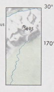
GNC 25

EDITION 9

LEGEND

AREA TINTS



Hilly and mountainous areas

Valleys & relatively level areas (green)

SPOT ELEVATIONS

Accurate Elevation (within ±100 feet) 0000
Critical elevation 0000
Lake 0000

TRANSPORTATION

Railroads. . . . .
Dual Lane Highways. . .
Roads. . . . .

NOTES

THE REPRESENTATION OF INTERNATIONAL BOUNDARIES IS NOT NECESSARILY AUTHORITATIVE.

Operational Navigation Chart series indicated thus: H-1

World Aeronautical Chart series indicated thus: 699

Universal Water Charts indicated thus: 8/12

AERONAUTICAL INFORMATION

AERODROMES

Pattern shown when longest runway is 4000′ or over

Dot indicates Geographical Location of Aerodrome.

LANDPLANE

◎ Military
○ Civil
◎ Joint Civil and Military
○ Landing Area

RADIO FACILITIES

VHF OMNI RANGE(VOR). . . ⊙
VORTAC. . . . .
TACAN. . . . .
VOR with DME. . . . .
Other Facilities. . . . . ⊙

SPECIAL USE AIRSPACES

P-16

Prohibited Area

D-4

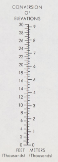
Alert, Danger, Restricted or Warning Areas.

Number indicates Internationally recognized numerical identification.

All Special Use Airspace is portrayed in the body of this chart with the following exceptions:
(1) Those that are activated only by NOTAM.
(2) All Special Use Airspaces below 10,000 feet, entirely over land.
(3) All danger areas.

MISCELLANEOUS

▲ Compulsory reporting point.


CONVERSION OF ELEVATIONS
30
28
26
24
22
20
18
16
14
12
10
8
9
8
7
6
5
4
3
2

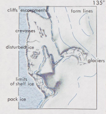
NOTE: FOR GRID OPERATION ONLY
When crossing the 180th meridian in grid operation, the value of the current grid heading will change due to lines along this meridian. The difference is 77°16′ which represents a constant angle for the latitude band. Therefore when crossing the 180th meridian it will be necessary to remeasure the grid course based on the new a new grid heading or correct the current grid heading by use of the following formulae:
GOING WESTWARD (TRUE) DECREASE GRID HEADING BY 77°16′
GOING EASTWARD (TRUE) INCREASE GRID HEADING BY 77°16′

Lines of constant grid variation (isogriv) — — GV 10°W — —

CONVERGENCE TABLE–STANDARD PARALLELS 37° & 65°

LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.	LONG.	CONV.
0°	0°00′	16°	12°34′	32°	25°08′	48°	37°42′	64°	50°16′	80°	62°50′	96°	75°24′	112°	87°58′	128°	100°31′	144°	113°05′	160°	125°39′	176°	138°13′
1°	0°47′	17°	13°21′	33°	25°55′	49°	38°29′	65°	51°03′	81°	63°37′	97°	76°11′	113°	88°45′	129°	101°19′	145°	113°53′	161°	126°26′	177°	139°00′
2°	1°34′	18°	14°08′	34°	26°42′	50°	39°16′	66°	51°50′	82°	64°24′	98°	76°58′	114°	89°32′	130°	102°06′	146°	114°40′	162°	127°14′	178°	139°48′
3°	2°21′	19°	14°55′	35°	27°29′	51°	40°03′	67°	52°37′	83°	65°11′	99°	77°45′	115°	90°19′	131°	102°53′	147°	115°27′	163°	128°01′	179°	140°35′
4°	3°08′	20°	15°42′	36°	28°16′	52°	40°50′	68°	53°24′	84°	65°58′	100°	78°32′	116°	91°06′	132°	103°40′	148°	116°14′	164°	128°48′	180°	141°22′
5°	3°56′	21°	16°30′	37°	29°03′	53°	41°37′	69°	54°11′	85°	66°45′	101°	79°19′	117°	91°53′	133°	104°27′	149°	117°01′	165°	129°35′		
6°	4°43′	22°	17°17′	38°	29°51′	54°	42°25′	70°	54°58′	86°	67°32′	102°	80°06′	118°	92°40′	134°	105°14′	150°	117°48′	166°	130°22′		
7°	5°30′	23°	18°04′	39°	30°38′	55°	43°12′	71°	55°46′	87°	68°20′	103°	80°53′	119°	93°27′	135°	106°01′	151°	118°35′	167°	131°09′		
8°	6°17′	24°	18°51′	40°	31°25′	56°	43°59′	72°	56°33′	88°	69°07′	104°	81°41′	120°	94°15′	136°	106°48′	152°	119°22′	168°	131°56′		
9°	7°04′	25°	19°38′	41°	32°12′	57°	44°46′	73°	57°20′	89°	69°54′	105°	82°28′	121°	95°02′	137°	107°36′	153°	120°10′	169°	132°43′		
10°	7°51′	26°	20°25′	42°	32°59′	58°	45°33′	74°	58°07′	90°	70°41′	106°	83°15′	122°	95°49′	138°	108°23′	154°	120°57′	170°	133°31′		
11°	8°38′	27°	21°12′	43°	33°46′	59°	46°20′	75°	58°54′	91°	71°28′	107°	84°02′	123°	96°36′	139°	109°10′	155°	121°44′	171°	134°18′		
12°	9°25′	28°	21°59′	44°	34°33′	60°	47°07′	76°	59°41′	92°	72°15′	108°	84°49′	124°	97°23′	140°	109°57′	156°	122°31′	172°	135°05′		
13°	10°13′	29°	22°47′	45°	35°20′	61°	47°54′	77°	60°28′	93°	73°02′	109°	85°36′	125°	98°10′	141°	110°44′	157°	123°18′	173°	135°52′		
14°	11°00′	30°	23°34′	46°	36°08′	62°	48°42′	78°	61°15′	94°	73°49′	110°	86°23′	126°	98°57′	142°	111°31′	158°	124°05′	174°	136°39′		
15°	11°47′	31°	24°21′	47°	36°55′	63°	49°29′	79°	62°03′	95°	74°36′	111°	87°10′	127°	99°44′	143°	112°18′	159°	124°52′	175°	137°26′		

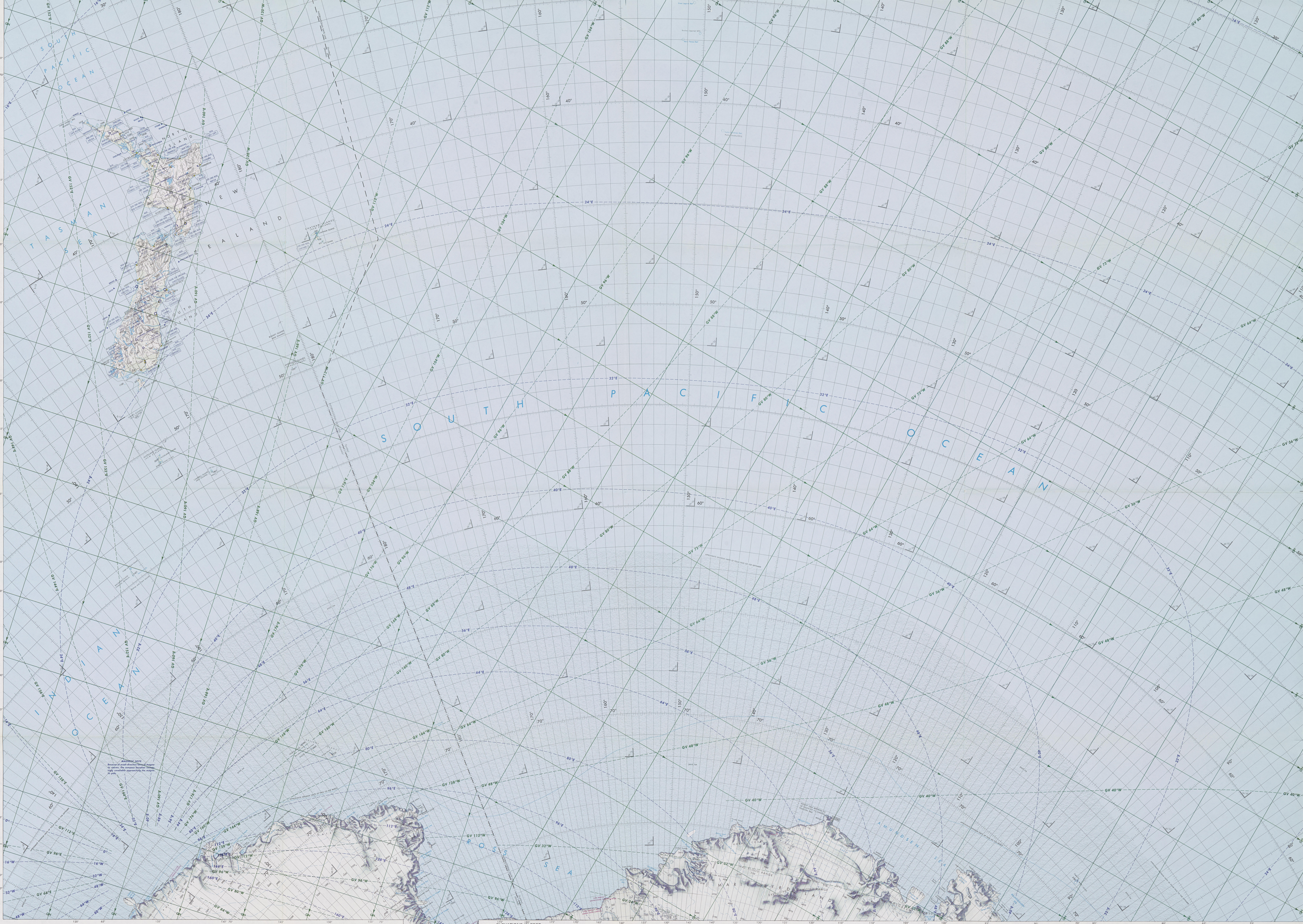
ANTARCTIC LEGEND


cliffs escarpments
form lines
crevasses
disturbed ice
glaciers
limits of shelf ice
pack ice

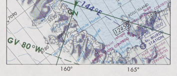
ELEVATIONS
Critical . . . . x 0000
Position accurate, maximum possible error undetermined. x0000
Approximate or doubtful locations are indicated by omission of point locator ("x"). 0000

STATIONS
Operating . . . . ⊙
Refuge . . . . ▪

Sovereignty claims south of 60° south latitude are not recognized by the United States Government.


SOUTH PACIFIC OCEAN
TASMAN SEA
NORTH ISLAND
SOUTH ISLAND
NEW ZEALAND
CHATHAM ISLANDS
SOUTH PACIFIC OCEAN
INDIAN OCEAN
ROSS SEA
AMUNDSEN SEA
MARIE BYRD LAND
VICTORIA LAND
CLARIE COAST
ADELIE COAST
pack ice
MAXIMUM LIMITS OF POLAR PACK ICE FOR SEPTEMBER
GV 96°W
GV 80°W
GV 64°W
GV 48°W
GV 144°E
GV 160°E
GV 64°E
32°W
48°W
64°W
80°W
160°E
144°E
128°E
24°E
32°E
40°E
48°E
56°E
64°E

MAGNETIC NOTE
Because of weak directive force of magnetic storms, the compass becomes increasingly unreliable approaching the magnetic pole.


PRINCE ALBERT MOUNTAINS
VICTORIA
ROSS ISLAND
Mc MURDO STATION
12450
GV 96°W
GV 80°W
144°E
128°E
12/16
160°
165°

Civil users may purchase DMAAC products by ordering them from the following address:
DISTRIBUTION DIVISION (C-44)
NATIONAL OCEAN SURVEY
RIVERDALE, MD. 20737

STOCK NO. GNCXX25

GNC 25

SCALE 1:5,000,000

EDITION 9

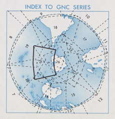
Lithographed By DMAAC 2-84

CAUTION
AIR INFORMATION CURRENT THROUGH
22 AUGUST 1983
Consult Notices to Airmen (NOTAMs) and Flight Information Publications (FLIPs) for the latest air information; the Chart Updating Manual (CHUM) for other chart revision information.

LINES OF EQUAL MAGNETIC VARIATION FOR 1980

Prepared and published by the Defense Mapping Agency Aerospace Center. Compiled June 1963. Revised August 1983. (Revision limited to aeronautical information.)

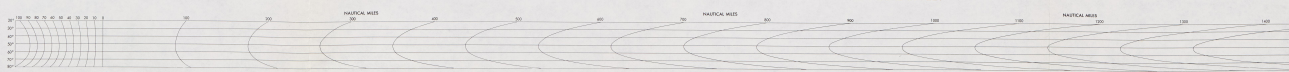
INDEX TO GNC SERIES


9
18
8
19
24
26
14
7
10
12

IMPORTANT NOTICE
GRID NAVIGATION (SUB-POLAR)
1. GRID COURSE is measured clockwise from GRID NORTH and cuts all Grid Lines at a constant angle.
2. TRUE HEADING is determined by conventional means.
3. Compute GRID HEADING by applying the CONVERGENCE VALUE of the D/R LONGITUDE to the TRUE HEADING. The CONVERGENCE ANGLE VALUE is obtained from the CONVERGENCE TABLE.
4. Compute GRID WIND by applying the CONVERGENCE VALUE for the LONGITUDE USED to the TRUE WIND.
5. Use the formulas as indicated below:

NORTHERN HEMISPHERE	SOUTHERN HEMISPHERE
GH = TH + WEST LONG. CONV ANGLE VALUE − EAST LONG. CONV ANGLE VALUE	GH = TH − WEST LONG. CONV ANGLE VALUE + EAST LONG. CONV ANGLE VALUE
GW = TW + WEST LONG. CONV ANGLE VALUE − EAST LONG. CONV ANGLE VALUE	GW = TW − WEST LONG. CONV ANGLE VALUE + EAST LONG. CONV ANGLE VALUE

ELEVATIONS IN FEET

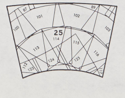

100
90
80
70
60
50
40
30
20
10
0
20°
30°
40°
50°
60°
70°
80°
1400
1500

LAMBERT CONFORMAL CONIC PROJECTION
STANDARD PARALLELS
37°00′ and 65°00′
Convergence Factor .78535

GLOBAL NAVIGATION AND PLANNING CHART

HARBOR FACILITIES
Logistic planners may obtain complete detailed information on port facilities and freight handling capacities for shipping in H.O. Pub. No. 150, World Port Index (UNCL), published by the Defense Mapping Agency Hydrographic Center.

INDEX TO JNC COVERAGE


87
89
101
102
100
103
25
114
113
115
116
112
123
124
125
117

GNC 25

EDITION 9

Users should refer correction, additions and comments for improving this product to: DIRECTOR, DEFENSE MAPPING AGENCY AEROSPACE CENTER, 3200 SOUTH SECOND STREET, ST. LOUIS, MISSOURI 63118, ATTN: PP