

National Aeronautics and
Space Administration

Earth Features Seen From Space



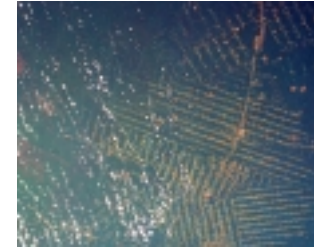
Sediment



Volcanoes and Ash



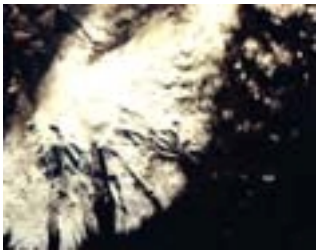
Forests



Forestry



Roads and Railways



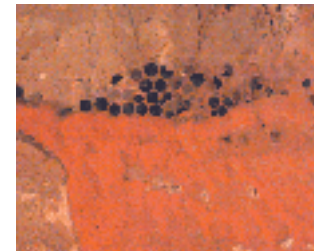
Snow



Mountains and Hills



Coastlines



Pivot Irrigation



Lakes and Dams



Clouds



Islands



Rivers



Agriculture



Urban Areas



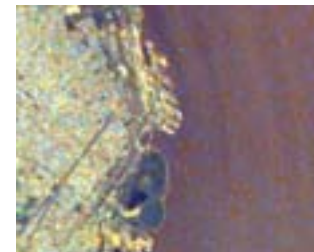
Smoke



Deltas



Beaches



Ports and Docks



Airports



This litho shows twenty features and patterns that are commonly found in images of Earth's surface. The thumbnails and descriptions will help you identify these features in this set of images, *Exploring Earth From Space*, and in other images you can find in NASA's extensive archives.

Additional information and images:

EarthKAM images and lessons: <http://www.earthkam.ucsd.edu>

JSC *Earth From Space* image database: <http://earth.jsc.nasa.gov>

NASA Spacelink: <http://spacelink.nasa.gov>

Sediment

Rivers and streams carry suspended material into lakes and seas where it is deposited; look for sediment plumes near deltas, along coasts, around islands. Curving shapes show the effect of currents and eddies sweeping material along.

Snow

Snow, clouds, and smoke are difficult to distinguish; for snow, consider high elevations and/or high latitudes, season (date when image was taken), and patterns (shadows cast by terrain, shapes of underlying terrain).

Clouds

Clouds, smoke, and snow are difficult to distinguish; for clouds, look for dark shadows on the ground, relation to ground surface (over land or water), color (white or gray), effects of wind (streaks), and patterns (puffy balls, lines, blankets).

Smoke

Smoke, clouds, and snow are difficult to distinguish; for smoke, look for a source (point, small area), nature of source (forest fire, chimney, volcano), color (white, gray, brown), pattern (billowing with shadows or thin, wispy), and wind direction.

Volcanoes and Ash

Volcanoes often have characteristic round or cone-like shapes; look for dark-colored billowing eruption clouds (coming from a point source) showing wind direction, with ash falls beneath.

Mountains and Hills

Mountains and hills are higher-elevation terrain; look for indications of elevation (shadows, tree cover, tree cover thinning out), patterns of ridges and valleys ("wrinkles" with light and shade). Use a map to identify mountains and hills.

Islands

Color and shape differences between land and water are the best indicators of islands; look also for beaches and surf lines, currents and sediments eddying around islands, clouds forming just over islands or just over water around islands.

Deltas

Deltas form where rivers meet the sea; look for meandering shapes with many small and large channels, sediment plumes (shaped by currents and eddies), and color differences (in water and on land, e.g., sand build-up or vegetation).

Forests

Forests—areas of dense vegetation—show up as regions of consistent color (dark green, dark blue, black) with a subtle mottling texture (from light and shadow on tree tops), with rivers and roads cutting through them.

Coastlines

Coastlines show up easily because of striking land-sea color and shape differences; look for beaches, headlands, river mouths, on-shore settlement and development. Use the shapes of coastlines to align images and maps.

Rivers

Rivers are sinuous "breaks" in human and physical patterns; look for meandering shapes (with branches and tributaries), color (light or dark depending on riverbed composition and suspended material), development (e.g., roads, fields, buildings).

Beaches

The land-water edge is marked by deposits of sediment; look for very light colors, off-shore color variations (indicating water depth), sediment plumes from currents and eddies, and serrated shapes (from jetties and breakwaters).

Forestry

Forestry areas result from lumbering (clearing and re-planting); look for light and dark color variations (between clearing and trees), shapes (e.g., sharp edges, grid-like lines), patches of settlement or roads.

Pivot Irrigation

In pivot irrigation, water is sprayed in a circle from a field's center; look for circular shapes, for dark areas of vegetation against a lighter background, and for regular patterns of circles in grids.

Agriculture

Agriculture creates patchworks of fields of different shapes and colors; look for rectangular patterns possibly organized along rivers or roads, with patches of varying color (usually light through dark blue-greens or browns).

Ports and Docks

Ports and docks link urban areas and coastlines. Look for "tooth-shaped," light-colored, rectangular projections into the water, often with roads and railways lines running inland away from the coast.

Roads and Railways

Roads and railways are difficult to differentiate; look for extended straight or gently curving lines, which are often light-colored, typically radiate from urban areas, and cut through forests or agricultural areas. Sharp curves or bends suggest roads.

Lakes and Dams

Lakes come in all sizes and shapes; look for light blue-, green-, or even white-colored areas with rounded, sometimes irregular edges and beaches. Dams are nearly straight features across rivers, behind which lakes form.

Urban Areas

Cities and towns vary in size and shape; look for areas of light colors (white, gray, pale blue, beige), geometric shapes (radial or grid patterns), with features such as parks, stadiums, and airports intermingled.

Airports

Airports, with long straight runways intersecting in cross-shaped patterns, are usually found on the edge of urban areas. Look for light-colored lines, intersecting at 90 or 45 degrees, with dark areas between runways.