





 Areas flown in 1962 by Hunting Geology and Geophysics Ltd.
 Areas I, II, III, IV, V flown in 1965-1967 by a consortium
 Basalt plateau flown in 1976 by ARGAS
 Central coastal plain flown in 1976 by ARGAS
 Basalt plateaux flown in 1981 by ARGAS
 South coastal plain flown in 1983 by Geosurvey International Ltd.
 Areas not surveyed
 Boundary of the JABAL IBRĀHĪM quadrangle

Area	Survey date	Terrain clearance (m)	Traverse direction	Traverse spacing (m)
AL 'AYS	1962	150	N 30° E	500
AL LISAN	1962	300	N 60° W	2000
'AQÜQ	1962	150	N 45° W	500
JABAL IDSAS	1962	150	N 45° E	500
JÜZAN BASIN	1962	300	N 55° E	1150
JÜZAN MINERAL	1962	150	N 50° E	1000
JÜLLAYFAN	1962	150	N 60° W	500
MAHAYAYIN	1962	150	N 90° W	500 and 2500
RÄBÖZIN BASIN	1962	300	N 60° E	2000
RÄBÖZIN MINERAL	1962	150	N 45° W	500
WADI GAWÄWİN	1962	150	N 45° E	1000
AREA I	1965-1966	150	N 45° E	800
AREA II	1966-1966	300	N 30° E	800
AREAS III, IV	1966-1967	150	N 45° E	800
AREA V	1966-1967	300	N 30° E	800
CENTRAL COASTAL PLAIN	1976	300	N 60° E	2500
HARRAT RAHAT SOUTH	1981	500	N 30° W	2500
HARRAT HADAN	1981	500	N 45° E	2000
HARRAT KISHB	1981	500	N 45° E	2000
HARRAT NAWÄSIF	1981	500	N 45° E	2000
HARRAT NAWAYBAR	1981	500	N 30° E	2000
HARRAT RAHAT NORTH	1981	500	N 45° E	2000
SOUTH COASTAL PLAIN	1983	300	N 30° E	2000

Total-intensity aeromagnetic data for the Precambrian shield were collected in :

1982 – Several small areas flown by Hunting Geology and Geophysics Ltd. under the supervision of the USGS (U.S. Geological Survey).

1965-1967 – Most of the shield area (Areas I to VI) flown by a consortium comprising Aer Service Corp., Hunting Geology and Geophysics Ltd., Lockwood Survey Corp. Ltd., and ARGAS (Arabian Geophysical and Surveying Co.) under the supervision of BRGM (Bureau de Recherches Géologiques et Minières).

1976 – South part of the Harat Rahaj basalt plateau and central part of the coastal plain from ARGAS under the joint supervision of BRGM, USGS, and the Red Sea Commission.

1981 – Remainder of the basalt plateau flown by ARGAS under the supervision of BRGM.













1983 – South part of the coastal plain flown by Geosurvey International Ltd. under the supervision of USGS.

The 1962 and 1965-1967 surveys were flown using Fluxgate Gulf Mark III magnetometers with analog recording. The data were later digitized and processed at the computer center of the University of Petroleum and Minerals in Dhahran by BRGM (J. Bobillier, M. Bourlier, J. Delon, N. Al Tamimi under the supervision of J.-M. Georgel).

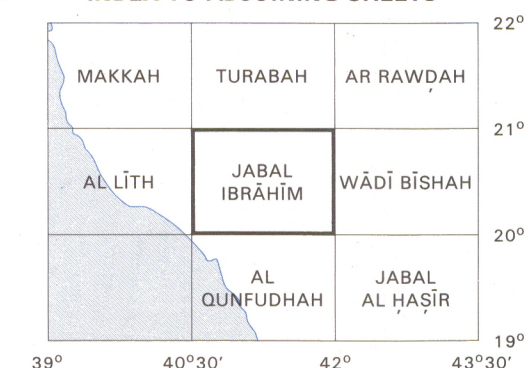
The 1976 and 1981 surveys were flown using a Cesium-vapor magnetometer with digital recording.

The 1983 survey was flown using a Geometrics G 813 proton-precession magnetometer with digital recording.

EXPLANATION

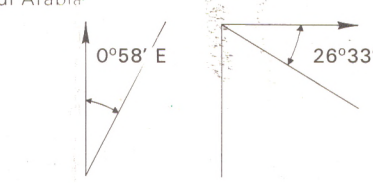
- | | | | |
|---|---|---|--|
|  | Village |  | Airfield |
|  | Ruins |  | Landing strip |
|  | Paved road |  | Spot elevation
(approximate) |
|  | Dirt road or track |  | Horizontal and
vertical control point |
|  | Ancient working, mine,
or prospect; named
where known | | |
|  | 100 nanoteslas contour | | |
|  | 20 nanoteslas contour | | |
|  | Magnetic low | | |

INDEX TO ADJOINING SHEETS



Aeromagnetic data computer processed in 1984

Arabic names on this map do not necessarily conform to those officially established by the Kingdom of Saudi Arabia.



Declination	Inclination
Magnetic declination and inclination of the sheet center computed from IGRF 65 model for 1966.	

Photobase prepared by the United States Geological Survey for the Kingdom of Saudi Arabia from computer-enhanced Landsat MSS band 7 imagery. Imagery controlled to photoidentified ground positions. The root-mean-square error in position of well-defined features in relation to the graticule is approximately 162 m. Horizontal datum: International Spheroid (Hayford); Transverse Mercator Projection, 1924 International Datum.

TOTAL-INTENSITY RESIDUAL AEROMAGNETIC MAP OF THE JABAL IBRĀHĪM QUADRANGLE, SHEET 20 E, KINGDOM OF SAUDI ARABIA
REDUCED TO THE POLE AND UPWARD CONTINUED TO 800 M ABOVE GROUND LEVEL

Compiled by Jean-Marie Georgel, Jacques Bobillier, Jacques Delom, Marcel Bourlier