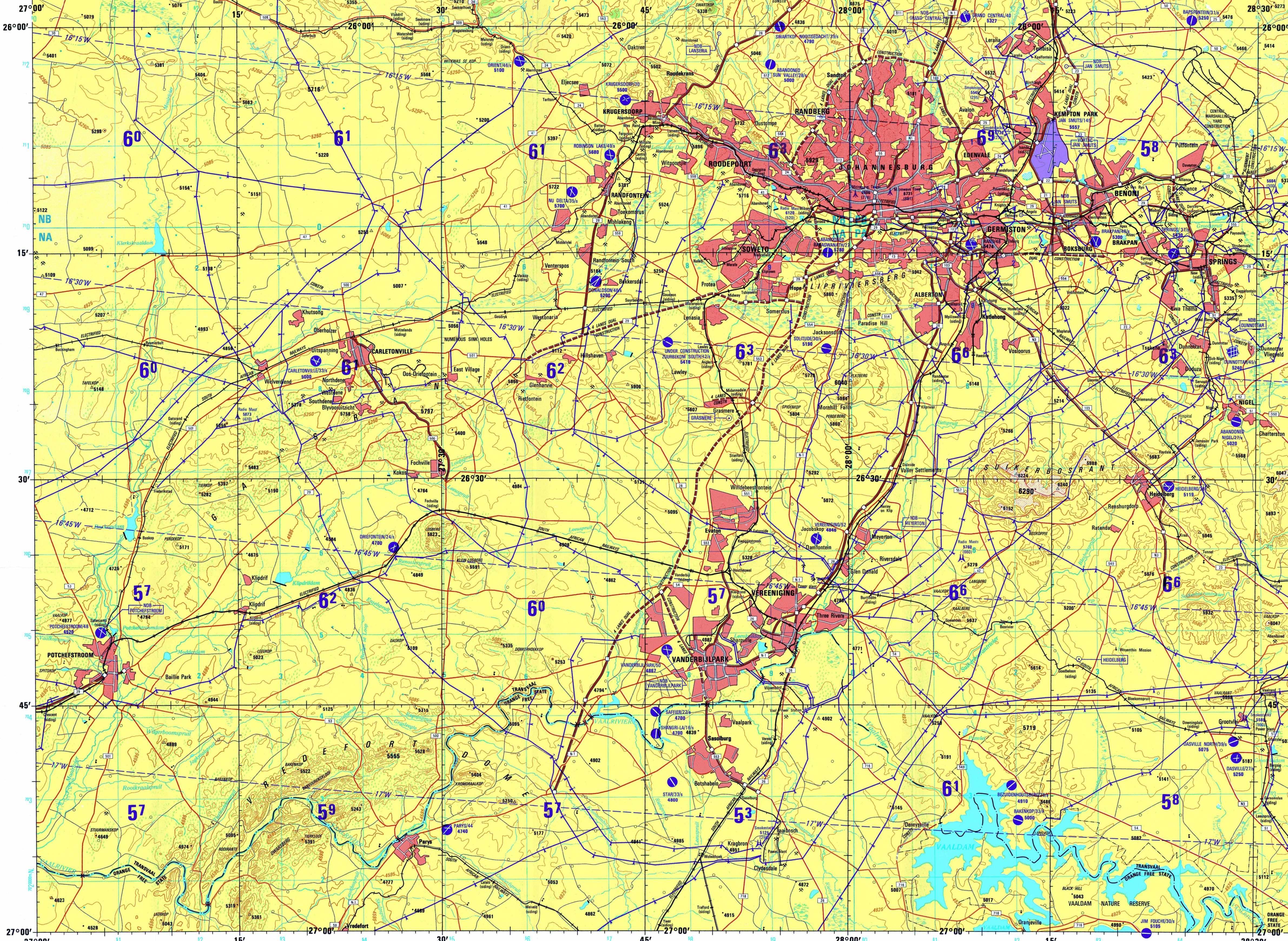


- POPULATED PLACES**  
 First importance: .....  
 Second importance: .....  
 Third importance: .....  
 Fourth importance: .....
- ROADS**  
 Dual highway, interchange: .....  
 All weather, hard surface:  
 More than two lanes wide: .....  
 Two lanes wide: .....  
 One lane wide: .....  
 All weather, loose or light surface:  
 More than two lanes wide: .....  
 Two lanes wide: .....  
 One lane wide: .....  
 Fair or dry weather, loose surface:  
 More than two lanes wide: .....  
 Two lanes wide: .....  
 One lane wide: .....  
 Fair or dry weather, loose surface:  
 More than two lanes wide: .....  
 Two lanes wide: .....  
 One lane wide: .....  
 Tracks: Trail: .....  
 Reverse marker: National: Other: .....  
**RAILROADS**  
 Normal gauge 1.067 metres (3'6"):  
 Station, passenger: .....  
 Station, freight: .....  
 Narrow gauge 0.810 metres (2'7"):  
 Station, passenger: .....  
 Station, freight: .....
- BOUNDARIES**  
 International: .....  
 First-order administrative division:  
 Reservation: .....
- OTHER FEATURES**  
 Hut, Krua, Landmark feature, Mine:  
 Horizontal control point, Dam or lock:  
 Spot elevation: Normal, Critical:  
 Sand: Shaded surface:  
 Escarpment: Level:  
 Swamp or marsh, Intermittent lake, Dry lake:  
 Well, Spring: Land subject to inundation:  
**VEGETATION**  
 Woods, Scattered trees:  
 Orchards, plantations, vineyards, Mangrove:  
**TERRAIN ELEVATIONS**  
 HIGHEST KNOWN ELEVATION IS 6290 feet at the following coordinates:  
 Geographic: 26°31'S, 28°14'E.  
 Grid: PA2867.
- HYDROGRAPHY**  
 Rocks, weath:  
 Pier, Breakwater:  
 Exposed wreck:  
 Reef:  
 Limit of danger:  
 Foreworn flats, Salt evaporator:  
 Depth curves in feet:
- AERODROMES (Military or Civil)**  
 Field limits with runway pattern:  
 EDNA Name:  
 SO-Length of longest runway to nearest hundreds of feet:  
 Soft or unpaved surface:  
 Unknown surface:  
 725 Elevation:  
 Field limits, with runway pattern unknown:  
 Field limits unknown, with runway pattern:  
 Field limits and runway pattern unknown:  
**HELIPORT**  
**VISUAL AIDS AND OBSTRUCTIONS**  
 Obstruction:  
 1108 Elevation of obstruction top, above sea level:  
 (259) Elevation of obstruction top, above ground level:  
 Group obstruction:  
 Radio facility obstruction:  
 Power transmission line:  
 Visual ground sign:  
 Aero light, Marine light:  
**RADIO FACILITIES**  
 RADIO RANGE LF/MF:  
 MULTIPLE RADIO FACILITIES:  
**CONTROLLED AIRSPACE**  
 ADIZ: ATLANTIC ADIZ
- CAUTION**  
**AIR INFORMATION CURRENT THROUGH 31 MARCH 1983**  
 Consult NOTAMS and Flight Information Publications for the latest air information; the DOD Aeronautical Chart Updating Manual or MOD (U. K.) Aeronautical Chart Amendment document, for other chart revision information.
- ATTENTION**  
**THIS CHART CONTAINS MAXIMUM ELEVATION FIGURES (MEF)**  
 The Maximum Elevation Figures shows in quadrangles bounded by ticked lines of latitude and longitude are represented in THOUSANDS and HUNDREDS of feet above mean sea level. The MEF is based on information available concerning the highest known feature in each quadrangle, including terrain and obstructions (towers, antennas, etc.). In areas of extensive unreliable relief, the MEF is shown by a note spaced across the area.  
 EXAMPLE: 12,500 feet **125**
- LOCATION DIAGRAM**  
 (WAC INDEX SHOWN IN RED / BROWN)

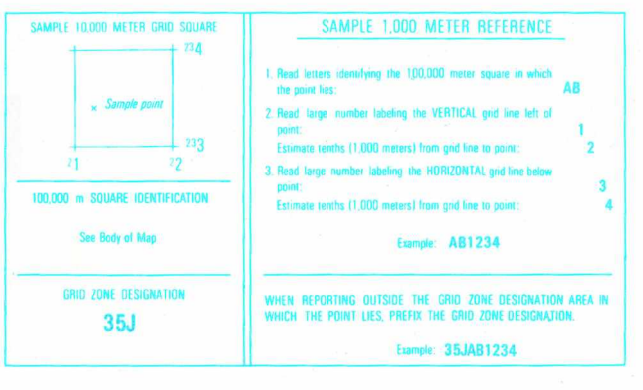


**JOINT OPERATIONS GRAPHIC (AIR)**

SCALE 1:250,000  
 5 10 15 20 25 30 35 40 45 50 55 60  
 0 5 10 15 20 25 30 35 40 45 50 55 60  
 Statute Miles  
 Kilometers

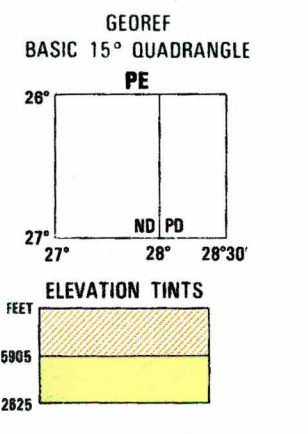
**CONVERSION OF ELEVATIONS**

FEET	METERS	FEET	METERS
1000	305	10000	3048
800	244	9000	2743
600	183	8000	2438
400	122	7000	2134
200	61	6000	1829
150	46	5000	1524
100	31	4000	1219
		3000	914
		2000	610
		1500	457
		1000	305



USERS SHOULD REFER CORRECTIONS, ADDITIONS, AND COMMENTS TO THE NIMA CUSTOMER HELP DESK:  
 1-800-485-6889; COMMERCIAL 314-296-3022; SSN 488-9022; OR WRITE TO: DIRECTOR, NATIONAL IMAGERY AND MAPPING AGENCY, ATTN: GRID MAP STOP P-27, 4805 SANDHURST ROAD, BETHESDA, MD 20815-5003

- GLOSSARY**
- berg ..... mountain, hill
  - Dam ..... reservoir
  - dike ..... dike, levee
  - Kloof ..... valley, ravine, pass
  - kop ..... mountain, hill
  - Koppie ..... mountain, hill
  - loop ..... stream
  - pass ..... ridge
  - pan ..... depression
  - point ..... mountain, ridge
  - stream ..... stream
  - spring ..... spring
  - vlei ..... pan



**RELIABILITY OF THIS GRAPHIC**  
 Compiled from best available source materials

Horizontal Datum: Arc 1960  
 Vertical Datum: Mean Sea Level  
 Transverse Mercator Projection

**NOTES**  
 Only obstructions 200 feet or more above ground level are shown.  
 Powerline information and obstructions have been extracted from the most reliable source available. However, there is no assurance that all powerlines and obstructions are shown or that their locations and heights are correct.  
 A line is generally considered as being 3.2 meters (10.5 feet) in width on the Freeways and National Routes.  
 The reliability of road information is undetermined.  
 THE REPRESENTATION OF INTERNATIONAL BOUNDARIES IS NOT NECESSARILY AUTHENTICATIVE.

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**SCALE 1:250,000**  
**JOHANNESBURG, SOUTH AFRICA**