# Space Image Atlas of the Kingdom of Saudi Arabia

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#### أطلس الصور الفضائية للمملكة العربية السعودية SPACE IMAGE ATLAS OF THE KINGDOM OF SAUDI ARABIA مؤسسة سلطان بن عبد الغريز ال سعود الخرية Sutran Bin Aspulaziz AL-Saud Foundation



- This project was financed and supported by His Royal Highness Prince Sultan Bin Abdulaziz, Crown Prince, Deputy Prime Minister, Minister of Defense and Aviation and Inspector General on behalf of the Prince Sultan Bin Abdulaziz Al Saud Foundation.
- The Atlas was designed, administered and executed by Prince Sultan Research Center for Environment, Water and Desert at King Saud University in cooperation with the Space Research Institute at the King Abdulaziz City for Science and Technology, Researchers from King Saud University, the General Commission for Survey and Geospace, Austria.



## Aim of the Space Image Atlas of the Kingdom of Saudi Arabia

The Space Image Atlas of the Kingdom of Saudi Arabia employs remote sensing techniques and digital satellite images processing with advanced techniques to obtain precise data, objective research, and a comprehensive view of all features of the Kingdom's surface from space. The Atlas is designed to cover the lands of the Kingdom at different scales with concise commentaries about what can be interpreted from the images and what information can be collected about the regions that they cover. It comprises an important reference that will enable researchers and specialists to better understand the Kingdom's history and archaeology, its geographic features, modes of land use, urban expansion, and distribution of natural resources. It offers major examples of the earth's phenomena, and it can be a starting point for the initiation of specialized projects. The Atlas also helps one obtain information on changing environmental phenomena in the Kingdom, which can contribute to protection of the environment from pollution, combating desertification, limiting sand dune encroachment, and the solution of numerous problems associated with natural hazards.

مؤسسة سلطان بن عبد الغزيز آل سعود الخيرية. SULTAN BIN ABDULAZIZ AL-SAUD FOUNDATION



## The Space Image Atlas of the Kingdom of Saudi Arabia-Formats

- This Atlas is produced in two formats:
  - 1- The Space Image Atlas of the kingdom of Saudi Arabia
  - 2- The Digital satellite Image Atlas of The Kingdom of Saudi Arabia



## The Space Image Atlas of the Kingdom of Saudi Arabia-Structure

- Introduction to Remote Sensing techniques, Digital Satellite Image Processing, and Geographic Information Systems.
- Geography of Saudi Arabia chapter : It is displaying summarized and condensed information on most of its geographic phenomena, with the overlay of a map of each of these elements over the mosaic of satellite images of the entire Kingdom.
- The second chapter displays the major cities of the Kingdom through high-resolution satellite images and summarized information on these cities.
- The third chapter includes satellite images of selected sites displayed at various scales, taken by different satellites, and showing the most important morphological and specific characteristics of the Kingdom and its major environmental phenomena, geographic features, and natural resources; the images are accompanied by summary information on each of them.
- The fourth chapter presents a series of sheets of satellite images taken by the American satellite Landsat-5, which are geometrically corrected and colorenhanced, and processed in a unified manner at the scale of 1:500,000; as a group they cover all regions of the Kingdom; each sheet includes the names of the most important sites.

## مؤسسة سلطان بن عبد العزيز ال سعود الخرية Sutran Bin Aboutaziz At-Saub Foundation Main Chapters of the Space Image Atlas of the Kingdom of Saudi Arabia

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Remote Sensing Technology & Geographic Information Systems	
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