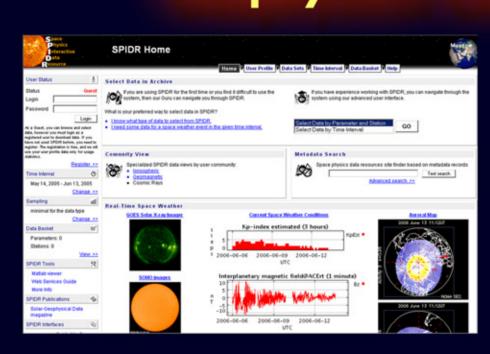


SPACE PHYSICS INTERACTIVE DATA RESOURCE

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Space Divisor Data Resource	Data Categories and Sets					Interval P Data Backet P		Be
User Status		Осне	ALCOHOL:	ala S	els U IIII	Batterius P Dutta Bastket P	-	
Login: dmedv Status: Administrator	Data Sets	bdo	Metadata	FTP	Courrage	Native Time Step	Available Dates	Server
Legast	Index Data							
Current User Sessions 4	Cananagate Indicas	00	-	8	global	1, 3 hr, 1 day	Jan, 1932 - May, 2006	Boulder
	- HPI DMSP Data	00	0		10 satelites	foating about 50 min	Jan, 1983 - Feb, 2001	Boulder
Ouests: 2 Users: 0	- HPI NOAA Duta	30	0		10 satelites	s floating: about 100 min	Nov, 1978 - Mar, 2003	Boulder
Admins: 2	- Solar Data	00	0	8	global	1 day	Jan, 200 - May, 2006	Boulder
View Sessions	Station Data							
Time Interval	Countr Ray Data (8096 format)		**		120 stations	11 M	Jan, 1902 - Oct, 2004	Boulder
Lindefined	Cosmic Ray Data (general format)	1	**		39 stations	1 hr	Jan, 1951 - Dec, 2001	Boulder
Change	Cosmic Ray Data (preliminary)	10	-		5 stations	5 min, 1 hr	Aug, 1991 - Sep, 2005	Boulder
Control of the Contro	- Geomagnetic Hourly Means	1	-		225 stations	11 hr	Apr., 1901 - Aug., 2003	Boulder
Sampling 6	- Geomagnetic Minute Means	1	-		208 stations	1 min	Jan, 1909 - Jun, 2006	Boulder
Undefined	- Geomagnetic Yearly Means	1	-		581 stations	s 1 month	Jan, 1813 - Jan, 2003	Boulder
Change	- Ionosphenc Data	(1)	-		226 stations	s floating: 15 min, 1 hr	Jan, 1942 - Jan, 2007	Boulder
Data Bucket 3	- Radio Solar Telescope Network (RSTN)	1	-	8	6 stations	1 sec	Aug, 1992 - Nov, 2006	Boulder
Parameters: 0	Satellite Data							
Stations: 0	- OOES - Space Environment Monitor	1	0	8	0 satellites	1, 5 min	Jan, 1986 - May, 2006	Boulder
View.	- ms. case - continuously magnetic ries of unit-	1	0		plobal	1 hr	Jan, 1973 - Dec, 2002	Boulder
SPICR Tools 5	- POES - Polar Orbiting Environmental Salerities -	1	-	cs.	global	16 sec	1998 - present	Boylder
Madab viewer	Images	-		descri				
Web Services Guide	- CMSP Images Visible and IR	1	-	8				
More Info	- CMSP SSJ4	1	0		6 satelities		Oct, 1992 - Apr, 2006	Boulder
SPICR Publications	The same of the sa	10	00	8	global	1 mQ	2003 - present	Boulder
Solar-Deophysical Data	- Nightlime Lights of the World	1	-	8	global	no sampling	2000	Boulder
magazine	- Solar Images	1	-		global	1 day	1915 - 2003	Boulder
SPICR Interfaces	Other Data							
Guided by Guru								
Administrator								

The objective of this joint DOD/NOAA project is to generate a complete

11 year space weather representation using physically consistent data

The project will create a consistent, integrated historical record of the near Earth space environment by coupling observational data from space environmental monitoring systems archived at NGDC with data-driven, physically based numerical models.

environment on consistent grids, time resolution, coordinate systems

and containing key fields allowing an interested user to quickly and easily incorporate the impact of the near-Earth space climate

The resulting product will be an enhanced look at the space

Space Weather Reanalysis segment

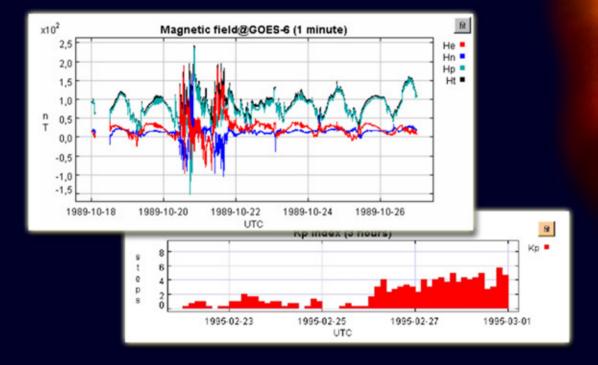
driven space weather models.

in environmentally sensitive models.

Main data sections

- SSN sunspot numbers daily, from 1700
- Geomagnetic variations (minute and hourly) from 1901, in near-real time
- Geomagnetic and solar indices hourly, from 1932, in near-real time
- lonosphere hourly, from 1954, in near-real time
- IMF interplanetary magnetic field and solar wind (minute and hourly), from 1973, in near-real time
- GOES geostationary NOAA satellites, from 1986
- DMSP defense meteorological satellites, from 1991, in near-real time
- Solar images, from 1915
- Cosmic rays, from 1951

Time series plots: GIF images or cooperative applets



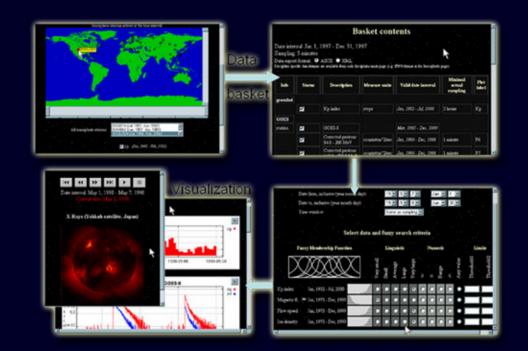
Nighttime Lights of the World



DMSP images

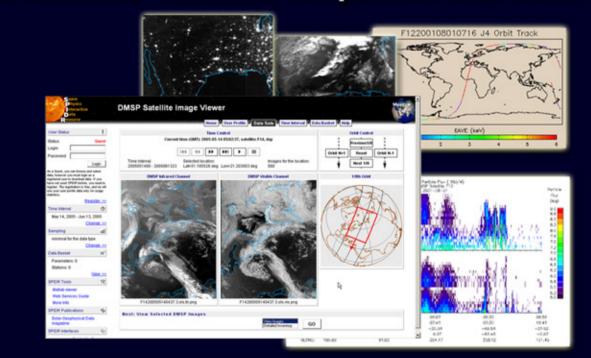
Each DMSP satellite has a 101 minute, sun-synchronous near-polar orbit at an altitude of 830km above the surface of the earth. The visible and infrared sensors (OLS) collect images across a 3000km swath, providing global coverage twice per day. The combination of day/night and dawn/dusk satellites allows monitoring of global information such as clouds every 6 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 and the equatorial region once per day. The space environment sensors (J4, M, IES) record along-track plasma densities, velocities, composition and drifts.

Data mining for SW events in SPIDR

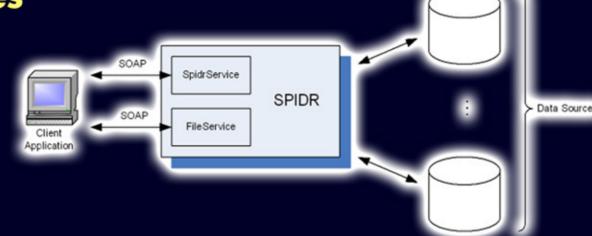


SPIDR can be used as a data source for ESSE data mining engine, which uses fuzzy logic to search for custom scenarios in numeric data arrays. The connection to ESSE engine is established via web-services interface, which can be also used to connect SPIDR data archives to third-pary data mining and data processing facilities.

The Nighttime Lights of the World dataset contains the first satellite-based global inventory of human settlements, derived from nighttime data from the Defense Meteorological SatelliteProgram (DMSP) Operational Linescan System (OLS). The DMSP-OLS has the unique capability to observe faint sourcesof visible-near infrared emissions present at the Earth's surface, including cities, towns, villages, gas flares, and fires. NGDC has developed algorithms for producing georeferenced fire and nighttime lights products.



SPIDR Web Services



Web Services technology is used by SPIDR to access databases and metadata both for the SPIDR web application (interactive interface for human users) and for the SPIDR web clients (third party programs exporting and importing data and metadata in the batch B2B mode). In addition to the WS SOAP protocol the SPIDR web application can access databases directly using JDBC drivers. If database is hosted on the server at the same LAN as the SPIDR web application, then the local access mode may be more efficient compared to the remote one; but if the database is located outside the local network then the JDBC connections will be the most probably blocked by a firewall and the SOAP protocol becomes the only reliable way to access the data.

Solar images

