

~~SECRET~~
~~CONFIDENTIAL~~

Approved For Release 2000/04/17 : CIA-RDP79-01009A001800020001-0 Copy No. 11

GEOGRAPHIC INTELLIGENCE REPORT

ACTIVITIES OF U.S. NATIONALS IN ANTARCTICA

BY DESIGNATED AREAS, 1819-1957



CIA/RR-GR-169

January 1958

DOCUMENT NO. 1
NO CHANGE IN CLASS. ☐
☐ DECLASSIFIED
CLASS. CHANGED TO: TS 3 C
NEXT REVIEW DATE: 1989
AUTH: HR 70-2
DATE 24 Sept 79 REVIEWER: 006514

CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

~~CONFIDENTIAL~~

WARNING

This material contains information affecting the National Defense of the United States within the meaning of the espionage laws, Title 18, USC, Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

CONFIDENTIAL

Page No. //

ANTARCTIC INTELLIGENCE REPORT

ACTIVITIES OF U.S. NATIONALS IN ANTARCTICA

IN DESIGNATED AREAS, 1819-1957

CIA/RR-GR-169

January 1958

CENTRAL INTELLIGENCE AGENCY

Office of Research and Reports

CONFIDENTIAL

CONFIDENTIAL

W A R N I N G

This material contains information affecting the national defense of the United States within the meaning of the espionage laws, Title 18, USC, Sec. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

CONFIDENTIAL

~~SECRET~~
CONFIDENTIAL

~~CONFIDENTIAL~~

Foreword.	3
Part I: Activities of U.S. Nationals by Area.	4
Area A	5
Area B	6
Area C	7
Area D	10
Area E	13
Area F	15
Area G	17
Area H	19
Area I	19
Part II: Chronological List of U.S. Expeditions.	20

CONFIDENTIAL

~~CONFIDENTIAL~~

ACTIVITIES OF U.S. NATIONALS IN ANTARCTICA

BY DESIGNATED AREAS, 1819-1957

Foreword

Part I of the present report lists U.S. expeditions to and related U.S. activities in designated areas of the Antarctic continent and nearby islands. For the purpose of this study, Antarctica has been divided into nine areas, designated by the letters A through I, respectively, as indicated on the accompanying map (Map 25971). The areas have been delineated on the basis of the type, intensity, and duration of activity by U.S. nationals. Expeditions that operated in more than one area are referred to under each of the areas in which they operated.

For each of the expeditions, brief information is given on the dates, sponsorship (whether private or official), the name of the leader, the names of the more important vessels, names of any bases occupied and length of occupation, general areas explored, type of scientific or other activities carried on, original detailed mapping published as result of the expedition, any air photography secured, and territorial claims made on behalf of the United States by expedition members.

Part II is a chronological listing of all U.S. expeditions, with references to the areas in which each operated.

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

~~SECRET~~
CONFIDENTIAL

I. Activities of U.S. Nationals by Area

Area A: Palmer Peninsula and adjacent islands southward to approximately the Antarctic Circle, South Shetland, South Orkney and South Sandwich Islands, and South Georgia.

1819-23: Twelve or more private U.S. sealing expeditions, involving approximately 30 vessels, operated in area. Nathaniel B. Palmer in the Sero possibly first to sight mainland of Antarctica, November 1820. Biscoe Islands probably sighted by Robert Johnson in Jane Maria, January 1821. First recorded landing on mainland (Hughes Bay, Palmer Peninsula) made from Cecilia, under John Davis, February 1821; South Shetland Islands main area of operations. Palmer in the James Monroe and George Powell in British vessel Dove discovered and mapped South Orkney Islands, December 1821.

1829-31: Private sealing and scientific expedition under Benjamin Pendleton in 3 vessels. Zoologist James Rights, first American scientist in Antarctica, made observations on South Shetland Islands.

1829-31: Private sealing expedition under James Brown in Pacific; visited South Georgia and South Sandwich Islands.

1838-42: U.S. Exploring Expedition, official expedition in 4 Navy ships under Lt. Charles Wilkes. In February and March 1839 vessels

~~SECRET~~

CONFIDENTIAL

Porpoise and Sea Gull sailed south and east via South Shetland Islands to point off tip of Palmer Peninsula. Landings made from Sea Gull on Deception Island.

1841-42: Private sealing expedition under William H. Smyley in vessel Ohio. Visited South Shetland Islands, west coast Palmer Peninsula, Palmer Archipelago. Obtained minimum temperature reading for Deception Island from thermometer previously left by British Chanticleer Expedition.

1912-13: Private whaling expedition to South Georgia under Benjamin D. Cleveland in vessel Daisy. Robert Cushman Murphy engaged in natural history studies and charted Bay of Isles.

1928-29: Joint British and U.S. expedition sponsored by public and private organizations lead by Sir Hubert Wilkins in vessel Hektoris. Pioneered use of airplane in Antarctica. Reconnaissance flights in vicinity of Deception Island and southward along east coast Palmer Peninsula. Limited number of oblique still photographs and motion pictures taken.

1929-30: Joint British and U.S. expedition lead by Sir Hubert Wilkins in William Scoresby and whaling vessels. William Scoresby went from Deception Island southward to west of Palmer Peninsula coast as far as $67^{\circ}45'S - 75^{\circ}30'W$. Airplane flights made along west coast, over Palmer Peninsula, and southward.

1934-35: Private expedition under Lincoln Ellsworth in ship Wyatt Earp (second Ellsworth expedition; see Area D for first expedition). Visited Deception, Snow Hill and Dundee Islands. Plane for projected trans-Antarctic flight took off from Snow Hill Island but forced to turn back by bad weather.

1935-36: Third Ellsworth expedition in Wyatt Earp. Trans-Antarctic flight made from Dundee Island to Bay of Whales (Ross Sea area) via Palmer Peninsula, November-December 1935.

1947-48: Ronne Antarctic Research Expedition sponsored by public, private, and official agencies, under Cdr. Finn Ronne, USNR, in ship Port of Beaumont. Planes of expedition made 2 flights north of Antarctic Circle, main area of operations was southward.

1956 to the present: U.S. Navy Operation Deepfreeze (U.S. Antarctic operations of the International Geophysical Year). Two aircraft flown from South America down east coast of Palmer Peninsula to Ellsworth Station at the head of Weddell Sea, stopping en route on islands off Palmer Peninsula, December 1957.

Area B: Palmer Peninsula south of Antarctic Circle, Alexander I and Charcot Islands, and other areas from 40°W to 90°W and southward to 82°S.

1929-30: Joint British and U.S. expedition under Sir Hubert Wilkins. Plane flight around Charcot Island made from William Scoresby. Although sponsors of expedition included U.S. organizations and individuals, Wilkins dropped document claiming the island on behalf of Great Britain.

1935-36: Third Ellsworth expedition. On trans-Antarctic flight, Ellsworth passed over Area B. Intermittent oblique photography, later used in making reconnaissance maps of 3 sections of Area B. Unofficial claim made by Ellsworth on behalf of the U.S. extended eastward to 80°W, thus including part of Area B.

1939-41: United States Antarctic Service. Official expedition under Rear Adm. Richard E. Byrd, USN (ret.) in ships Bear of Oakland and North Star; East Base under command of Lt. Cdr. Richard E. Black, USNR, established at Stonington Island, Marguerite Bay area, operated there March 1940-March 1941. Flights along east coast of Palmer Peninsula southward to 74°S, over Alexander I and Charcot Islands, and along George VI Sound; secured oblique mapping photography. Sledge journeys along George VI Sound, into interior plateau of Palmer Peninsula, and along east coast to 71°50'S, during which astronomic fixes were taken. Weather station maintained on interior plateau. Geological, meteorological and other investigations conducted. Personnel of expedition deposited or air dropped documents making claims on behalf of the U.S. at 18 locations between 68°S and 74°18'S.

1946-47: U S. Navy Operation Highjump under Rear Adm. Richard E. Byrd and Rear Adm. Richard H. Cruzen, USN, in ships of Task Force 68. Eastern group under Capt. George J. Dufek in 3 ships cruised to west of Palmer Peninsula in January - February 1947, plane flights over Charcot and Alexander I Islands secured trimetrogon photography. Documents making claims on behalf of the U.S. dropped at 7 points on or near the northern portions of the 2 islands.

1947-48: Ronne Antarctic Research Expedition. Reoccupied former East Base of U.S. Antarctic Service, Stonington Island, March 1947 - February 1948. Seismological, meteorological, geophysical, tidal, and cosmic-ray observations carried out at base. Trimetrogon mapping photography covering both coasts of Palmer Peninsula from about 66°S southward, Alexander I and Charcot Islands, Robert English Coast westward to 79°W., Orville Escarpment southward to Mt. Hassage, and along edge of Filchner Ice Shelf to about 40°W. Astronomic fixes to provide ground control for photography secured by landing planes and by two sledge journeys, one to George VI Sound and another, in company with British personnel, along east coast southward to the Bowman Peninsula to about 75°S. Weather stations in support of flight operations maintained on interior plateau of Palmer Peninsula and at Cape Keeler on east coast. Ronne made a claim on behalf of the U.S. to all the territory lying between 30°W and 88°W and 73°S and 82°S.

1947-48: U.S. Navy Operation Windmill under Cdr. Gerald L. Ketchum in icebreakers Edisto and Burton Island. At the end of expedition, ships

visited Marguerite Bay; assisted in freeing Port of Beaumont of Ronne expedition in breaking way through Neny Bay.

1956 to present: U.S. Navy Operation Deepfreeze under command of Rear Adm. George A. Dufek in ships of Navy Task Force 43. In January 1956, a Navy aircraft made transcontinental flight from McMurdo Sound (Area E) via South Pole to Weddell Sea and return. Ellsworth Station under initial command of Capt. Finn Ronne established on shelf ice at $77^{\circ}43'S - 41^{\circ}07'W$ on 25 January 1957. Before this, Staten Island and Wyandot had progressed westward along Filchner Ice Shelf to point near Bowman Peninsula, the planned site for Ellsworth Station, but were then forced to retire to site finally chosen. Scientific program of IGY carried on at station. In December 1957, flights made by two aircraft from South America down east coast of Palmer Peninsula to Ellsworth Station to engage in electronic-controlled mapping. Hinterland of Ellsworth Station penetrated by tractors.

Area C: From 90°W to 150°W. -- the Unclaimed Sector

1829-31: Private sealing and scientific expedition under Benjamin Pendleton. In February 1830, Annawan and Penguin sailed westward from South Shetland Islands to 103°W on course between 58°S and 62°S in unsuccessful attempt to find islands reportedly discovered by U.S. voyagers as early as 1800. Seraph of this expedition made independent voyage westward to 101°W south of 60°S. No land found, but geologist James Elights surmised from various indications that land existed to the south.

1838-42: U.S. Exploring Expedition. Flying Fish and Peacock voyaged southwestward from Tierra del Fuego, February - March 1839, in vicinity of 70°S - 101°16'W and the adjacent area north of the Thurston Peninsula, finding what were considered to be appearances of land.

1928-30: First Byrd Antarctic expedition under Rear Adm. Richard E. Byrd in ships City of New York and Eleanor Bolling, sponsored by private donors and scientific organizations. December 1929, airplane flight from base at Little America I eastward resulted in discovery of Adel Ford Range and northwestern portion of Marie Byrd Land, and delineation of coastline eastward to 145°W. Intermittent oblique photography and motion pictures secured. Byrd laid claim on behalf of U.S. to area between 120°W and 150°W. Geological party sledged southeastward to 85°25'S - 147°00'W (Supporting Party Mountain); placed document there claiming area for the U.S.

1933-35: Second Byrd Antarctic expedition, in ships Bear of Oakland and Jacob Ruppert, sponsored by public, private, and commercial donors. February 1934, Bear of Oakland made voyage northeastward from Bay of Whaler

to approximately 75°S - 148°W ; Marie Byrd Land coast dimly visible. Made following surface journeys eastward from Little America II in October-December 1934: (1) tractor trip from Little America to Mt. Grace McKinley, (2) geological sledge trip to Fosdick Mts. at approximately 144°W , (3) tractor journey eastward to about 79°S - $119^{\circ}24'\text{W}$. Southern sledge party revisited Supporting Party Mountain. Five airplane flights in November-December 1934 covered areas eastward of 150°W ; easternmost point reached about 83°S - 119°W . Positions of various peaks in Edsel Ford Ranges determined. Intermittent oblique photographs and motion pictures secured on flights. Geological and botanical specimens secured by ground parties. Two reconnaissance maps later published covering portions of Area C.

1935-36: Third Ellsworth expedition. On trans-Antarctic flight, Ellsworth crossed Area C; made three landings within the area. At first landing, $79^{\circ}12'\text{S}$ - $104^{\circ}10'\text{W}$, raised American flag and claimed all land between 80°W and 120°W for the U.S. By act of Congress, 16 June 1936, the President was authorized to present a gold medal to Ellsworth "for claiming on behalf of the United States approximately three hundred and fifty thousand square miles of land in Antarctica between the eightieth and one hundred and twentieth meridians west..." and for his services to science and aeronautics. Ellsworth made 2 other landings in the Unclaimed Sector at $79^{\circ}30'\text{S}$ - $107^{\circ}55'\text{W}$ and $79^{\circ}58'\text{S}$ - $114^{\circ}15'\text{W}$.

1939-41: U.S. Antarctic Service. Operations into Area C were from West Base at Little America III. Flights made from Bear of Oakland toward the coast on 2 cruises off Marie Byrd Land. On second cruise,

flights made to Walgreen Coast, Thurston Peninsula, and Seraph Bay. Five exploratory flights made from Little America III to points in Marie Byrd Land, 4 of them reaching or exceeding 135°W ; oblique mapping photography secured. Three surface parties to Fosdick Mts., Hal Flood Range, and Edsel Ford Ranges, respectively. Biological, geological, cosmic-ray, and auroral observations carried out and astronomic fixes secured. Document making claims for U.S. placed on slope of Mt. Grace McKinley; other claims documents possibly left elsewhere.

1946-47: U.S. Navy Operation Highjump. Planes from the eastern group of Task Force 68 under command of Capt. George J. Dufek photographed coast from about 100°W to 125°W , January 1947, photography compiled into preliminary base aircharts at the scale of 1:500,000 published in 1949. About 20 claim sheets dropped by air crewmen on these flights. Planes from central group under Rear Adm. Richard E. Cruzen, based at Bay of Whales, secured trimetrogon mapping photography of much of northwestern Marie Byrd Land and some areas southeast of Ross Ice Shelf. Several claims documents dropped.

1956 to present: Operation Deepfreeze. Planes of Task Force 43 flew over western and southern portions of Area C. Byrd Station under initial direction of G. E. Toney established in December 1956 - January 1957 at 80°S - 120°W by tractor trains from Little America V; air drops of supplies and men. IGY scientific program carried on. Tractor journeys made to other portions of Marie Byrd Land.

Area D: All land and ice shelf areas lying between 150°W and 180°W and southward to and including the South Pole.

1928-30: First Byrd expedition. Little America I base, Bay of Whales, occupied January 1929-February 1930. First airplane flight over the South Pole, 29-30 November 1929. Expedition planes flew to Edward VII Peninsula, Queen Maud Mts., Marie Byrd Land areas mentioned under Area C, and west and southwest over Ross Ice Shelf. Oblique mapping photography secured. Geological sledge party southward investigated Queen Maud Mts., securing mapping data. Two maps resulted from expedition: one of King Edward VII Peninsula and part of Marie Byrd Land; the other of Queen Maud Mts. Meteorological and magnetic observations carried out; survey made of Bay of Whales.

1933-34: Private expedition under Lincoln Ellsworth in Wyatt Earp (first Ellsworth expedition). Went to Bay of Whales for projected trans-Antarctic flight; plane damage terminated expedition.

1933-35: Second Byrd expedition. Occupied Little America II base January 1934-February 1935. Advance weather station established about 100 miles southward on Ross Ice Shelf. Airplane flights covered eastern portion of Ross Ice Shelf and land adjacent to Marie Byrd Land. Oblique photography secured. Geological parties to Queen Maud Mts. and across Area D on way to Marie Byrd Land. Tractor trip to southeast. Ground surveys made in Queen Maud Mts. and geological and botanical specimens secured; meteorological, seismic, magnetic, aerological, auroral, and cosmic-ray observations carried out. Edge of Ross Ice Shelf charted from Ross Island to Bay of Whales by Bear of Oakland. First geophysical

exploration of the Ross Ice Shelf, resulting in discovery of Roosevelt Island.

1935-36: Third Ellsworth expedition. On trans-Antarctic flight, Ellsworth made one landing at about $79^{\circ}29'S - 153^{\circ}27'W$; came down with gasoline supply exhausted 16 miles from Bay of Whales. Party rescued at Bay of Whales by Australian ship Discovery II and Wyatt Earp.

1939-41: U.S. Antarctic Service. West Base at Little America III under Dr. Paul A. Siple occupied January 1940-February 1941. Flights southward to Queen Maud Mts., along eastern edge of Ross Ice Shelf, and west and southwest from Little America resulted in oblique mapping photography. Cosmic-ray, auroral, and meteorological observations carried out. Bear of Oakland went from Bay of Whales along Ross Ice Shelf to Victoria Land.

1946-47: U.S. Navy Operation Highjump. Central group of Task Force 68 established base at Little America IV, Bay of Whales, which was operated January-February 1947. Tractor journey made to the Rockefeller Mts. Planes flew 29 photographic missions from base; secured trimetrogon mapping photography of areas east, west, and south of Little America, including coverage of South Pole area. Limited program of meteorology, glaciology, and geophysics carried on. Airmen dropped document making claim on behalf of U.S. at South Pole.

1947-48: U.S. Navy Operation Windmill. Ships visited Bay of Whales; helicopter secured limited oblique photography.

1954-55: Expedition sponsored by U.S. Navy and other agencies, under Cdr. Glen Jacobsen in vessel Atka. Edge of Ross Ice Shelf examined;

found that much of Bay of Whales and Little America sites had broken off. After unsuccessful attempt to enter Sulzberger Bay, Kainan Bay area examined as possible site for IGY Base.

1956 to present: Operation Deepfreeze. Little America V station established at Kainan Bay, Ross Ice Shelf. Station, initially under A. P. Crary, carries on IGY program of observations. Planes of expedition flew over Area D. Little America V also base for establishment of Byrd Station. Amundsen-Scott Station established at South Pole by aircraft based at McMurdo Sound Naval Air Facility, October 1956-January 1957. Amundsen-Scott Station initially in charge of Dr. Paul A. Siple, carries on IGY program of observations. Little America V is weather central for entire IGY operation. Auxiliary Air Facility maintained seasonally at base of Lev Glacier for support of Amundsen-Scott Station.

Area E: Area between 160°E and 180°E, including Balleny Islands.

1838-42: U.S. Exploring Expedition. Balleny Islands probably sighted by Lt. Cadwalader Ringgold in Porpoise, January 1840.

1929-30: First Byrd expedition. On way from New Zealand to evacuate expedition from Little America I in February 1930, City of New York was blown off course to point off Ross Island before proceeding to Bay of Whales.

1933-35: Second Byrd expedition. Bear of Oakland, on way from New Zealand to evacuate Little America II, January 1935, made sonic survey of Ross Sea off continental margin of Victoria Land; from Ross Island, turned east and surveyed margin of Ross Ice Shelf to Bay of Whales.

1939-41: U.S. Antarctic Service. Photographic flights westward from Little America III covered a few areas west of 180°W. Leaving Bay of Whales in February 1940, Bear of Oakland sailed westward to Victoria Land, then to Terra Nova Bay, then northeast into Pacific.

1946-47: Operation Highjump. Planes based at Little America IV, flew photographic missions over Ross Ice Shelf, inland portions of Victoria Land, and inland areas of the continent adjacent to the western and southern margin of the Ross Ice Shelf. Western group of Task Force 66, consisting of 3 vessels under Capt. Charles A. Bond, cruised westward. Planes from group, flew photographic missions over the Balleny Islands and Gates Coast. Documents marking claims dropped from planes at approximately 12 places in Area E.

1947-48: Operation Winmill. Visited McMurdo Sound.

1956 to present: Operation Deepfreeze. Cape Hallett station (Adare station) about 70 miles south of Cape Adare established for IGY observations as a joint U.S.-New Zealand undertaking, January 1957. McMurdo Sound Naval Air Facility established on Ross Island as U.S. support base for other IGY operations. Plane flights over many sections of Area E en route to other parts of continent during initial phases of Operation Deepfreeze.

Area F: Coastal margin of the continent from 70°E to 160°E, inland to about 70 S and American Highland southward to about 75 S, and Heard Island.

1838-42: U.S. Exploring Expedition. January and February 1840.

Lt. Charles Wilkes in Vincennes, accompanied part of distance by 3 other vessels, sailed westward along edge of pack ice. Made at least 6 landfalls from 147°E to 102°E; other supposed landfalls east of 147 E probably erroneous. Wilkes among the first to recognize this coastal area as being part of a continent; he produced the first approximately accurate chart of coast.

1853-54: Boston-Melbourne voyage of ship Oriental under Capt. John J. Heard. Discovered Heard Island.

1855-56: Private sealing expedition, under Capt. E. D. Rogers and Capt. Franklin F. Smith in ships Corinthian and Laurens and 4 tenders. Made first landings on and mapped Heard Island. Heard Island continuously occupied by sealers for more than 20 years after 1856.

1857: Private sealing expedition under Capt. Henry Rogers in ship Zoe. First wintering on Heard Island.

1938-39: Fourth Ellsworth expedition. Wyatt Earp skirted Ingrid Christensen Coast and Amery Ice Shelf. Several landings and coastal flights made. January 1939, plane took off from margin of ice shelf east of Vestfold Hills; flew southward to 72°S - 79°E, where Ellsworth dropped document claiming for the U.S. the area south of 70°S to a distance of 150 miles on either side of his line of flight and 150 miles south of his southernmost point.

1946-47: Operation Highjump. Planes of western group made numerous photographic flights giving virtually complete coverage of the coast and intermittent coverage inland for distances of 100 to 250 miles. Claims documents dropped at about 13 points.

1947-48: Operation Windmill. The two icebreakers cruised eastward along coast; landings by helicopter at Haswell Islets, Bunger Hills, and Vincennes Bay. Air photography and ground-control data secured in these 3 areas. Data secured by Operations Highjump and Windmill used in compilation of 7 map sheets covering portions of Area F, published in 1956.

1956 to present: Operation Deepfreeze. Planes of Task Force 43 flew from McMurdo Sound to points in Area F. Ships Glacier, Arneb and Greenville Victory of Task Force 43 established Wilkes Station on Clark Peninsula, Vincennes Bay, February 1957; returned to McMurdo Sound. Station initially under direction of C. R. Ekland; carries on IGY program of activities.

Area G: MacRobertson Coast, Enderby Land, and Queen Maud Land inland to about 74°S and the coastal fringe of Coats Land.

1946-47: Operation Highjump. Ships of western group cruised off coast; planes secured air photography of coastal fringe westward to about 15°E. Claims documents dropped at about 3 points between 70° and 15°E. One map sheet at 1:500,000 scale of a portion of Enderby Land compiled in part from this photography, 1956.

1954-55: U.S. Navy expedition. Atka made coastal reconnaissance between 00°30'W and 20°00'W.

1956 to present: Operation Deepfreeze. Ships of Task Force 63 visited points on Queen Maud Land coast.

Area H: The hinterland, largely unexplored, of American Highland, Raderby Land, Queen Maud Land, Coats Land, and Edith Ronne Land.

1956 to present: Operation Deepfreeze. Flights over Area H, mostly southward of 80°S, made by planes from McMurdo Sound.

~~SECRET~~

Approved For Release 2000/04/17 : CIA-RDP79-01009A001800020001-0

Area I: Hinterland of Victoria Land and Wilkes Land.

1946-47: Operation Highjump. Several flights from central and western groups penetrated the fringes of Area I.

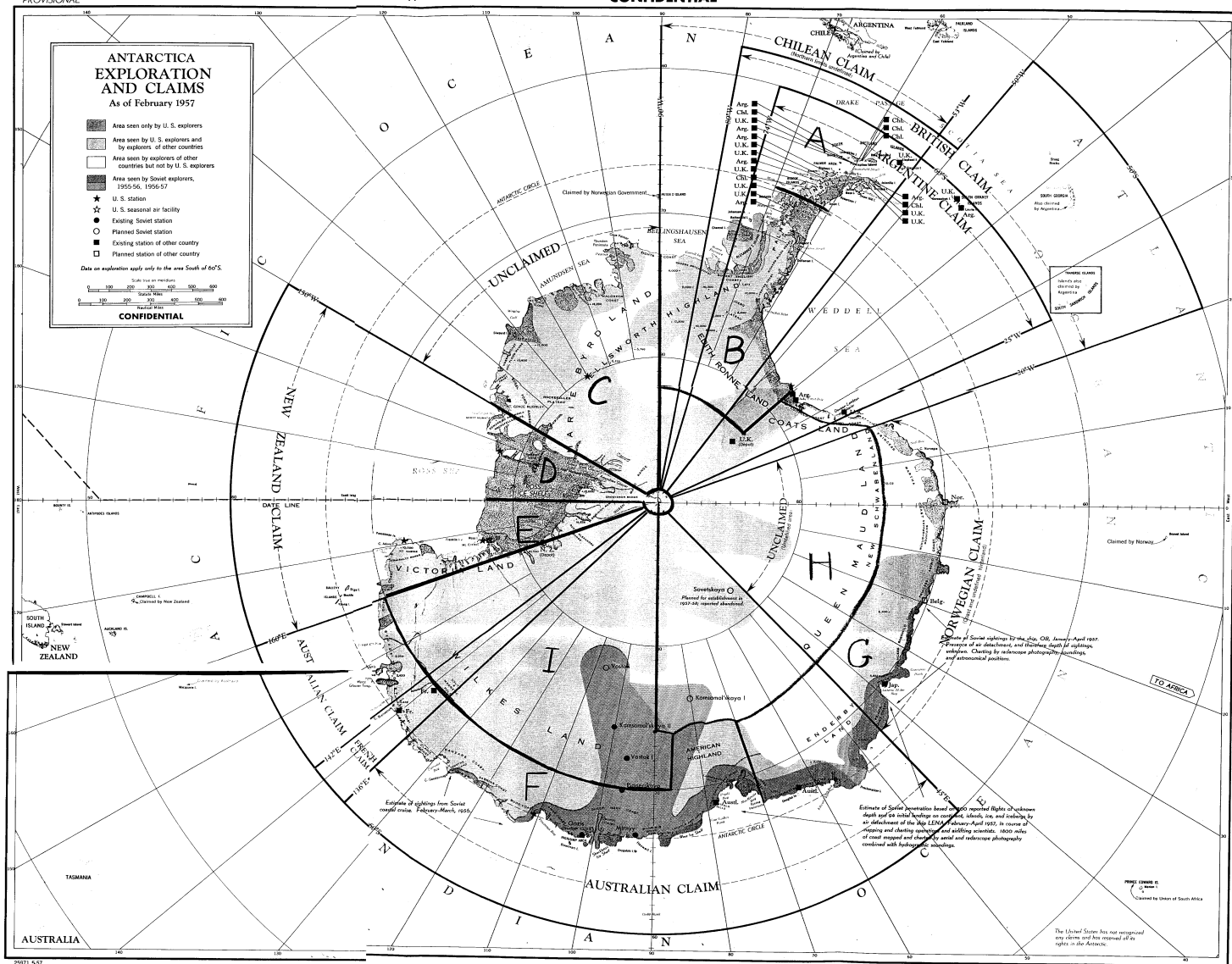
1956 to present: Operation Deepfreeze. Flights made from McMurdo Sound southward, westward, and northwestward over area.

Approved For Release 2000/04/17 : CIA-RDP79-01009A001800020001-0

~~SECRET~~

II. CHRONOLOGICAL LIST OF U.S. EXPEDITIONS

- 1819-23. U.S. sealing expeditions (12 or more). Area A.
- 1829-31. Sealing and scientific expedition; Pendleton. Areas A and C.
- 1829-31. Sealing expedition; Brown. Area A.
- 1838-42. U.S. Exploring Expedition; Wilkes. Areas A, C, E, and I.
- 1841-42. Sealing expedition; Smiley. Area A.
- 1853-54. Voyage of Oriente; Heard. Area F.
- 1855-56. Sealing expedition; E. D. Rogers and Smith. Area F.
1857. Sealing expedition; E. Rogers. Area F.
- 1912-13. Whaling expedition; Cleveland. Area A.
- 1928-29. Joint British-U.S. expedition; Wilkins. Area A.
- 1928-30. First Byrd expedition. Areas C, D, and E.
- 1929-30. Joint British-U.S. expedition; Wilkins. Areas A, and I.
- 1933-34. First Ellsworth expedition. Area D.
- 1933-35. Second Byrd expedition. Areas C, D, and E.
- 1934-35. Second Ellsworth expedition. Area A.
- 1935-36. Third Ellsworth expedition. Areas A, B, C, and D.
- 1938-39. Fourth Ellsworth expedition. Area F.
- 1939-41. United States Antarctic Service. Areas B, C, D, and E.
- 1946-47. U.S. Navy Operation Highjump. Areas B, C, D, E, F, G, and I.
- 1947-48. U.S. Navy Operation Windmill. Areas B, D, E, and F.
- 1947-48. Ronne Antarctic Research Expedition. Areas A and B.
- 1954-55. U.S.S. Atka. Areas D and G.
- 1956 to present. U.S. Navy Operation Deepfreeze. Areas A, B, C, D, E, F, G, H, and I.



~~S-E-C-R-E-T~~
Approved For Release 2000/04/17 : CIA-RDP79-01009A001800020001-0

Approved For Release 2000/04/17 : CIA-RDP79-01009A001800020001-0
~~S-E-C-R-E-T~~