The data from the DMSP Satellites are received and used at operational centers continuously. The data are sent to NGDC by the Air Force Space Weather Agency for archiving. Currently, data from one dawn/dusk and two day/night satellites are archived daily.

Data & Products
Available Products include:

- Visible/Infrared imagery, microwave imagery and soundings, *in situ* particles and fields data organized by orbit

- City lights, fires, gas flares, and fishing boats images

- Radiance-calibrated lights

- Impervious Surfaces of the USA (derived from nighttime lights and road density)

- Posters:
  http://dmsp.ngdc.noaa.gov/html/night_light_posters.html

Purchase Data:
http://dmsp.ngdc.noaa.gov/html/services.html

Data for Download:
http://dmsp.ngdc.noaa.gov/html/download.html

US Department of Commerce
National Oceanic & Atmospheric Administration (NOAA)
National Environmental Satellite, Data & Information Service
National Geophysical Data Center

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NGDC Online Store and products:
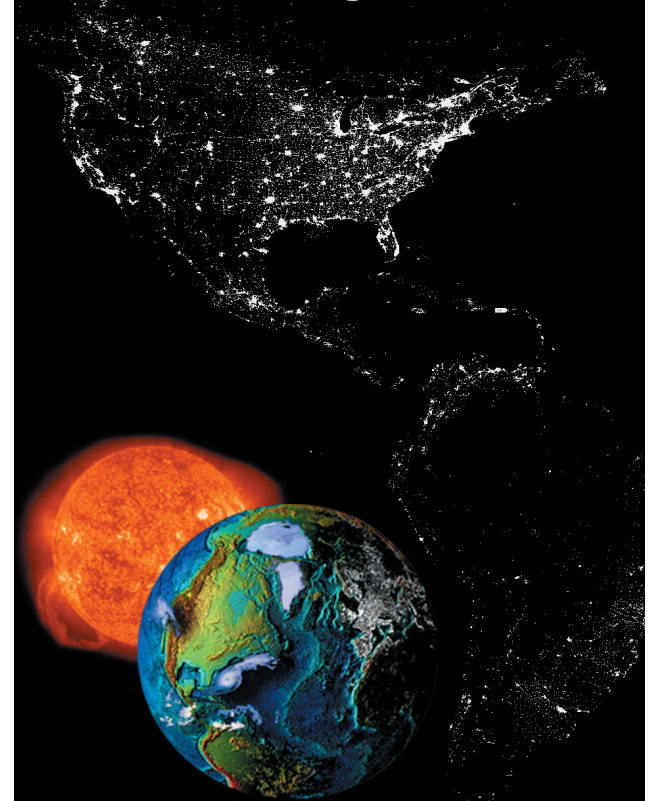**http://www.ngdc.noaa.gov/products/**

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http://dmsp.ngdc.noaa.gov

NOAA Satellites & Information
http://www.nesdis.noaa.gov

Defense Meteorological Satellite Program Data

available from the
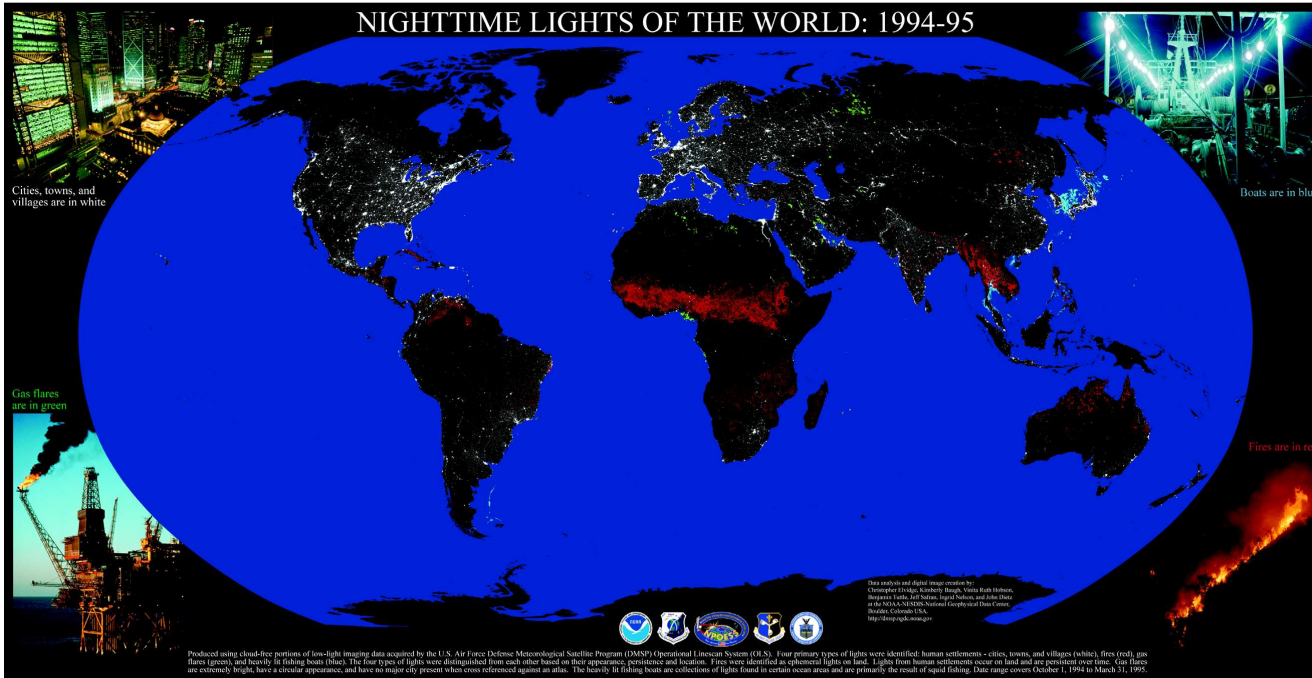# National Geophysical Data Center

The Defense Meteorological Satellite Program (DMSP) is a Department of Defense program managed by the Air Force Space and Missile Systems Center. The DMSP designs, builds, launches, and maintains satellites monitoring the meteorological, oceanographic, and solar-terrestrial physics environments.

Each DMSP satellite has a 101-minute, sun-synchronous, near-polar orbit at an altitude of 830km above the surface of the earth. The visible and infrared sensors, the Operational Linescan System (OLS), collect images across a 3000km swath, providing global coverage twice per day. The combination of day/night and dawn/dusk satellites allows monitoring of global information such as clouds every six hours. The microwave imager (MI) and sounders (T1, T2) cover one half the width of the visible and infrared swath. These instruments cover polar regions at least twice per day and the equatorial region once per day. The space environment sensors (J4, M, IES) record along-track plasma densities, velocities, composition and drifts.
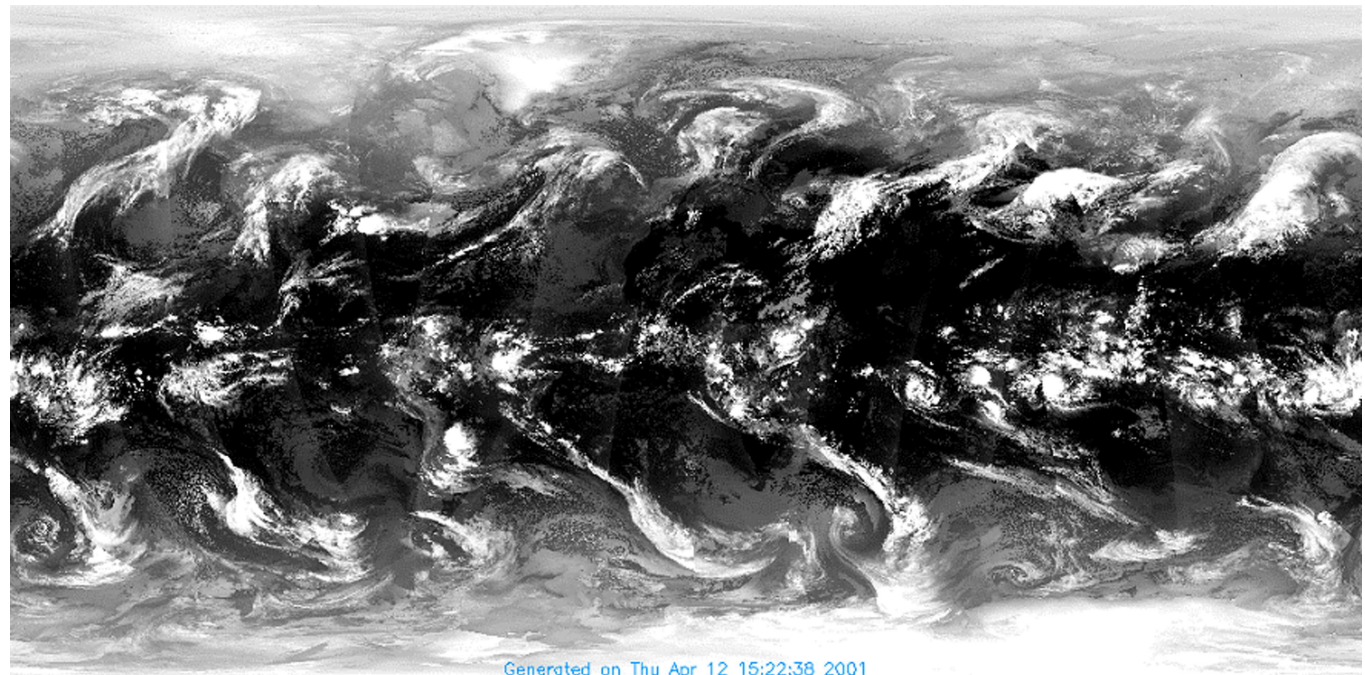
Generated on Thu Apr 12 15:22:38 2001

The image above is a DMSP thermal band mosaic. The DMSP mosaic generator is launched every hour to create a composite of the most recent available data from the OLS. The most recent thermal data from all satellites and most recent nighttime and daytime visible data from each day/night satellite are composited. An archive of global visible and thermal mosaics is built on six hour increments.

NIGHTTIME LIGHTS OF THE WORLD: 1994-95

Cities, towns, and villages are in white

Gas flares are in green

Boats are in blue

Fires are in red

The image to the left was produced using cloud-free portions of low-light imaging data acquired by the U.S. Air Force DMSP OLS. Four primary types of lights were identified: human settlements - cities, towns, and villages (white), fires (red), gas flares (green), and heavily lit fishing boats (blue). The four types of lights were distinguished from each other based on their appearance, persistence, and location. Fires were identified as ephemeral lights on land. Lights from human settlements occur on land and are persistent over time. Gas Flares are extremely bright, have a circular appearance, and have no major city present when cross referenced against an atlas. The heavily lit fishing boats are collections of lights found in certain ocean areas and are primarily the result of squid fishing. The date range covers October 1, 1994 to March 31, 1995.