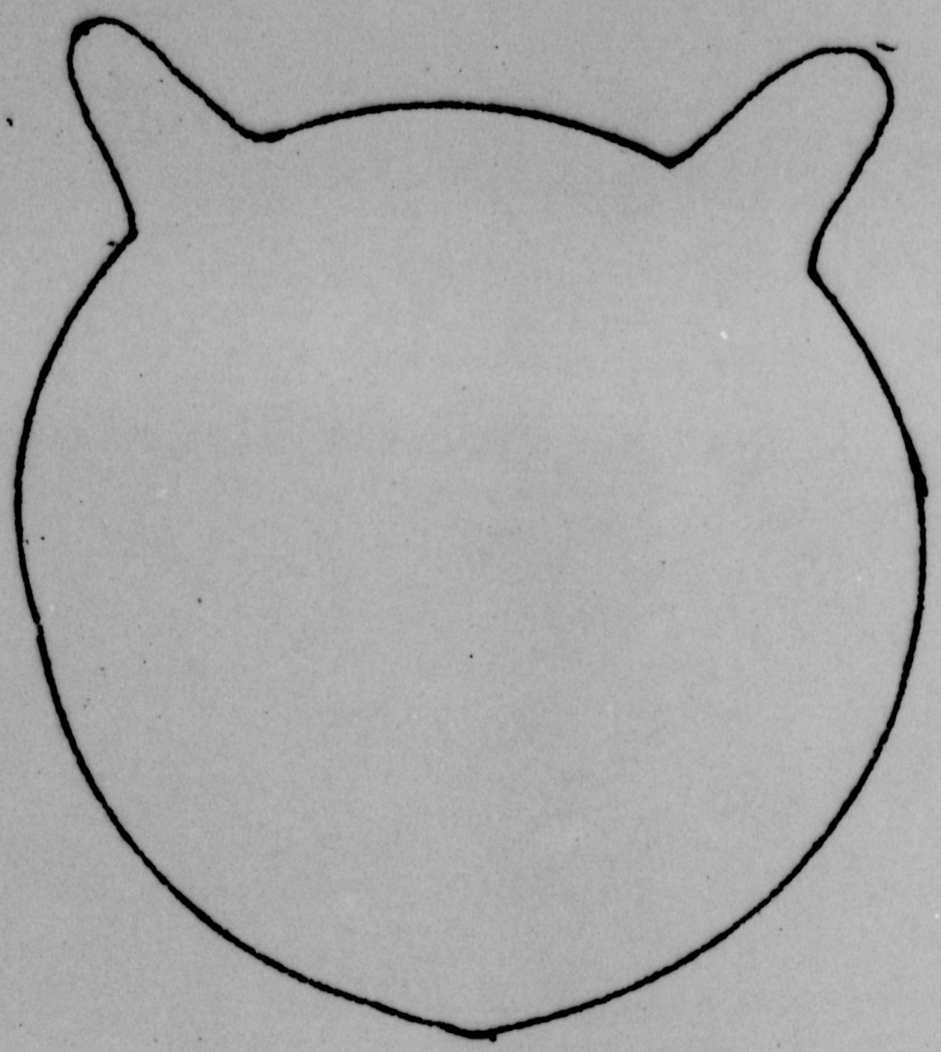
NOTE: THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE ACT, 50 U. S. C.— 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. IT MAY NOT BE REPRODUCED IN WHOLE OR IN PART, BY OTHER THAN UNITED STATES AIR FORCE AGENCIES, EXCEPT BY PERMISSION OF THE DIRECTOR OF INTELLIGENCE, USAF.

[redacted]

UNCLASSIFIED

14—55570-1 ☆ U. S. GOVERNMENT PRINTING OFFICE

Diagram of object as seen by Lt. Williams



STATEMENT CONCERNING UNIDENTIFIED FLYING OBJECTS

On 15 December 1952 while flying straight and level at 15,000 feet, as number two man in a two ship formation (2 RF-80's), I observed an unidentified object at 11 o'clock high position. The time was approximately 0915 and we were heading west over Hartsville, S. C. at the time of sighting. I first noted the object by it's silver color, reflections from it, and its oscillating movements. I was flying close formation at the time, approximately 300 MPH, the right wing of the lead aircraft and observed a reflection approximately 6" to 12" above the leader's canopy. At first I thought that it was another aircraft doing "Lazy Eights" at 30,000 feet or higher; however from past observations of aircraft doing this manauver at high altitudes, I decided that it was rising and falling too fast to be another aircraft. I called it to the attention of the flight leader, but he did not observe it. About that time we went into a bank and I lost sight of the object and did not observe it again.

Shortly thereafter another two ship element reported an unidentified object. Recognizing their call sign as two pilots in my squadron, I requested that they try to get a good observation since I too had noted it.

Since it was some distance away, I could not determine too much about it. However, from my position it appeared about the size of a 50 cent piece and I felt that it was at least 10 miles away. As a rough estimation, it appeared to be loosing and gaining about 3,000 feet at a rate of about 5,000 feet per minute. It appeared circular in shape, but distance precluded an accurate discription.

Ruffin W. Gray

Major Ruffin W. Gray

1/

STATEMENT CONCERNING UNIDENTIFIED FLYING OBJECTS

I was in a flight of two RF-80's flying north at approximately 300 MPH at 25,000'. I spotted an object over Greensboro, N. C. It was first seen at 11 o'clock high (approximately 35,000') and it made an arc around to our 6 o'clock position. I called it to the leader's attention and he also spotted the object. Time was 0925. It was observed for approximately 45 seconds. Speed and size un-known. The object was bright silver in color and appeared to be spherical in shape with two projections on top.

I was undetermined whether the object was moving or hovering after it went to 6 o'clock position. We did not try to intercept the object.

Robert H. Williams

1/Lt. Robert H. Williams

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This eliminates the possibility that both objects sighted was the same balloon. The objects could not have been a single jet plane flying North because it covered 115 miles in 10 minutes or:

$$\frac{10\text{ m}}{115} \text{ or } \frac{60\text{ m}}{X} \qquad X = 690$$

$$10X = 6900$$

$$\begin{array}{r} 115 \\ \times\ 6 \\ \hline 690 \end{array} \qquad \begin{array}{r} 690 \\ 10\overline{)6900} \\ \underline{60} \\ 90 \\ \underline{90} \\ 0 \end{array}$$

a speed of 690 m.p.h. This is too fast for a jet looking strong headwinds from the north.

Conclusion: unknown

Analysis of Two Sightings:

1.) 0915 EST - Hartsville, S.C.

2) 0925 EST - Greensboro, N.C.

~~60 nautical miles~~

115 miles between Greensboro & Hartsville $\frac{8 \text{ knots}}{10 \text{ m.p.h}} = \frac{75 \text{ knots}}{93 \text{ m.p.h.}}$

Winds 75 knots as have from 360°

$8x = 750$

$x = 93$ m.p.h.

$8\overline{)750}$ 93 m.p.h. ballons speed if object was ~~stationary~~ moving

Object would have traveled 46 miles in 30 min

$2\overline{)93}$

23

12

Object would have traveled 23 miles in 15 min.

$2\overline{)46}$

" " " " 11.5 miles in 7 min

$2\overline{)23}$

5

3

23.0

+11.5

34.5 in 10 minutes

Object sighted at Greensboro would have traveled 34.5 miles in 10 minutes. The object seen at Hartsville is located 115 miles away from Greensboro.

Most important factor eliminating the possibility of both objects sighted being one in the same: Object was seen first at Hartsville at 0915 and would have had to have gone against the 360° North E. wind to be seen at Greensboro →