

GEOLOGICAL SURVEY CIRCULAR 834



**Worldwide Directory of National
Earth-Science Agencies and
Related International Organizations**

Worldwide Directory of National Earth-Science Agencies and Related International Organizations

**Compiled by Wenonah E. Bergquist,
Elizabeth J. Tinsley, Laura Yordy,
and Ralph L. Miller**

G E O L O G I C A L S U R V E Y C I R C U L A R 8 3 4

*A listing of governmental earth-science
agencies and selected major international
organizations whose functions are
similar to those of the
U.S. Geological Survey*

United States Department of the Interior
JAMES G. WATT, *Secretary*



Geological Survey
Dallas L. Peck, *Director*

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WORLDWIDE DIRECTORY OF NATIONAL EARTH-SCIENCE AGENCIES AND RELATED MAJOR INTERNATIONAL ORGANIZATIONS

By WENONAH E. BERGQUIST, ELIZABETH J. TINSLEY, LAURA YORDY, and RALPH L. MILLER

INTRODUCTION

This edition of the "Worldwide Directory" has been prepared in response to continuing requests for up-to-date information on earth-science organizations. It provides addresses of governmental earth-science agencies around the world that have functions similar to those of one or more of the operating divisions of the U.S. Geological Survey (USGS); it also lists addresses of major international organizations that are concerned with some phase of the earth sciences. It has been considerably expanded since the 1978 edition (USGS Circular 771).

Most of the data presented herein are current as of November 1979; inevitably, some of the names and addresses given have changed since our survey, which was done during the summer and fall of 1979. Footnotes identify those countries for which we were unable to obtain recent accurate information from sources available to us. A large part of the information was supplied by staff members of American Embassies around the world, and a gratifying amount of data was provided by members of counterpart national organizations. We are indebted to all these officials, and to

all USGS colleagues and to others who have kindly assisted us by providing information.

The directory is arranged alphabetically by the name of the country. The location of each country is shown on a small index map, which is keyed to one of eight reference maps showing major regions of the world. The index maps should be helpful to the user in identifying countries that have adopted new names or that have recently attained independence.

Wherever feasible, names of agencies in countries whose languages are based primarily on the Latin alphabet are given in the language of the country. English translations have been added in brackets where they seem necessary for easy understanding. Names of agencies in countries whose language is based on an alphabet other than Latin are given in English.

The principal functions of the USGS and of the agencies listed are indicated by code letters in the left margin of the column, as follows:

C=Cartography

G=Geology

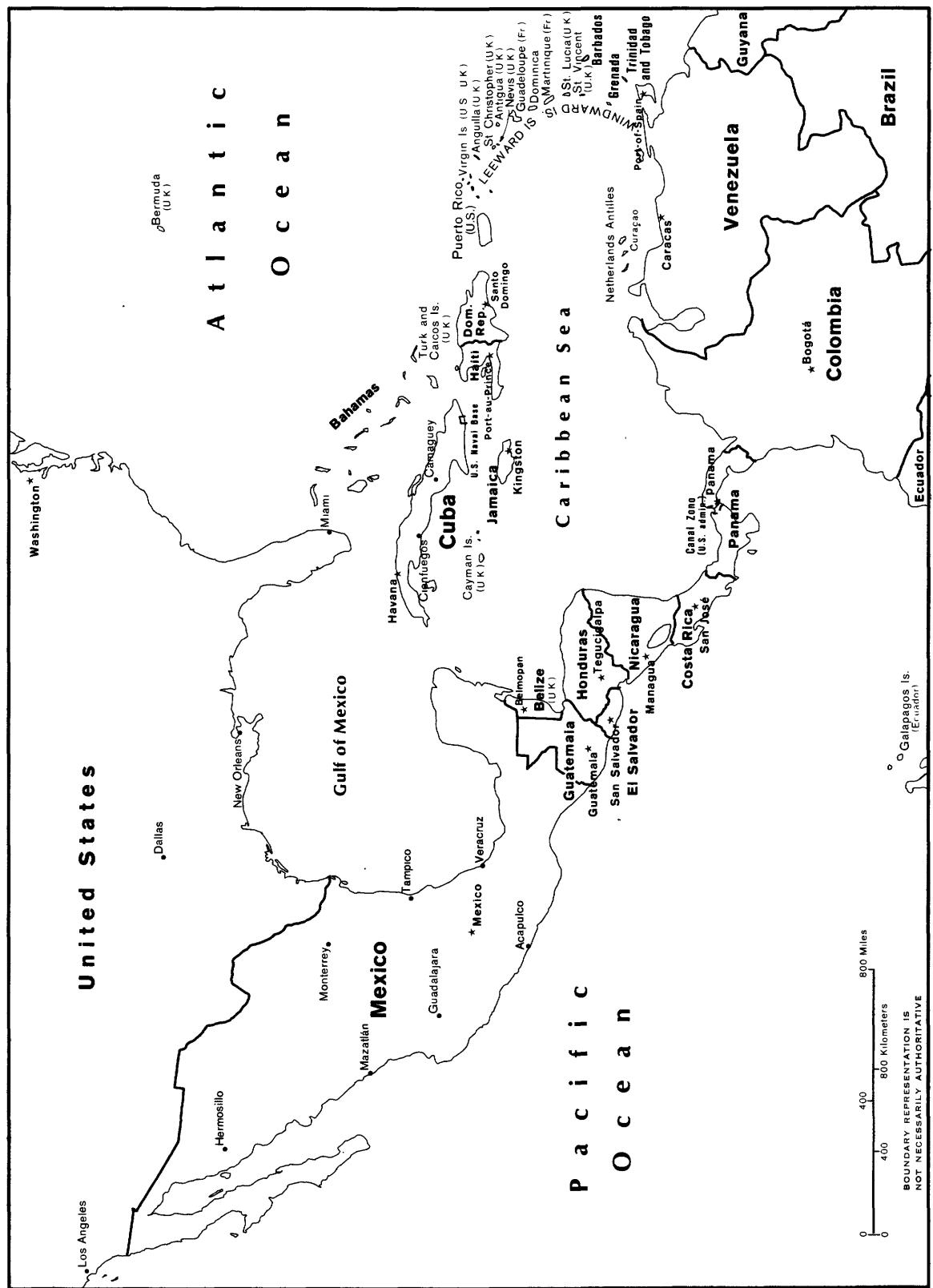
H=Hydrology

R=Minerals and petroleum regulation



I.—North America

II.—Middle America

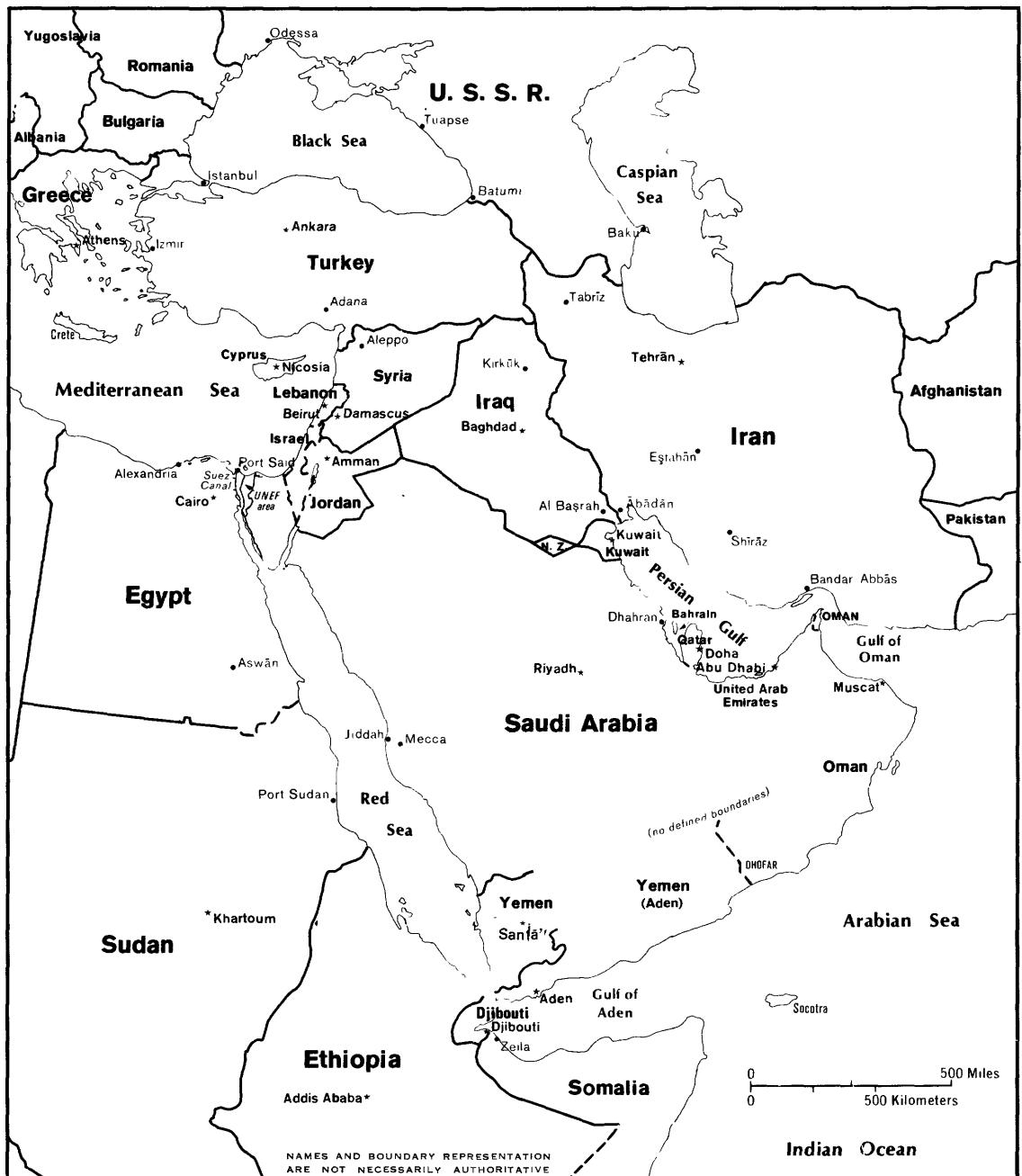




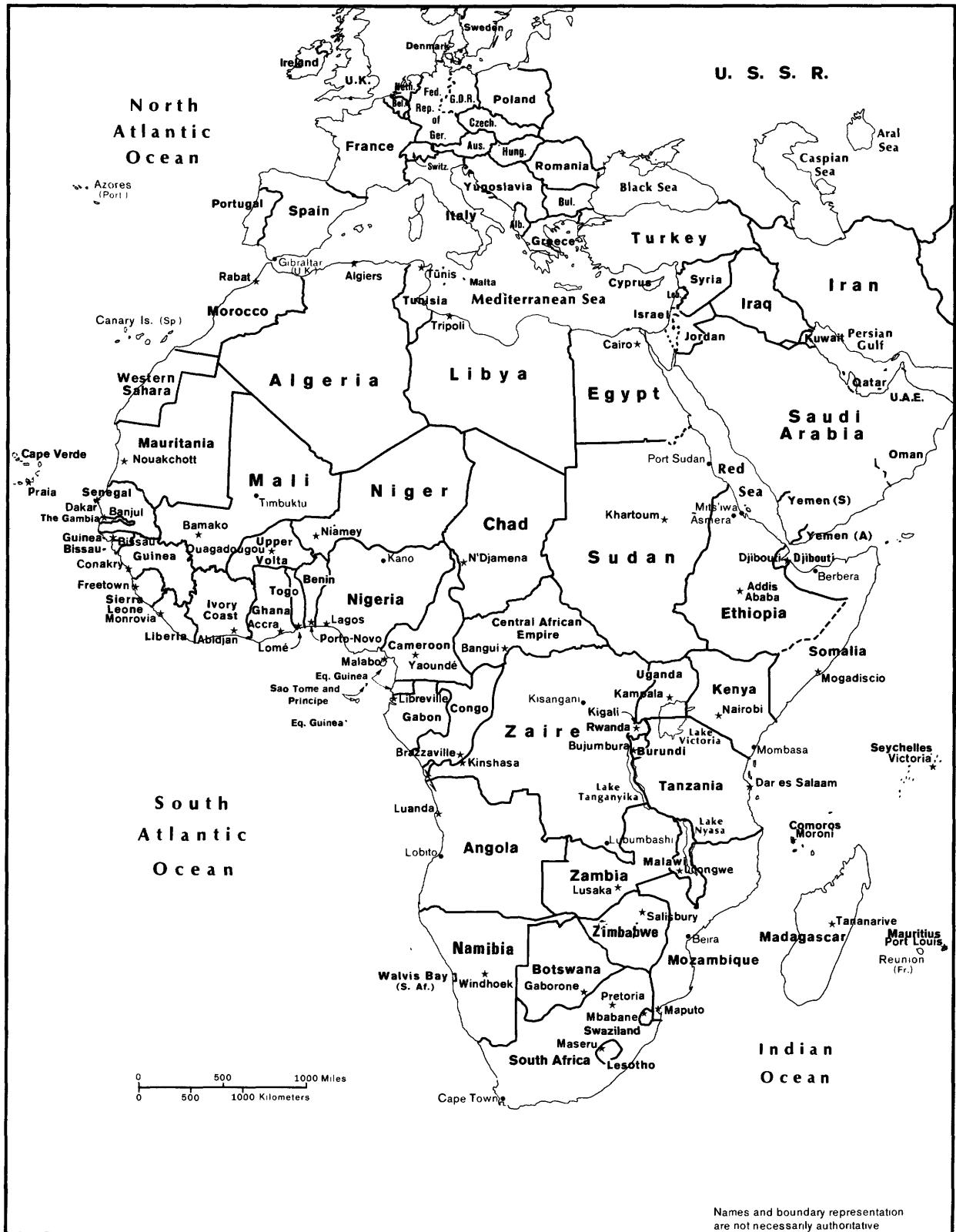
III.—South America



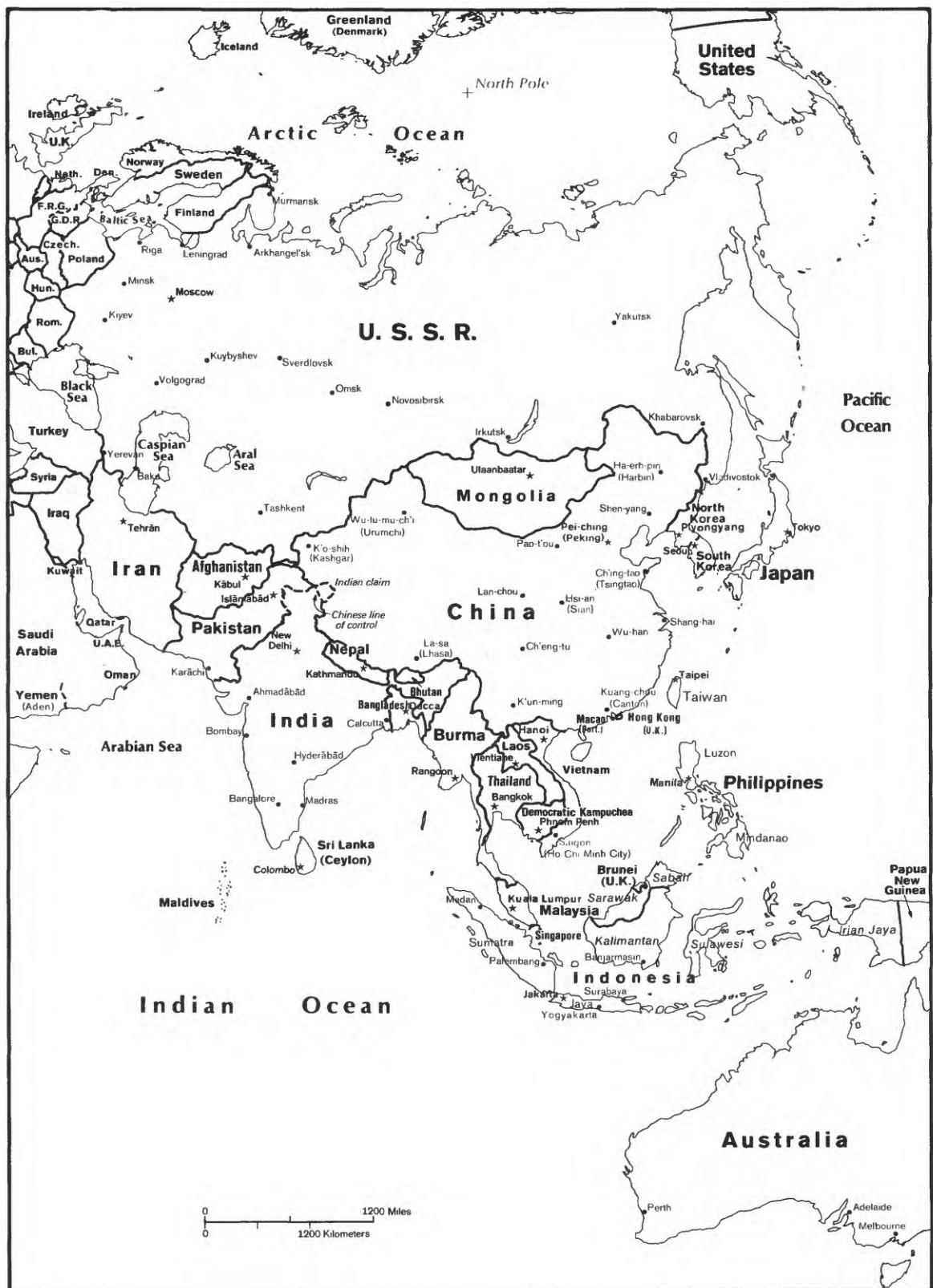
IV. –Europe



V.—The Middle East



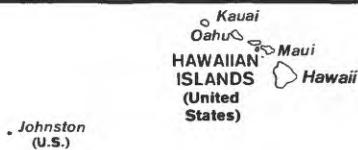
VI.—Africa



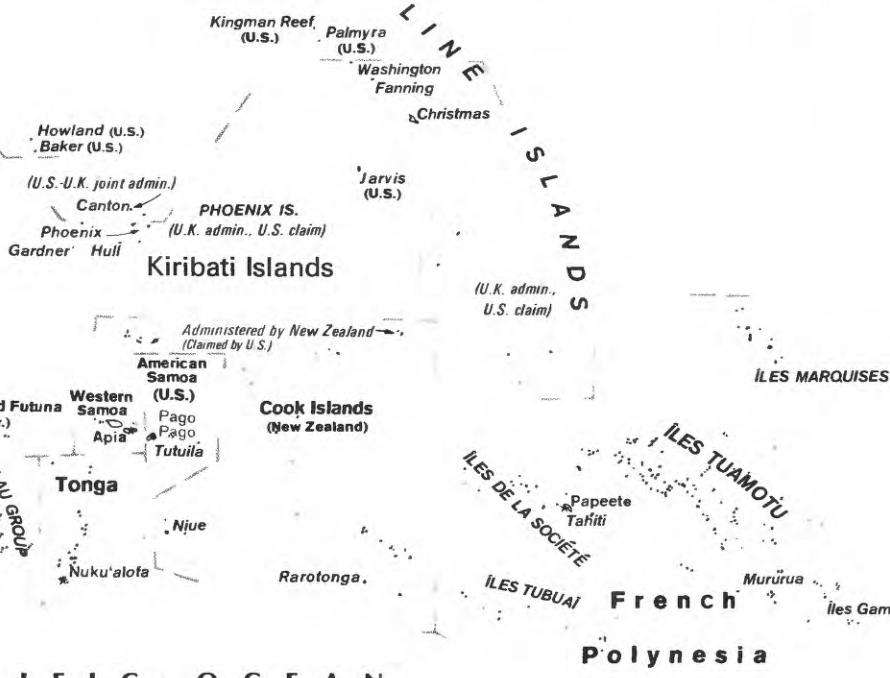
VII.—U.S.S.R. and Asia



VIII.—Oceania



NORTH PACIFIC OCEAN



PACIFIC OCEAN

KERMADEC IS.
(N.Z.)

North Island
Wellington

D

Line of separation
(not a formal international
boundary or territorial limit)

0 500 1000 Nautical Miles
0 500 1000 Statute Miles

BOUNDARY REPRESENTATION IS
NOT NECESSARILY AUTHORITATIVE

VIII.-Oceania

AFGHANISTAN¹



(See reference map VII)

- G Department of Mines and Geology
Ministry of Mines and Industries
Darulaman
Kabul
President: Noor Ahmad Azimi
- G Ministry of Mines and Industries
Darulaman
Kabul
Minister: Abdullah Samah Salah
- H Ministry of Water and Power
Kabul
Minister: Jumma Mohammed Mohammadi
- C Cartographic and Cadastral Survey Institute
Institute of Cartography
Kabul
Director: Amir Ahmad
- R Afghan National Petroleum Company
Ministry of Mines and Industries
Kabul
President: Abul Samad Salah
Acting Deputy Minister Director-General: Hafizullah Nawabi

ALBANIA



(See reference map IV)

- G Ministry of Industry and Mining
Tirane
- C Association of Scientific Workers of the Peoples Republic of Albania
Tirane
President: Kol Paparisto
- H Instituti Hidrometeorologjik
214 rue Kongreasi Permetit
Tirane

ALGERIA



(See reference map VI)

- G Sous-Direction de la Géologie
Ministère de l'Industrie Lourde
Rue Ahmed Bey de Constantine
Algiers
Sous-Directeur: Nour Ousmer
- G,H Service d'Hydro Géologie
Immeuble DEMRH, Clairbois
Avenue Mohammedi
Algiers
Chief of Service: Abderrahmane Salem

¹ No recent information.

H Service des Etudes Scientifiques
 Domaine de Clairbois
 Birmandreis, Alger
 WMO/CHy Representative: Mohamed Refes

H Sécrétariat de l'Hydraulique
 Ex-Grand Seminaire
 Kouba, Algiers
 Minister: Sid Ahmed Ghazali

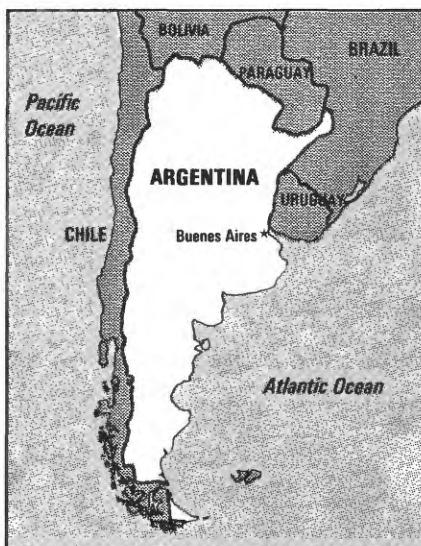
C Institut National de Géographie
 Ecole Polytechnique
 El-Harrach, Algiers
 Director: Professeur Halimi

C Institut National de Cartographie
 123 rue de Tripoli
 B.P. 32 Hussein-Dey
 Algiers
 Director: Mohammed Boualga

R Ministère de l'Energie et des Industries
 Petrochimiques
 80, Avenue Ahmed Ghermouli
 Algiers
 Minister: Belkacem Nabi

R Ministere de l'Industrie Lourde
 Immeuble "Le Colisée"
 Rue Ahmed Bey de Constantine
 Algiers
 Minister: Mohamed Liassine

ARGENTINA



(See reference map III)

G Servicio Minero Nacional
 Avenida Santa Fe 1548, 4º Piso
 (1060) Buenos Aires
 Director: Oscar Valentín Reverberi

G Servicio Geológico Nacional
 Secretaria de Estado de Minería
 Avenida Santa Fe 1548
 Buenos Aires
 Director: Oscar J. Ruiz Huidobro

G Director de Exploración
 Yacimientos Petrolíferos Fiscales
 Avenida Rogue Sáenz Peña 777
 (1364) Buenos Aires
 Engineer: José Alberto Suárez Lynch

G Comisión Nacional de Investigaciones Espaciales
 (CNIE)
 Comodoro Pedro Zanni 250
 1104 Buenos Aires, Argentina
 Presidente: Miguel Sánchez Peña

G Fabricaciones Militares
 Cabildo 65, 2º Piso (1426)
 Buenos Aires
 Sub-Director de Desarrollo Minero
 Cnel: Víctor Costanzo

G Comisión Nacional de Energía Atómica
 Avenida Libertador 8250
 (1429) Buenos Aires
 President: Carlos Castro Madero

G Yacimientos Carboníferos Fiscales
 Avenida R. Sáenz Peña 1190 2º Piso
 (1035) Buenos Aires
 Director: José Pascual Trípoli

ANGOLA



(See reference map VI)

G,C,R Direcção de Serviços de Geologia e Minas
 Caixa Postal 1260-C
 Luanda
 Director: Jorge Manuel Trigo de Mira

G Observatório Meteorológico e Magnético João Capelo
 Rua Diogo Cão 20
 Caixa Postal 1288-C
 Director: Alberto Leão Diniz

G	Instituto de Geocronología y Geología Isotópica Facultad de Ciencias Exactas y Naturales Ciudad Universitaria (1428) Nuñez Buenos Aires Director: Enrique Linares	G,H, C,R	Department of National Development and Energy P.O. Box 378 Canberra City, A.C.T. 2601 Minister: J. L. Carricks	
G	Secretaría de Estado de Ciencia y Tecnología Córdoba 831 (1054) Buenos Aires Secretary: Fermín García Marcos	The department includes the following bureau, office, and divisions:		
H	Servicio de Hidrografía Naval Montes de Oca 2124 (1271) Buenos Aires Jefe: Salvio O. Menendez	G	Bureau of Mineral Resources, Geology, and Geophysics Acting Director: Les Williams	
H	Instituto Nacional de Ciencias y Técnicas Hídricas Lavalle 1625, 3º Piso (1048) Buenos Aires Presidente: Juan Carlos Ballester	G	National Energy Office Director: John Monaban	
C	Instituto Geográfico Militar Avenida Cabildo 301 (1426) Buenos Aires Director: Luis Jorge Borrelli	G	Energy Policy Division First Assistant Secretary: T. J. McMahon	
R	Secretaría de Estado de Minería Avenida Santa Fe 1548 Buenos Aires Secretary: Fernando Puca Prota	G	Regional Research and Development Division First Assistant Secretary: M. S. Farrell	
R	Director Nacional de Combustibles Secretaría de Estado de Energía Avenida Julio Roca 651 7º Piso (1067) Buenos Aires Director: Osvaldo E. A. Calcagno	G	Uranium and General Division First Assistant Secretary: P. Ryan	
R	Director Nacional Economía Minera Avenida Santa Fe 1548, 5º Piso (1060) Buenos Aires Director: Pelayo Penas	R	Department of Trade and Resources Edmund Barton Bldg., Kings Avenue Barton A.C.T. 2600 Minister: J. D. Anthony	
		R	Australian Atomic Energy Commission P.O. Box 41 Coogee, N.S.W. 2034 Chairman: D. W. George	
		R	Joint Coal Board G.P.O. Box 3842 Sydney, N.S.W. 2001 Chairman: G. J. Tredinnick	
		G	Oil and Gas Division First Assistant Secretary: L. F. Bracken	
		G,H	Institute of Earth Resources Commonwealth Scientific and Industrial Research Organization P.O. Box 225 Dickson, A.C.T. 2602 Director: I. E. Newnhan	
		H	Water Division Department of National Development and Energy P.O. Box 378 Canberra City, A.C.T. 2601 First Assistant Secretary: A. Manderson The division includes the following council: Australian Water Resources Council Secretary: F. A. Hatfield	

AUSTRALIA



AUSTRIA



(See reference map IV)

BAHAMAS



(See reference map II)

G Geologische Bundesanstalt
Rasumofskygasse 23
A-1031 Vienna
Director: Felix Ronner

C Bundesamt für Eich-und Vermessungswesen
Gruppe Landesaufnahme
Krotenthalergasse 3
A-1080 Vienna
President: Johann Bernhard

C Bundesamt für Eich-und Vermessungswesen
Gruppe Kataster, Grundlagenvermessung,
Staatsgrenzen
Friedrich-Schmidt-Platz 3
A-1082 Vienna
Director: Otto Kloiber

C Österreichische Kommission für die Internationale
Erdmessung
Gusshausstrasse 27-29
A-1040 Vienna
President: Friedrich Hauer
Secretary: Josef Mitter

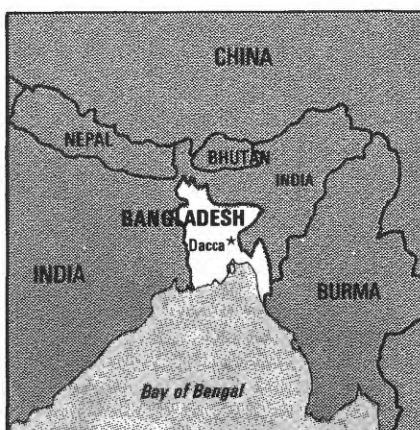
H Hydrographisches Zentralbüro
Bundesministerium für Land- und Forstwirtschaft
Marxergasse 2
A-1030 Vienna
Secretary: Hans Schimpf

H,G Zentralanstalt für Meteorologie und Geodynamik
Hohe Warte 38
A-1190 Vienna
Director: Heinz Reuter

R,C Bundesministerium für Handel, Gewerbe und
Industrie
Stubenring 1
A-1011 Vienna
Director: Georg Sterk

H Water Department
Ministry of Works
P.O. Box 8156
Nassau

BANGLADESH



(See reference map VII)

G Geological Survey
Pioneer Road
Segun Bagicha
Dacca
Director General: Mesbahuddin Ahmed

G Landsat
Road 9A, House 23
Dhanmondi Residential Area
Dacca
Principal Investigator: Anwar Hossain

C Land Records and Survey Department
Tejgaon Industrial Area
Dacca
Director: Abdul Bari Tarafder

- C Survey of Bangladesh
Tajgaon Industrial Area
Dacca
Director: Bazlur Rahman
- H Ground Water Circle
Bangladesh Water Development Board
48 Motijheel Commercial Area
Dacca
Director: Gulam Mawla
- H Surface Water Hydrology-I
Bangladesh Water Development Board
48 Motijheel Commercial Area
Dacca
Director: Mohammad Abdus Sabur
- H Surface Water Hydrology-II
Bangladesh Water Development Board
60 Motijheel Commercial Area
Dacca-2
Director: M. Abdul Martin
- R Petro-Bangla
(Bangladesh Oil and Gas Development Corp.)
122-124 Motijheel Commercial Area
Dacca
Chairman: Nazrul Islam
- R Ministry of Petroleum and Minerals Resources
Main Building (1st floor)
Bangladesh Secretariat
35, Road No. 12A
Dhanmondi RA
Dacca
Secretary: A. S. H. K. Sadique
- R Bangladesh Mineral Exploration and Development Corporation (BMEDC)
H.B.F.C. Building (9th floor)
22 Purana Palton
Dacca
Chairman: W. Ali

BARBADOS



(See reference map II)

- G Bellairs Research Institute
St. James
President: Finn Sander
- H Ministry of Agriculture, Food and Consumer Affairs
Crumpton Street, St. Michael
WMO/CHy Representative: C. Croney

BELGIUM

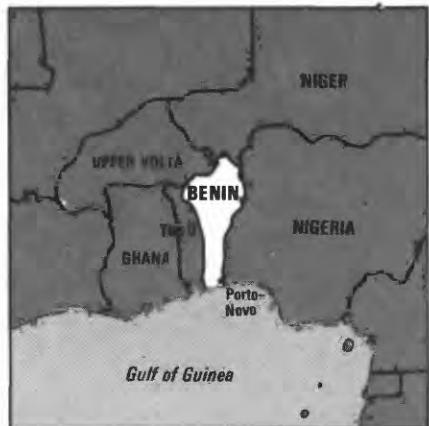


(See reference map IV)

- G,H Service Géologique de Belgique
13 rue Jenner
1040 Brussels
Inspecteur General: A. Delmer
- C Institut Géographique National
13 Abbaye de la Cambre
1050 Brussels
Director General: R. Verbeek
- C Ministère de Travaux Publics
Service de Topographie et de Photogrammetrie
155 Rue de la Loi
1040 Brussels
- H L'Association Nationale des Services d'Eau
(ANSEAU)
Rue Belliard 197-bte 2
1040 Brussels
Directeur: L. Dirickx
- H Minister des Travaux Publics
Administration des Voies Hydrauliques
155 Rue de la Loi
B-1040 Brussels
WMO/CHy Representative: A. Sterling
- R Ministère des Affaires Économique
Administration de l'Energie
26 Rue de Mot
1040 Brussels
Directeur Général: M. Frerotte

R Ministère des Affaires Économique
 Administration des Mines
 23 Square de Meeus
 1040 Brussels
 Directeur Général: J. Medaets

BENIN (formerly DAHOMEY)



(See reference map VII)

- G Direction des Mines, de la Géologie, et des Hydrocarbures
 Ministère de l'Equipment
 B.P. 249
 Cotonou
- G,H Office de la Recherche Scientifique et Technique Outre-mer Centre (ORSTOM)² de Cotonou
 B.P. 390
 Cotonou
- G Centre National de la Recherche Scientifique et Technique
 Ministère des Enseignements Technique et Supérieur
 Cotonou
- G Département des Recherches Agronomiques
 Ministère des Enseignements Technique et Supérieur
 Cotonou
- G Centre national de la Recherche Applique
 Ministère de L'Enseignement de Premier Degre
 Porto Novo
- H Direction de l'Hydraulique
 Ministère des Travaux Publics, Mines, et Energie
 B.P. 73
 Cotonou
- C Direction de la Topographique et du Cadastre
 Ministère de l'Equipment
 B.P. 360
 Cotonou

BHUTAN¹



(See reference map VII)

G,C,H Department of Trade and Industries
 Thimphu
 Director: Rinchen Dorji

BOLIVIA



(See reference map III)

- G Servicio Geológico de Bolivia (GEOBOL)
 Federico Zuazo, Esq. Reyes Ortiz
 Casilla de Correo 2729
 La Paz
 Director: José Ponce
- G Fondo Nacional de Exploración
 Calle Cordero 257
 La Paz
 General Manager: Jaime Villalobos
- G Observatorio Sismico de San Calixto
 Casilla 944, La Paz
 Director: R. P. Ramón Cabré

² Designates French research organization, without governmental affiliation.

¹ No recent information.

- G Empresa Siderurgica Boliviana (SIDERSA)
Avenida 16 de Julio, No. 1769
La Paz
General Manager: Gildo Angulo
Technical Manager: Raúl Colque
- G Corporacion Minera de Bolivia (COMIBOL)
Avenida Mariscal Santa Cruz, No. 1092
La Paz
General Manager: Eduardo Asebey
- G,R Yacimientos Petroliferos Fiscales Bolivianos (YPFB)
Casilla 401
La Paz
General Manager: Humberto Suárez
- C Instituto Geográfico Militar y Catastro Nacional
Avenida Saavedra, Miraflores
Director: Jaime Rodriguez A.
- H Oficina de Aguas Potables por Comunidades
La Paz
Chief: P. A. Parada P.
- H Servicio Nacional de Meteorología e Hidrología
Edificio "La Urbana," 6° Piso
Avenida Camacho, No. 1485
La Paz
Director General: Mario Canedo Daza
- R Ministerio de Minería y Metalurgia
Avenida 16 de Julio, No. 1769
La Paz
Minister: Hugo Zaporta
- R Instituto Minero Metalurgico (IMM)
Casilla 600
Oruro
Director: Carlos de la Fuente
- R Ministerio de Energía e Hidrocarburos
Avenida Mariscal Santa Cruz, No. 1322
La Paz
Minister: Jorge O'Connor
- R,G Comisión Boliviana de Energia Nuclear
2905 Avenida 6 de Agosto
La Paz
Director: Edgar Ampuero

BOTSWANA



(See reference map VI)

- G,C,H Geological Survey Department
Ministry of Mineral Resources and Water Affairs
Private Bag 14
Lobatsi
Director: C. R. Jones
- C Department of Surveys and Lands
Ministry of Mineral Resources and Water Affairs
Private Bag 37
Gaborone
Director: W. L. Dickson
- H Department of Water Affairs
Ministry of Mineral Resources and Water Affairs
P.B. 29
Gaborone
Acting Director: Mr. Wilson
- R Department of Mines
Ministry of Mineral Resources and Water Affairs
Private Bag 49
Gaborone
Mining Commissioner: Peter Cain
- R Ministry of Mineral Resources and Water Affairs
Private Bag 29
Gaborone
Permanent Secretary (all Departments):
Charles Tibone

BRAZIL



(See reference map III)

- G Instituto de Pesquisas Especiais (INPE)
Caixa Postal 515
São José dos Campos
São Paulo, SP
Director General: Jesus Parada
- G Companhia de Pesquisa de Recursos Minerais (CPRM)
Avenida Pasteur, 404
Praia Vermelha
Rio de Janeiro, RJ
President: José Raimundo de Andrade Ramos
- G Petroleo Brasileiro S.A. (PETROBRAS)
Avenida Chile, 65
Rio de Janeiro, RJ
President: Shigeaki Ueki
- G,R Departamento Nacional de Produção Mineral (DNPM)
Setor de Autarquia Norte
Esplanada dos Ministérios Quadra 1-Projeção F
Brasília, D.F.
Director General: Yvan Barreto de Carvalho
- G,R Empresas Nucleares Brasileiras S.A. (NUCLEBRAS)
Av. Pres. Wilson 231-2°/11°
Rio de Janeiro, RJ
President: Paulo Nogueira Batista
Director of Mineral Exploration: John M. A. Forman
- H Departamento Nacional de Obras de Saneamento
(DNOS)
Av. Pres. Vargas 62, 5° Andar
Rio de Janeiro
WMO/CHy Representative: Paulo Poggi Periera
- C Diretoria do Serviço Geográfico do Exército
Ministério de Exército
Bloco G-SMU
Brasília, D.F.
Director: Aristides Barreto
- C Diretoria de Geodesia e Cartografia
Instituto Brasileiro de Geografia e Estatística
Avenida Franklin Roosevelt, 146
Rio de Janeiro, RJ
Director: Luiz Carlos Carneiro
- H Departamento Nacional de Aguas e Energia Elétrica
(DNAEE)
Ministério das Minas e Energia
Esplanada dos Ministérios
Bloco J, 3° andar
Brasília, D.F.
Director General: Luiz Carlos Menezes
- C Projeto RADAM
Trav. Benjamin Constant, 1009
Belém, Para
Executive Secretary: Antônio Luiz Sampaio de Almeida
- R Ministry of Mines and Energy
Esplanada dos Ministérios - Bloco J
70000 Brasília, D.F.
Minister: Cesar Cals
- R Conselho Nacional do Petróleo (CNP)
Ministério das Minas e Energia
Esplanada dos Ministérios
Bloco J
Brasília, D.F.
President: Oziel Almeida Costa
- R,G Comissão Nacional de Energia Nuclear (CNEN)
Rua General Severiano, 90
Botafogo-ZC-02
20000 Rio de Janeiro, RJ
Executive Director for Mineral Affairs:
Fernando de Mendonça

BRUNEI



(See reference map VII)

- G The Government Geologist
Bandar Seri Begawan
- C Survey Department of Brunei
Bandar Seri Begawan

BULGARIA



(See reference map IV)

- G Geologicheski Institut
Bulgarska Akademiya na Naukite
Akademik Bonchev St., Blok 2
Sofia
Deputy Director: Ivan Kostov
- G Committee on Geology
Ministry of Mineral Resources
No. 22, Georgi Dimitrov Blvd.
Sofia
Chairman: Yovcho Kunev
- H Hydrometeorological Service
Bulgarian Academy of Sciences
No. 66, Lenin Boulevard
Sofia
Director: Kostadin I. Stanchev
- H Conseil d'Etat des Eaux
17 rue Antim I
Sofia
WMO/CHy Representative: Eugenia Stoeva
- C Scientific Research Institute on Geodesy and Photogrammetry
No. 1 Musala St., Pavlovo
Sofia
Director: Pencho Zafirov
- C Union Scientifique Technique des Geodesiens Bulgares
108 Rue Rakovski
B.P. 431
Sofia 1500

BURMA



(See reference map VII)

- G Department of Geological Survey and Exploration
Ministry of Mines
Kanbe Road, Yankin P.O.
Rangoon
Director General: Ko Ko Gyi
- G Applied Geology Department
6-1/2 Mile Prome Road
Rangoon
Director: U Myint Lwin
- G Myanma Oil Corporation
604 Merchant Street
Rangoon
Managing Director: U Kyaw Za
- G No. (1) Mining Corporation
104 Strand Road
Rangoon
Managing Director: U Ko Ko Than
- G No. (2) Mining Corporation
Kanbe Road, Yankin P.O.
Rangoon
Managing Director: San Myint
- G No. (3) Mining Corporation
Rangoon-Insein Road, Thamaing
Rangoon
Managing Director: Myo Nyunt
- H Irrigation Department
9/21 Strand Road
Ministry of Agriculture and Forestry
Rangoon
Director General: U Aung Ba
- H Directorate of Meteorology and Hydrology
Kaba Aye Pagoda Road
Rangoon
Director-General: U Hla

- C Central Research Organization
 Kanbe Road, Yankin P.O.
 Rangoon
 Director General: Mahn Thet San
- C Survey Department
 Ministry of Agriculture and Forestry
 Thirimingala Lana
 Kaba Aye Pagoda Road
 Rangoon
 Director-General: U Hla Kyaw

BURUNDI



(See reference map VI)

- G Ministère de la Géologie des Mines
 Boite Postale 1160
 Bujumbura
 Ministre: S. E. Gaspard Karenzo
 Director General: Aloys Ndenzako

CAMEROON



(See reference map VI)

- G Office National de la Recherche Scientifique et Technique (ONAREST)
 B.P. 1457
 Yaoundé
 Delegate-General: Vroumsia Tchinaye

- G,H Office de la Recherche Scientifique et Technique
 Outre-mer Centre (ORSTOM)² de Yaoundé
 B.P. 193
 Yaoundé
 Director: R. Lefevre
- G Direction des Mines et de la Géologie
 Ministry of Mines and Energy
 B.P. 70
 Yaoundé
 Director: Mr. Moudio
- G,C,H Institut de Recherches sur les Techniques, l'Industrie et le Sous-sol (IRTISS)
 B.P. 4110
 Yaoundé
 Director: Soba Djallo
 Chief, Hydrology Service: J. C. Olivry
- C Institut de Recherches Zootechniques (IRZ)
 B.P. 65
 N'Gaoundéré
 Director: Joseph Atekwana
- C Institut Géographique National
 B.P. 157
 Ave. Monseigneur Vogt
 Yaoundé
 Director: Marc Darolles
- C,H Institut des Recherches Agricoles et Forestières (IRAF)
 B.P. 29
 Yaoundé
 Director: Jean Nya Ngatchou

CANADA



(See reference map I)

- G Canada Centre for Mineral and Energy Technology
 Department of Energy, Mines, and Resources
 588 Booth Street
 Ottawa, Ontario, K1A 0G1
 Director General: D. F. Coates

² Designates French research organization, without governmental affiliation.

- G Geological Survey of Canada
 Department of Energy, Mines, and Resources
 601 Booth Street
 Ottawa, Ontario, K1A 0G1
 Director General: D. J. McLaren
- H Inland Water Directorate
 Department of the Environment
 Place Vincent Massey
 St. Joseph Boulevard
 Hull, Quebec
 Director General: N. H. James
- C Surveying and Mapping Branch
 Department of Energy, Mines, and Resources
 615 Booth Street
 Ottawa, Ontario, K1A 0E9
 Director General: R. E. Moore
- R Mineral Policy Sector
 Department of Energy, Mines, and Resources
 580 Booth Street
 Ottawa, Ontario, K1A 0E4
 Acting Assistant Deputy Minister:
 W. G. Jeffery
- R National Energy Board
 473 Albert Street
 Ottawa, Ontario, K1A 0E5
 Chairman: J. A. Stabback
- R Energy Policy Sector
 Department of Energy, Mines, and Resources
 580 Booth Street
 Ottawa, Ontario, K1A 0E4
 Assistant Deputy Minister: A. D. Hunt
- R,H Northern Affairs Program
 Department of Indian and Northern Affairs
 Les Ferrasses de le Chaudiere
 Ottawa, Ontario K1A OH4
 Assistant Deputy Minister: E. M. R. Cotterill

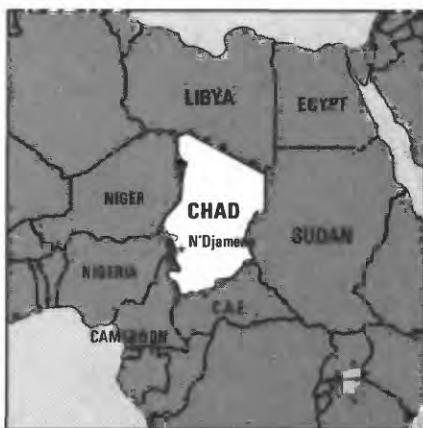
CENTRAL AFRICAN EMPIRE



(See reference map VI)

- G Ministry of Water, Forests, Hunting, Fishing,
 Energy, Mines and Geology
 Bangui
 Secretary: Emmanuel Abdoul
- G,C Ministry of Public Works, Management of Land, of
 Small and Intermediate Enterprises
 Bangui
 Vice-Premier Minister: André-Dieudonné Magale
- G,R,H Office de la Recherche Scientifique et Technique
 Outre-mer Centre (ORSTOM)² de Bangui
 P.B. 893, Bangui
 Directeur: Cointepas

CHAD



(See reference map VI)

- G,H Office de la Recherche Scientifique et Technique
 Outre-mer Centre (ORSTOM)² de N'Djamena
 B.P. 65
 N'Djamena
- G,C Direction des Mines et de la Géologie
 B.P. 816
 Fort-Lamy
 Director: Assaid Dassougui
- R,G Ministere de Génie Civil, des Mines et de la Géologie
 N'Djamena
 Ministre Capitaine: Abdel Aziz Izzo

² Designates French research organization, without governmental affiliation.

CHILE



- G Dirección de Geología y Minas
Corporación Nacional del Cobre de Chile
Huerfanos 1189, 8º Piso
Director: Hector Flores Williams
- G Centro de Investigaciones Minero-Metalúrgicas
Parque Institucional 6500, Lo Curro
Santiago
Director: Alexander Sutulov
- G Instituto de Investigación de Recursos Naturales (IREN)
Corporación de Fomento de la Producción
Manuel Montt 1164
Santiago
Executive Director: Enrique Junemann Mardones
- G Departamento Nacional de Geología
Empresa Nacional del Petróleo
Ahumada 341-8 Piso
Casilla 3556
Santiago
Chief: Eduardo González Pacheco
- G Instituto de Investigaciones Geológicas
Agustinas 785, Casilla 10465
Santiago
Executive-Director: Raúl Salas
- G Unidad de Minería
Corporación de Fomento de la Producción
Moneda 921, of. 538
Santiago
Chief: Juan Montoya
- G Servicio de Minas del Estado
Teatinos 120
Santiago
Director: María Tereas Cañas
- G Comision Chilena de Energia Nuclear (CCEN)
Los Jesuitas 645
Casilla 188D
Santiago
Director: Romualdo Pizarro
- H Empresa Nacional de Electricidad S.A.
Casilla 1392
Santiago
WMD/Chy Representative: Andrés Benitez
- H Instituto Hidrográfico de la Armada
Errazuriz 232
Casilla 324
Valparaíso
Captain: Mariano A. Sepulveda
- C Servicio Aereo Fotogrametrico
Casilla 67
Correolos Cerrillos
Santiago
Director de Grupo: Jaime González O.
- C Instituto Geografico Militar
Castro 354
Santiago
Director: Marcos Garcia O.
- R Ministerio de Minas
Teatinos 120
Santiago
Central Minister: Carlos Quiñones

CHINA



- G Academia Sinica
(Chinese Academy of Science)
5th Bureau
Earth and Environmental Science
Vice President and Director: Yin Zanxun

	The academy consists of the following institutes:		
G	Desert Studies Lanzhou Director: Zhu Zhenda	C Remote Sensing Application Beijing Chen Shuping	
G	Geochemistry Guizhou Director: Tu Guangzhi	G Rock & Soil Mechanics Wuhan	
G	Geography Beijing Director: Huang Bingwei	G Salt Lakes Xining Director: Zhang Changmei	
G	Geography Changchun Director: Huang Xichou	C Surveying Wuhan Director: Fang Jui	
G	Geography Chengdu Director: Ding Xizhi	H Water & Soil Conservation Shaanxi	
G	Geography Xinjiang	G Vertebrate Paleontology of Paleoanthropology Beijing Director: Zhou Minzhen	
G	Geology Beijing Director: Zhang Wenyuan	G Ministry of Geology (Formerly known as the State Bureau of Geology) Minister: Sun Daguang	
G	Geology Lanzhou Director: Huang Ruchang	The Ministry consists of the following Units:	
G	Geology and Geography Urumchi	G Academy of Geological Sciences Beijing Director: Zou Jiayou	
G	Geology & Paleontology Nanjing Director: Zhao Jinke	G Composite Geology Research Team Shanghai	
G	Geophysics Beijing Director: Fu Chengyi	G Institute of Geology Beijing Director: Kuo Wengui	
G	Geotectonics Changsha Director: Chen Guoda	G Institute of Geology of Mineral Resources Beijing	
G	Glaciology & Cryopedology Lanzhou Director: Shi Yafeng	G Institute of Geology of Plateau Areas Chengdu	
G	Oceanography Qingdao Director: Zeng Chengkui	G Institute of Geologic Information Beijing	
G	Oceanography (South Seas) Guangzhou Director: Huang Yunhao	G Institute of Geomechanics Beijing	
G	Pedology Nanjing Director: Xiong Yi	H Institute of Hydrogeology & Engineering Geology Chendong	
		G Institute of Karst Geology Center Guilin	
		G Institute of Mineral Deposits (Sedimentary Rocks) Chengdu	
		G Institute of Mineral Deposits (Volcanic Rocks) Nanjing	
		G Institute of Mineral Deposits Shenyang	

G	Institute of Mineral Deposits (Quat. & pre-C) Tianjin	G	National Bureau of Oceanography Beijing
G	Institute of Mineral Deposits Xian	G	National Bureau of Surveying and Cartography Beijing
G	Mineral Deposits and Metallurgy Yizhang	G	Petroleum Industry Beijing Director: Song Zhenming
G	Mineralogy/Petrology Labs Beijing	G	Institute of Petroleum Exploration and Development Beijing Director: Shen Lisheng
G	National Geological Library Beijing	G	Second Ministry of Machine-Building Beijing
G	National Geological Museum Beijing	G	Institute of Uranium Geology Beijing
G	Institute of Utilization of Complex Ores Omei	H	Water Conservation and Electric Power Beijing
G	Academy of Exploration Techniques Beijing		
G	Computer Center Beijing		
G	Geochemical Prospecting Beijing		
G	Geophysical Prospecting Beijing		
G	State Seismological Bureau Beijing Director: Zou Yu		

The bureau consists of the following institutes:

G	Institute of Seismology Wuhan	G,H	Instituto Nacional de Investigaciones Geólogo-Mineras (INGEOMINAS) Carrera 30 No. 51-59 Apartado Aéreo 4865 Bogotá Director: Michel Hermelín
G	Institute of Geophysics Beijing Director: Gu Gungxu	G,H	Instituto Colombiano de Hidrología, Meteorología, y Adecuación de Tierras (HIMAT) Carrera 10 No. 20-19, Piso 5-12, Oficina 1201 Bogotá, D.E. Director: César Humberto Arias Pabón
G	Institute of Geology Beijing Director: Gao Weixue	C	Instituto Geográfico "Agustín Codazzi" Carrera 30 No. 48-51 Apartado Aéreo 6721 Bogotá, D.E. Director: Alvaro González Fletcher
G	Institute of Engineering Mechanics Harbin Director: Mr. Liu (?)		
G	Ministry of Coal Industry Beijing Minister: Xsiao Han		
G	Institute of Coal Geology and Exploration (Xian) Beijing Director: Yuan Yaoting		

COLOMBIA



(See reference map III)

25	
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C Dirección Marítima y Portuaria
 Armada Nacional
 Ministerio de Defensa Nacional
 CAN
 Bogotá, D.E.
 Director General: Hernando Camacho Landínez

C Centro Interamericano de Fotointerpretación
 Carrera 30 No. 47A-57
 Bogotá, D.E.
 Director General: Hernán Rivera

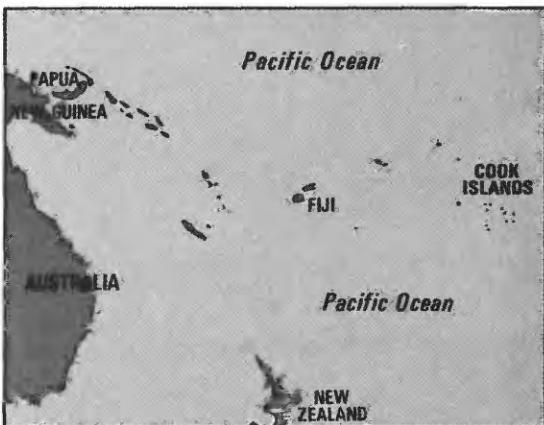
CONGO¹



- G Office de la Recherche Scientifique et Technique
 Outre-mer
 Centre Oceanographique (ORSTOM)² de Pointe-Noire
 B.P. 1286
 Pointe Noire
 Director: J. C. le Guen
- G Service des Mines et de la Géologie
 B.P. 12
 Brazzaville
- G Bureau de Recherches Géologiques et Minières
 (BGRM)²
 B.P. 431
 Brazzaville
 Director: M. Nicault
- H Service Hydrologique de l'ORSTOM²
 B.P. 181
 Brazzaville
- C Institut Géographique National Centre en Afrique
 Équatoriale²
 B.P. 125
 Brazzaville

C Service Topographique et du Cadastre
 Agence de Brazzaville
 B.P. 125 Route du Djové
 Brazzaville
 Director: Antoine Ondima

COOK ISLANDS¹



(See reference map VIII)

- G Premier's Department
 Rarotonga
 Scientific Research Officer: S. Kingan
- G,C Department of Survey and Physical Planning
 Secretary of Survey and Physical Planning
 Rarotonga
 Secretary: G. Cowan

COSTA RICA



(See reference map III)

- G Departamento de Geología
 Instituto Costarricense de Electricidad (ICE)
 Apartado 10032
 San José
 Chief: Jorge E. Umaña

¹ No recent information.

² Designates French research organization, without governmental affiliation.

¹ No recent information.

G	Departamento de Desarrollo Geológico y Recursos Minerales Corporación Costarricense de Desarrollo (CODESA) Apartado 10323 San José Director: Rolando Castillo M.	G	Instituto Cubano de Geodesia y Cartografía Loma y 39 Nuevo Vedado La Habana
C,G	Instituto Geográfico Nacional Apartado 2272 San José Director: Fernando M. Rudín Rodriguez	G	Instituto de Geofísica y Astronomía Calle 212, No. 2906 Reparto Cubanacan La Habana 16 Director: Rosendo Alvares Morales
H	Departamento de Estudios Básicos Instituto Costarricense de Electricidad P.O. Box 10032 San José Chief: Enrique E. Rodrigues	G	Instituto de Geología y Paleontología Calzada No. 851 La Habana 4 Director: Lenia Montero Zamora
H	Servicio Nacional de Aguas Subterraneas (SENAS) Apartado 5262 San José Director: Alvaro Suarez M.	G	Instituto de Oceanología Avenida Ira, No. 18406 Cubanacan La Habana 16 Director: Rodolfo Claso Madruga
R,G	Dirección de Geología, Minas y Petróleo Ministerio de Economía e Industria Apartado 10216 San José Director: Luis Felipe Sandoval Molina	H	Instituto Nacional de Recursos Hidráulicos (INRH) Humboldt 106 esp. P Vedado La Habana Director: Faustino Pérez Hernández
CUBA			
 <p>(See reference map II)</p>			

G	Instituto de Geología Academia de Ciencias de Cuba Ave. Van-Troj, no. 17203 Rancho Boyeros—Apartado Postal 10 La Habana Director: Jesus F. de Albear Franquiz
G	Instituto Nacional de Recursos Minerales (ICRM) O'Reilly y Aguacate La Habana Director: Salvador Salas

CYPRUS



G	Geological Survey Department Ministry of Agriculture and Natural Resources Nicosia Acting Director: Theodoulos Pantazis
C	Department of Lands and Surveys Ministry of the Interior Nicosia Senior Lands and Surveys Officer: Andreas Christofi

H Water Development Department
Ministry of Agriculture and Natural Resources
Nicosia
Acting Director: Constantinos Lytras

R Department of Mines
Ministry of Commerce and Industry
Nicosia
Senior Mines Officer: Glafkos C. Kronides

CZECHOSLOVAKIA



G Ústav Geologický [Geological Institute]
Ceskoslovenská Akademie Ved
[Czechoslovak Academy of Sciences]
Lysolaje 6
Posta Suchodol 2
Praha 6

G Ústřední Ústav Geologický
Malostranské náměstí 19
118 21 Praha 01
Director: Vladimír Šibrava

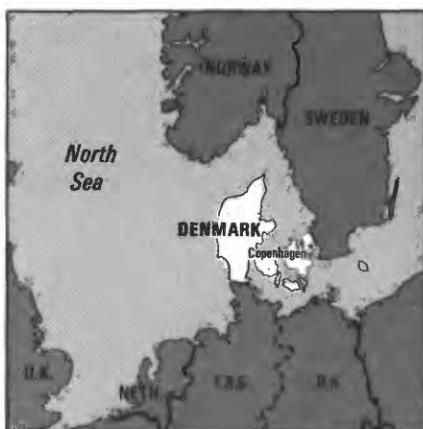
H Hydrometeorologický Ústav
[Surface and Ground Water Resources]
Holečkova 8
Praha 5-Smichov
Director: Václav Richter

H Hydrometeorologický Ústav
[Hydrometeorological Institute]
Jeseniova 43
Bratislava, Koliba
WMO/CHy Representative: O. Malý

C Geodeticka a Kartograficka Sprava
[Geodetic and Cartographic Administration]
Arbesovo Nam. 4
Praha 5-Smichov

C Vojecský Zeměpisný Ústav
Vyznamenaný Ráděm Rudé Hvězdy
Praha 6

DENMARK



G Danish Energy Administration
Strandgade 29
DK 1401 Copenhagen K.
Director: Hans von Bulow

G Geological Survey of Denmark
Thoravej 31
DK 2400 Kobenhavn N.V.
Director: Ole Berthelsen

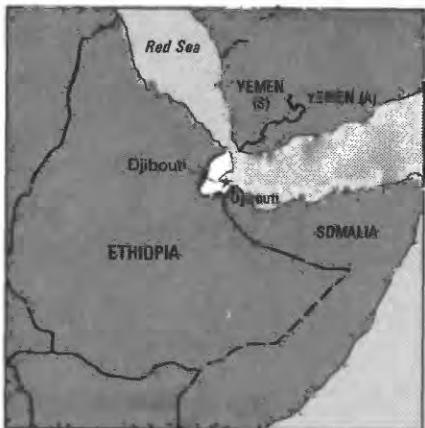
G,C,H Ministry for Greenland
Oil and Minerals Department
Hausergade 3
DK Copenhagen
Chief: Gert Vigh

H Hydrological Survey
Det Danske Hedeselskab
Nytorv 13
4200 Slagelse
WMO/CHy Representative: Jørgen Lundager Jensen

C Geodetic Institute
Rigsdagsgaarden 7
DK 1218 Copenhagen
Director: Flemming Wiinblad

R Ministry of Trade, Industry, and Energy
Office of Energy Legislation and Concessions
Slotholmsgade 12
DK 1216 Copenhagen
Chief: Hagen Jorgensen

DJIBOUTI (formerly FRENCH TERRITORY of the AFARS and ISSAS)



(See reference map VI)

- G Ministère de Travaux Publics
P.B. 24
Djibouti
Minister: Omar Kamil Warsama
- H Water Authority, Genie Rural
Ministry of Agriculture
Djibouti City
Hydrologist: Mohamed Waberi Askar

DOMINICA



(See reference map II)

- G,C Department of Trade and Industry
H,R Roseau
Permanent Secretary: Arlington Riviere

DOMINICAN REPUBLIC



(See reference map III)

- G Dirección General de Minería
Secretaría de Estado de Industria y Comercio
Santo Domingo
Director: Ing. Romeo Llinás
- G Departamento de Ciencias Geográficas
Facultad de Ciencias
Universidad Autónoma de Santo Domingo
Santo Domingo
- H Instituto Nacional de Hydrología Recursos
Secretaría de Estado de Agricultura
Santo Domingo
- C Instituto Geográfico Universitario
Calle El Conde No. 2
Santo Domingo
Director: José J. Hungriá M.

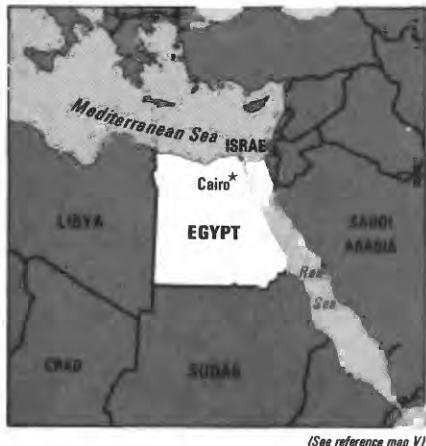
ECUADOR



(See reference map III)

- G Dirección General de Geología y Minas
Ministerio de Recursos Naturales y Energéticos
Carrion #1016 y Paez
Quito
Director-General: Celiano Almeida

G	Centro de Levantamientos Integrados de Recursos Naturales por Sensores Remotos (CLIRSEN) [Center for Integrated Surveys of Natural Resources by Remote Sensing] Edificio Instituto Geografico Militar P.O. Box 8216 Quito Director Ejecutivo: Alberto Segovia	G,H	Academy of Scientific Research and Technology 101 Kasr El Aini St. Cairo President: Dr. Abdel Moneim Abu El-Azm
G	Instituto Oceanografico de la Armada (INOCAR) Avenida Quito, Puerto Nuevo Guayaquil Director: Fernando Alfara Echeverría	C	Aerial Survey of Egypt 308 El-Haram Street Giza
C	Instituto Geográfico Militar Barrio El Dorado Apartado 2435 Quito Director: Leonardo Endara Romero	C	Survey Department 20 Bagdad Street, El Giza Cairo Director: Ibrahim Mostafa Ganem
H	Departamento de Hidrología Instituto Nacional de Meteorología y Hidrología (INAMHI) Calle Daniel Hidalgo 132 Y 10 de Agosto Quito Director: Vicente Lauro Gomez	C,G	Egyptian Remote Sensing Center 101 Kasr El Aini Street Cairo Chairman: M. A. Abdel-Hady
R	Dirección General de Minas e Hidrocarburos Calle Santa Prisca 223 Quito Director General: Luis Román	H	Hydrological Research Station Kanater-al-Khaiyria Barrages Cairo Director: A. A. El-Darwish
EGYPT		R	Egyptian General Petroleum Corp. Tayaran Street Nasr City Cairo Director: Ramsey Leithy
		G,R	Nuclear Materials Authority Ministry for Scientific Research and Atomic Energy Cairo Director: E. M. El Shazly



- G Helwan Observatory
c/o Academy of Scientific Research and Technology
101 Kasr El Aini St.
Cairo
Director: Mohamed Fahim
- G Geological Survey and Mining Authority
Ministry of Industry
3, Salah Salem St.
Abbasia, Post Office Bag
Cairo
Chairman: Galal A. Moustafa

EL SALVADOR



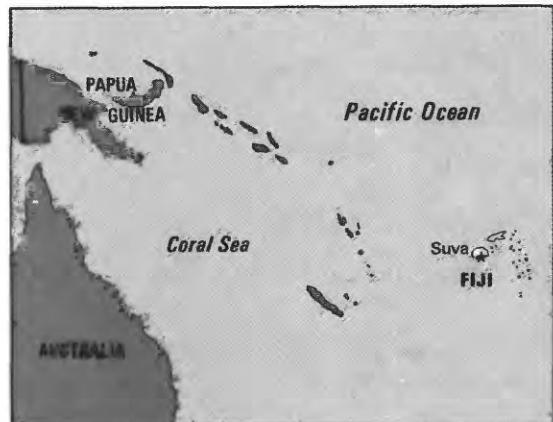
- G Centro de Investigaciones Geotécnicas
Ministerio de Obras Públicas
Avenida Peralta, final, costado Oriente Talleres El Coro
San Salvador
Director: Julio Bran Valencia

R	Comision Nacional del Petroleo Ministerio de Economia 3a Calle Poniente 1225 San Salvador	G	Ethiopian Institute of Geological Survey (EIGS) Ministry of Mines, Energy, and Water Resources P.O. Box 486 Addis Ababa Director: Abebaw Endeshaw
C	Instituto Geográfico Nacional "Ingeniere Pablo Arnoldo Guzman" Ministerio de Obras Publicas Avenida Juan Bertis No. 79 San Salvador Director: José Alberto González García	G,R,H	Ministry of Mines, Energy, and Water Resources P.O. Box 486 Addis Ababa Minster: Tekeze-Shewa Aytenfisu
G,C	Ministerio de Obras Publicas Palacio Nacional San Salvador Ministro: Leon Rivas Durán	C,G, H,R	Natural Resources Division UNECA Africa Hall P.O. Box 3001 Addis Ababa Chief: David P. S. Wasawo
H	Direccion General de Riego y Drenaje Ministerio de Agricultura y Ganadería Nueva San Salvador Director General: José Fuente Alas	C	Cartography Unit UNECA Africa Hall P.O. Box 3001 Addis Ababa Chief: Funso Olujohungbe
H	Servicio Hidrologico Direccion General de Recursos Naturales Renovables Canton El Matasano Soyapango, El Salvador, C.A. Director General: Gonzalo Ernesto Martínez Menéndez WMO/CHy Representative: Hernán Romero Chavarría	C	Mapping Agency P.O. Box 597 Addis Ababa Director: Ato Asfaw Fanta
H	Servicio Meteorológico Nacional Ministerio de Agricultura y Ganadería Nueva San Salvador Jefe: Gelio Tomás Guzmán Lopéz	H	Ethiopian Water Resources Authority Ministry of Mines, Energy, and Water Resources P.O. Box 1008 Addis Ababa Acting General Manager: Ato Birru Itissa
H,C	Ministerio de Agricultura y Ganadería Boulevard Los Heroes y 21 Calle Poniente San Salvador Minister: José Rutilio Aquilera	R	Mineral Resources Unit UNECA Africa Hall P.O. Box 3001 Addis Ababa Chief: Constantin Teodorescu

ETHIOPIA



FIJI



- G,R Ministry of Lands and Mineral Resources
Mineral Resources Department
Private Mail Bag, G.P.O.
Suva
Director: Ronald N. Richmond
- C Ministry of Lands and Minerals Resources
Lands and Surveys Department
P.O. Box 2222
Government Buildings
Suva
Director: J. Gautam
- H Public Works Department
Government Buildings
Suva
Assistant Director (Hydrology): A. Reid
- R Central Planning Office
Government Planning
Suva
Director: Akuila Savu

FINLAND



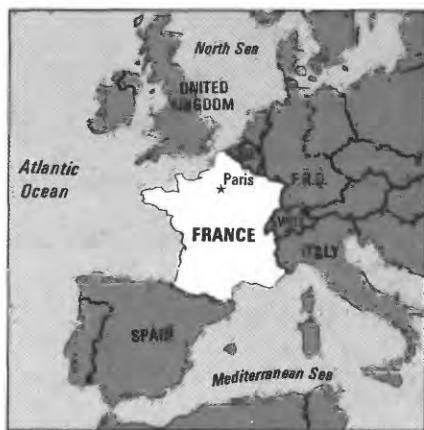
(See reference map IV)

- G Geologinen Tutkimuslaitos
[Geological Survey of Finland]
Kivimiehentie 1 02150 Espoo 15
Director: Herman Stigzelius
- C Maanmittaushallitus
[National Board of Survey]
Kirkkokatu 3
00170 Helsinki 17
Director: Osmo Niemälä
- C Geodeettinen Laitos
[Geodetic Institute]
Ilmaankatu 1A
00240 Helsinki 24
Director: Juhani Kakkuri

- H Vesihallitus
[National Board of Waters]
Pohjoinen Rautatiekatu 21B
00100 Helsinki 10
Director: Simo Jaatinen

- H Vesitutkimustointimisto
[Hydrological Office]
Vuorikatu 24, Box 436
0010 Helsinki 10
Office Chief: Risto Lemmelä

FRANCE



(See reference map IV)

- G Centre National de la Recherche Scientifique
15 Quai Anatole France
75700 Paris
Director: Robert Chabbal
- G,H,R Bureau des Recherches Géologiques et Minières
(BRGM)
Avenue de Concyr, B.P. 6009
45018 Orleans Cedex
President: Jean Audibert
- G Institut Français du Pétrole
4 Avenue de Bois-Preau
92502 Rueil Malmaison
Director: J. C. Balaceanu
- G Office de la Recherche Scientifique et Technique
Outre-Mer (ORSTOM)
[Office of Scientific and Technical Research Overseas]
24 rue Bayard
75008 Paris
Directeur General: Guy Camus
- H Service Hydrologique de l'ORSTOM
19, rue Eugène Carrière
75018 Paris
Director: J. Rodier
- H Electricité de France (TIRU)
134 Boulevard Haussmann
75336 Paris, Cedex 08

- C Laboratoire d'Information et de Documentation en Géographie
191 rue St. Jacques
Paris 5ème
Director: Roger Brunet
- C Centre d'Etude et de Réalisations Cartographiques et Géographiques
191 rue St. Jacques
Paris 5ème
Director: Fernand Joly
- C Institut Géographique National
136 bis Rue de Grenelle
75700 Paris
Director: René Mayer

FRENCH GUIANA



(See reference map III)

- G Bureau des Recherches Géologiques et Minières
B.P. 42
Cayenne

GABON



(See reference map VI)

- G,C Bureau de Recherches Géologiques et Minières (BRGM)²
B.P. 175
Libreville
Director: M. Pertucat
- H Office de la Recherche Scientifique et Technique Outre-Mer, Centre (ORSTOM)² de Libreville
B.P. 13115
Libreville
Director: E. Guichard
- R Direction des Mines et de la Géologie
Ministère de Mines, de l'Energie et des Ressources Hydrauliques
B.P. 576
Libreville
Director: P. Ampamba-Gouerangue
Ministre: E. A. Mbouy-Boutzit

THE GAMBIA¹



(See reference map VI)

- C Survey Department
Bathurst
- H Department of Hydrometeorological Services
7 Marina Parade
Banjul
Director: Edi N'jie

¹ Designates French research organization, without governmental affiliation.

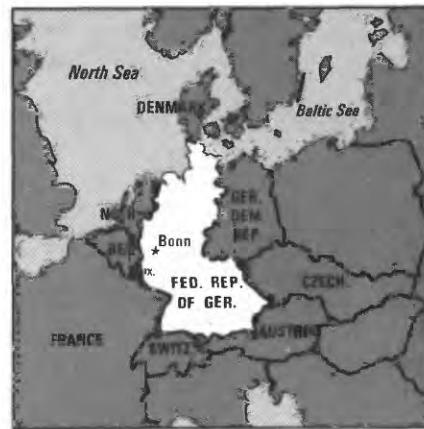
GERMAN DEMOCRATIC REPUBLIC



(See reference map IV)

- G Zentrale Vorratskommission für Mineralogische Rohstoffe
Invalidenstrasse 44
104 Berlin
- G Zentrales Geologisches Institut
Invalidenstrasse 44
104 Berlin
- G Gesellschaft für Geologische Wissenschaften der DDR
Invalidenstrasse 43
104 Berlin
- G Akademie der Wissenschaften
Zentralinstitut fuer die Physik der Erde
Potsdam-Telegrafenberg
Director: Heinz Kautzleben
- C Institut für Bodenkunde
Abt. Standortkartierung
Clara-Zetkin-Strasse 105
108 Berlin
- C Deutsche Bucherei
Abteilung Beschaffung
Dienststelle für Schriften des Auslandes
Deutscher Platz, Leipzig C 1 (EX)
- H Institut für Wasserwirtschaft
Schnellerstrasse 140
DDR-119 Berlin
Director: Ranier Enderlein
- H Kammer der Technik
Fachverband Wasser
Clara-Zetkin-Strasse 115/117
108 Berlin

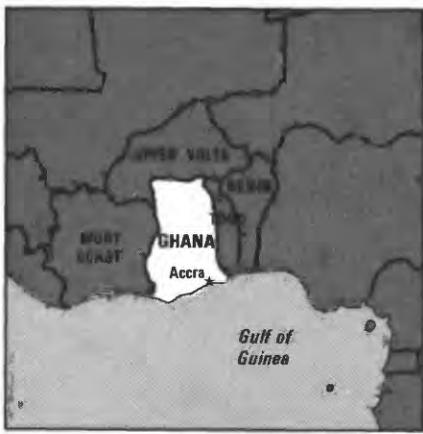
GERMANY, FEDERAL REPUBLIC OF



(See reference map IV)

- G,C,H Bundesminister der Verteidigung
Streitkraefteamt
Militaerisches Geowesen
Theaterplatz 10-18
5300 Bonn 2
President: Jürgen H. Denker
- G,R,C Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) (Geobund)
Alfred-Bentz-Haus
Postfach 510153
Stilleweg 2
3000 Hannover 51
President: Friedrich N. Bender
- G Akademie der Wissenschaften
Zentralinstitut fuer die Physik der Erde
Potsdam-Telegrafenberg
Director: Heinz Kautzleben
- H Deutsches Hydrographisches Institut (DHI)
Bernhard-Nocht-Strasse 78
2000 Hamburg 4
President: Gerhard Zickwolff
- H Bundesanstalt für Gewaesserkunde
Kaiserin-Augusta-Andagen, Postfack 309
5400 Koblenz
President: Hans-Jurgen Liebscher
- C Arbeitsgemeinschaft der Vermessungsverwaltungen
der Laender der Bundesrepublik Deutschland
(AdVo)
Warmbuechenkamp 2
3000 Hanover 1
Vorsitzer: Günter Hübner
- C Institut für Angewandte Geodaezie
Richard-Strauss-Allee 11
6000 Frankfurt am Main 70
Director: Walter Satzinger

GHANA



- G Industrial Research Institute
C.S.I.R.
P.O. Box M 32
Accra
Acting Director: M. N. B. Ayiku
- G Geological Survey of Ghana
P.O. Box M 80
Accra
Director: G. O. Kesse
- H Water Resources Research Unit
Council for Scientific and Industrial Research
P.O. Box M 32
Accra
Acting Director: Nii Boi Ayibotele
- H Hydrological Branch
Public Works Department
P.O. Box 136
Accra
Chief Hydrologist Engineer: S. A. Acheampong
- C Ghana Geographical Association
University of Ghana
Legon
President: K. B. Dickson
- C Survey Division
P.O. Box 191
Cantonments
Accra
Chief Survey Officer: S. H. Gadegbeku
- C Buildings and Roads Research Institute
C.S.I.R.
P.O. Box 40
University Post Office
Kumasi
Acting Director: M. D. Gidigasu

R Ministry of Lands, Natural Resources, and Fuel and Power
P.O. Box M 212
Accra
Principal Secretary

GILBERT ISLANDS (see KIRIBATI)

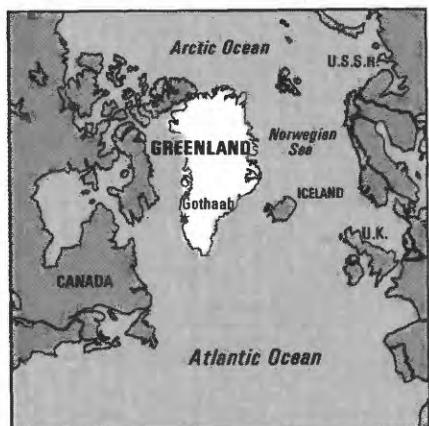
GREECE



- G Institute of Geological and Mining Research
70 Messoghion Street
Athens 608
- G Public Petroleum Corp. (DEP)
54 Academias Street
Athens 143
- H Ministry of National Economy
Averoff Street, No. 5
Athens
WMO/CHy Representative: G. Lymberides
- H Directorate General of Land Reclamation Service
Geological and Hydrological Directorate
Ministry of Agriculture
46 Halkokondili Street
Athens 102
- H General Directorate of Projects Construction
Hydraulic Works Division
Ministry of Public Works
7 Themistocleous Street
Athens 141
- C Hellenic Army Geographic Service
3 Evelpidon Street
Athens 801
- R General Directorate of Mines
Ministry of Industry and Energy
80 Michalacopoulou Street
Athens 611

R National Petroleum Products Service
Ministry of Industry and Energy
80 Michalacopoulou Street
Athens 611

GREENLAND



(See reference map I)

G Grónlands Geologiske Undersøgelser
Ostervoldsgade 5-7, Tr. KL
DK-1350 Copenhagen, K,
Denmark
Director: Ellitsgaard-Rasmussen

GUADELOUPE

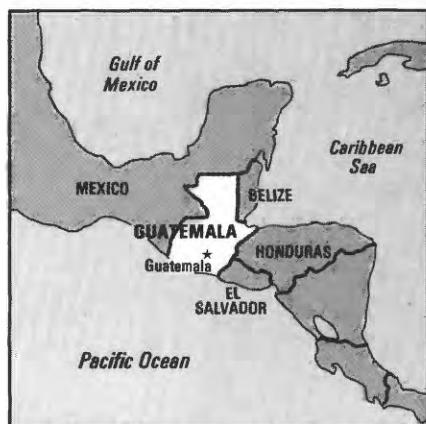


(See reference map II)

G Arrondissement Minéralogique de la Guyane
B.P. 448
Pointe-a-Pitre

H Office de la Recherche Scientifique et Technique
Outre-Mer (ORSTOM)²
B.P. 504
97165 Pointe-a-Pitre
Cedex
F 1960

GUATEMALA



(See reference map II)

G,H Instituto de Sismología, Vulcanología, Meteorología,
e Hidrología (INSIVUMEH)
7 Avenida 14-47, Zona 13
Guatemala City
Director: Claudio Urrutia Evans

G División de Geología
Instituto Geográfico Nacional
Avenida las Américas 5-76, Zona 13
Guatemala City
Director: Oscar Daniel Salazar

G,R Secretaría de Minería, Hidrocarburos y Energía
Nuclear
Diagonal 17 entre 20 y 30 Calles, Zona 11
Guatemala City
Secretario General: Jorge Luis Monzón

H Observatorio Nacional
La Aurora, Zona 13
Guatemala City
WMO/CHy Representative: J. E. de Léon Obiols

C Instituto Geográfico Nacional
Avenida de las Américas 5-76, Zona 13
Guatemala City
Director: René Aguiluz Morales

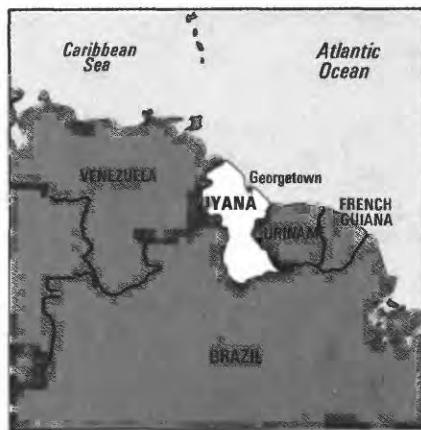
² Designates French research organization, without governmental affiliation.

GUINEA



(See reference map VI)

GUYANA



(See reference map III)

- G Direction Générale des Mines et Géologie
Conakry
Directeur Général: Lancei Bakayoko
- H Ministere de l'Agriculture, des Eaux et Forêts, et des Fapa
Conakry
WMO/CHy Representative: Alafe Kourouma

GUINEA-BISSAU (formerly PORTUGUESE GUINEA)



(See reference map VI)

- G,C, H,R Direccao Geral, Geologia e Minas
Comissariado dos Recursos Naturais
Bissau
- R Petrominas
Caixa Postal 387
Bissau

- G Geological Surveys and Mines Department
P.O. Box 1028, Brickdam
Georgetown
Acting Commissioner of Geology and Mines:
Grantly Walrond
- H Hydrometeorological Service
Ministry of Works and Transport
P.O. Box 26
Georgetown
Chief: K. E. D. Potter
- C Cartography Section
Ministry of Agriculture
Lands and Mines Division
Upper Hadfield Street
Georgetown

HAITI



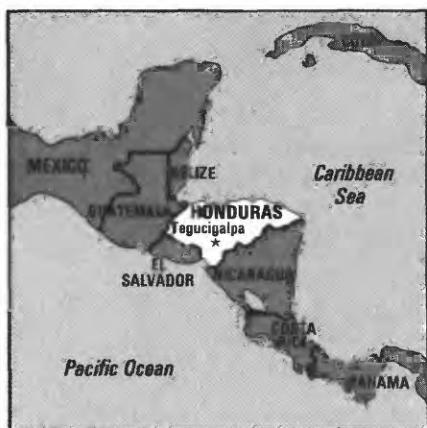
(See reference map II)

- G,R Department of Mines and Energy Resources
Village Willy Lamothe,
Delmas 9
P.O. Box 2174
Port-au-Prince
Secretary of State: F. Pierre-Louis

H Service Meteorologique et Hydrologique
 Département de l'Agriculture, des Ressources
 Naturelles et du Developpement Rural
 Damier, Port-au-Prince,
 Director: Alexandre Gontier

C Service de Géodesie et de Cartographie
 Boulevard Harry Truman
 Cite de l'Exposition
 Port-au-Prince
 Director: Raymond B. Oriol

HONDURAS



(See reference map II)

G Exploracion Geotérmica
 Empresa Nacional de Energía Electrica (ENEE)
 Apartado 99
 Tegucigalpa
 Chief: Werner Hugo Falck C.

G,C,R Dirección General de Minas e Hidrocarbouros
 Ministerio de Recursos Naturales
 Boulevard Centro América
 Tegucigalpa, D.C.
 Director-General: Edgardo Zuñiga R.

H Servicio Autónomo Nacional de Acueductos y
 Alcantarillados (SANAA)
 Apartado Postal 437
 Tegucigalpa, D.C.
 Director-General: Rubén Flores Guillén

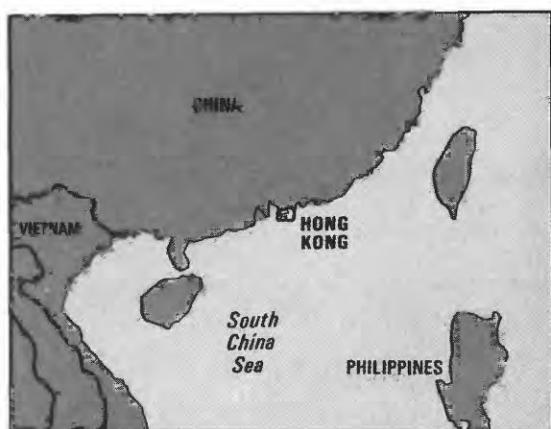
H Servicios Hidrológicos y Climatológicos
 Ministerio de Recursos Naturales
 Apartado 1839
 Tegucigalpa, D.C.
 Chief: M. Lardizábal Becerra

C Instituto Geográfico Nacional (IGN)
 Apartado Postal 758
 Barrio La Balsa
 Comayaguela D.C., Honduras
 Director-General: Jose Edmundo Alcerro P.

C National Cadastral Program Office
 Edificio Didemo, 4 Piso
 Tegucigalpa, D.C.
 Director: Julio Cesar Zepeda

R Comision Nacial de Energía
 Ministerio de Economía y Comercio
 Altos Edif. Banco de Londres y Montreal
 Tegucigalpa, D.C.
 Director: J. Dalmiro Caballero

HONG KONG



(See reference map VII)

G Mines Department, Branch Office
 Canton Road Government Offices
 Canton Road
 Kowloon
 Superintendent of Mines: Borhylen Wang

G Department of Geography and Geology
 University of Hong Kong
 Hong Kong
 Head: Charles J. Grant

H Royal Observatory
 Nathan Road, Kowloon
 Hong Kong
 WMO Representative: E. Koo

HUNGARY



(See reference map IV)

- G Központi Földtani Hivatal
[Central Office of Geology]
H-1251 Budapest I
Iskola u. 13
Chairman: József Fülöp
- G,H Magyar Állami Földtani Intézet
[Hungarian Geological Institute]
H-1442 Budapest
Népstadion út 14, P.O. Box 106
Director: Géza Hámor
- G Magyar Állami Eötvös Lóránd Geofizikai Intézet
[Hungarian Geophysical Institut R. Eotvos]
H-1145 Budapest
Columbus u. 17-23
Director: Pál Müller
- G Magyar Tudományos Akadémia
Geokémiai Kutatólaboratórium
[Geochemical Research Laboratory]
H-1112 Budapest
Budaörsi út 45
Director: György Pántó
- G,C Magyar Tudományos Akadémia
Geodéziai és Geofizikai Kutató Intézete
[Research Institue for Geodesy and Geophysics]
H-9400 Sopron
Múzeum u. 6
Director: József Somogyi
- G Országos Koölajés Gázipari Tröszt
[National Crude Oil and Natural Gas Trust]
Budapest XI
Budafoki út 61-63
Director General: Ákos Bán
- G Országos Kőolajás Gázipari Tröszt
Geofizikai Kutatási Üzem
[National Crude Oil and Natural Gas Trust,
Geophysical Exploration Co.]
H-1068 Budapest
Gorkij Fasor 42
Technical Director: Béla Rádler
- H Magyar Állami Vízügyi Hivatal
[National Water Authority]
P.O. Box 351
H-1394 Budapest
- H Vizgazdálkodási Tudományos Kutató Intézet
[Research Institute for Water Resources
Development (VITUKI)]
P.O. Box 44
H-095 Budapest
Kvassay Jenő. u. 1
Director: K. Stelczer
- H Vizgazdálkodási Intézet
[Institute for Water Management]
P.O. Box 352
H-1369 Budapest
Alkotmány u. 29
Director: Rudolf Muts
- C M.E.M. Országos Földügyi és Térképészeti Hivatal
[National Cadaster and Cartography Bureau]
H-1055 Budapest
Kossuth Lajos tér 11

ICELAND



(See reference map IV)

- G National Energy Authority of Iceland
Grensásvegur 9
108 Reykjavík
Director: Jakob Björnsson
- G Division of Natural Heat
National Energy Authority
Grensásvegur 9
108 Reykjavík
Chief: Guðmundur Pálason
- G Division of Economic Geology
National Energy Authority
Grensásvegur 9
108 Reykjavík
Chief: Guttormur Sigbjarnarson

- G Nordic Volcanological Institute
University of Iceland
Geoscience Building
Sudurgata
101 Reykjavík
Director: Guðmundur E. Sigvaldason
- G Division of Geology and Geography
Museum of Natural History
Laugavegi 105 and Hverfisgata 116
P.O. Box 5320
105 Reykjavík
Curator: Sveinn P. Jakobsson
- G Marine Research Institute
Skúlagötu 4
101 Reykjavík
Director: Jón Jónsson
- H Division of Hydrology
National Energy Authority
Grensásvegur 9
105 Reykjavík
Head: Sigurjón Rist
- C Iceland Geodetic Survey
Laugavegi 178
105 Reykjavík
Director: Bragi Guðmundsson

INDIA



- G Central Fuel Research Institute
Council of Scientific and Industrial Research
P.O. F.R.I., District Dhanbad
Bihar
Director: K. A. Kini
- G Central Mining Research Station
Dhanbad-826001
Director: S. Bagchi
- G National Institute of Oceanography
P.O. Dona Paula
Goa-Pin 405004
Director: S. Z. Qasim
- G National Geophysical Research Institute
Uppal Road
Hyderabad 560007
Acting Director: S. Balakrishna
- G Geological Survey of India
27 Jawaharlal Nehru Road
Calcutta 700016
Director General: V. S. Krishnaswamy
- G Oil and Natural Gas Commission
Institute of Petroleum Exploration
Tel Bhavan
Dehra Dun 248001
Chairman: P. T. Venugopal
- G Atomic Minerals Division
Department of Atomic Energy
Begumpet
Hyderabad 500016
Director: G. R. Udas
- G,C,H National Remote Sensing Agency
Department of Science and Technology
No. 4 Sardar Patel Road
Secunderabad 500003
Andhra Pradesh
Director: K. R. Rao
- C Survey of India
Surveyor General Office
P.O. Box 37
Dehra Dun 248001
Surveyor General of India: K. L. Khosla
- C Geodetic and Geophysical Surveys
Survey of India
Dehra Dun 248001
Director: M. G. Arur
- H Central Ground Water Board
Ministry of Agriculture and Irrigation
Jam Nagar House
New Delhi 110001
Chairman: J. K. Jain
- H Central Water Commission
Bikaner House, Shahjahan Road
New Delhi 110011
Chairman: K. C. Thomas
- H Central Board of Irrigation and Power
Kasturba Gandhi Marg
New Delhi 110001
Secretary: C. V. J. Varma
- H India Meteorological Department
Lodi Road
New Delhi 110003
Director General: P. K. Das

R	Ministry of Petroleum, Chemicals, and Fertilizers Shastari Bhavan Dr. Rajendra Prasad Road New Delhi Secretary: B. B. Vohra	G,R	Direktorat Jenderal Pertambangan Umum [Directorate General of Mines] Jalan Jenderal Gatot Subroto Kav. 49 Jakarta Director General of Mines: John A. Katili
R	Natural Resources Department of Science and Technology Technology Bhawan off Mehrauli Road New Delhi Director: M. N. Qureshy	G,R	Directorat Jenderal Minyak dan Gas Bumi (MIGAS) [Directorate General of Oil and Gas] Jalan M. H. Thamrin 1 Jakarta General: Wijarso
R	Ministry of Steel and Mines Udyog Bhawan New Delhi 110011 Secretary: Mantosh Sondhi	G,R	Pusat Pengembangan Teknologi Minyak dan Gas Bumi [Oil and Gas Technology Development Centre] Jalan Cipulir, Kebayoran Lama Jakarta Director: Wahyudi Wisaksono

INDONESIA



G	Pusat Meteorologi dan Geofisika [Meteorological and Geophysical Institute] Ministry of Communication Jalan Arif Rachman Hakim 3 Jakarta Director: C. Sutrisno	C	Lembaga Nasional Geologi dan Pertambangan [National Institute of Geology and Mining] Jalan Cisitu 21/154 D Bandung Director: F. Hehuwat
G,C,H	Balai Fotogrametri [Institute of Photogrammetry] Ministry of Defense Djalan Gunung Sahar 90 Jakarta Head: R. E. Beaupain	C	Jawatan Topografi Angkatan Darat (JATOP) [Army Topographic Service] Jalan Gunung Sahar 90 Jakarta Director: Utaryo Surodirono
G,C,H	Direktorat Sumber Daya Mineral [Directorate of Mineral Resources] Jalan Diponegoro 57 Bandung Director: Salman Padmanagara	C	Direktorat Tata Guna Tanah [Directorate of Land Use] Ministry of Internal Affairs Jalan Singamangaraja 2 Kebayoran, Jakarta Director: I. M. Sandy
G,C, H,R	Departemen Pertambangan dan Energi [Ministry of Mines and Energy] Jalan Merdeka Selatan 18 Jakarta Minister: Subroto	C	Surta ABRI [Armed Forces Mapping Agency] Jalan Dr. Wahidin I/II Jakarta Head: Pranoto Asmoro
		C	Balan Koordinasi Survai dan Pemetaan Nasional [National Coordinating Body for Survey and Mapping] Jalan Raya Jakarta km 46 Cibinong, Bogor Chairman: Pranoto Asmoro

- H Jawatan Hidro-Oseanografi Angkatan Laut
 (JANHIDROS)
 [Navy Hydro-Oceanographic Institute]
 Jalan Gunung Sahari 87
 Jakarta
 Hydrographer: D. U. Martoyo
- H Departemen Pekerjaan Umum
 [Ministry of Public Works]
 Jalan Pattimura 20
 Kebayoran, Jakarta
 Minister: Purnomo Sidi
- G Pusat Penelitian dan Pengembangan Geologi
 [Geological Research and Development Center]
 Jalan Diponegoro 57
 Bandung
 Director: H. M. S. Hartono
- G Pusat Pengembangan Teknologi Mineral
 [Mineral Technology Development Centre]
 Jalan Jenderal Sudirman 623
 Bandung
 Director: Bambang Sulasmoro
- G Direktorat Vulkanologi
 [Directorate of Volcanology]
 Jalan Diponogoro 57
 Bandung
 Director: Adjat Sudradjat
- G Direktorat Geologi Tata Lingkungan
 [Directorate of Environmental Geology]
 Jalan Diponogoro 57
 Bandung
 Director: E. J. Patty
- G National Iranian Oil Company
 Takht-Jamshid Ave.
 Tehrān
 Director: H. Ansari
- G Atomic Energy Organization of Iran
 Karimkhan Avenue, Zahed Street
 Tehrān
 Director: A. Etemah
- C National Cartographic Center
 P.O. Box 1844, Mahrabad
 Tehrān
 Director: H. Noorbakhsh
- C National Geographic Organization
 Imperial Iranian Army
 Tehrān
 Director: Mahmoud Sadeghian
- H Institute of Hydro-Sciences and Water Resources
 Technology
 64 Ghadessi Street, North
 Boulevard Elizabeth
 Tehrān
 Director: S. Nazhand
- H Ministry of Water and Power
 Tehrān
 Minister: T. Tavakoli

IRAN



- G Geological and Mineral Survey of Iran
 Ministry of Industry and Mines
 P.O. Box 1964
 Tehrān
 Director: A. Rahjoo

IRAQ



- G Directorate General of Geological Survey and Mineral Investigation
 State Organization for Minerals
 P.O. Box 2380
 Baghdad
- G Petroleum Research Institute
 Scientific Research Foundation
 Shalijiah
 Baghdad

- C Survey Department
Directorate General of Surveys
Gailani Square
Baghdad
- H Research Institute for Natural Resources
Scientific Research Foundation
Abu Ghraib
Baghdad
- R Ministry of Industry and Minerals
Khullani Street
Baghdad
- R Ministry of Oil
Mansour
Baghdad

ISRAEL



(See reference map VI)

IRELAND



(See reference map IV)

- G Geological Survey of Ireland
14 Hume Street
Dublin 2
Director: C. E. F. Williams
- H Hydrometric Service
Office of Public Works
51 St. Stephan's Green
Dublin 2
- C Ordnance Survey
Phoenix Park
Dublin 8
Assistant Director: M. C. Walsh
- R Mines, Minerals, and Petroleum Division
Department of Industry, Commerce, and Energy
Kildare Street
Dublin 2
Principal Officer: E. Rohan

G Geological Survey of Israel
30 Malchei Israel Street
Jerusalem
Director: Uri Kafri

G,H Institute for Petroleum Research and Geophysics
P.O. Box 1717
Holon
Managing Director: Zvi Benari

C Department of Surveys
Ministry of Labor
P.O. Box 14171, 1 Rechor Lincoln
Tel Aviv
Director: Ron Adler

H Hydrological Service
Ministry of Agriculture, Water Commission
Yirmiyahu Street No. 50
Jerusalem 91060
Director: Martin Jacobs

H Tahal-Water Planning for Israel
P.O. Box 11170
Tel Aviv
Director General: Arie Gissim

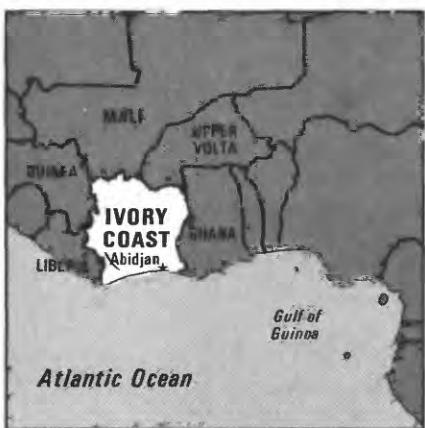
ITALY



(See reference map IV)

- G Istituto Internazionale per le Ricerche Geotemiche
Via del Buongusto 1
56100 Pisa
Director: Learco Taffi
- G Istituto Internazionale di Vulcanologia
Viale Regina Margherita 6
95123 Catania
Director: Letterio Villari.
- G Servizio Geologico d'Italia
Salita S. Nicolò da Tolentino 1B
00187 Roma
Director: Alfredo Iacobacci
- G Osservatorio Vulcanologico Vesuviano
80056 Ercolano (Napoli)
Director: Paolo Gasparini
- H Servizio Idrografico Centrale
Ministero dei Lavori Pubblici
I-00100 Roma
Director: Tomaso Gazzolo
- C Istituto Geografico Militare
Via Cesare Battisti 10
50122 Firenze
Director: Silvio Martino
- C Istituto Idrografico della Marina
Passo all'Osservatorio 4
161134 Genova
- R Comitato per le Scienze Geologiche e Minerarie
Consiglio Nazionale delle Ricerche
Piazzale Aldo Moro 7
00185 Roma
President: Bruno Martinis
- G Direction des Hydrocarbures
Ministère des Mines
B.P. V 42
Abidjan
Director: René Brancart
- G,C Société pour le Développement Minier de la Côte d'Ivoire (SODEMI)
B.P. 2816
Abidjan
Director: Joseph N'zi
- G,R Société Nationale d'Opérations Petrolières de la Côte d'Ivoire (PETROCI)
Ministère des Mines
B.P. V 194
Abidjan
Director-General: Adama Toungara
- H Service du Drainage et de l'Assainissement
B.P. 21 181
Abidjan
Director: Y. G. Kakadie
- C Institut Géographique de Côte d'Ivoire (IGCI)
Ministère des Travaux Publics et des Transports
B.P. V 6
Abidjan
Director: Alpha Cissé
- C Ministère des Travaux Publics et des Transports
Direction de l'Institut Géographique
B.P. V 6
Abidjan
Director: Alpha Cissé
- H Société pour la Réalisation de Forages d'Exploitation en Côte d'Ivoire
Ministère du Plan
B.P. V 65
Abidjan
Director: Antoine Kouao
- R,G,C Ministère des Mines
B.P. V 50
Abidjan
Minister: Paul Gui Dibo

IVORY COAST



- G Direction des Mines et de la Géologie
Ministère des Mines
B.P. V 28
Abidjan
Director: Paul Abui

JAMAICA



G	Geological Survey Division Ministry of Mining and Natural Resources Hope Gardens Kingston 6 Director: Franklin McDonald	G,H	Resources Survey Institute Science and Technology Agency 2-2-1 Kasumigaseki Chiyoda-ku, Tokyo 100 Director: Yasumaru Kato
H	Water Resources Division Ministry of Local Government P.O. Box 91, Hope Gardens Kingston Director: L. A. Wedderburn	G	Public Works Research Institute Ministry of Construction (includes engineering geology) 1, Asahi, Toyosato-machi Tsukuba-gun, Ibaraki-ken 300-26 Director: Yoshijiro Sakagami
C	Survey Department P.O. Box 493 Kingston Director of Surveys: H. G. Armstrong	G	Earthquake Research Institute University of Tokyo 1-1-1 Yayoi-cho 1-chome Bunkyo-ku, Tokyo 113 Director: Keiichi Kasahara
H	National Water Authority Kingston General Manager: S. A. Small	G	Agency of Natural Resources and Energy Ministry of International Trade and Industry (MITI) 1-3-1 Kasumigaseki Chiyoda-ku, Tokyo 100 Director: Shingo Moriyama
R	Mines and Quarries Division Ministry of Mining and Natural Resources Hope Gardens Kingston 6 Acting Commissioner of Mines: William Taylor	G,H	Geological Survey of Japan Ministry of International Trade and Industry (MITI) 3, Higashi, Yatabe-cho 1-chome Tsukuba-gun, Ibaraki-ken 300-21 Director: Shigeru Sato
R	Petroleum Corporation of Jamaica 2 St. Lucia Avenue Kingston 5 Managing Director: William Saunders	G,R	National Research Institute for Pollution and Resources Ministry of International Trade and Industry (MITI) 3-1-1, Kawaguchi Kawaguchi-shi, Saitama-ken 332 Director: Seiji Ashida

JAPAN



G Nippon Kazan Gakkai
[Volcanological Society of Japan]
Earthquake Research Institute
University of Tokyo
1-1 Yayoi-cho 1-chome
Bunkyo-ku, Tokyo 113
President: Daisuke Shimozuru

H	River Bureau Ministry of Construction 2-1-3, Kasumigaseki Chiyoda-ku Tokyo 100 Director General: Yutaka Inada
H	Hydrographic Department Maritime Safety Agency Ministry of Transport 5-3-1, Tsukiji Chuo-ku, Tokyo 104 Director: Daitaro Shoji
H	Water Resources Bureau National Land Agency Prime Minister's Office 1-6-19 Azabudai Minato-ku, Tokyo 106 Director: Akira Kitano
C	Geographical Survey Institute Ministry of Construction 1, Kitasato, Yatabe-cho Tsukuba-gun, Ibaraki-ken 300-21 Director: Sairo Sasaki

JORDAN



- G Department of Geological Resources and Mining (NRA)
P.O. Box 39
Amman
Director: Mohammed Abu Ajamiyah
- G Royal Scientific Society
P.O. Box 6945
Amman
President: Albert Butros
- G,C, H,R Natural Resources Authority
P.O. Box 7, 39, or 2220
Amman
Vice-President: Ahmad Dukhgan
- C Department of Lands and Surveys
Ministry of Finance
P.O. Box 70
Amman
Director: Badri Al-Mulqi
- C Jordan National Geographic Center
P.O. Box 20214
Amman
Director: Rafat Majali

KENYA



- G,R Geological Survey of Kenya
Mines and Geological Department
Ministry of Natural Resources
Madini House, Machakos Road
P.O. Box 30009
Nairobi
Acting Chief Geologist: J. W. Wairegi
- G Department of Geology
University of Nairobi
P.O. Box 30197
Nairobi
Chairman: A. R. T. Hove
- C Survey of Kenya
P.O. Box 30046
Nairobi
Director of Surveys: Omondi Opundo
- H Water Department
Ministry of Water Development
P.O. Box 30521
Nairobi
Director: James S. Mathenge
- R Ministry of Natural Resources
P.O. Box 30126
Nairobi
Deputy Secretary: J. N. Kiio

KIRIBATI (formerly GILBERT ISLANDS)



(See reference map VIII)

- G Ministry of Local Government and Rural Development
Lands and Survey Division
P.O. Box 405
Betio, Tarawa

KOREA (NORTH)



(See reference map VII)

- G Geology and Geography Research Institute
Academy of Sciences
Mamnoon-dong
Central District
P'yongyang
Director: Pak Sung Wook
- H Hydro-Meteorological Bureau
P.O. Box 100
P'yongyang
Director: Li Gon Il
- R Agency of Natural Resources and Energy
Ministry of International Trade and Industry
Director-General: Minour Masuda

KOREA (SOUTH)



(See reference map VII)

- G Ministry of Science and Technology
Seoul
Minister: Choi Chong Won
- G,R Ministry of Energy and Resources
Seoul
Minister: Chang Yie Joon
- G Korea Research Institute of Geoscience and Mineral Resources (KIGAM)
219-5, Garibong-dong
Youngdeungpo-gu
Seoul 150-06
President: Byung Koo Hyun
- G Institute of Minerals and Mining Engineers (KIME)
Korean Federation of Scientific and Technological Societies
76-561 Yucksamdong, Kangnamku
Seoul
- C National Geography Institute
Ministry of Construction
43-1 Hwikyeong-dong
Dongdaemun-ku, Seoul
Director: Lee Byong Chil
- H Bureau of Water Resources Development
Ministry of Construction
Government Unified Building
Chong Ro-Ku, Seoul
Director: Dong Yol Shin

KUWAIT



(See reference map V)

- G Kuwait Institute for Scientific Research
P.O. Box 12009 Shamiah
Kuwait
Director-General: Adnan Shehabedin
- H Ministry of Electricity and Water
P.O. Box 12
Kuwait
Head of the Design Section of Water Department:
Mustapha Al Shater
- C Director of Building and Survey Department
Kuwait Municipality
P.O. Box 10, Safat
Kuwait
Director and Chief Engineer: Bader Al Rifai
- R Ministry of Oil
P.O. Box 5077
Kuwait
Assistant Secretary for Technical Affairs:
Abdul Razzaq Mulla Al Hussein
- R Kuwait National Petroleum Company
P.O. Box 70
Kuwait
Chairman and Managing Director:
Ahmad Abdulmohsin Al Mutair

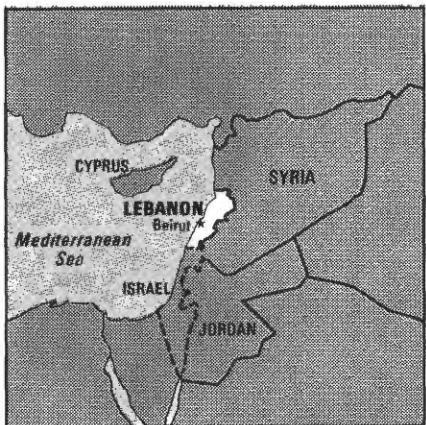
LAOS



(See reference map VII)

- G,R Departement de Géologie et des Mines
Ministère de l'Industrie et du Commerce
Vientiane
Directeur: Somlith Chanthavong
- H Service de la Meteorologie et de l'Hydrologie
Ministère de l'Agriculture, des Forets, et de
l'Irrigation
B.P. 323
Vientiane
Directeur: Kamphou Manthourath
- C Service Géographique National
Ministère des Communications, Travaux Publics et
des Transports
B.P. 167
Vientiane
Directeur: Boualay Saignasane

LEBANON



(See reference map V)

- G Directorate General of Public Works
Ministry of Public Works
Beirut
Director General: Antoine Rayes

- H Ministry of Hydro-Electric Resources
Beirut
Director General of Hydro-Electric Installation:
Rida Dehaini
Director of Hydraulic Installations: Lucien Mubayed
- R Ministry of Petroleum
Beirut
Director General: Ibrahim Choueiri
- R Ministry of Industry
Beirut
Director, Technical Department: Imad Nawam

LESOTHO



- G Department of Mines and Geology
P.O. Box 750
Maseru
Acting Commissioner: (Miss) M. Mofolo
- C Department of Lands and Surveys
Ministry of Interior
P.O. Box 20
Maseru
Commissioner: Brian Twomey
- H Hydrological and Meteorological Services Branch
Box 772
Maseru
Director: Thomas R. Hyde

LIBERIA



- G,C, H,R Ministry of Lands and Mines
144 Tubman Blvd.
P.O. Box 9024
Monrovia
Minister: Cletus S. Wotorson
- G Liberian Geological Survey
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: Nathaniel R. Richardson, Jr.
- C Liberian Cartographic Service
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: Wellington C. B. Banks
- H Liberian Hydrological Service
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: W. E. Stewart
- G,R Bureau of Mines
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: James K. Zawolo
- R Bureau of Hydrocarbon
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: E. Miedi Himie Neufville
- R Bureau of Economic Forecast and Concession
Appraisal
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: Fodee Kromah

LIBYA



G Geological Research and Mining Department
Industrial Research Center
P.O. Box 3633
Tripoli
Director: Mohamed Bourkhis

G,C,
H,R Planning Division
Secretariat of Agrarian Reform and Land
Reclamation
P.O. Box 190
Tripoli
Director: Ahmad Gartaa

G,H Agricultural Research Center
P.O. Box 2480
Tripoli
Chairman: Abdoulmajid Bensad

G,H,
C,R Geological Department
Faculty of Science
Al-Fateh University
P.O. Box 398
Tripoli

H Water Resources and Dams Ministry
Tripoli

H Water Department
Secretariat of Agrarian Reform and Land
Reclamation
P.O. Box 190
Tripoli
Director: Abdullah M. Krewi

C Department of Surveying
Secretariat of Planning
P.O. Box 600
Tripoli
Director: Muftah M. Unis

R Secretariat of Petroleum
Tripoli
Minister: Izziddin Mabruk

LIECHTENSTEIN



G,C Landesbauamt des Fürstentums Liechtenstein
Städtle 49
9490 Vaduz
Chief Surveyor: Karl Hartmann

LUXEMBOURG



G Centre Séismologique
Walferdange
Administration Communale
Service Topographique
Cercle Municipal
Luxembourg
Director: Jean Flick

G Service Géologique
Ponts et Chaussées
4 bd Roosevelt
Luxembourg
Director: Jacques Bintz

H Service de la Météorologie et de l'Hydrologie
16, route d'Esch
Luxembourg
Director: R. Kremer

C Administration du Cadastre et de la Topographie
 54 Avenue Gaston Diderich
 Luxembourg
 Director: Victor Poos

R Direction de l'Industrie et des Mines
 Ministère de l'Economie et du Commerce
 Antananarivo
 Director: Gerard Rajaonary

MADAGASCAR



(See reference map VI)

G,H Service Géologique
 Ministère des Mines et de l'Economie et du Commerce
 B.P. 322, Ampandrianomby
 Antananarivo
 Chief of Service: Andrianary Rakotomalala

G Centre National de Recherches Océanographiques
 Ministère de l'Enseignement Supérieur et de la Recherche Scientifique
 B.P. 68
 Nosy Be
 Director: Ralison Andrianirina

H Division de la Hydrométéorologie
 Service de la Météorologie
 B.P. 1254
 Tananarive
 Chief: A. R. Ralison

H Service de l'Hydrologie
 Direction de l'Industrie et des Mines
 Ministère de l'Economie et du Commerce
 B.P. 280, Ampandrianomby
 Antananarivo

C Institut National de Géodesie et de Cartographie (Foibe-Taosarintanin'i Madagasikara (FTM))
 3 Lalana J. H. Ravelomanantsoa
 B.P. 323, Andohalo
 Antananarivo
 Director: M. S. Andriamihaja

R Office Militaire National pour les Industries Stratégiques (OMNIS)
 Lalana Razanakombana, 21
 B.P. 1 bis
 Antananarivo
 Director General: Hubert Andrianasolo Ralaimiza

MALAWI



(See reference map VII)

G,H Geological Survey Department
 Ministry of Natural Resources
 P.O. Box 27, Liwonde Road
 Zomba
 Chief Geologist: J. H. Bean
 Hydrologist: D. Crow

C Survey Department
 Ministry of Natural Resources
 Box 349
 Blantyre
 Chief Cartographist: Green

H Water Resources Division
 Ministry of Agriculture and Natural Resources
 P.O. Box 30026
 Lilongwez
 Director: A. N. Mandeville

MALAYSIA



(See reference map VIII)

- G Geological Survey Department
 Bangunan Ukor
 Jalan Gurney
 Kuala Lumpur
 Director-General: S. K. Chung
- H Drainage and Irrigation Department
 Ministry of Agriculture and Rural Development
 Swettenham Road
 Kuala Lumpur
 Director General: Attn. L. H. Pang
- C Directorate of National Mapping
 Bangunan Ukor
 Jalan Gurney
 Kuala Lumpur
 Director: Yee Shin Cheong
- R The Ministry of Land and Regional Development
 Bangunan Ukor
 Jalan Gurney
 Kuala Lumpur
 Minister: Tan Sri Abdul Kadir Yusof
- R Petronas (National Petroleum Company)
 P.O. Box 2444
 Kuala Lumpur
 Chairman: Tan Sri Abdullah Salleh

MALI



(See reference map VI)

- G Direction Nationale des Mines et de la Géologie
 B.P. 228
 Koulouba, Bamako
 Directeur General: Sekou Diallo
- C Institut National de Topographie
 B.P. 240
 Bamako
 Director: Diadie Traore
- H Service Hydrologique
 Direction Générale de l'Hydraulique et de l'Energie
 B.P. 66
 Bamako
 Chief: Dembélé Aly

MALTA



(See reference map IV)

- G Public Works Department
 Beltissehb
- H Hydrology Section
 Water Works Department
 Beltissehb
 Floriana
 Chief: Francis Toledo
- C Department of Information
 Auberge de Castille
 Valletta
- R Ministry of Development, Energy, Port and
 Telecommunications
 Auberge de Castille
 Valletta

MARTINIQUE



(See reference map II)

- G Arrondissement Mineralogique de la Guyane
 B.P. 458
 Fort-de-France

MAURITANIA



- G Direction des Mines et de la Géologie
Ministère de l'Industrialisation et des Mines
B.P. 199
Nouakchott
Director: Cheikhouna Kamara
- C Service Topographique et Cartographique
B.P. 237
Nouakchott
Director: Habib Ould Ely

MAURITIUS



- G Ministry of Agriculture and Natural Resources and
The Environment
Port Louis
- C Ministry of Housing, Lands, and Town and Country
Planning
Survey Department
Port Louis
Chief Surveyor: M. Derblay

H Central Water Authority
Jules Koenig Street
Port Louis
Principal Hydrologist: G. Rogbeer

MEXICO



- G Instituto de Geología
Universidad Nacional Autónoma de México (UNAM)
Ciudad Universitaria
México 20, D.F.
Director: Diego A. Cordoba M.
- G Instituto de Biología
Universidad Nacional Autónoma de México (UNAM)
Ciudad Universitaria
México 20, D.F.
Director: Carlos Márquez Mayaudón
- G Consejo de Recursos Minerales
Niños Héroes 139
Esq. Dr. Navarro
México 7, D.F.
Director General: Guillermo P. Salas
- G Coordinación de Ciencias
Universidad Nacional Autónoma de México
Ciudad Universitaria
México 20 D.F.
Coordinador: Agustín Ayala Castañares
- G Centro de Ciencias del Mar
Universidad Nacional Autónoma de México (UNAM)
Ciudad Universitaria
México 20, D.F.
Director: Alfredo Laguarda Figueras
- G Comisión de Fomento Minero
Puente de Tacamachalco No. 26
México 20 D.F.
Director: Aparicio Varela

G Instituto de Geofisica
Universidad Nacional Autónoma de México (UNAM)
Cuidad Universitaria
Villa Obregon
México 20, D.F.
Director: Ignacio Galindo Estrada

G Instituto Mexicano de la Fluorita, A.C.
Tokio No. 4, Esq. Praga,
Apartado Postal 6-783
México 6, D.F.
Director-General: Pablo Stevens Lonergan

G Petróleos Mexicanos
Av. Marina Nacional 329
Edificio 1810, 12° Piso
México 17, D.F.
Director General: Jorge Díaz Serrano

G Instituto Mexicano del Petróleo
Av. 100 Metros No. 152
México 14, D.F.
Director General: Bruno Mascanzoni

G Instituto Nacional de Energia Nuclear
Insurgentes Sur 1079, 3° Piso
México D.F.
Director General: Francisco Vizcaíno Murray

G Instituto Nacional de Investigacion Nucleas
Benjamin Franklin 161
México D.F.
Director: Dalman Costa

G Comisión Federal de Electricidad
Rodano 14
México 17, D.F.
Director General: Hugo Cervantes del Río

G Siderurgica Mexicana
Av. Juarez 90 (Mezzanine)
México 1, D.F.
Director: Jorge Leipen Garay

C Departamento Geográfico Militar
Secretaría de la Defensa Nacional
Lomas de Sotelo
México 10, D.F.
Director General: Ulises Beltrán Tenorio

C,G Dirección General de Geografía del Territorio
Nacional (DEGETENAL)
Secretaría de Programación y Presupuesto
San Antonio Abad 124, 5° Piso
México 8, D.F.
Director: José Alberto Villasaña Lyon

H Secretaría de Agricultura de Recursos Hídricos
Insurgentes Sur 476, 13° Piso
México 7, D.F.
Secretary: Francisco Merino Rábago

MONGOLIA



(See reference map VII)

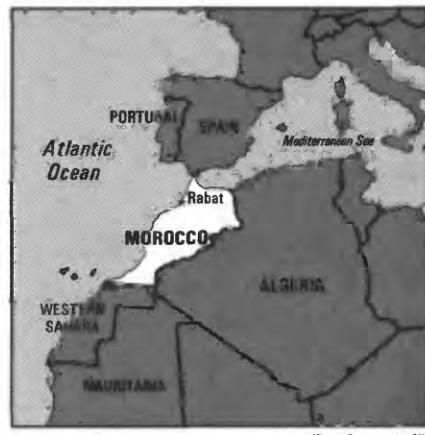
G Institute of Geology
Academy of Sciences
UI, Leniadom 2
Ulaanbaatar
Director: B. Luvsandandzan

G,C Institute of Geography and Permafrost Studies
Academy of Sciences
Ulaanbaatar
Director: S. H. Tsegmed

G,H Hydrometeorological Service
Gudamj October 5
Ulaanbaatar
Director: D. Tubdendorj

H Ministry of Water Economy
Gudamj Natsagdorjyn
Ulaanbaatar

MOROCCO



(See reference map VI)

G Division de la Géologie
Ministère de l'Energie et des Mines
Quartier Administratif
Rabat
Chief: El Arabi Hilali

C Direction de la Recherche Agronomique
Service Cartographique des Sols et de l'Erosion
Avenue de la Victoire
B.P. 415
Rabat
Chief: M. H. Ghanem

C Ministère de l'Agriculture et de la Reform Agraire
Conservation Foncière et des Travaux
Topographiques
Division de la Carte
Avenue Moulay Youssef
Rabat
Chief: Abdellatif Bel Bachir

H Direction de l'Hydraulique
Division de Resources en Eau
Avenue John Kennedy
B.P. 525 Rabat-Chellah
Rabat
Chief: Abdellatif Kabbaj

R Direction de Mines
Ministère de l'Energie et des Mines
Avenue Mohammed V
Quartier Administratif
Rabat
Chief: Mohammed Kerbid

MOZAMBIQUE

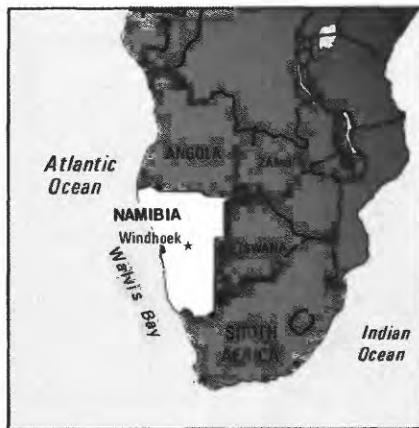


G,R Direcção Nacional de Geologia e Minas e Defesa do Subsolo
Praca 25 de Junho/Maputo
P.O. Box 217
Maputo
Director: Rui Santos Garcia

H Direcção Nacional de Águas
(National Directorate of Hydrology)
Avenida 25 de Setembro, 942-7th Floor/Maputo
P.O. Box 1611
Maputo
Director: Eng Rui Gonzalez

C Direcção Nacional de Geografia e Cadastro
Avenida Josina Machel, 589/Maputo
P.O. Box 288
Maputo
Director: Francisco João Pateguana

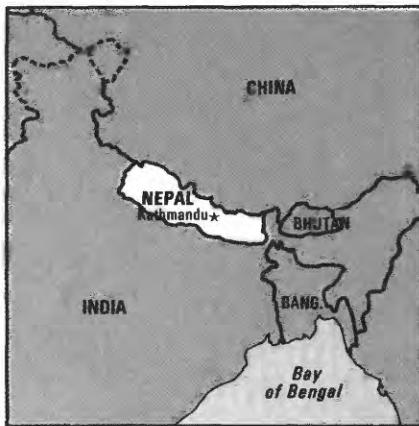
NAMIBIA (SOUTH-WEST AFRICA)¹



G Geological Survey
P.O. Box 2168
Windhoek

C The Surveyor General
Windhoek

NEPAL



¹ No recent information.

- G,R Department of Mines and Geology
Ministry of Industry and Commerce
Lainchaur
Kathmandu
Director-General: Mahendra Narsingh Rana
- C Survey Department
Ministry of Land Reform
Dilli Bazar
Kathmandu
Acting Director General: Arjun Bahadur Basnyat
- H Department of Irrigation, Hydrology, and Meteorology
Ministry of Water Resources, Power, and Irrigation
P.O. Box 406
Kathmandu
Director General: Bhubaneshwar Kumar Pradhan

NETHERLANDS¹



(See reference map IV)

- G Rijks Geologische Dienst
Spaerne 17, P.O. Box 157
2000 AD Haarlem
Director: A. A. Thiadens
- H Committee for Hydrological Research TND
Juliana van Stolberglaan 148
's-Gravenhage
Head: H. J. Colenbrander
- H Dienst Grondwaterverkenning TND
Postbus 285
Delft
- H Ministry of Transport and Waterways
Bureau of Water Control and Works
The Hague
Director: A. Volker
- C Dienst van Het Kedaster
Waltersingel 1
7314 NK Apeldoorn

- C Topografische Dienst
Westvest 9
2611 AX Delft
- R Ministry of Economic Affairs
Directorate General for Energy
Bezuidenhoutseweg 30
2594 AV The Hague
Minister: G. M. V. van Aardenne

NETHERLANDS ANTILLES



(See reference map II)

- C Bureau voor Kadaster en Kaartering
Sint Anna Boulevard 4
Curacao
Director: H. B. Calvo
- R Bureau of Petroleum Affairs
Wolkspaat #3
Curacao
Director: Clark Gomez-Cassevaes

NEW CALEDONIA¹



(See reference map VIII)

¹ No recent information.

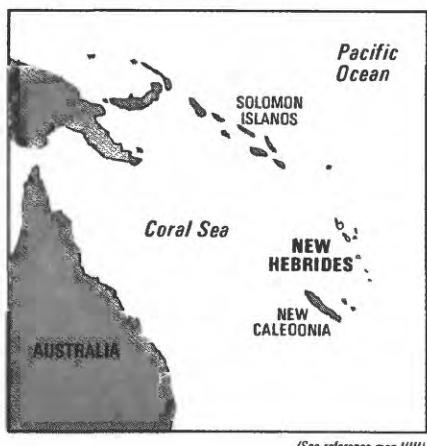
¹ No recent information.

G Service des Mines et de la Géologie
Rte. No. 1
B.P. 465
Noumea

H Office de la Recherche Scientifique et Technique
Outre-Mer (ORSTOM)²
B.P.A. 5
Noumea Cedex

C Service Topographique
Territorial Administration Center
Avenue Paul Doumer
Noumea, Nouvelle Calédonie

NEW HEBRIDES



(See reference map VIII)

G Geological Survey
British Residency
Port Vila
Senior Geologist: A. MacFarlane

G Mineral Resources Department
B.P. 637
Port Vila
Director: J. L. Saos

NEW ZEALAND



(See reference map VIII)

² Designates French research organization, without governmental affiliation.

G Geophysics Division
Department of Scientific and Industrial Research
P.O. Box 1320
Wellington 1
Director: T. Hatherton

G New Zealand Geological Survey
Department of Scientific and Industrial Research
P.O. Box 30-368
Lower Hutt
Director: R. P. Suggate

C The Surveyor General, Head Office
Department of Lands and Survey
Private Bag, Charles Ferguson Building
Wellington
Surveyor General: I. F. Stirling

H Ministry of Works and Development
Private Bag
Wellington
Commissioner: N. C. McLeod

R New Zealand Mines Department
Oil and Gas Exploration
P.O. Box 6342
Te Aro, Wellington
Chief Mining Engineer (Minerals): L. S. Jones

NICARAGUA



(See reference map II)

G Proyecto Geotermico
Instituto Nicaraguense de Energía
Apartado 55
Managua
Director: Emilio Rappaccioli

G Corporación Nicaraguense de Minas e Hidrocarburos
(CONDEMIA)
Apartado Postal No. 8
Managua, D.N.
Ministro: Carlos Zarruck

- G Instituto Nicaraguense de Recursos Naturales y del Ambiente (IRENA)
Apartado Postal No. 5123
Managua, D.N.
Director: Jorge Jenkins
- G Instituto de Investigación Sísmica
Apartado Postal No. 1761
Managua, D.N.
- C Instituto Geográfico Nacional
Ministerio de Fomento y Obras Públicas
Apartado Postal 2120
Managua, D.N.
Director: Adolfo Espino G.

NIGER



- G,H Direction des Mines et de la Géologie
Ministère des Mines et de l'Hydraulique
B.P. 257
Niamey
Secrétaire Général: Diallo Oumar
- G Niger Bureau
B.P. 257
Niamey
Directeur du Mines: Sori Boubacar
- G Société Minière du Niger (SMN)
Niamey
Directeur du Mines: Sori Boubacar
- H Service Hydrologique du Génie Rural
Ministère du Développement Rural
B.P. 241
Niamey
Directeur: Ali Seyni
- C Direction du Service Topographique et du Cadastre
Ministère des Finances
B.P. 250
Niamey
Directeur: Chekaraou Tawaye

- H Office des Eaux de Sous-sol (OFEDES)
B.P. 734
Niamey
Directeur: Imini Mahamane
- R Office Nationale des Recherches Minières (ONAREM)
B.P. 210
Niamey
Directeur: Sani Koutouby

NIGERIA



- G,H Geological Survey Department of Nigeria
Ministry of Mines and Power
P.M.B. 2007
Kaduna South, Kaduna State
Director: C. N. Okezie
- G Ministry of Mines and Power
Lagos Office, Geological Survey Department
P.M.B. 12574
Lagos
Principal Geologist: H. T. Molokwu
- G Nigerian Coal Corporation
P.M.B. 1053
29 Okpara Ave.
Enugu, Anambra
Administrator: O. A. Udemah
- G Nigerian Mining Corporation
24 Naraguta Ave.
P.M.B. 2154
Jos, Plateau State
General Manager: Alhaji Rilwanu Lukman
- G Ministry of Mines and Power
Lagos Office, Mines Division
P.M.B. 12574
Lagos
Director of Mineral Resources: Alhaji Inua Gombe
- R Nigerian National Petroleum Corporation
P.M.B. 12701
Lagos
Managing Director: F. R. A. Marinho

- C Cartographic Section
 Geological Survey Department
 P.M.B. 2007
 Kaduna South, Kaduna State
 Officer in charge: J. A. Ogunkoya
- C Surveys Division
 Federal Ministry of Works
 Igbosere Road at Okesuna Street
 Lagos
 Director of Federal Surveys: A. O. Adebekun
- H Federal Ministry of Water Resources
 9 Kofo Abayomi Street
 Victoria Island
 P.M.B. 12700
 Lagos
 Commissioner: B. O. W. Mafeni
- R Federal Ministry of Mines and Power
 Broad Street Office
 Lagos Office, Geological Survey Department
 Lagos
 Commissioner: Justin I. Tseyao

NORWAY



- G Den Geofysiske Kommisjon
 [The Geophysical Commission]
 Metereologiske Institut
 Oslo 3
 President: R. Fjørtoft
- G Norges Geologiske Undersøkelse
 [Norway Geological Survey]
 P.B. 3006 Ostmarkneset
 Leiv Erikssons Vei 39
 7001 Trondheim
 Managing Director: Knut S. Heier
- G,C Norsk Polarinstitutt
 [Norwegian Institute for Polar Affairs]
 Rolfstangveien 12,
 Postboks 158
 1330 Oslo Lufthavn
 Director: Tore Gjelsvik

- G,C Continental Shelf Institute (IKU)
 Håkon Magnussensgt. 1B
 Postboks 1883
 7001 Trondheim
 Director: Morten Ringard
- C Norges Geografiske Oppmaling
 St. Olavs Gt. 32
 Oslo
 Director: Erik Olav Dahle
- H Norsk Vannforsknings Institutt
 [Norwegian Institute for Water Research]
 Postboks 338, Blindern
 Oslo 3
 Chief: Kjell Baalsrud
- H Norges Vassdrags og Elektrisitetsvesen
 [Norwegian Water Resources and Electricity Board]
 Water Resources Division
 P.O. Box 5091, Majorstua
 Oslo 3
 Chief: Aa. Hjelm-Hansen
 WMO/CHY Representative: Jacob Otnes
- R Oljedirektoratet
 [Norwegian Petroleum Directorate]
 Laagaardsveien 80
 4000 Stavanger
 Director: Fredrik Hagemann
- R Petroleum and Energy Ministry
 Pilastredet 33
 Oslo 1
 Director-General: Knut Daehlin

OMAN



- G,R Ministry of Petroleum and Minerals
 P.O. Box 551
 Muscat
 Minister: Said Ahmad al-Shanfari

- H Ministry of Agriculture and Fisheries
P.O. Box 467
Muscat
Minister: Abdul Hafez Salim Rajab
- C Ministry of Defense
P.O. Box 113
Muscat
Deputy Prime Minister for Security Defense:
Sayyid Fahar bin Taimur al-Busaidi
- H Ministry of Communications and Transport
P.O. Box 684
Muscat
Minister: Sayyid Salim bin Nasser al-Busaidi
- H Water Resources Council
P.O. Box 5225
Ruwi
Chairman: Abdul Hafez Salim Rajab
- H Water and Power Development Authority
WAPDA House
Lahore
Chairman: Fazle Raziq
- H Ministry of Water and Power
Secretariat Block "A"
Islamabad
Additional Secretary: M. Q. Siddiqui
- H Flood Forecasting and Warning Center
46 Gulberg Road
Lahore
Member: Zarif Ahmed
- R Ministry of Petroleum and Natural Resources
Secretariat Block "A"
Islamabad
Secretary, Petroleum Division: T. H. Hashmi
Secretary, Water, Power, and Natural Resources
Division: Masroor Hasan Khan
- R Pakistan Minerals Development Corporation (PMDC)
PIDC House
Dr. Ziauddin Ahmed Road
Karachi
Chairman: F. K. Khilji

PAKISTAN



(See reference map VII)

- G Resource Development Corporation
8th Floor, Dawood Center
Karachi-4
General Manager: S. A. Bilgrami
- G Oil and Gas Development Corporation
Shafi Chambers, Club Road
Karachi-4
Chairman: Iftikharuddin Ahmed
- G Geological Survey of Pakistan
P.O. Box 15
Quetta
Director General: Asrarullah
- C Survey of Pakistan
Shahrah-i-Muhammad Raza Shah Pehlvi
Post Box 10
Rawalpindi
Surveyor General: Mian Muhammad Sharif

PANAMA

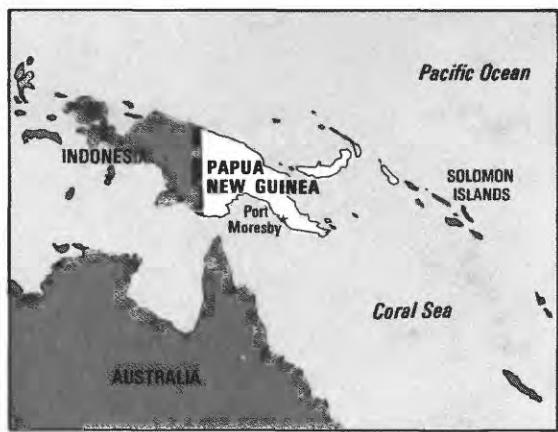


(See reference map III)

- G Administracion de Recursos Minerales
Apartado Postal 9658, Zona 4
Panama City
Director: Daniel Esquivel
- G Corporacion de Desarrollo Minero-Cerro Colorado
(CODEMIN)
Apartado 5312
Panama 5
Presidente: Rodrigo González

- C Instituto Geográfico Nacional "Tommy Guardia"
Apartado Postal 5267, Zona 5
Panama City
Director: José A. Tejada
- H Instituto de Acueductos y Alcantarillados Nacionales (IDAAN)
Apartado 5234
Panama 5
Director: José Fierro
- H,G Instituto de Recursos Hidráulicos y Electrificación (IRHE)
Apartado 5285
Panama 5
Director: Edwin Fabrega
- H,R Dirección de Recursos Naturales Renovables (RENARE)
Ministerio de Desarrollo Agropecuario
Santiago, Veraguas
R. de Panamá
Director: Francisco Rodríguez
Head of RENARE: Irvin Diaz

PAPUA NEW GUINEA



(See reference map VIII)

- G Geological Survey
Department of Minerals and Energy
P.O. Box 2352
Konedobu
Papua New Guinea
- C Department of Lands, National Mapping, and Environment
P.O. Box 5665
Boroko
Papua New Guinea
Surveyor General: Kisokau Pochapon

PARAGUAY



(See reference map III)

- G Dirección de Recursos Minerales
Ministerio de Obras Públicas y Comunicaciones
Calle Alberdi y Oliva
Asunción
Director: Víctor Díaz de Vivar
- H Departamento de Hidrología
Dirección de Meteorología
Av. Mcal Lopez 1146
Asunción
Chief: W. Castro Wrede
- C Instituto Geográfico Militar
Avenidas Artigas y Vía Ferrea
Asunción
Director General: Abraham Abed
- R Dirección de Industria Militares
Calle Estados Unidos y San Carlos
Asunción
Director: Roberto Knopfelmacher
- H Administración Nacional de Navegación y Puertos
Plazoleta Isabel la Católica
Asunción
Presidente: Ramón E. Martínez

PERU



(See reference map III)

- G Instituto Geofisico del Peru
Casilla 3747
Lima
Director: Alberto Giesecke
- G Instituto Peruano de Energia Nuclear (IPEN)
Luis Aldana 120, Urb. Santa Catalina
Lima
Presidente: Juan Barreda Delgado
- G Instituto Geologico Minero y Metalúrgico
(INGEMMET)
Pablo Bermudez 211
Apartado 889
Lima
Presidente: Mario Samamé
- G Empresa Minera del Peru (MINEROPERU)
Bernardo Monteagudo 222
Orrantia, Lima
Presidente: Jaime Fernandez Concha
- G Empresa Minera del Centro del Peru
(CENTROMIN)
Lampa 920
Lima
Presidente: Guillermo Flores
- G,H Instituto del Mar del Perú (IMPARPE)
Chucuito, Callao
Presidente: Guillermo Runciman N.
- G,C, H,R Oficina Nacional de Evaluacion de Recursos
Naturales (ONERN)
Calle 17 #355, Urb. El Palomar, San Isidro
Lima
Director-General: Eduardo Armas
- H Servicio Nacional de Meteorología e Hidrología
Avenida Republica de Chile 295
Apartados 1308
4862 Lima
Director-General: Oscar Piccone Ocampo
- C Servicio Aerofotográfico Nacional
Base Aérea las Palmas
Barranco, Lima
Director: José Aste Seminario
- C Instituto Geográfico Militar
Avenida Andrés Aramburu 1198
Apartado 2038
Lima
Director General: Luis Gonzales C.
- C,H Dirección de Hidrografía y Navegación de la
Marina (DHNM)
Calle Saenz Peña no. 590, La Punta (Callao)
Casilla Postal no. 80- Callao
Lima
Director: Alfredo Arnaiz A.
- H Servicio Nacional de Meterologia e Hidrologia
(SENAMHI)
Rep. de Chile 295, Of. 205
Lima
Director: Oscar Piccone Ocampo
- R Dirección General de Hidrocarburos
Ministerio de Energía y Minas
Edificio Sol-Gas
Esq. Av. J. Prado y Aviación
Urb. San Borja, Lima
Director: Luis del Castillo
- R Petroleos del Peru (PETROPERU)
Paseo de la Republica no. 3361, San Isidro
Lima
Presidente: Julio Dávila
- R Dirección General de Minería
Ministerio de Energía y Minas
Urb. San Borja, Lima
Director General: Manuel Villegas

PHILIPPINES



(See reference map VII)

- G Commission on Volcanology
National Science Development Board
Hizon Building, Quezon Avenue
Quezon City
Commissioner: G. A. Andal
- G National Resources Management Center
Triumph Condominium
Quezon Avenue
Quezon City
Director: Celso Roque
- G Philippine Atmospheric, Geophysical, and Astronomical Services Administration
Quezon City Development Bank Building
1424 Quezon Avenue
Quezon City 3008
Director: R. L. Kintanar

G Ministry of Energy
P.O. Box 1031, Makati Commercial Center
Makati, Metro Manila
Minister: G. Z. Velasco

G Atomic Energy Commission
Ministry of Energy
Don Mariano Marcos Avenue
Diliman, Quezon City
Officer-in-Charge: Z. M. Bartolome

C Board of Technical Surveys
234 Tanduay
Manila

G Bureau of Energy Development
Ministry of Energy
Merritt Road, Fort Bonifacio
Makati, Metro Manila
Director: Wenceslao de la Paz

G,R Bureau of Mines and Geosciences
P.O. Box 1595
Pedro Gil Street
Manila 2801
Director: J. C. Fernandez
Chief, Geological Survey Division: Q. A. Crispin

H National Power Corporation
161 Bonifacio Drive
Port Area, Manila 2803
General Manager: G. Y. Itchon

H Ministry of Public Works
National Irrigation Administration Building (EDSAL)
Quezon City, Metro Manila
Minister: A. L. Juinio

H National Irrigation Administration
National Irrigation Administration Building
East Delos Santos Avenue
Quezon City, Metro Manila
Administrator: A. L. Juinio

H National Water Resources Council
National Irrigation Building
East Delos Santa Avenue
Quezon City 3008
Executive Director: Angel A. Alejandrino

C Bureau of Coast and Geodetic Survey
421 Barraca Street
Biondo, Manila 2807
Director: A. P. Ventura

POLAND



G Zaklad Paleobiologii PAN
Al. Zwirki i Wigury 93
02-089 Warszawa
Director: Zofia Kielan-Jaworowska

G Instytut Geofizyki PAN
ul. Pasteura 3
02-093 Warszawa
Director: Jerzy Jankowski

G Główny Instytut Górnictwa
[Central Mining Institute]
Plac Gwarków I
40-951 Katowice
Director: Adam Szczurowski

G,H,R Centralny Urząd Geologii
[Coordinative and Administrative Body]
ul. Jasna 6
00-013 Warszawa
President: Zdzisław Dembowski

G,R Instytut Górnictwa Naftowego i Gazownictwa
[Institute of Petroleum]
ul. Lubicz 25a
31-503 Kraków
Director: Józef Raczkowski

G Instytut Nauk Geologicznych PAN
Al. Zwirki i Wigury 93
02-089 Warszawa
Director: Jerzy Znosko

G Zaklad Oceanologii PAN
ul. Powstańców Warszawa 55
81-967 Sopot
Director: Czesław Druet

G Muzeum Ziemi PAN
Al. Na Skarpie 20/26
00-488 Warszawa
Director: Krzysztof Jakubowski

- G,H,
C,R Instytut Geologiczny
ul. Rakowiecka 4
00-975 Warszawa
Director: Jan Malinowski
- H Instytut Meteorologii i Gospodarki Wodnej
[Institute of Meteorology and Water Management]
ul. Podlńska 61
01-673 Warszawa
Director: Zdzisław Kaczmarek
- C Główny Urząd Geodezji i Kartografii
[Coordinative and Administrative Body]
ul. Jasna 2/4
00-013 Warszawa
President: Czesław Przewoźnik
- C Instytut Geodezji i Kartografii
ul. Jasna 2/4
00-950 Warszawa
Director: Bogdan Ney
- C Instytut Geografii i Przestrzennego
Zagospodarowania PAN
ul. Krakowskie Przedmieście 30
00-325 Warszawa
Director: Stanisław Leszczycki
- C Instituto Geográfico e Cadastral
Ministério das Finanças
Praça da Estrela
Lisboa 1200
Director-General: Antônio Gabriel Albuquerque
Gonçalves
- H Direcção-Geral dos Recursos e Aproveitamentos
Hidráulicos
Rua de S. Mamede, 28
Lisboa 1100
Director-General: Joaquim Fernando Faria Ferreira
- H Portuguese Commission on International Hydrologic
Program
Ministério das Obras Públicas
Praça do Comércio
Lisboa 1100
President: Joaquim Fernando Faria Ferreira
- H Secretariat of State for Urbanism and Environment
Praça do Comércio
Lisboa 1100
Secretary of State: Arg. Jose Duarte Bruschi
- R Secretariat of State for Energy and Basic Industry
Rua de Horta Seca, 15
Lisboa 1200
Secretary of State: Hugo Fernando de Jesus
- R Secretariat of State for Mining and Processing
Industries
Rua da Horta Seca, 15
Lisboa 1200
Secretary of State: Joaquim Ferreira do Amaral

PORTUGAL



(See reference map IV)

- G Direcção Geral de Minas e Serviços Geológicos
Ministério de Indústria
Rua Anónio Enes, 5
Lisboa 1000
Director: Fernando Soares Carneiro
- G Serviços Geológicos de Portugal
Rua da Academia das Ciências 19-21
Lisboa 1200
Director: Delfim de Carvalho

- QATAR
-
- (See reference map V)

G,H,C Industrial Development Technical Center (IDTC)
P.O. Box 2599
Doha
Director: Said Mishal

- H Water Resources Section
 Integrated Water and Land Use Project
 P.O. Box 1967
 Doha
 Chief: Mohamed Abdul Wahab
- R,H,C Department of Petroleum Affairs
 Ministry of Finance and Petroleum
 P.O. Box 83
 Doha
 Director: Abdullah Sallat

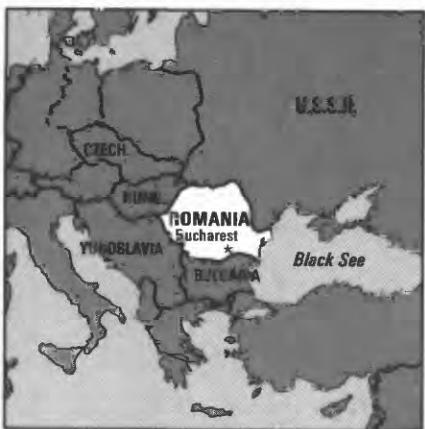
REUNION



(See reference map VI)

- G Services des Travaux Publics
 St. Denis

ROMANIA

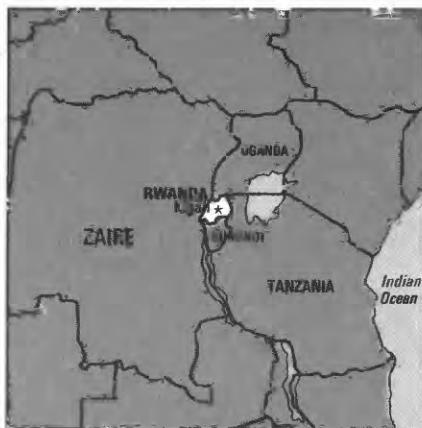


(See reference map IV)

- G Institutul de Geologie și Paleontologie
 Universitatea "Babes-Bolyai"
 Str. M. Kogălniceanu 1
 Cluj-Napoca
 Director: O. Protescu

- G Centrul de Fizică a Pământului și Seismologie
 Platforma Națională Magurele
 Bucharest
 Director: Ion Cornea
- G Comisia Română pentru Activități Spațiale (Remote Sensing)
 Str. Roma 32-34
 Bucharest
 President: Constantin Teodorescu
- G Institutul de Cercetări Geologice și Geofizice
 Str. Caransebeș No. 1
 Sector 7, Bucharest
 Director: Iosif Bercia
- G,C Institutul de Geografie și Geologie
 Str. Dimitrie Racoviță No. 9
 Bucharest
 Director Professor: Gratiu Ceoflică
 Scientific Director: Petre Ghîstescu
- H Institutul de Meteorologie și Hidrologie
 Sos București-Ploiești 97
 Bucharest
 Director: Nicolae Ciovica
- R Ministerul Minelor, Petrolului și Geologiei
 Str. Mendeleev No. 36-38
 Bucharest
 Minister: Vasile Patilinet

RWANDA



(See reference map VI)

- G,R,C Ministère des Ressources Naturelles, des Mines et des Carrières
 B.P. 413
 Kigali
 Minister: M. D. Iyamuremye
 Director General, Service des Ressources Naturelles: J. Zigirabahali
 Director, Division de la Cartographie: T. Bizimungu
 Director General, Service des Mines et Carrières: P. Mahungiro
 Director, Mining Research: I. Kifnir

H Ministère de l'Agriculture et de l'Elevage
B.P. 621
Kigali, Rwanda
General Director, Rural Engineering and Conservation of Soils: A. Musema-Uwinana

H Génie Rural et de l'Hydrologie
B.P. 323
Kigali
Director: N. Barugiliji

SAUDI ARABIA



(See reference map V)

G,R Ministry of Petroleum and Mineral Resources
Directorate General of Mineral Resources
P.O. Box 345
Jiddah
Director General of Mineral Resources: Mohammed Quasai Assad
Deputy Minister for Mineral Resources: Ghazi Sultan

C Faculty of Earth Sciences
King Abdul Aziz University
P.O. Box 1744
Jiddah
Dean: A. M. Al-Shanti

C Aerial Surveys Department
Ministry of Petroleum and Mineral Resources
P.O. Box 247
Riyadh
Director General: Soleman Saleh Al-Robaishy

H Saline Water Conservation Corporation
P.O. Box 4930
Jiddah
Governor: Abdul Aziz Al-Rashid

H Ministry of Agriculture and Water
Water Resources Development Department
P.O. Box 478
Riyadh
Director: Mustafa Noory

R Ministry of Petroleum and Mineral Resources
P.O. Box 247
Riyadh
Minister: Ahmad Zaki Yamani

SENEGAL



(See reference map VI)

G Direction des Mines et de la Géologie
Ministère du Développement Industriel
Route de Ouakam
B.P. 1238
Dakar
Director: Babacar Faye

G Office de la Recherche Scientifique et Technique d'Outre-Mer (ORSTOM)²
Route des Peres Maristes-Hann
B.P. 1386
Dakar
Director: Claude Monnet

G Centre de Géophysique
Office de la Recherche Scientifique et Technique d'Outre-Mer (ORSTOM)²
B.P. 50
M'Bour
Director: Claude Monnet

G Bureau de Recherches Géologiques et Minières (BRGM)²
7, rue Mermoz
B.P. 268
Dakar
Director: Remy Delafosse

C Institut Géographique National (IGN)
7, rue Mermoz
B.P. 4016
Dakar
Director: Gilbert Durieux

² Designates French research organization, without governmental affiliation.

C Service Geographique du Senegal
14, rue Victor Hugo
B.P. 740
Dakar
Director: Serigne M'Baye Thiam

H Direction l'Energie et de l'Hydraulique Rural
Ministere de l'Equipment
B.P. 4014
Building Communal
Bd. du General De Gaulle
Dakar
Director: Moussa Dieng

SIERRA LEONE

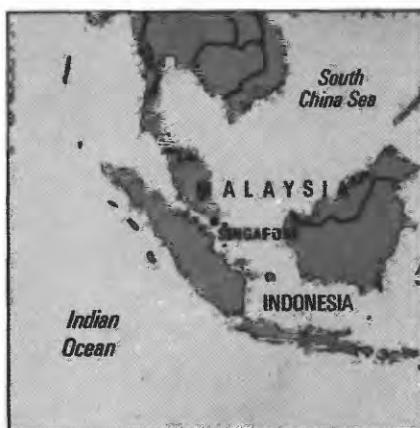


G Geological Survey Division
Ministry of Lands, Mines, and Labor
New England, Freetown
Director: A. H. Gabiri

H Water Resources Division
Ministry of Energy and Power
Leone Building, Siaka Stevens Street
Freetown
Chief Engineer: I. S. Kabia

C Surveys and Land Division
Ministry of Lands, Mines, and Labor
New England, Freetown
Director: E. A. Redwood-Sawyerr

SINGAPORE



G Public Works Department
Structural Design and Investigation Branch
Ministry of National Development
11th floor, National Development Building
Maxwell Road
Singapore 0106
Senior Executive Engineer: Joseph Yee Keen Hong

G,H Energy Research and Development Department
Ministry of Science and Technology
Singapore 1024
Deputy Director: Wong Toh Jui

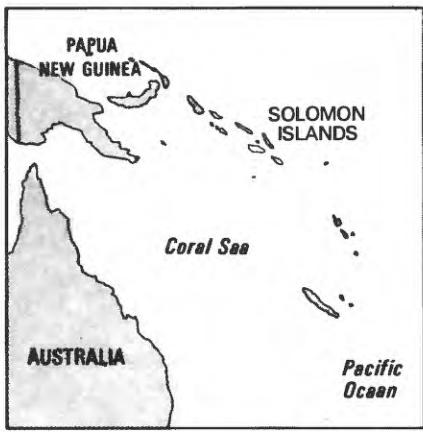
C Head Mapping Unit
Ministry of Defense
Dover Road Camp I
Dover Crescent
Singapore 0513
Head: Yuen See Wah

C Survey Department
Ministry of Law
3rd Floor, National Development Building
Maxwell Road
Singapore 0106
Chief Surveyor: Kwah Kheng Swee

H Public Utilities Board
Water Department
PUB Building
Somerset Road
Singapore 0923
Chief Water Engineer: Chou Tai Choong

R Economic Development Board
9th Floor, World Trade Center
Maritime Square, Telok Blangah Road
Singapore 0409

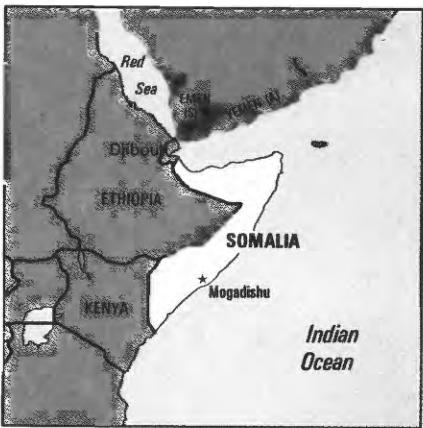
SOLOMON ISLANDS



(See reference map VIII)

- G Ministry of Natural Resources
Geology Department
P.O. Box G24
Honira
Chief Geologist: F. I. E. Coulson
- R Ministry for Natural Resources
Honira, Guadalcanal
Minister: Paul Tovua

SOMALIA



(See reference map VI)

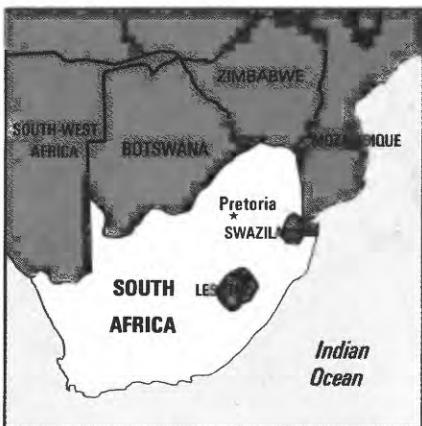
- G,H Geological Survey Department
Ministry of Minerals and Water Resources
P.O. Box 744
Mogadishu
Director: Mohamed Said Obdi
- H Hydrogeological Department
Ministry of Minerals and Water Resources
P.O. Box 744
Mogadishu
Director: Mohamed Yusuf Awale

H Hydrogeological Department
Water Development Agency
P.O. Box 525
Mogadishu
Khalif Haji Farah

H Hydrology Department
Ministry of Agriculture
Mogadishu
Director: Ibrahim Muse

C Survey and Mapping Department
P.O. Box 24
Mogadishu
Director: Musa Adan Wadadid

SOUTH AFRICA



(See reference map VI)

G Magnetic Observatory
(Geomagnetism, Seismology)
Council for Scientific Research (CSIR)
P.O. Box 32
Hermanus, Cape Province
7200
Head: G. J. Kuhn

G,H Geological Survey of South Africa
Department of Mines
233 Visagie Street (Private Bag X112)
Pretoria
0001
Director: W. L. Van Wyk

C Director General of Surveys
Trigonometrical Survey Office
Rhodes Avenue
Mowbray, Cape Town
7700
Director General of Surveys: E. Van der Spuy

H National Institute for Water Research
Council for Scientific and Industrial Research
P.O. Box 395
Pretoria
0001
Director: G. G. Cillie

- H The Chief Hydrologist
 Hydrological Research Institute
 Department of Water Affairs
 Queensbridge Building, Juta Street (Private Bag X313)
 Pretoria
 0001
- R Minerals Bureau
 Department of Mines
 Straben Street (Private Bag X4)
 Braamfontein
 2017
 Director: Dirk C. Neethling
- R South African Department of Industries
 Civitas Building
 Room 2127, African Eagle Building, Vermeulen Street
 (P.O. Box 616)
 Pretoria
 0001
 Minister: S. W. Van de Merwe
- R Department of Mines
 P.O. Box 616
 Pretoria
 0001
 Minister: S. W. de Klerk
- G Empresa Nacional ADARO de Investigaciones Mineras, S.A.
 Serrano, 116
 Madrid-6
 Director: Juan Antonio Gómez-Angulo
- G Instituto Geológico y Minero de España
 Ríos Rosas, 23
 Madrid-3
 Director: Adriano García-Loygorri
- H División de Hidrología
 Comisaría Central de Aguas Nuevos Ministerios
 Madrid
 Chief: Ignacio de Jove Ramirez
- H Instituto de Hidrología
 Paseo Bajo Virgin del Puerto, 3
 Madrid-5
 President: Raphael Heras Rodriguez
- C Instituto Geográfico Nacional
 General Ibáñez Ibero, 3
 Madrid-3
 Director General: Rodolfo Núñez de las Cuevas
- C Real Sociedad Geográfica
 Valverde, 22
 Madrid-13
- R Ministerio de Industria y Energía
 Serrano, 35
 Madrid-6
 Minister: Carlos Bustelo y García del Real

SPAIN



- G Instituto Nacional de Geofísica
 Serrano, 123
 Madrid-6
 Director: Constantino Gaibar Puertas
- G Servicio de Geología
 Ministerio de Obras Públicas y Urbanismo
 Avenida de Portugal, 81
 Madrid-11
 Director: Clemente Sáenz Ridruejo

SRI LANKA



- G Geological Survey Department
 48 Sri Jinaratana Road
 Colombo 2
 Director: D. J. A. C. Hapuarachchi

- G State Mining and Mineral Development Corporation
of Ceylon
63 Elvitagala Mawatha
Colombo 8
Chairman: H. Dissanyake
- H Hydrology Section
Irrigation Department
P.O. Box 1138
Colombo 7
Chief Engineer: N. M. G. Navaratne
- H Water Resources Board
2A Gregory's Avenue
Bagatelle Road
Colombo 7
Director: Leslie Herath
- C Surveyor-General's Office
Kirula Road
Colombo 5
Surveyor-General: S. J. Munasinghe
- R Ceylon Petroleum Corporation
113 Galle Road
Colombo 3
Chairman: Daham Wimalasena

SUDAN

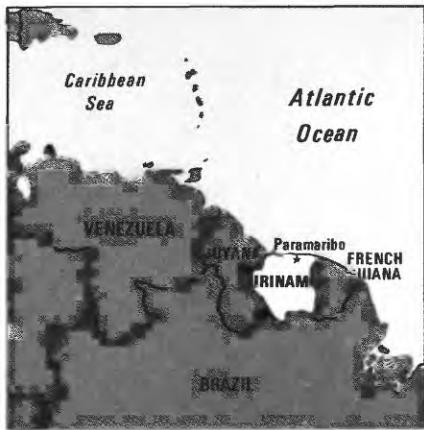


(See reference map VI)

- G,R Geological and Mineral Resources
Ministry of Energy and Mining
P.O. Box 410
Khartoum
Director: Yousif Suliman
- H Hydrology Division
Nile Waters Department
P.O. Box 878
Khartoum
Director: Kamal Ali Mohamed

- H Rural Water and Development Corporation
Ministry of Irrigation and Hydroelectric Power
Chief Engineer's Office
Khartoum
Director-General: Mamon Mohamadi
- C Topographical Survey Division
Survey Department
Khartoum
- C Ministry of Defense
Survey Department
P.O. Box 306
Khartoum
General Director: Hassan Mohamed Hassan

SURINAME



(See reference map III)

- G Geologisch Mijnbouwkundige Dienst
Klein Wasserstraat 1 (2-6)
Paramaribo
Director: R. Cambridge
- H Water Supply Service
Ministry of Rural Government
Klein Waterstraat 1
Paramaribo
- H Hydrological Service
Bureau for Hydroelectric Power Works
Rode Kruislaan 15
Paramaribo
- C Centraal Bureau Luchtkaartering
P.O. Box 971
Kerkplein
Paramaribo
Head: J. B. Ch. Wekker

SWAZILAND



G,H,R Geological Survey and Mines Department
P.O. Box 9
Mbabane
Director: A. Dlamini

C Department of Surveys
Ministry of Works, Power, and Communications
P.O. Box 58
Mbabane
Surveyor General: D. Levy

SWEDEN



G Statens Väg-och Trafikinstitut
Geologisk grupp
Fack
S-581 01 Linköping
Director: Bertil Ström

G Statens Geotekniska Institut (SGI)
Fack
S-581 01 Linköping
Director: Leif Andréasson

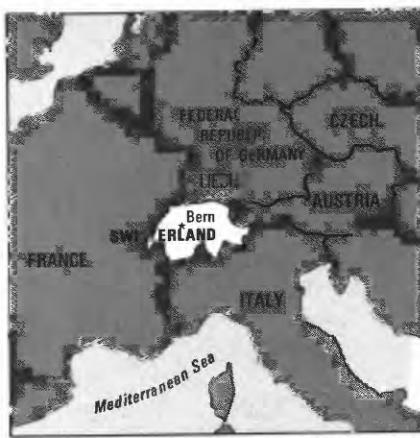
G,H, C,R Sveriges Geologiska Undersökning (SGU)
[The Geological Survey of Sweden]
Box 670
S-751 28 Uppsala
General-Director: Gunnar Ekevärn

C Statens Lantmäteriverk (LMV)
[The National Landsurvey of Sweden]
S-801 12 Gävle
Director: Sten Wickbom

H Sveriges Meteorologiska och Hydrologiska Institut
(SMHI)
Folkborgsvagen 1, Fack
S-601 01 Norrköping
Director: Lars Ag

R Statens Industriverk (SIND)
[The National Swedish Industrial Board, Mineral
Division]
Mineralbyrån
Box 16315
S-103 26 Stockholm
Director: Thorsten Neyman

SWITZERLAND



G,H Geologische Kommission der Schweizerischen
Naturforschende Gesellschaft
Bernoullianum
4056 Basel
Director: H. Fischer

G Geologisches Institut
Eidgenössische Technische Hochschule
ETH-Zentrum
8092 Zürich
Head: K. Hsu

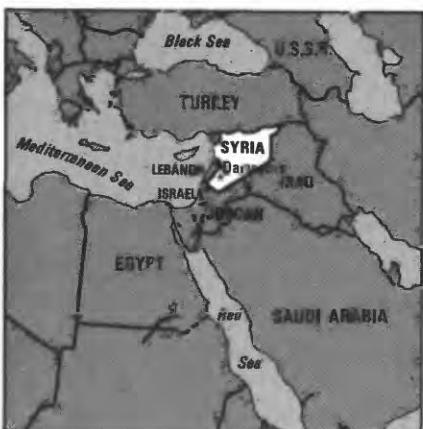
H Eidgenössische Gewässerschutzkommission
[Federal Commission for Water Protection]
Secretariat: Bundesamt für Umweltschutz
Schwartztorstrasse 53
3003 Bern
President: Paul Manz

H Bundesamt für Wasserwirtschaft
[Federal Office for Water Economy]
Effingerstrasse 77
Case Postale 2742
3001 Bern
Director: Rolf Loepfe

C Bundesamt für Landestopographie
[Federal Office for Topographical Survey]
Seftigenstrasse 264
CH-3084 Wabern
Director: Ernst Huber

R Bundesamt für Energiewirtschaft
[Federal Energy Agency]
Kapellenstrasse 14
3011 Berne
Director: E. Kiener

SYRIA



(See reference map V)

G Directorate of Geological Research and Mineral Resources
Ministry of Petroleum
Fardos Street
Damascus
Director: Seifuddin Atfeh

H Surface Water Office
Irrigation and Water Forces Department
Joul Jammal Street
P.O. Box 4211
Damascus
Head: Abdul Fallah Mouski

C Service Geographique de l'Armee
B.P. 3094
Damascus

TAIWAN



(See reference map VII)

G Chinese Petroleum Corporation
83 Chunghua Road
Taipei
Chairman: Jerome Hu

G Institute of Oceanography
National Taiwan University
1 Roosevelt Road, Section 4
Taipei
Director: Ju-Chin Chen

G Institute of Geology
National Taiwan University
1 Roosevelt Road, Section 4
Taipei
Director: Yuan Wang

G Institute of Geophysics
National Taiwan University
Chung Li, Taoyuan County
Chairman: Chieh-hou Yang

G Institute of Earth Sciences
Academia Sinica
P.O. Box 23-59
Taipei
Director: Yi-ben Tsai

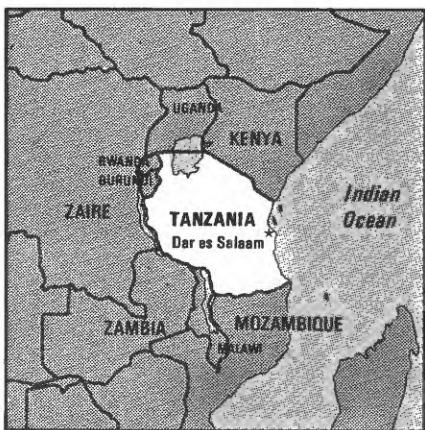
G,C Central Geological Survey
P.O. Box 968
Taipei
Director: Tieh-liang Hsu

C Agriculture and Forestry Aerial Survey Team
Taiwan Provincial Forestry Bureau
101-1, Ho Ping West Road, Section 2
Taipei
Team Leader: Tse-lin Huang

C Combined Service Forces
Ministry of National Defense
Chieh Shou Hall, Chungking South Rd.
Taipei
Commander-in-Chief: To-nien Wang

- H Taiwan Provincial Water Conservancy Bureau
Nanking Road
Taichung
Director: Wen-hsiang Chen
- H Taiwan Power Company
39 Ho Ping East Road, Section 1
Taipei
Chairman: Lan-Kao Chen
- H Water Resources Planning Commission
Ministry of Economic Affairs
2, Ning Po East Street
Taipei
Chairman: Hong-hsi Hsu
- R,G Mining Research and Service Organization
Industrial Technology Research Institute
1 Tun Hua South Road
Taipei
Director: Tah-tsung Feng

TANZANIA



(See reference map VI)

- G Geology
Ministry of Water, Energy, and Minerals
P.O. Box 903
Dodoma
Principal Geologist: D. J. Chao
- H Hydrological Section
Ministry of Water, Energy, and Minerals
P.O. Box 35066
Dar es Salaam
Principal Hydrologist: W. Balaile
- C Survey and Mapping Division
Ministry of Lands, Housing, and Urban Development
P.O. Box 9201
Dar es Salaam
Senior Surveyor: O. Andrew

- R Mines
Ministry of Water, Energy, and Minerals
P.O. Box 9153
Dar es Salaam
Director of Planning: W. L. Mahanga
- R Tanzania Petroleum Development Corporation
P.O. Box 2774
Dar es Salaam
General Manager: Sylvester Barongo

THAILAND

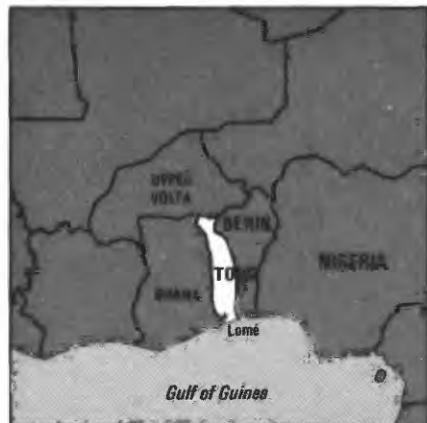


(See reference map VII)

- G,H Royal Forestry Department
Ministry of Agriculture and Cooperatives
Phaholyothin Road
Bangkok 9
Director-General: Thanom Premrasmi
- G,H Meteorological Department
Ministry of Communications
612 Sukhumvit Road
Bangkok 11
Director-General: Kajit Buajitti
- G,R Department of Mineral Resources
Ministry of Industry
Rama VI Road
Bangkok 4
Director-General: Prabhas Chakkaphak
- H Royal Irrigation Department
Ministry of Agriculture and Cooperatives
Samser Road
Bangkok 3
Director-General: Manas Pitioongse
- H Mekong Committee
c/o ESCAP
Rajdamnern Avenue
Bangkok

- H Hydrology Section
 Royal Irrigation Department
 Ministry of Agriculture and Cooperatives
 811 Samser Road
 Bangkok 3
 Chief: Damrong Jaraswathana
- C Armed Forces Survey Department
 Supreme Command Headquarters
 Ministry of Defense
 Rachinee Road
 Bangkok 2
 Director of Survey: Chumporn Kulkasem
- C National Research Council of Thailand
 Ministry of Science, Technology, and Energy
 196 Paholyothin Road
 Bangkok 9
 Secretary-General: Sanga Sabhasri

TOGO

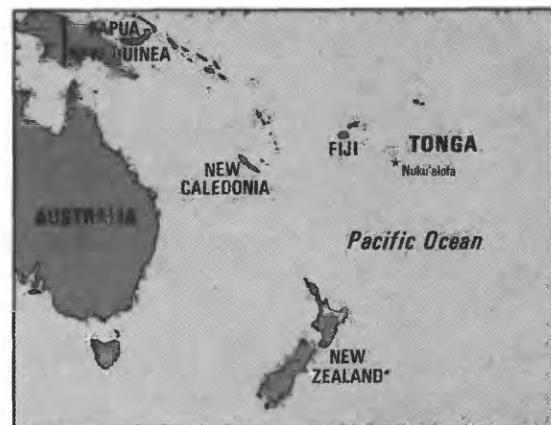


(See reference map VI)

- G Direction des Mines et de la Géologie
 Ministère des Mines, et Ressources Hydrauliques
 B.P. 356
 Lomé
 Directeur: Soku Koffi Houenyiglo
- H Division de l'Hydrologie
 Dirección du Génie Rural
 B.P. 1463
 Lomé
 Chief: J. K. Katakou
- H Office de la Recherche Scientifique et Technique
 Outre-mer
 Centre (ORSTOM)² de Lomé
 B.P. 375
 Lomé
 Directeur: Jean Francois Vizier

- C Service Topographique
 Ministère des Travaux Publics, Poste, et
 Télécommunication
 B.P. 335
 Lomé
 Directeur: Djibom Adamah

TONGA



(See reference map VIII)

- G,C Ministry of Lands, Survey and Natural Resources
 H,R P.O. Box 5
 Nuku'alofa
 Superintendent: S. L. Tongilava

TRINIDAD AND TOBAGO



(See reference map II)

- G,R Ministry of Energy and Energy-Based Industries
 P.O. Box 96
 Port-of-Spain, Trinidad
 Permanent Secretary: G. H. Legall
 Senior Geologist: John P. Scott
- H Water Resources Agency
 P.O. Box 145
 Port-of-Spain, Trinidad
 Director: Elton Wyke

² Designates French research organization, without governmental affiliation.

C Lands and Surveys Department
 Mapping and Control Section
 2b, Richmond Street
 Port-of-Spain, Trinidad
 Director of Surveys: Peter Samuel

TUNISIA



(See reference map VII)

- G Service Géologique de Tunisie
 95 Avenue Mohamed V
 Director: Tijani Lejmi
- G Direction des Mines et de la Géologie
 Ministère de l'Economie Nationale
 195 rue de la Kasbah, Tunis
 Director: Farouk Kchouk

H Service de l'Hydraulique et de l'Equipement Rural
 Sous-Secretariat de l'Agriculture
 Tunis

H Division des Resources en Eau
 Ministère de l'Agriculture
 41 Rue de la Manoubia
 Tunis
 Director: Habib Zbidi

H Ministère de l'Industrie, des Mines et de l'Energie
 195 Rue de la Kasbah
 Tunis
 Minister: Rachid Sfar

C Office de la Topographie et de la Cartographie
 13 Rue de Jordanie
 Tunis
 President Director-General: Habib Amri

R Direction de l'Energie
 Ministere de l'Industrie, des Mines, et de l'Energie
 195 rue de la Kasbah
 Tunis
 Director: Khilifa Karoui

R Entreprise Tunisienne des Activités Petrolières
 (ETAP)
 11 Avenue K. Pacha
 Tunis
 Chairman: Amor Rourou

R Office National des Mines
 26 Rue d'Angleterre
 Tunis
 Chairman: Mekki Zidi

TURKEY



(See reference map V)

G,C,H Mineral Research and Exploration Institute of Turkey
 (Maden Tetkik ve Arama Enstitusu)
 Eskisehir Yolu, Ankara
 Director: Erol Imre

H State Hydraulic Works (DSI)
 Devlet Suvarasi Genel Mudurlugu
 Eskisehir Yolu, Ankara
 General Director: Samim Oztek

C General Directorate of Turkish Mapping Service
 Ministry of National Defense
 T.C., M.S.B. Harita Genel Mudurlugu
 Cebeci, Ankara
 Director General: Ahmet Turan Sokmen

R Petroleum Administration
 Petrol Ofisi Genel Mudurlugu
 Selanik Caddesi No. 8
 Yenisehir, Ankara
 President: Hayrettin Ayhan

R Ministry of Energy and Natural Resources
 Enerji ve Tabii Kaynaklar Bakarligi
 Bakanliklar
 Ankara
 Minister: Deniz Baykal

UGANDA



- G Geological Survey and Mines Department
P.O. Box 9
Entebbe
Commissioner: Yosaamu H. K. Mugenyi
- C Department of Lands and Surveys
P.O. Box 7061
Kampala
Commissioner: Paul Bakashabaruhanga
- H Ministry of Minerals and Water Resources
Water Development Department
P.O. Box 19
Entebbe
Commissioner: J. H. M. Katende

U.S.S.R.

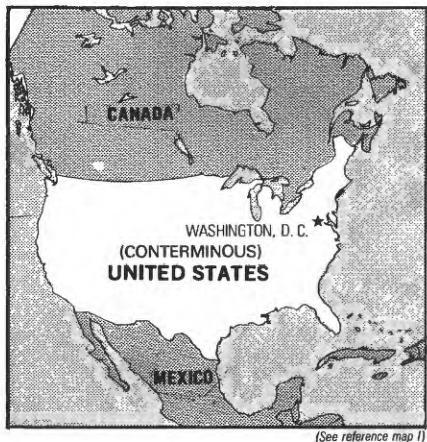


- G All-Union Scientific Research Geological Institute (VSEGEI)
Sredniy Prospekt 72B
199026 Leningrad
Director: A. I. Zhamoyda

- G Institute of Geology
Akademiya Nauk USSR
109017 Moscow ZH-17
Pyzhevskiy Pereulok 7
Director: A. V. Peyve
- G Institute of Geochemistry and Analytical Chemistry imeni V.I. Vernadskovo
Akademiya Nauk USSR
117975 GSP-1 Moscow V-334
Vorobyevskoe Shosse 47A
Director: V. L. Barsukov
- G Institute of Physics of the Earth imeni O. Yu. Shmidtta
Akademiya Nauk USSR
123810 Moscow D-242
Bolshaya Gruzinskaya 10
Director: M. A. Sadovskiy
- G Department of Geology, Geophysics, and Geochemistry
Akademiya Nauk USSR
117901 GSP-I Moscow V-71
Leninskiy Prospekt 14
Secretary (of the Section): B. S. Sokolov
- G Earth Science Section
Academy of Sciences
Akademiya Nauk USSR
117901 GSP-I Moscow V-71
Leninskiy Prospekt 14
Section Chairman: A. V. Sidorenko
- G Institute of the Geology of Mineral Deposits, Petrography, Mineralogy and Geochemistry,
Akademiya Nauk USSR
109017 Moscow ZH-17
Staromonetniy Pereulok 35
Director: F. V. Chukhrov
- G Institute of Lithosphere
Akademiya Nauk USSR
109180 Moscow ZH-180
Staromonetniy Pereulok 22
Director: A. V. Sidorenko
- G Mineralogical Museum imeni A.E. Fersmana
Akademiya Nauk USSR
117071 Moscow V-71
Leninskiy Prospekt 18
Director: Yu. L. Orlov
- G Department of Oceanology, Physics of the Atmosphere and Geography
Akademiya Nauk USSR
117901 Moscow V-71
Leninskiy Prospekt 14
Academic Secretary: L. M. Brekhovskikh

- G Institute of Oceanology,
imeni P.P. Shirshova
Akademiya Nauk USSR
117218 Moscow V-218
Ul. Krasikova 23
Director: A. S. Monin
- G Institute of Vulcanology
Far East Scientific Center
Akademiya Nauk USSR
683006 Petropavlovsk
Kamchatskiy, Bulvar Piyna 9
Director: S. A. Fedotov
- G Institute of Geology and Geophysics
Siberian Department
Akademiya Nauk USSR
630090 Novosibirsk 90
Universitet斯基 Prospekt 3
Director: A. A. Trofimuk
- G Institute of Permafrost Studies
Siberian Department
Akademiya Nauk USSR
677010 Yakutsk 10
Director: P. I. Melnikov
- G Institute of the Earth's Crust
Siberian Department
Akademiya Nauk
664033 Irkutsk 33
Ul. Lermontova 128
Favors Kovo Ulitsa 1
Director: N. A. Logachev
- G Ministry of Geology of the USSR
Moscow D-242
Bolshaya Gruzinskaya, 4
Minister: Ye. A. Kozlovskiy
- H State Committee for Hydrometeorology and Control
of the Natural Environment
Akademiya Nauk USSR
Ul. Pavlika Morozova 12
Moscow D-376
Chairman: J. A. Izrael
- H Institute of Hydrodynamics
Siberian Department
Akademiya Nauk USSR
630090 Novosibirsk 90
Prospekt Nayki 15
Director: L. V. Ovsyannikov
- H Institute of Water Problems
Akademiya Nauk USSR
103064 Moscow K-64
Sadovo Chernogryazckaya 13/3
Director: G. V. Voropayev
- C Main Administration for Geodesy and Cartography
Moscow V-218
Ul. Krzhizhanovskovo 14, Korpus 2
Chief: I. A. Kutuzov
- UNITED KINGDOM
-
- (See reference map IV)
- G Institute of Oceanographic Sciences
Wormley, Godalming
Surrey GU8 5UB
Director: A. S. Laughton
- G Institute of Geological Sciences
Exhibition Road
London, SW7 2DE
Director: G. M. Brown
- G,C Directorate of Overseas Surveys
Foreign and Commonwealth Office
Kingston Road
Tolworth, Surbiton
Surrey, KT5 9NS
Director: D. E. Warren
- G The British Antarctic Survey
Madingley Road
Cambridge CB3 OET
Director: R. M. Laws
- H Water Data Limit
Department of the Environment
Reading Bridge House
Reading RG1 8PS
Head: J. Rodda
- C Ordnance Survey
Ramsey Road, Maybush
Southampton, SO9 4DH
Director General: Walter P. Smith
- C Directorate of Military Survey
Ministry of Defence
Elmwood Avenue
Feltham, Middlesex TW13 7AE
Director: F. M. Sexton
- H Institute of Hydrology
Natural Environment Research Council
Maclean Building, Crowmarsh Gifford
Wallingford, Oxfordshire, OX10 8BB
Director: J. S. G. McCulloch

UNITED STATES



- G U.S. Bureau of Mines
Washington, D.C. 20240
Director: L. D. Norman
- G,C, H,R U.S. Geological Survey
National Center
12201 Sunrise Valley Drive
Reston, Virginia 22092
Director: H. W. Menard
- C Defense Mapping Agency (DMA)
Building 56, Naval Observatory
Washington, D.C. 20305
Director: W. L. Nicholson III
- C National Ocean Survey
National Oceanic and Atmospheric Administration
Department of Commerce
Rockville, Maryland 20852
Director: H. R. Lippold

UPPER VOLTA



- G Direction de la Geologie et des Mines
B.P. 601
Ouagadougou
Director: Emile Gamsonre
- H Direction de l'Hydraulique et de l'Equipement Rural
B.P. 330
Ouagadougou
Director: Idrissa Yaya
- H Office de la Recherche Scientifique et Technique
Outre-mer Center (ORSTOM)² a Ouagadougou
B.P. 182
Ouagadougou
Director: Jacques Claude
- H Comite Inter-Africain d'Etudes Hydrauliques (CIEH)
B.P. 369
Ouagadougou
Secretary-General: Mayaou Gagara
- C Direction du Cadastre et Topographie
Service Topographique
Ministere des Finances et du Commerce
B.P. 7054
Ouagadougou
Director: Omar Traore

URUGUAY



- G Instituto Geologico del Uruguay
Calle J. Herrera y Obes 1239
Montevideo
Director: Walter Cesar Perez
- G Instituto Nacional de Pesca (INAPE)
Calle Constituyente 1497
Montevideo
Director: Ulises W. Perez

² Designates French research organization, without governmental affiliation.

H	Dirección de Hidrología Ministerio de Obras Públicas Cuidaoela 1414 Montevideo Inspector General: J. C. Etchart	G,R	Dirección de Minas Dirección General Sectorial de Minas y Geología Ministerio de Energía y Minas Torre Norte, Piso 20 Centro Simón Bolívar Caracas Director: Carlos Luis Carmona
C	Servicio Geográfico Militar Avenida 8 de Octubre 3255 Montevideo Director: H. G. Pertierra	G,R	Dirección de Geología Dirección General Sectorial de Minas y Geología Ministerio de Energía y Minas Torre Norte, Piso 19 Centro Simón Bolívar Caracas Director: Alirio Bellizzia G.
C	Ministerio de Transporte y Obras Públicas Dirección de Topografía Sarandi 390 Montevideo Director: Uruguay Beca	G,R	Consejo Consultivo de Directores Servicios Geológicos de Latinoamérica Torre Norte, Piso 19 Centro Simón Bolívar Caracas
C	Servicio Hidrográfico de la Armada Capurro 980 Montevideo Director: Hugo Lluberas	C	Dirección de Cartografía Nacional Edificio Edificio Camejo, 2º Piso #230 Centro Simón Bolívar Caracas Director: José Clemente Pérez Oráa
VENEZUELA			



G	Dirección de Investigaciones Geoanalíticas y Tecnológicas Torre Norte, Piso 19 Centro Simón Bolívar Caracas Director: Cecilia Martín F.
G	Fundación Venezolana de Investigaciones Seismológicas Avenida Washington Quinta Francinetti Urbanización San Bernardino Caracas Presidente: Henrique J. Lavié Jefe del Departamento de Seismología: Omar Pérez
G,R	Dirección General Sectorial de Minas y Geología Ministerio de Energía y Minas Torre Norte, Piso 29 Centro Simón Bolívar Caracas Director General: Henrique J. Lavié

VIETNAM



G	Geologic Section State Committee of Sciences Hanoi
G	State Committee of Sciences Station of Oceanography Hanoi

- H Service Hydrometeorologique
4 rue Dang Thai Than
Hanoi
Directeur General: Tran Van An
- C Service Geographique Nationale
Ministere de la Defense Nationale
Dalat
Director: Nguyen Van Khai

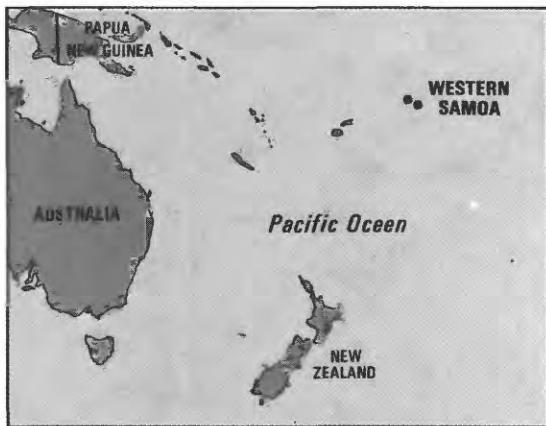
WESTERN SAHARA (formerly SPANISH SAHARA)



(See reference map VI)

- G Dirección General de Plazas y Provincias Africanas
Servicio Minero y Geológico
Castellana No. 5
Madrid 1, Spain

WESTERN SAMOA

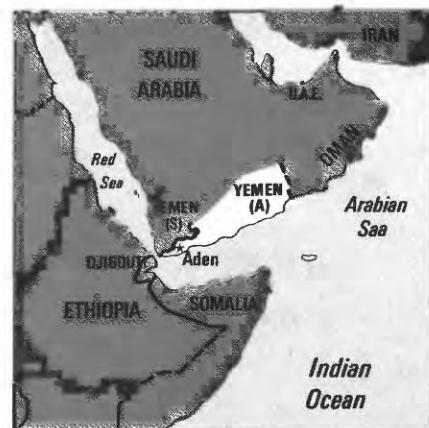


(See reference map VIII)

- C Lands and Survey Department
Main Beach Road
P.O. Box 63
Apia
Director of Lands: Arthur P. Hunter

- H Apia Observatory
P.O. Box 52
Apia
Superintendent: C. Hewson
Hydrologist: P. Muller

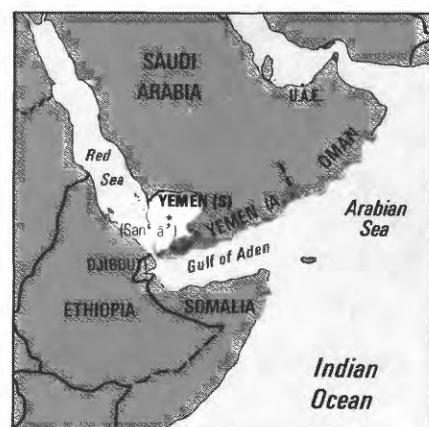
YEMEN (ADEN)



(See reference map V)

- G Overseas Geological Surveys of London, England
c/o Aden Public Works Department
Aden
- G,H,C Ministry of Public Works
Khormaksar, Aden

YEMEN (SAN'Ā)



(See reference map V)

- G Central Planning Organization
P.O. Box 175
San'a'
- G,R Geological Authority
Yemen Oil and Mineral Resources Corporation
(YOMICO)
P.O. Box 81
San'a'
Director-General: Ali Jaber Alawi

H Department of Hydrology (YOMICO)
San'a'
Director-General: Ali Jaber Alawi

YUGOSLAVIA



G Zavod za Geoloskli i Geofizicka Istrazivanja
(GEOZAVOD)
[Institute for Geological and Geophysical Research]
Karadjordjeva 48
Belgrade
Director: Zivojin Djordjevic

G Institute for Geological and Mining Exploration and
Investigation of Nuclear and other Mineral Raw
Materials
Rovinjska 12
Belgrade
Director General: Milorad Nikolic

G,H Institut za Geotehnikui Hidrogeologiju
Geoinzenjering Sarajevo
Ilidža
Uslanick 3
Director: Safet Cicic

G,H,C,R Federal Administration for Internal Scientific,
Educational, Cultural and Technical Cooporation
(FAISECTC)
29 Kosancicev Vanae
Belgrade
Executive Secretary: Liljana Melovski

G Industro Projekt
P.O. Box 334, Savska Ceste 88A
41001 Zagreb 2

H Institute for Development of Water Resources
Vojvo de Misica 43
Belgrade
Director: Branislav Kujundzic

H Savezni Hidrometeorological Zarod
[Federal Hydrometeorological Institute]
Bircaninova 6/III
P.O. Box 604
11000 Belgrade
Director: Djura Radinovic

C Glavna Geodetska Uprava Pri Vladi Federativne
Narodne Republike Jugoslavije
Slobodara Penjezica 35
Belgrade

ZAIRE



(See reference map VI)

G Service Geologique du Zaire
Ministry of Mines
B.P. 898
44 Avenue des Huileries
Kinshasa
Director: Mubiayi

H Regie des Voies Navigables
B.P. 3144
Kinshasa
Directeur: M. Ndombasi

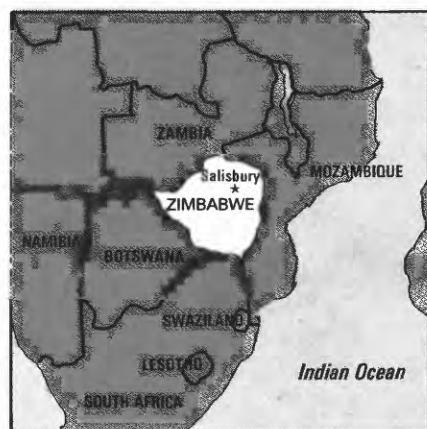
C Institut Geographique du Zaire
106 Blvd du 30 Juin
B.P. 3086
Kinshasa
Director: Lubiku Lusiense Belani

ZAMBIA



(See reference map VI)

ZIMBABWE



(See reference map VI)

- G Geological Survey Department
Ministry of Mines
P.O. Box RW 135
Ridgeway, Lusaka
Director: J. G. Thieme
- G,R Zambia Industrial and Mining Corporation, Ltd.
(ZIMCO)
Zimco House, Cairo Road
P.O. Box 90
Lusaka
Executive Director: James Mapoma
- G Mining Industry and Technical Services
RCM/NCCM Ltd.
P.O. Box 71
Kalulushi
Manager: J. Downsborough
- C Survey Department
Ministry of Lands and Natural Resources
Mulungushi House
P.O. Box RW 397
Lusaka
Surveyor General: Andrew J. Kownacki
- H Water Affairs Department
Ministry of Agriculture and Water Development
Nationalist Road
P.O. Box RW 288
Lusaka
Director: M. S. Aly

- G Geological Survey of Rhodesia
Ministry of Mines and Lands
P.O. Box 8039, Causeway
Salisbury
Director: F. L. Amn
- H Hydrological Branch
Ministry of Water Development
P.O. Box 8132
Causeway, Salisbury
Chief: W. G. Wannel
- C Department of Trigonometrical and Topographical Surveys
Salisbury
- C Department of the Surveyor General
P.O. Box 8099
Causeway
Salisbury

MAJOR INTERNATIONAL ORGANIZATIONS ³

G	American Association of Petroleum Geologists (AAPG) P.O. Box 979 Tulsa, Oklahoma 74101 USA Executive Director: Fred Dix	G	Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas, East Asia (COOP,EA) c/o ESCAP United Nations Building Bangkok 2, Thailand Manager/Coordinator: A. Johannas
G	American Geological Institute 5205 Leesburg Pike Falls Church, Virginia 22041 Executive Director: A. G. Unklesbay	G	Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas, South Pacific (CCOP/SOPAC) c/o Mineral Resources Division Private Mail Bag Suva, Fiji Project Manager: Cruz A. Matos
G	American Geophysical Union 2000 Florida Ave. Washington, D.C. 20009 Executive Director: A. F. Spilhaus, Jr.	G,H	Economic and Social Commission for Asia and the Pacific (ESCAP) United Nations Building Rajdamnern Avenue Bangkok 2, Thailand Executive Secretary: J. B. P. Maramis
G,H,C	Arctic Institute of North America (AINA) University of Calgary University Library Tower 2920, 24th Avenue, N.W. Calgary, Alberta Canada T2N 1N4 Executive Director: John S. Tener	H	Environment and Human Settlements Division Economic Commission for Europe (EC) Palais des Nations 1211 Geneva 10, Switzerland
G	Association of Geoscientists for International Development (AGID) Apartado Postal 21241 San Martin, Caracas Venezuela General Secretary: Alirio Bellizza G.	G	Geological Society of America (GSA) P.O. Box 9140, 3300 Penrose Place Boulder, Colorado 80301 President: L. L. Sloss
G	Central American Research Council for Industry Avenida La Reforma 4-47, Zona 10 Guatemala City, Guatemala Director: Gabriel Dengo	G,H	Intergovernmental Oceanographic Commission (IOC) UNESCO place de Fontenoy 75700 Paris, France Chairman: Agustin Ayala-Castanares Secretary: Mario de Oliviera Ruivo
G	Centro Regional de Sismología para América del Sur (CERESIS) Av. Arenales 431 Oficina 702 Apartado 3747 Lima, Peru Director: A. A. Giesecke M.	G,H,C	International Association for Advancement of Earth and Environmental Sciences Department of Earth Sciences Northeastern Illinois State University Bryn Mawr at St. Louis Avenue Chicago, Illinois 60625 USA
G,C	Circum-Pacific Council Halbouy Center 5100 Westheimer Road Houston, Texas 77207 USA Chairman: Michel T. Halbouy	H	International Association for Hydraulic Research (IAHR) P.O. Box 177 2600 MH-Delft, Netherlands Secretary: H. J. Schoemaker
G	Commission for the Geological Map of the World 51, Boulevard de Montmorency 75026 Paris, France Secretary General: Frances Delany	G	International Association for Mathematical Geology (IAMG) Geology Department, Syracuse University Syracuse, New York 13210 USA Secretary General: D. F. Merriam

³ Listed alphabetically without regard to standard acronym.

G	<p>International Association for the Physical Sciences of the Ocean (IAPSO) LaFond Oceanic Consultants P.O. Box 7325 San Diego, California 92107 USA President: R. W. Stewart Secretary-General: Eugene C. LaFond</p>	G	<p>International Association of Planetology Geological Survey 110 15 Praha, Czechoslovakia Executive Officer: Nadezda Stovickova</p>
G	<p>International Association for the Study of Clays Institute für Bodenkunde Technische Universität München 8050 Freising-Weihenstephan West Germany Secretary General: Udo Schwertmann</p>	G	<p>International Association of Sedimentologists Lab. de Paleontologie Université de Liège Place du 20 Aout, 7 Liège, 4000, Belgium Secretary General: C. Monty</p>
G	<p>International Association of Engineering Geology (IAEG) Geologisches Landesamt N-W De-Grief Strasse 195 Postfach 1080 D415 Krefeld I Germany FR Secretary General: R. Wolters</p>	G	<p>International Association of Seismology and Physics of the Earth's Interior (IASPEI) Department of Geology Rice University P.O. Box 1892 Houston, Texas 77001 USA President: H. Berckhemer Secretary General: Jean-Claude De Bremaecker</p>
G	<p>International Association of Geochemistry and Cosmochemistry (IAGC) Department of Geology University of Toronto Toronto, Ontario Canada M5S 1A1 Secretary: G. M. Anderson</p>	G	<p>International Association of the Genesis of Ore Deposits (IAGOD) Geological Survey Prague, Melostranskí Nám 19 118 21 Phaha 1 Czechoslovakia Secretary General: M. Štemprok</p>
C	<p>International Association of Geodesy (IAG) 39ter Rue Gay Lussac 75005 Paris, France President: T. J. Kukkamaki Secretary General: M. Michael Louis</p>	G	<p>International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) Department of Geology University of Nottingham University Park Nottingham NG7 2RD England Secretary General: P. E. Baker</p>
G	<p>International Association of Geomagnetism and Aeronomy (IAGA) Geophysics Research Laboratory University of Tokyo Bunkyo-ku Tokyo 113, Japan General Secretary: Naoshi Fukushima</p>	H	<p>International Atomic Energy Agency (IAEA) Kartnerring II A-1010 Vienna 1, Austria</p>
H	<p>International Association of Hydrogeological Sciences (IAHS) Research Institute of Water Resources Development Rakoczi Ut 41 Budapest 8, Hungary Secretary General: G. Koracs</p>	C	<p>International Cartographic Association (ICA) Flottbrogaven 16 S-112 64 Stockholm, Sweden President: F. J. Ormeling Secretary General: O. Hedbom</p>
H	<p>International Association of Hydrogeologists BRGM6, rue Chasseloup-Laubat 75739 Paris, France Secretary General: G. Castany</p>	G	<p>International Commission for Palynology Cortelaan 9 Utrecht, Netherlands Secretary-Treasurer: A. A. Manten</p>
H	<p>International Association of Hydrological Sciences 19, rue Eugène Carrière F-75018 Paris, France President: J. C. I. Doodge Secretary General: J. A. Rodier</p>	H	<p>International Commission on Large Dams (ICOLD) 22 et 30 Avenue de Wagram 75008 Paris, France</p>
H		H	<p>International Committee on Irrigation and Drainage (ICID) 48 Nyaya Marg, Chanakyapuri New Delhi 21, India</p>

G	International Congres of Carboniferous Stratigraphy and Geology (Ninth) ER-501, U.S. National Museum of Natural History Washington, D.C. 20242 USA President: M. Gordon	H	International Hydrological Programme UNESCO, Division of Water Sciences 7 Place de Fontenoy 75700 Paris, France Secretary: Sorin Dumitrescu
G	International Council for Exploration of the Sea (ICES) Charlottenlund Slot DK-2920 Charlottenlund, Denmark Secretary General: Hans Tambs-Lyche President: B. B. Parrish	G,H,C	International Institute for Aerial Survey and Earth Sciences (ITC) 144 Boulevard 1945 P.O. Box 6 Enschede, Netherlands Secretary: W. A. C. Walraven
G,H,C	International Council of Scientific Unions (ICSU) 51 Boulevard de Montmorency 75016 Paris, France President: C. de Jager Executive Secretary: F. W. G. Baker	G,H	International Institute for Applied Systems Analysis Schloss Laxenburg 2361 Laxenburg, Austria Director: Michel Grenon
H	International Development Association (IDA) 1818 H Street, N.W. Washington, D.C. 20433 USA	G	International Mineralogical Association (IMA) Department of Geology, Queens University Kingston, Ontario Canada K7L 3N6 Acting Secretary: Leonard G. Berry
G	International Federation of Societies of Economic Geologists Comandante Fortea 7-3 Madrid 8, Spain	G	International Ocean Institute Old University Msida, Malta Assistant to the Director: C. F. Vanderbilt
G,C	International Geographical Union (IGU) c/o Vice Rector, Natural Resources UN University 29th Floor, Toho Seime Building 15-1, Shibuya 2-chome Shibuya-ku Tokyo 150, Japan Secretary General: Walter Manshard	G,H	International Oceanographic Foundation (IOF) 3979 Rickenbacker Causeway Miami, Florida 33149 USA Chief Executive Officer: F. G. Walton Smith
G	International Geological Congress (26th) (1980) Laboratoire de Geologie 61, rue de Buffon 75005 Paris, France Chairman of Organizing Committee: R. Lafitte	H	International Organization for Standardization (ISO) 1 Rue de Varembe 1211 Geneva 20, Switzerland
G	International Geological Correlations Program (IGCP) UNESCO 7, Place de Fontenoy 75700 Paris, France Secretary: E. von Braun	G	International Organization of Paleobotany (IOP) N.E. London Polytechnic Romford Road London E15 4L2 England President: T. Delevoryas Secretary General: M. C. Boulter
G	International Glaciological Society c/o Scott Polar Research Institute Lensfield Road Cambridge, CB2 IER England Secretary General: Hilda Richards	G	International Paleontological Association (IPA) Department of Geology McMaster University Hamilton, Ontario L8S 1C0 Canada Secretary General: G. E. G. Westermann
H	International Hydrographic Bureau (IHB) 7 Avenue President J. F. Kennedy B.P. 345 Monte Carlo, Monaco President: G. S. Ritchie	G	International Paleontological Union (IPU) Geologisches Institut Universitat Gottingen, West Germany
		G	International Seismological Centre 5 rue René Descartes 67 Strasbourg, France

G,C,H	International Society for Photogrammetry (ISP) U.S. Geological Survey 917 National Center Reston, Virginia 22092 USA Secretary General: Frederick J. Doyle	H	Natural Resources Division Economic Commission for Africa (ECA) P.O. Box 3001 Addis Ababa, Ethiopia
G	International Society for Rock Mechanics (ISRM) Laboratorio Nacional de Engenharia Civil 101 Av. Do Brasil 1799 Lisboa CEDEX, Brazil Secretary General: Arnaldo Silverio	G,H	Organization for Tropical Studies (OTS). North American Office P.O. Box DM, Duke Station Durham, North Carolina 27706 USA Executive Director: Donald E. Stone
G,C,H	International Union for Conservation of Nature and Natural Resources (IUCN) 1196 Gland Switzerland Director General: David A. Munro	G,C,H	Pacific Science Association Box 17801 Honolulu, Hawaii 96817 USA Chairman, Executive Committee: Roland W. Force
G,H	International Union for Quaternary Research (INQUA) Vrije Universiteit Brussel Kwartaingeologie Pleinlaan, 2 B-1050 Brussels, Belgium Secretary-Treasurer: R. Paepe	G,C,H	Pan American Institute of Geography and History (PAIGH) Embajada del Ecuador en Argentina Avenida Quintana N°585, 9º Piso Buenos Aires, Argentina President: Mario Jimenez Montero Secretary General: Ing. Jose A. Saenz G.
G	International Union of Crystallography (IUCR) 5 Abbey Square Chester CH1 2HU England President: N. Kato Executive Secretary: J. N. King	H	Resources and Transport Division United Nations (UN) United Nations, N.Y. 10017 USA
G,C	International Union of Geodesy and Geophysics (IUGG) Observatoire Royal de Belgique Avenue Circulaire 3 1180 Bruxelles, Belgium Secretary General: Paul Melchior	H	Scientific Affairs Division North Atlantic Treaty Organization (NATO) 1110 Brussels, Belgium
G	International Union of Geological Sciences (IUGS) Geological Survey of Canada 601 Booth Street Ottawa, Canada K1A 0E8 President: R. Trumpy Secretary General: W. W. Hutchison	H	Scientific Committee on Water Research (COWAR) 98, Rue Xavier de Maistre 92500 Rueil Malmaison, France
H	International Water Resources Association Science Complex Building University of Wisconsin Milwaukee, Wisconsin 53201 USA	G	Seismological Society of the South-West Pacific (SSSWP) Seismological Observatory P.O. Box 8005 Wellington, New Zealand Governor: G. A. Eiby
H	Land and Water Development Division Food and Agriculture Organization (FAO) Yiale delle Terme di Caracalla 00100 Rome, Italy	G,C,H	Smithsonian Science Information Exchange, Inc. 1730 M Street, N.W., Room 300 Washington, D.C. 20036 USA President: David F. Hersey
H	Natural Resources and Environment Division Economic Commission for Latin America (ECLA) Edificio Naciones Unidas Are. Dag Hammarskjold, Vitacura Santiago, Chile	G	Subcommission for Tectonic Map of the World Geological Institute USSR Academy of Science Pyzhevsky per. 7 Moscow 109017 President: A. V. Peive Secretary General: V. E. Khain
		G	Subcommission for the Cartography of the Metamorphic Maps of the World Instituut voor Aardwetenschappen-Utrecht Budapestlaan 4, postbus 80021 3508 TA UTRECHT, Netherlands President: H. J. Zwart

G	Subcommission, Metallogenic Map of the World U.S. Geological Survey, MS 952 Reston, Virginia 22092 USA President: Philip W. Guild	H	United Nations Environment Program (UNEP) P.O. Box 30552 Nairobi, Kenya
G,H,C	United Nations Development Programme (UNDP) One UN Plaza New York, NY 10017 USA Senior Technical Advisor: Willem O. J. Groeneveld- Meijer	H	World Health Organization (WHO) 1211 Geneva 27 Switzerland
G,H	United Nations Disaster Relief Coordinator (UNDRC) Palais des Nations 1211 Geneva 10, Switzerland	H	World Meteorological Organization (WMO) Hydrology and Water Resources Department 41 Ave. G. Motta Geneva, Switzerland Director: Jaromir Nemec
G,C,H	United Nations Educational, Scientific, and Cultural Organization (UNESCO) Division of Earth Sciences 7 Place de Fontenoy 75007 Paris, France Director: E. M. Fournier d'Albe	G	World Resources and Reserves Data Bank Service 14/15 Lower Grosvenor Place London SW1WOEX England