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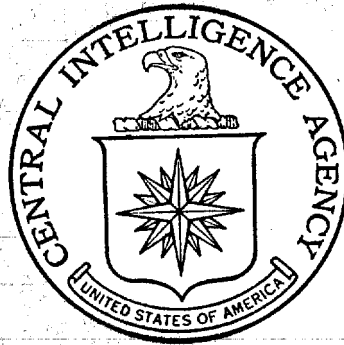
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# GEOGRAPHIC INTELLIGENCE REVIEW



CIA/RR-MR-40

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## CENTRAL INTELLIGENCE AGENCY

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GEOGRAPHIC INTELLIGENCE REVIEW

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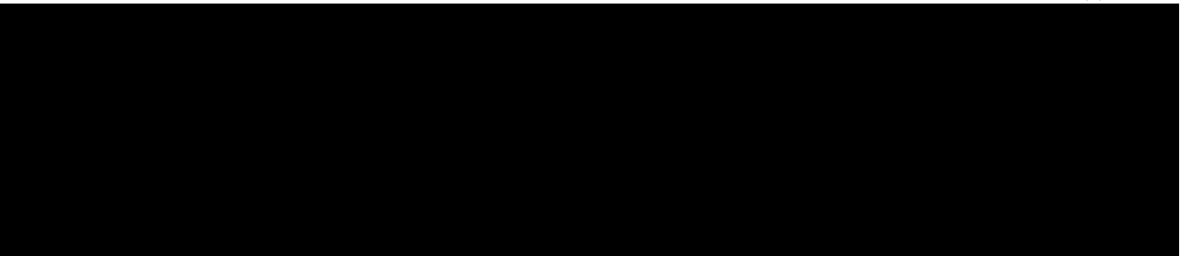
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THE CURRENT STATUS OF MIDDLE EAST MAPPING  
A BRIEF SURVEY

Each country of the Middle East is a distinct political entity with individual problems and aspirations that have conditioned its mapping activities. This compartmentalization within a relatively small area has produced a group of unique situations which, nevertheless, have certain features in common. Nearly all local maps of any consequence, for instance, are produced by the respective governments rather than by private or commercial interests. Nearly all mapping shows strong evidence of foreign influence, with the training of local personnel in the lower echelons accruing as a by-product. The number of skilled personnel and items of modern map-making equipment are extremely limited. While on the surface there has been an expression of friendly cooperation with official United States mapping interests, the factors of pride, suspicion, and dilatoriness have operated to hinder the exchange of ideas, information, and materials. Good geodetic surveys are needed for most of the area, and geodetic adjustments between countries, in particular, have yet to be worked out.

The following report is designed to give a general account of the status of mapping and recent developments of note in the Middle East.

More detailed information for specific countries may be found in the NIS Chapters IX and in the reports of geographic attachés.

### Turkey

The impact of Western culture on Turkey has been strongly felt in the field of mapping. Particularly during the last 5 years, the presence of military and economic advisors and their need for better maps have produced a mapping program approaching western standards. On the Turkish side the impetus has come from an increased tempo in the fields of national defense and of mineral exploration, especially the search for oil.

Official mapping in Turkey is the responsibility of the General Map Directorate, located in the Department of Defense and staffed principally by Army personnel, many of whom are foreign trained. Most of the major topographic series that the Directorate has issued for many years will be abandoned in favor of an effort that will be more appropriate to the defense of the country and to Western use. Topographic series at the scales of 1:50,000, 1:200,000, and 1:800,000 will be discontinued in order to concentrate greater effort on the new Gauss-Krütger 1:25,000 series, which has become increasingly important since 1947. This paves the way for series to be made from the

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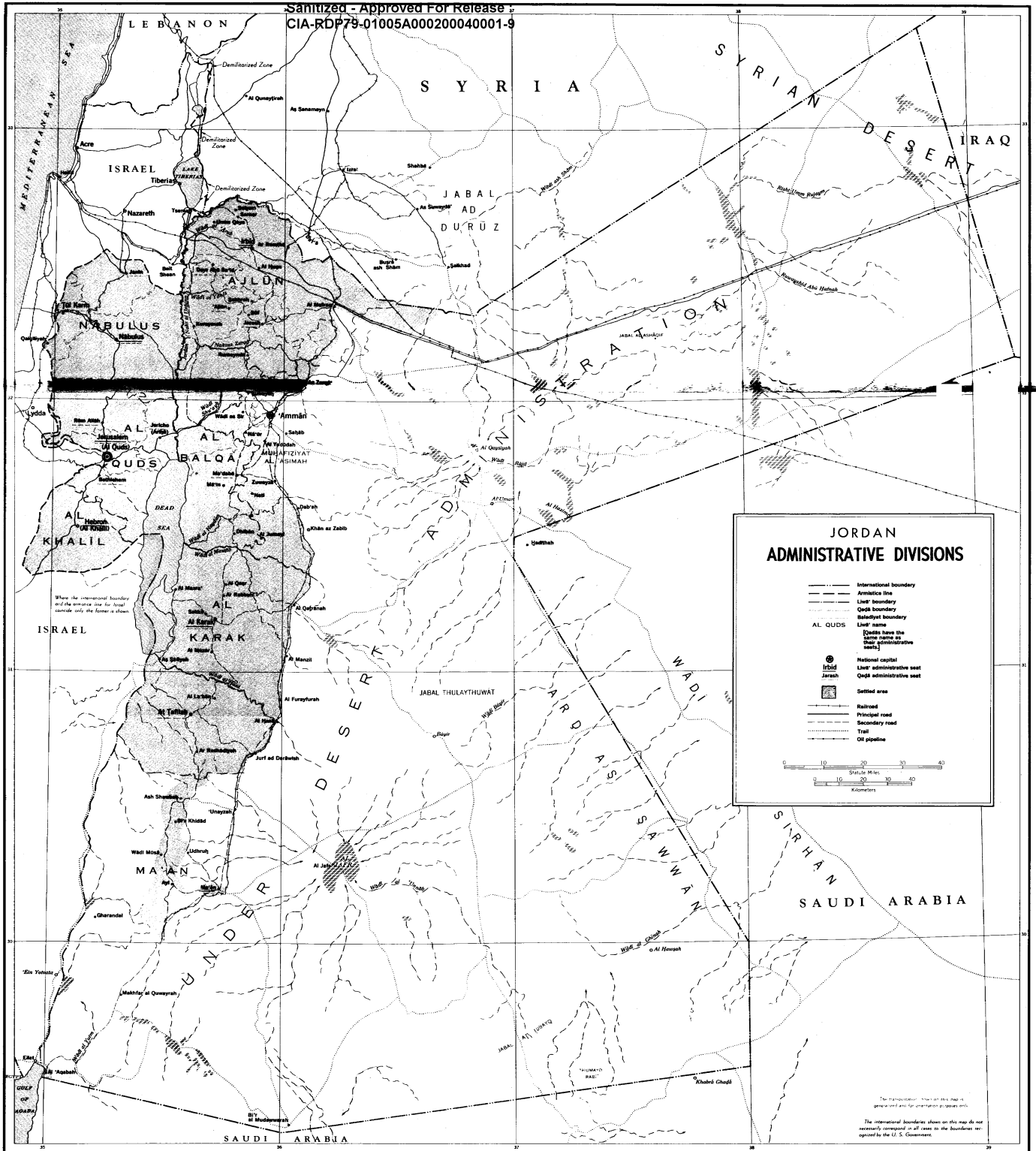
Erratum in MR-40

Please substitute the attached map of Jordan Administrative Divisions, No. 12976, for the map of the same name and number that follows page 54 in Geographic Intelligence Review MR-40.

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1:25,000's at the scales of 1:250,000, 1:500,000, and 1:1,000,000.

The United States Army Map Service has also produced several of the Turkish sheets in its Southwest Asia Series at 1:250,000. An edition at 1:500,000 has already been issued, but future editions will undoubtedly be greatly improved by the inclusion of data from recent large-scale maps. Aerial photography is being flown for use in the topographic and cadastral surveys and by ministries that are planning engineering and construction projects. Approximately two-thirds of the country, chiefly the west and north, have already been covered by photography. First-order control has been established for the entire country and second- and third-order are being completed as needed for compilation of the 1:25,000 series, but very little adjustment has been made with foreign datums.

Special-subject maps will also reflect the new scale selections as well as new information available from surveys. Geologic and tectonic information, formerly published at 1:800,000, is now being held on office worksheets at 1:100,000 and will probably next appear at 1:500,000. The worksheet base is highly inaccurate, since it was produced by blowing up the old 1:200,000 topographic series.

With increasing recognition of the importance of transportation, more highway maps have been produced, and the function is now in

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the process of being transferred from the General Map Directorate to the Highways Department itself, where printing is done on a monochrome offset press. The standard multicolor series at 1:800,000 and the monochrome 1:500,000 road-alignment maps (both planimetric) are being revised for publication in 1954. A small-scale road map is being published yearly, the most recent showing conditions as of March 1953.

For some 400 of the 500 municipalities (population over 2,000), plans have been prepared by the Iller Bankasi as needed for water- and electrical-supply installations. Surveying and drafting are done by private contractors and reproduction is done by the bank at scales ranging from 1:500,000 to 1:5,000. Large-scale maps of mineral exploitations and state powerplants are produced by the Etibank. The Forestry Department has plotted the qualitative distribution of forests in considerable detail at 1:800,000 and has published other forestry maps at smaller scales. Several other government organizations are undertaking small mapping programs.

In general, these organizations use base maps provided by the General Map Directorate and receive assistance from the Directorate in drafting and reproduction on a contract basis, but the mapping agencies, themselves, are responsible for the accuracy of the data.

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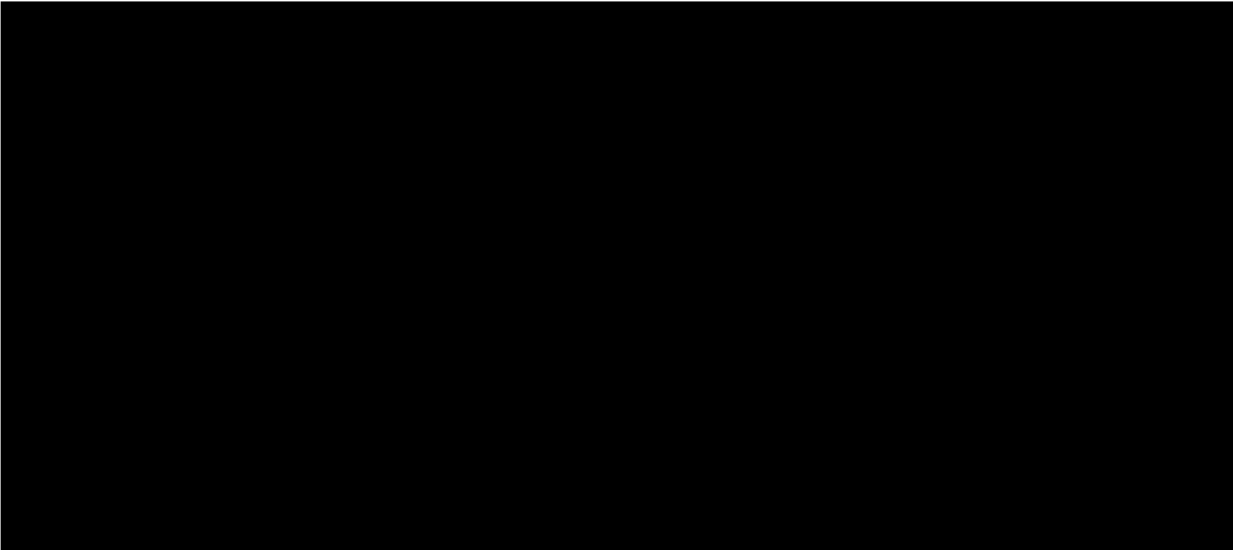
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Egypt

Mapping activity in Egypt is receiving more attention today than at any time since the decline of British prestige. After World War II, an increasing number of Egyptians were placed in technical positions in the Survey of Egypt, which had formerly been administered by the British. Mapping proficiency declined in proportion to the waning of British influence. The interest of the Egyptian Army, bolstered by funds of the Foreign Operations Administration, is currently offsetting the lethargy associated with Egyptian Administration.

The responsibility for topographic mapping in Egypt is divided between the Survey of Egypt in the Ministry of Public Works and the Survey Department of the Egyptian Army. All mapping of the

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Sinai Peninsula is the responsibility of the Army. Topographic mapping and town plans for the remainder of Egypt are executed by the Survey of Egypt under the supervision of the Army. It is not unlikely that the Survey of Egypt will be transferred to the Ministry of War and Marine.

The Survey of Egypt maintains compilation and reproduction units and has expressed a need for a greater number of competent cartographers. Two schools have been maintained by the Survey -- one for training field personnel and the other for draftsmen and reproduction personnel. The Survey Department has several officers in the United States on a training mission and has plans for a new building to be completed by mid-1954. In addition, the Foreign Operations Administration is providing technical guidance in the establishment of a map-reproduction unit for the Survey Department of the Army.

The Survey Directorate, Middle East Land Forces, based at Fayid, worked closely with the Survey of Egypt up to the time of the outbreak of anti-Western feeling. Much of the survey work in Egypt, especially in the desert areas, was carried out by units attached to this headquarters. At present the Middle East Land Forces are doing very little work on Egypt but have extensive programs for other areas.

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The Survey of Egypt has published four basic topographic series -- at 1:25,000, 1:100,000, 1:500,000, and 1:1,000,000. Complete coverage of the country has been produced at 1:100,000, 1:500,000 and 1:1,000,000, but the 1:25,000 sheets cover only the cultivated area. Much of this coverage is unreliable, and extension and revision of the 1:25,000 and 1:100,000 series hold top priority in the Survey of Egypt and the Survey Department at present. Approximately 20 of the new 1:25,000 sheets for northern Sinai have been completed, and 6 more are in progress. No photography is being used in this work. With one exception, security stipulations apply to all maps at scales up to and including the 1:500,000 series. The Director General of the Survey of Egypt does not at present have the authority to issue or discuss maps without prior certification from the Director of Military Intelligence.

Special-subject maps have been published through the Survey by several agencies of the government on a contract basis. Maps by commercial publishers are few, and data have in most cases been obtained from government sources. Mapping by oil companies has covered areas bordering the Red Sea.

First-order triangulation has been completed for the Mediterranean coast and the Nile Valley. This network is tied in with the Libya and Israel triangulations, and with the Arc of the 30th

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Meridian to the south. The United States Air Force and the Army Map Service have recently established connection with Crete and the European computation of the Arc of the 30th Meridian. Lower-order triangulation is available for scattered areas, but much of the desert area remains to be covered.

Both the U.S. Air Force and the Royal Air Force have covered most of Egypt by various types of aerial photography. The greater part of this photography is not available at the Survey of Egypt. The Egyptians have few of the skills required for exacting work of this type and possess a very limited amount of the equipment necessary for aerial photography. It is known that the Royal Egyptian Air Force has flown photographic missions since the beginning of the war with Israel, but evaluations of the quality of this photography and its uses are not available. Under the Point IV program, additional aerial photography has been flown, and assistance is being given in training and equipping a photogrammetric section in the Survey Department.

#### Syria

Foreign influence in mapping activity in the Republic of Syria has been severely restricted. The strong nationalistic attitude maintained by the government, much of which stems from the



conflict with Israel, is effectively stifling opportunities for significant advances in mapping. The basic map coverage of Syria in use today is that produced by the French during the era of the Mandate. Government reproduction facilities are negligible, and Syria has no commercial mapping concerns.

The major geodetic network for northern and western Syria was established by the French and is, in all probability, in the records of the Institut Géographique National (IGN) in Paris. Connections have been made with Lebanese and Iraqi systems. Extensions are known to be underway, but the Syrian Government will not discuss its triangulation program.

On several occasions the Syrian Government has issued invitations to foreign concerns to bid on mapping and aerial photographic projects, but few of the proposals have been carried through. A recent example of Syrian bureaucracy involved a contract for aerial photography reportedly awarded to Koninklijke Luchtvaart Maatschappij (KLM), which was withdrawn in favor of the poorly trained and ill-equipped Syrian Air Force. In spite of internal conflicts, aerial photography has been flown in several areas of Syria since World War II. Hunting Aerosurveys operated in the Yarmuk Valley and KLM in the Ghab Marsh area, as well as over Damascus. No

maps were made of the Syrian side of the Yarmuk, but a 1:25,000 series and a 1:10,000 series were compiled in the Netherlands from the Ghab photography. These series have not been released by the Syrian Government. Maps at 1:5,000 will be compiled in the Netherlands from the photography of Damascus. In view of recent Yugoslav construction contracts, it is possible that Yugoslavia will negotiate for mapping contracts in Syria in the future. Yugoslavia currently has the personnel and equipment necessary to perform aerial surveys and to produce high-quality maps.

The Service du Cadastre, Ministère de la Justice, operating under the technical direction of a White Russian and employing 450 permanent workers (including some 30 draftsmen, of whom only about 5 have had formal training), is the most active mapping organization in Syria. The Service is broken down into three offices, of which the Survey Office (Cadastre) is the most important. In addition the Service maintains regional offices in Aleppo, Damascus, Latakia, Homs, and Hama. The component of the Service that deals with property boundaries, Conservation du Cadastre, has an office in each Mohafazat. The Survey Office employs 10 men to make calculations, and each regional center employs 10 to 15 men for paper work. Although none of these men has been formally trained, several have had long-on-the job experience.

Field parties made up of 2 to 4 permanent members and several day laborers each total 25.

The most promising map work is being carried out with the aid of technicians from the United Nations Food and Agriculture Organization. A survey of underground water and geology in the Yarmuk area has been completed and will be published soon, a soil survey is underway, and a forest survey is in the planning stage.

Mapping Units of the Syrian Army are believed to be largely inactive at present. Aside from the publication of a crude Arabic edition of a French map, little is known of their mapping activity. Syrian officers are currently enrolled in training programs at IGN in Paris and at Delft in the Netherlands.

The Irrigation and Water Power Department of the Ministry of Public Works and Communications, the Technical Bureau of Damascus Municipality, and the Hejaz Railways have produced a few special-subject maps, usually in one or two copies each for official use only.

#### Lebanon

Little Lebanon was not left to shift completely for itself when the French left in 1946. Instead, the government map-making structure was reorganized beginning in 1949 as the Service

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Geographique de l'Armée (SGA) under the capable leadership of a lieutenant colonel from IGN, Paris. The small number of employees (20, plus a few army officers) and the age of the equipment make it unlikely that many sheets will be produced during the next few years, but the Service is training young people who will be able to turn out a high-quality product. The geodetic base has been completed and connected with the Syrian net. At present the Service is revising cultural-information and name plates for sheets of the 1:50,000 series, preparing city plans at 1:10,000 for the major cities, and doing a small amount of new surveying. Approximately eight sheets of the 1:50,000's were scheduled for completion in 1953. All are in Arabic only, except the Beirut sheet, which is also in French. Later compilations will be in both languages. In preparation for future surveys, foreign specialists are training Lebanese technicians in aerial photography and mapping from photographs and are conducting experimental flights out of Ryak Airfield.

The Service du Cadastre employs permanently some 320 persons who are located in Beirut, Zahle, Saida, and Tripoli. Planimetric maps are being published at 1:10,000 for all village areas, but the actual surveys may have been at much larger scale. To date, approximately 60 percent of the country has been surveyed.

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Tourist maps continue to be compiled and printed by the Bureau de Municipalité et Urbanisme, and the Imprimerie Catholique is the only commercial firm with personnel and equipment capable of producing maps in quantity.

### Jordan

Mapping organizations of Jordan have been strongly colored by their long dependence on British technical knowledge, both during and after the Mandate. The foremost individual in the mapping field in Jordan at present is a British subject who is hired on a contract basis by the Jordan Government. Point IV technicians add further Western influence, particularly in special-subject maps. In terms of the size and resources of the country, a significant mapping program is underway by both foreign and domestic agencies.

Except for small corners of the eastern panhandle, the entire country is now covered by topographic maps at 1:100,000 and 1:250,000 that were made by the British Directorate of Military Survey and the United States Army Map Service. The maps were based in part on aerial photography flown by the RAF.

For selected areas, considerable aerial photography is being flown for the Government of Jordan by foreign sources. Three series of topographic maps at 1:10,000, based on such aerial photography, have recently been made:

Yarmuk Valley	3 sheets	Hunting Aerosurveys	1951
Zarqa Basin	32 sheets	Air Survey, London	1950
Lower Jordan Valley	21 sheets	Air Survey, London	1950

The Aero Service Corp. also flew coverage of a narrow strip along the length of the Jordan and Yarmuk Valleys at scales ranging from 1:6,250 to 1:39,000 in October-November 1952. In June 1953, Hunting Aerosurveys began work on a contract to fly cover for all of Jordan at scales ranging from 1:25,000 to 1:50,000.

A set of 30 maps, each covering all but the eastern panhandle, has been produced by the Point IV mission to Jordan as an aid in program planning. Nearly half the maps concern the location of fruit and vegetable raising, others the distribution of population, animals, and industries. The maps could form the basis of a small-scale economic atlas of the country.

Nearly all official mapping of any kind performed locally for the Jordanian Government is produced by the Lands and Survey Department, although it was created in 1928 fundamentally as a surveying organization for the establishment of property boundaries. The

approximately 460 employees are located in 14 offices, and most of them are compilers or surveyors, as reproduction facilities are available for sunprints only. The department is now undertaking a cadastral survey (begun October 1952) of the Jordan Valley and hopes to cover all of the West Bank with fourth-order control. Apparently the West Bank fourth-order control in the War Office, London, is not available to the Department.

Also underway is a project to construct maps for the Arab Legion, in which all of West Bank and the cultivated portions of East Bank will be mapped at 1:100,000. To date, 14 sheets have been printed, and at least 3 others are in work.

Mapping performed by the Arab Legion itself is exclusively for the Israeli border and for military purposes. Aerial photography has been flown by the Legion, and an interest in color photography has been expressed but further details are lacking. The Legion has no reproduction equipment.

The production of city plans is not the responsibility of any single group. For cities in West Bank Jordan and the cities of Amman and Irbid, responsibility lies with the respective city engineers. No plans for West Bank towns have been completed since the end of the Mandate (15 May 1948), but a plan of the old city of

Jerusalem has been drafted at 1:2,500 and Arab Jerusalem is soon to be mapped at 1:5,000. A 1:4,000 plan of the municipal area of Amman was published in Arabic in 1951; and another at 1:2,500, which is being compiled in 13 sheets by the Lands and Survey Department and Hunting Aerosurveys, is scheduled for completion in 1954. For the other 450 village and urban areas in East Bank Jordan, plans based on cadastral control completed in 1953 are to be published by the newly created Bureau of Municipalities.

#### Iraq

In Iraq the stimulus and capability for mapping stem chiefly from outside the country. Air crews and equipment are flown into Iraq for survey purposes; Iraq supplies name-plate data and receives from the contractor the finished product. If technical support is withdrawn, little progress will be made in topographic mapping in Iraq.

The Directorate General of Surveys of Iraq is responsible for the publication of maps. This is nominally a civilian organization; but, as in other countries in the Near East, few decisions can be reached without the consent of the Army. The Directorate is primarily interested in the production of topographic maps but also publishes town plans and a limited number of special-subject maps



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prepared by other agencies. The organization is headed by an American-educated Iraqi, who is assisted by an Englishman. Some 330 people are employed by the Directorate, of whom approximately 100 are surveyors. An estimated 200 surveyors are available in all of Iraq, but only 15 to 20 are capable of work meeting Western standards. Reproduction facilities of the Directorate include cameras and five small one-color presses. One new press is now on order.

At present the Directorate General of Surveys is concentrating on land-settlement maps at 1:10,000 and 1:20,000. Aerial photos of the mountainous area of northern Iraq are being flown on contract by Hunting Aerosurveys, Ltd., and will appear as a topographic series at 1:20,000. Aerial photography has also been flown by Hunting and KLM as a basis for topographic maps contracted for by the Iraq Petroleum Company and the Iraq Development Board. Much of the poorly mapped, marshy area of southern Iraq is being mapped by the Basra Petroleum Company. Units of the Survey Directorate of the British Middle East Land Forces, Fayid, are currently engaged in a countrywide aerial topographic survey from which the Quarter-Inch Series will be revised. This work is not being done for the Government of Iraq.

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The production of the Geographic Section of the Iraqi Army, which employs fewer than 10 persons at the present time, is negligible. The Section is dependent upon the Directorate General of Surveys for both drafting and reproduction facilities.

The Iraq Petroleum Company (IPC) and its affiliates, the Mosul Petroleum Company (MPC) and the Basra Petroleum Company (BPC), are actively interested in mapping. The BPC at Basra and the MPC at Mosul maintain small drafting staffs, but both drafting and reproduction services are performed at IPC headquarters in Kirkuk. Production is centered on oilfield maps. Major topographic mapping programs are carried out by commercial mapping concerns.

Approximately 50 percent of the country has been brought into a triangulation network, and it is being extended by contract work by the Development Board and the petroleum companies. The network is connected with the Syrian net and with the Indian system through Iran. Geodetic information is held by the Directorate General of Surveys, although the petroleum companies do not release their material to the government on an automatic basis.

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Additional map production by the Directorate General of Surveys, includes an historical atlas and an administrative atlas and several small-scale general maps. The Directorate General of Municipalities has prepared approximately 75 town plans since the war, in addition to some electoral maps. Plans suggested for future production include maps of crops, insects, diseases, fish, forestry, and soils.

#### Afghanistan and Iran

Native mapping organizations in Afghanistan are either inactive or are producing nothing of significance. The basic coverage of Afghanistan is still the Survey of India Quarter Inch Series. In Iran, also, there is little local activity, but by 1956 the Quarter Inch Series will be replaced by one at 1:250,000 now in compilation at the Army Map Service and the USAF Aeronautical Chart and Information Center.

#### Saudi Arabia

Saudi Arabia has less map coverage than the other countries of the Near East. The Saudi Arabian Government does not have its own official mapping agency. All significant mapping and charting

of the country and its adjacent waters have been done by foreign governments, commercial firms, or private individuals.

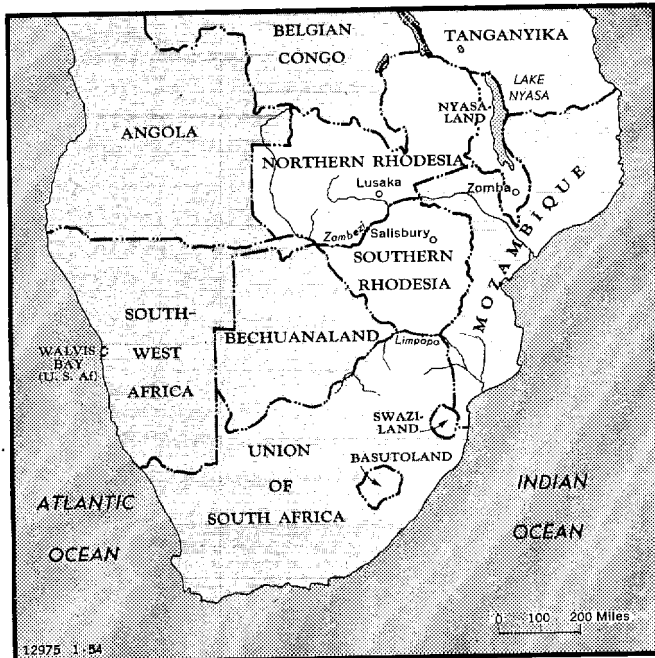
Before the era of oil-company interest in Saudi Arabia, maps were essentially compilations from British Admiralty surveys and charts, Turkish reconnaissance mapping of the area adjacent to the Red Sea, and fragmentary exploratory data for inland areas. Although much of this original work is highly inaccurate, it continues to appear on contemporary maps because of the lack of reliable surveys of more recent date.

The Arabian American Oil Company (Aramco) has acted in behalf of the Government of Saudi Arabia in mapping matters and, through force of circumstances, has become the country's nearest approach to an official mapping agency. Aramco has engaged in an extensive and continuing mapping program centered on 1:100,000 coverage. There is no unified geodetic network for Saudi Arabia, but the Aramco triangulation is the largest single network for the country. In 1938, American surveyors from Aramco, representing the Saudi Arabian Government, worked with the Iraqi surveyors from the Iraq Directorate of Surveys on the Iraq-Saudi Arabia boundary survey. Results of the survey were unsatisfactory, and no effort has been made to reconcile the differences. Aramco is continuing

to expand its geodetic network and map coverage of Saudi Arabia.

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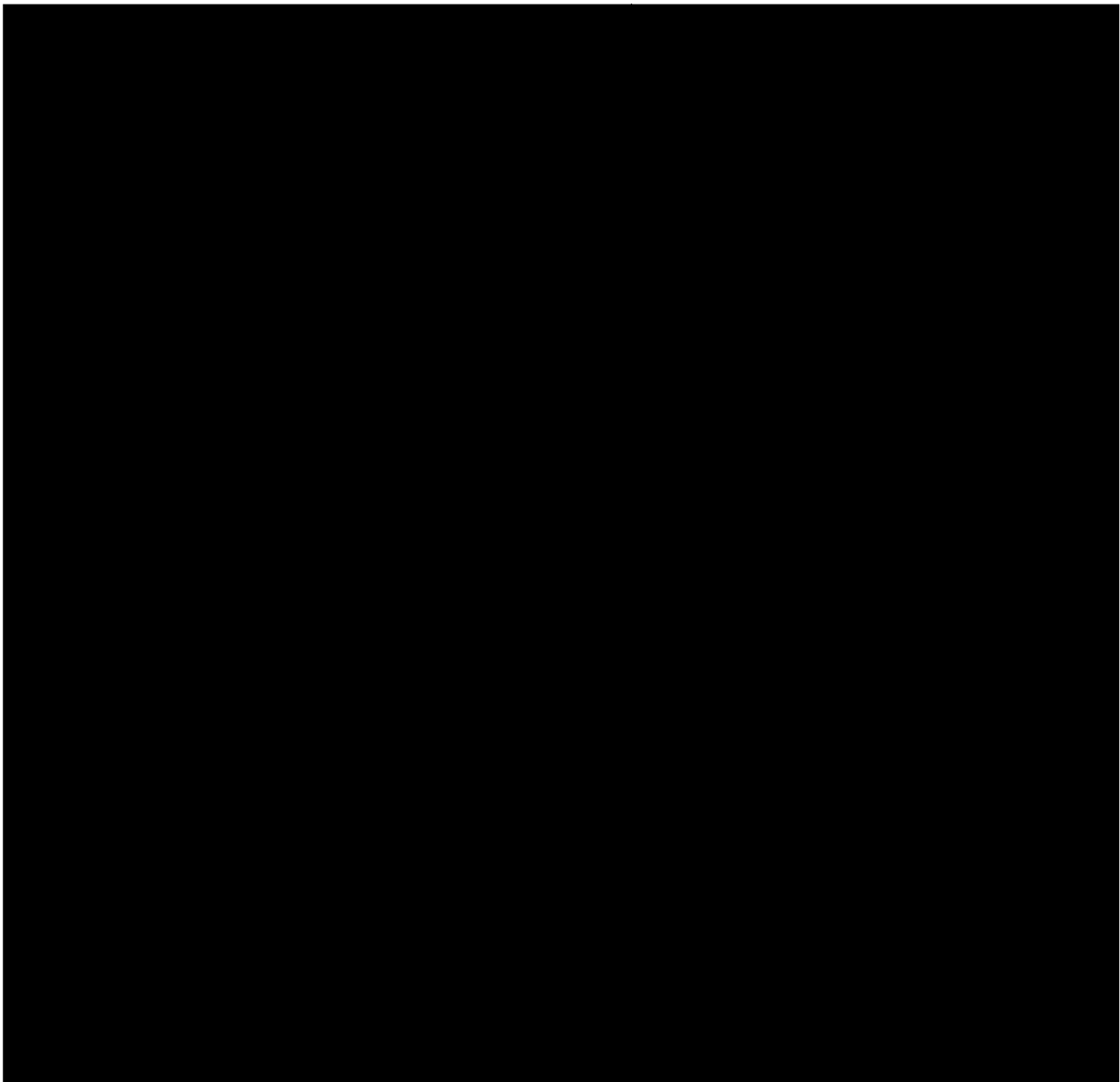
The new Central African Federation, which came into existence on 6 September 1953, links the self-governing colony of Southern Rhodesia with the British protectorates of Northern Rhodesia and Nyasaland. The total area involved is about

487,000 square miles, and the total population is approximately 7,000,000, of whom only about 200,000 are whites.

The creation of a Central African Federation is the result of many years of intensive study by the British Government and by the governments of the territories concerned. The federation provides a practical plan for promoting the economic unity needed for the development of the potentially rich but unexploited resources of the area -- the copper mines of Northern Rhodesia, the coal reserves of Southern Rhodesia, and the plentiful labor supply of Nyasaland.

Equally important to the development of these complementary resources is a closer political unity. Efficient use of the resources should improve the economic condition of all three territories.

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TERRAIN MODEL OF THE MEDITERRANEAN REGION

The Model Branch of the U.S. Naval Photographic Interpretation Center, charged with the production of relief models and maps for the U.S. Navy, has recently completed a sponge-rubber model of the Mediterranean Region and the Near East at 1:2,000,000. It was made at the request of CINCNELM for planning and operational purposes. In size the model measures 5 by 10 feet and is one of the largest models of its type in the world. For elevations below 1,500 feet the vertical exaggeration is 1:30 and for higher elevations 1:15. The basis for the model was three original panels covering Central Europe, North Africa, and Western Asia, and the chief map sources were sheets of the AMS Europe, Africa, and Asia series at 1:4,000,000 (AMS 1202, GSGS 2957), Africa series at 1:2,000,000 (AMS 2201, GSGS 2871), and Europe series at 1:2,000,000 (AMS 6203, GSGS 4464). (SECRET)



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PIC Terrain Model of the Mediterranean Region

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MA'AN-MEDINA RAILROAD

Reconstruction of the Hejaz Railway from Ma'an to Medina has been the subject of considerable discussion in the press of the Arab World in recent years. At present, there are indications that the Medina extension is still a consideration in the minds of Arab leaders.

The Hejaz Railway along the old Syrian Pilgrim Route through Jordan to Medina was conceived in the late nineteenth century and completed early in the twentieth century. Under the direction of Ottoman Sultan Abdul Hamid, work was begun in 1900. The section of the single-track, 105-centimeter line from Damascus to Ma'an was in operation by 1904, and a branch connecting Deraa and Haifa was opened in 1905. Three years later the 516 miles to Medina were completed. Construction of the line was carried out under the direction of 1 German and 4 Turkish engineers, but approximately 200 miles of track south of Al'Ula (26°36'N-38°17'E) were built entirely by the Turks. Even before World War I, speeds of trains over some sections averaged less than 10 miles per hour.

At the time of construction, it was hoped that the Hejaz Railway would further Ottoman influence in Arabia and at the same time

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provide transportation for pilgrims in the annual migration to Mecca. Construction was financed by public conscription throughout Islam and by taxes levied by the Ottoman Empire. The line was originally administered as an Islamic waqf -- an officially directed organization whose profits are given over to charity -- and technically the sector within Jordan is still a waqf.

During the early part of World War I, supplies to Turkish troops in Saudi Arabia were shipped over the Medina branch of the Hejaz Railway. The line proved, however, to be a strategic liability because of the difficult terrain it crossed and the hostility of local tribesmen. Under the leadership of Lawrence of Arabia, Arab irregulars effectively denied the use of the line to the Turks in the latter part of the war. The Ma'an-Medina sector has not been repaired since then.

The British Army in World War II recovered rails from the sector south of Ma'an and relaid them on the Ma'an-Naqb Ashtar link of the supply line to the port of Aqaba. The southern terminus of the track today is Naqb Ashtar, 25.5 miles southwest of Ma'an.

The establishment of the mandates following World War I divided the railroad into several segments. The section from

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Damascus south to Nasib on the Syria-Jordan border reverted to the French Mandate of Syria and is now under the direct control of the Syrian Government through the Director General of Hejaz Railways.

The track through Jordan was administered as part of the Palestine Railways during the British Mandate of Palestine. Following British withdrawal in 1948, the Arab Legion maintained control of the line until 1 January 1950, when it was placed under the control of the Ministry of Communications but as a direct responsibility of the Prime Minister. At present the Jordan-Hejaz Railway is an Islamic waqf financially independent of the Government of Jordan.

South of Mudauwara on the border between Jordan and Saudi Arabia, the railroad is nominally under the control of the Saudi Government, although the roadbed has not been used since World War I.

An understanding between representatives of Syria, Jordan, and Saudi Arabia regarding the extension of the Ma'an-Medina line was reached at Damascus in 1947. It was agreed that construction funds were to be furnished by the governments concerned and that, upon completion, the line would operate as a Islamic waqf.

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Maintenance funds and repayment of construction costs would be obtained from operating revenues. In addition, an operating fund would be maintained for future expenditures. Upon fulfillment of the above obligations, remaining revenues would be used to assist pilgrims traveling to Mecca. A committee to deal with reconstruction was established and studies of the condition of the Ma'an-Medina track were submitted, but no action was taken as a result of the reports.

Officials in Jordan have been in touch with the Governments of Syria and Saudi Arabia regarding action on construction of the Ma'an-Medina line, with little result. The cost of the reconstruction has been estimated to be in the neighborhood of \$5,000,000. A recent survey estimates that little more than 60 kilometers of rail are missing from this line and that, with ample financial support, a reconstruction project could be completed in 18 months to 2 years. It is felt in Amman that, in addition to the pilgrim traffic, a rail link to Saudi Arabia would provide an outlet for agricultural products stemming from the Jordan Valley development program now being implemented, thus justifying a loan from the International Bank for Reconstruction and Development. In some quarters it is said that revenues from pilgrim traffic, which today go to shipping

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concerns, would be enough to sustain the line. Most of the reconstruction would take place within the boundaries of Saudi Arabia; and, since Saudi Arabia will receive the greatest benefit from the line, Amman and Damascus feel that Saudi Arabia should bear the major portion of the reconstruction expense.

Jordan is also interested in construction of a rail outlet to the town of Aqaba at the head of the Gulf of Aqaba. At present the British-built supply road runs from Aqaba to the rail head at Naqb Ashtar, a climb of over 4,900 feet in a distance of approximately 45 miles. The cost of constructing a railroad is prohibitive over so steep a grade and in an area of broken terrain where many wadis have to be bridged. A longer but less difficult route over the old roadbed to Muduawara on the border of Saudi Arabia and thence to Aqaba has been proposed. Buying power in Jordan is so low that foreign areas will offer the only markets for items produced in Jordan. In the event that access to Beirut were denied, a rail connection with Aqaba would be of prime importance to Jordan and the Arab Legion.

Syrian reaction to reconstruction of the Medina line has been favorable. Along with Jordan, Syria has indicated a willingness to contribute a proportional amount to the expense involved. The

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Director of the Hajj in Syria has approached his government regarding the possible use of the route to augment sea and air routes that now carry capacity numbers of pilgrims. The Syrians also believe that an open avenue to a food-importing country is to their advantage economically.

King Ibn Saud took little interest in the Medina Railroad, but the new King of Saudi Arabia looks upon it with much more favor. A recent meeting of the Arab League Communication Committee received favorably a motion that full support be given to the reconstruction of the Ma'an-Medina rail line. At the same time it was agreed to request the full cooperation of the Saudi Arabian Government in the project. The Saudi Government, however, is currently preoccupied with the extension of the Government Railroad from Riyadh -- via Marrat, Anaiza, Medina, and Yanbu' -- to the Red Sea and Jidda. A spur of this line will run to the limit of the restricted area of Mecca. A survey of the line has been completed, and the Saudi Government is said to favor its construction. The reconstruction of the Ma'an-Medina line will be given serious consideration only after the Persian Gulf-Red Sea connection has been completed.



Even though a number of regional needs might be alleviated by the reconstruction of the Ma'an-Medina line, a coordinated effort for its construction has yet to be achieved. In addition to the fact that the hard-pressed Saudi Arab treasury would have to shoulder the major portion of the construction cost, the distrustful atmosphere of the Arab political relationships is a strong deterrent to the success of the project. (CONFIDENTIAL)

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ADMINISTRATIVE DIVISIONS OF JORDAN

The internal divisions of Jordan, as given on the accompanying map, include 8 first-order units -- liwas or districts. The Muhafidhiyat El 'Asima, sometimes referred to as the Governorate of Amman but listed in the August 1952 Census of Housing as Amman District, is included among the first-order divisions. Second-order units -- qadas or sub-districts -- are 19 in number. Irregular third-order divisions, nahiyas, are listed for 6 of the sub-districts in the Census of Housing, but no attempt has been made to include them on map CIA 12976. Amman and environs fall within the administrative jurisdiction of Baladīyat 'Ammān, the Municipality of Amman.

First- and second-order divisions cover the settled area of Jordan. The Badiyah or Desert Administration, through Arab Legion police, is responsible for the Bedouin tribes of eastern Jordan.

Since administrative divisions of Jordan are believed not to be rigidly bounded in all instances, boundaries may not be given in places where settled areas adjoin desert waste. This situation occurs in southern Jordan and along the eastern limits of the

settled area. In effect the railway serves as an administrative boundary along much of this eastern frontier. In theory, however, administrative authority may be extended eastward to cover settled peoples. (UNCLASSIFIED)

MIDDLE EAST PETROLEUM INDUSTRY

The accompanying map, Middle East Petroleum Industry (CIA 12382), was designed to give the locations of petroleum concessions and facilities. The place names most commonly used in petroleum-industry literature were selected for use on the map. Not all of these are forms approved by the U.S. Board on Geographic Names. Because of the rapid expansion of the petroleum industry, the information given on this was already incomplete by the time of publication. A revision is planned for 1955. (SECRET)

RAILROADS OF THE MIDDLE EAST

The accompanying map, Railroads of the Middle East -- 1953, (CIA 12465), is a sequel to the series of maps on railroads of Africa prepared by the Geography Division of CIA. The four maps covering Africa appeared in Map Research Bulletins 25, 26, 28, and 30. (CONFIDENTIAL)

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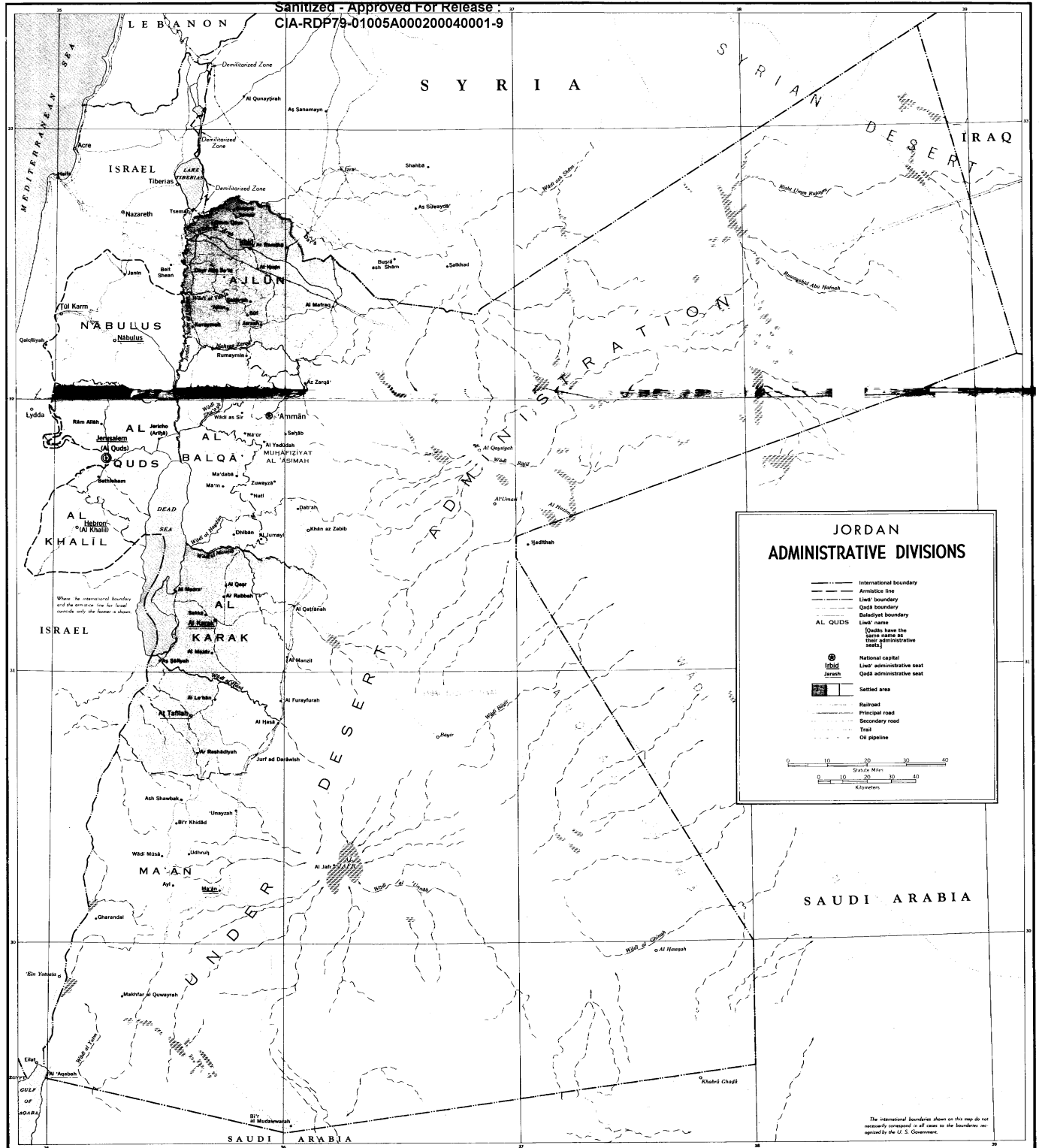
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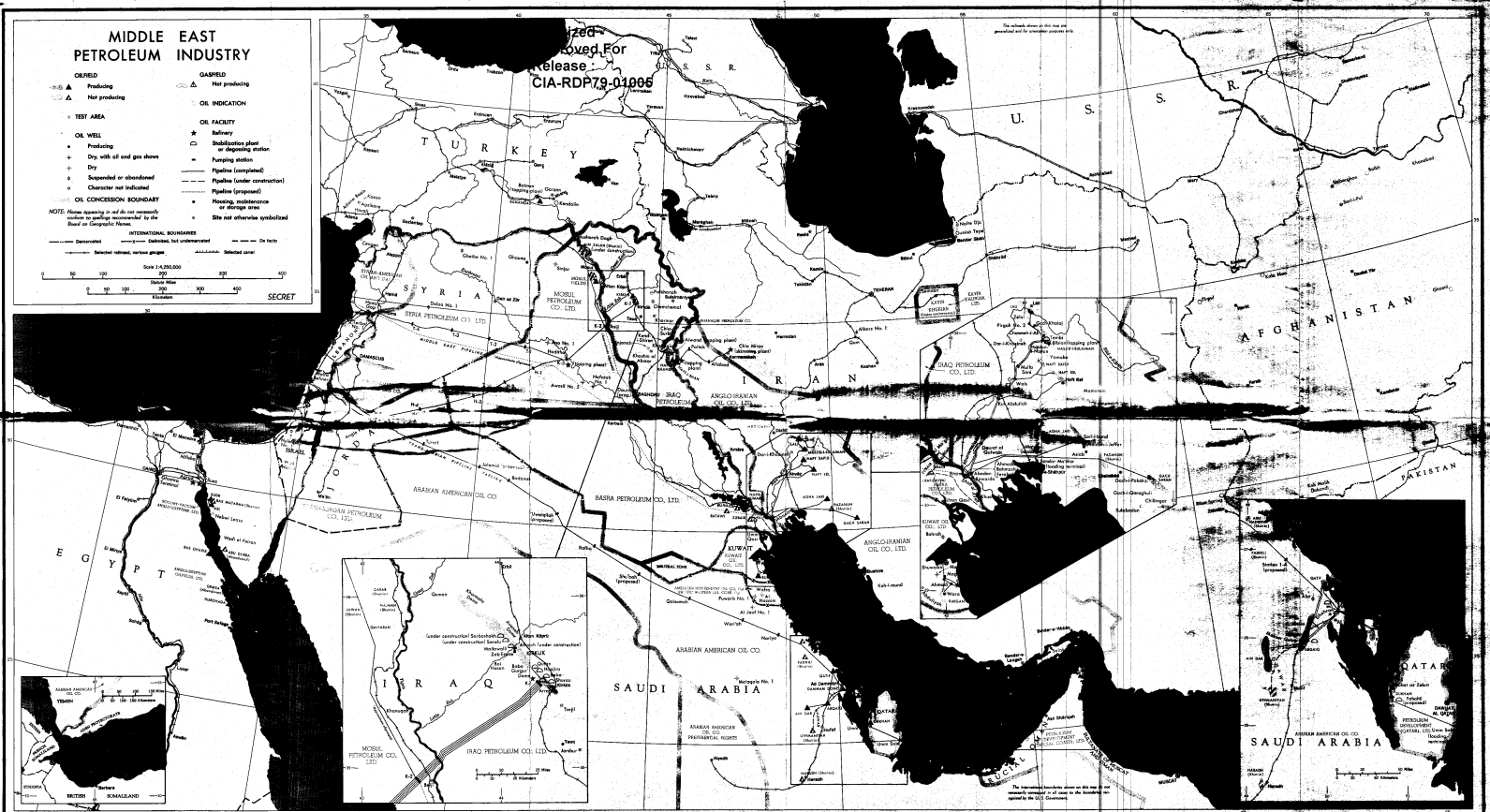
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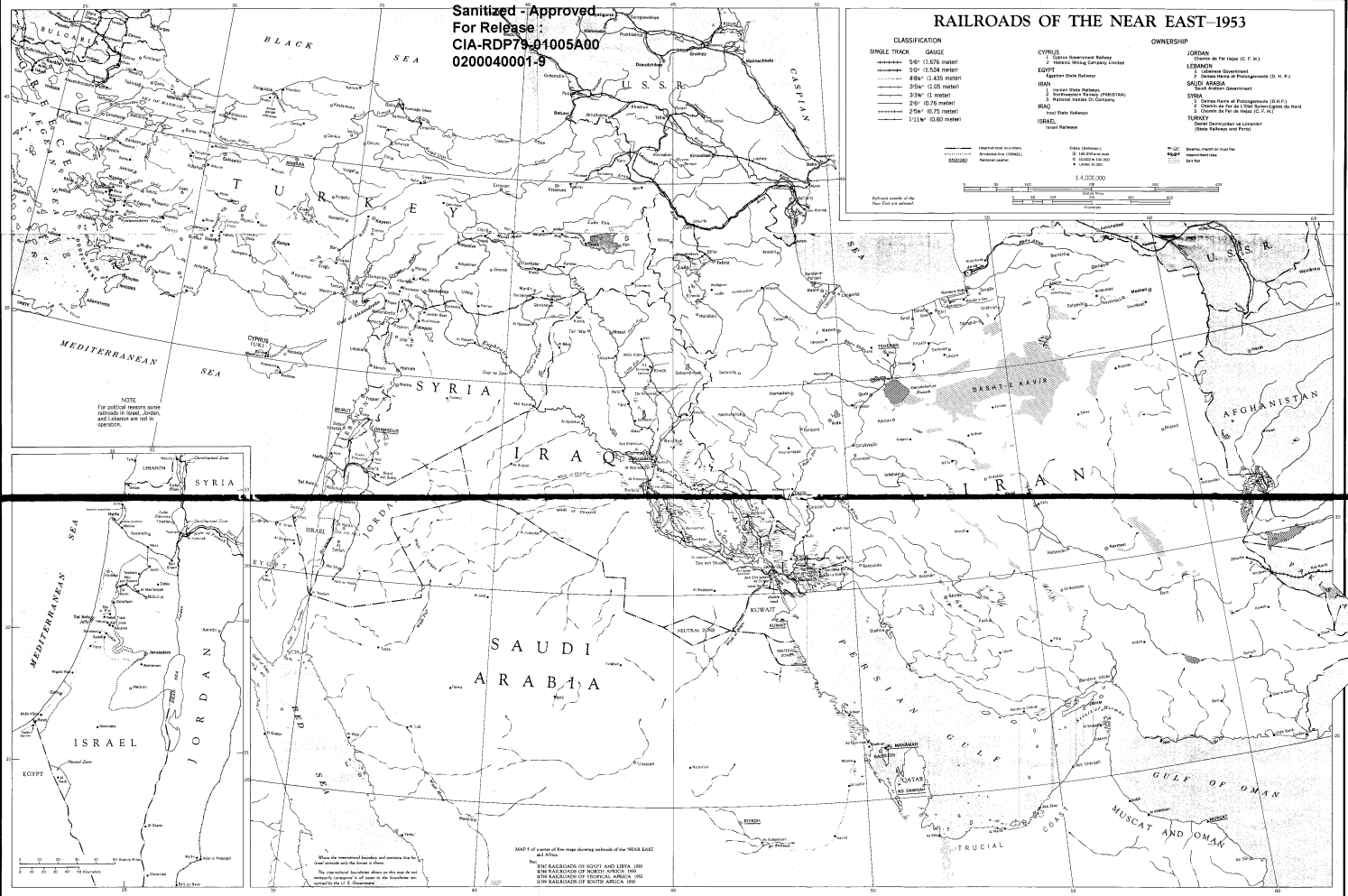


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### RAILROADS OF THE NEAR EAST-1953

CLASSIFICATION		OWNERSHIP	
SINGLE TRACK	GAUGE	CYPRUS	JORDAN
—————	900' (1,370 meters)	1. Cyprus Government Railway	1. Jordan Railway (C. F. R.)
—————	50" (1,268 meters)	2. Cyprus Mining Company Limited	2. Jordan Government
—————	48 1/2" (1,232 meters)	3. Egyptian State Railway	3. Lebanese Government (L. G. R.)
—————	36 1/2" (1,055 meters)	4. Iraqi State Railway	4. Saudi Arabia
—————	36" (1,016 meters)	5. Iranian State Railway	5. State Railway
—————	28 1/2" (927 meters)	6. Turkish State Railway (T. S. R.)	6. Syria
—————	25 1/2" (813 meters)	7. National Railway (P. R. S.)	7. Syria (Government of Damascus)
—————	25" (813 meters)	8. National Railway (S. R.)	8. Syria (Government of Hama)
—————	1 1/2" (10,670 meters)	9. State Railway	9. Syria (Government of Latakia)
—————		10. State Railway	10. Syria (Government of Tartus)
—————		11. State Railway	11. Syria (Government of Aleppo)
—————		12. State Railway	12. Syria (Government of Hama)
—————		13. State Railway	13. Syria (Government of Hama)
—————		14. State Railway	14. Syria (Government of Hama)
—————		15. State Railway	15. Syria (Government of Hama)
—————		16. State Railway	16. Syria (Government of Hama)
—————		17. State Railway	17. Syria (Government of Hama)
—————		18. State Railway	18. Syria (Government of Hama)
—————		19. State Railway	19. Syria (Government of Hama)
—————		20. State Railway	20. Syria (Government of Hama)



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