SPENVIS 1/5

http://www.spenvis.oma.be/intro.php

SPENVIS 2/5

Username: carso_stud *1-13* Password: spacenv

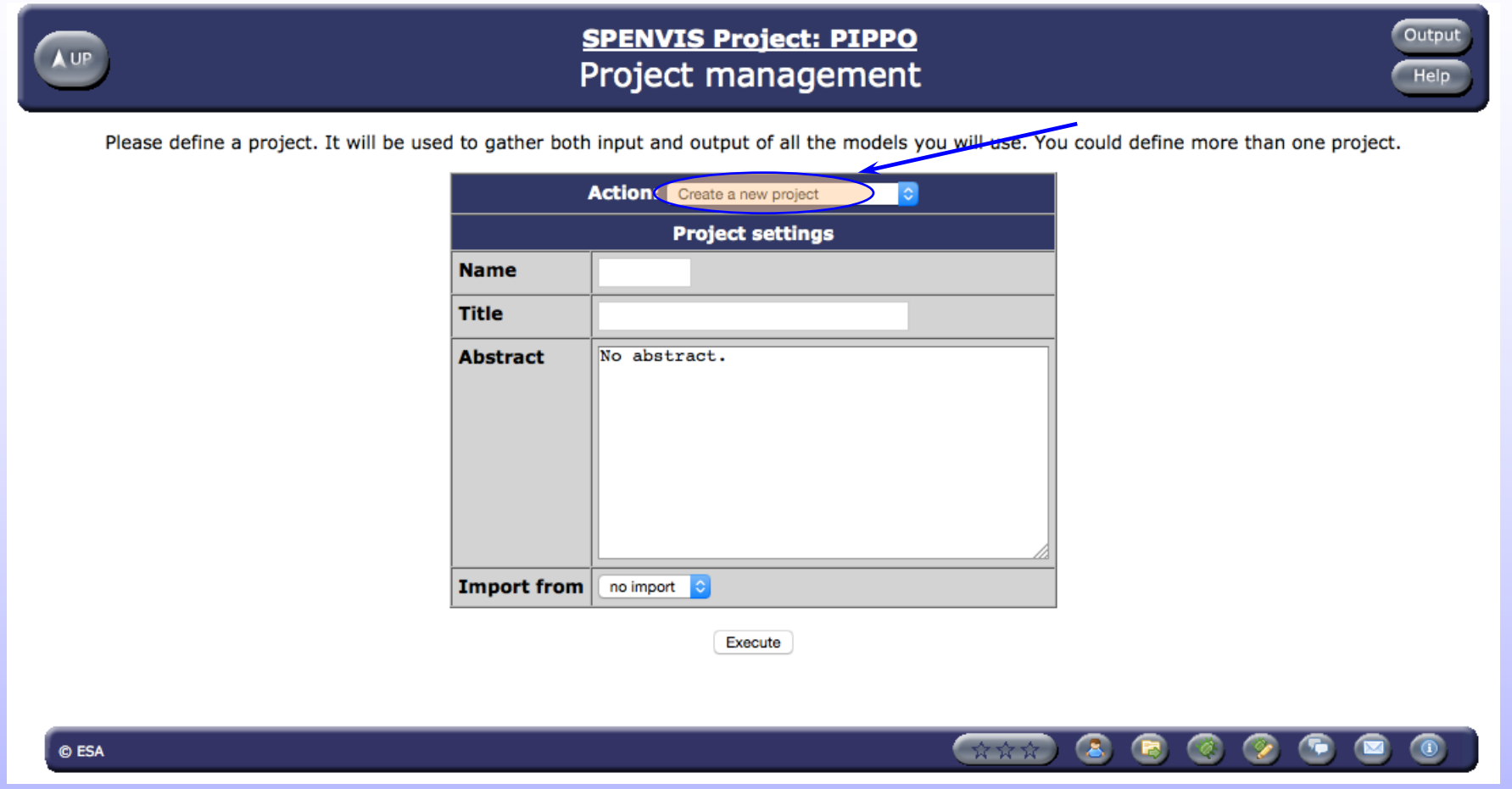
The models implemented in SPENVIS are combined in the packages listed above. Clicking on a package name will expand the table with a list of models. Some model suites have to be executed in a prescribed order. Model links will not be available when pre-required runs have not been executed yet. Most models run on both a spacecraft trajectory and a geographical coordinate grid. Clicking on the coordinate generator links and returning to this page toggles between the two sets of coordinates. The model links will adapt to the choice of coordinates.

The model pages have deliberately been kept as concise as possible. A navigation bar is figured at the top of each SPENVIS page. The Help link in the bottom right hand corner of this bar points to context sensitive help pages, which in turn contain their own navigation system, including access to guidelines on model usage and background information on the space environment.

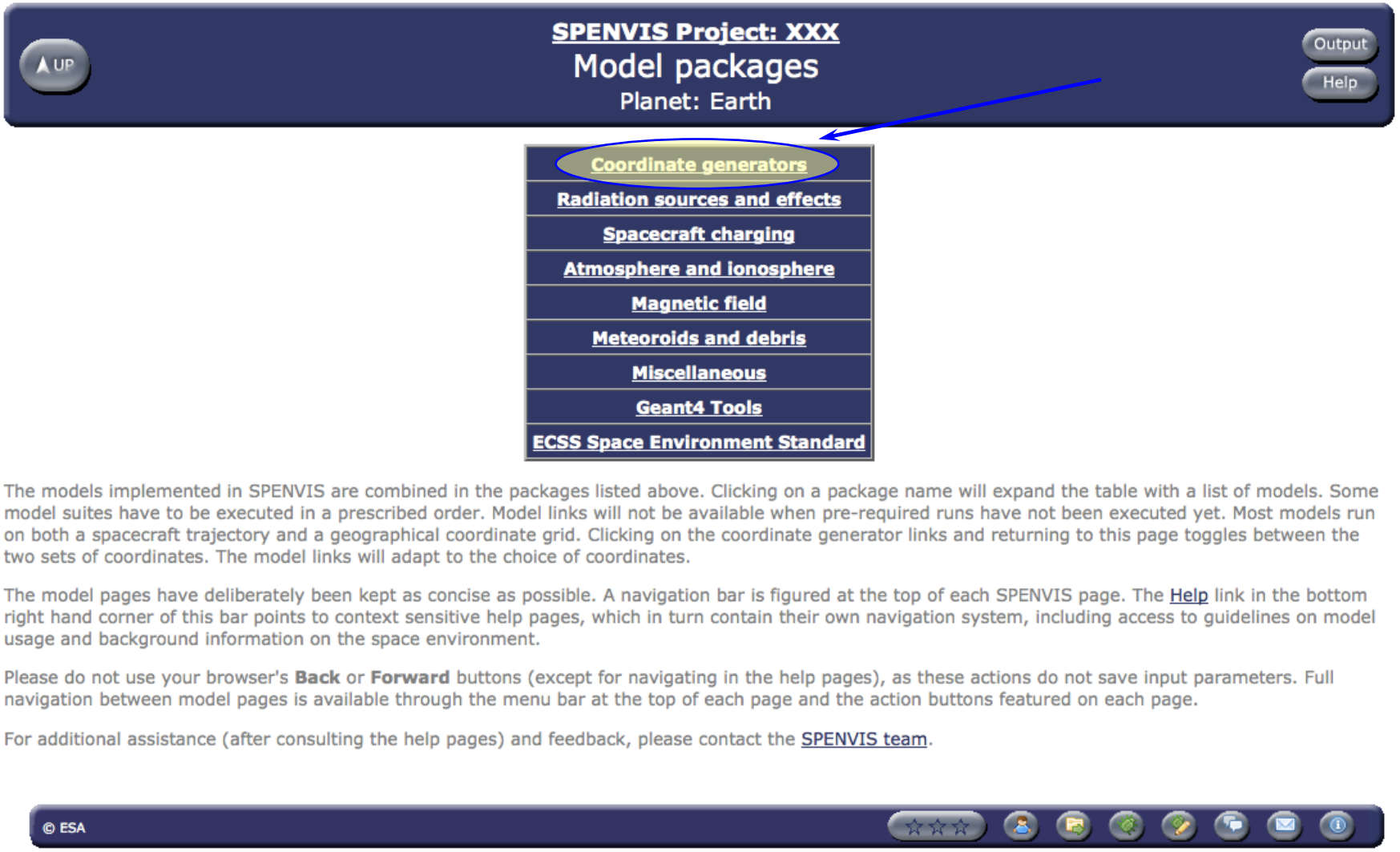
Please do not use your browser's **Back** or **Forward** buttons (except for navigating in the help pages), as these actions do not save input parameters. Full navigation between model pages is available through the menu bar at the top of each page and the action buttons featured on each page.

For additional assistance (after consulting the help pages) and feedback, please contact the SPENVIS team.

SPENVIS 3/5


UP
SPENVIS Project: PIPPO
Project management
Output
Help
Please define a project. It will be used to gather both input and output of all the models you will use. You could define more than one project.
Action: Create a new project
Project settings
Name
Title
Abstract
No abstract.
Import from
no import
Execute
© ESA

SPENVIS 4/5


UP
SPENVIS Project: XXX
Model packages
Planet: Earth
Output
Help
Coordinate generators
Radiation sources and effects
Spacecraft charging
Atmosphere and ionosphere
Magnetic field
Meteoroids and debris
Miscellaneous
Geant4 Tools
ECSS Space Environment Standard
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SPENVIS 5/5


UP
SPENVIS Project: XXX
Model packages
Planet: Earth
Output
Help
Coordinate generators
Spacecraft trajectories
or
Geographical coordinate grids
Radiation sources and effects
Spacecraft charging
Atmosphere and ionosphere
Magnetic field
Meteoroids and debris
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SPENVIS 6/6

UP

SPENVIS Project: XXX

Data base interface

Access

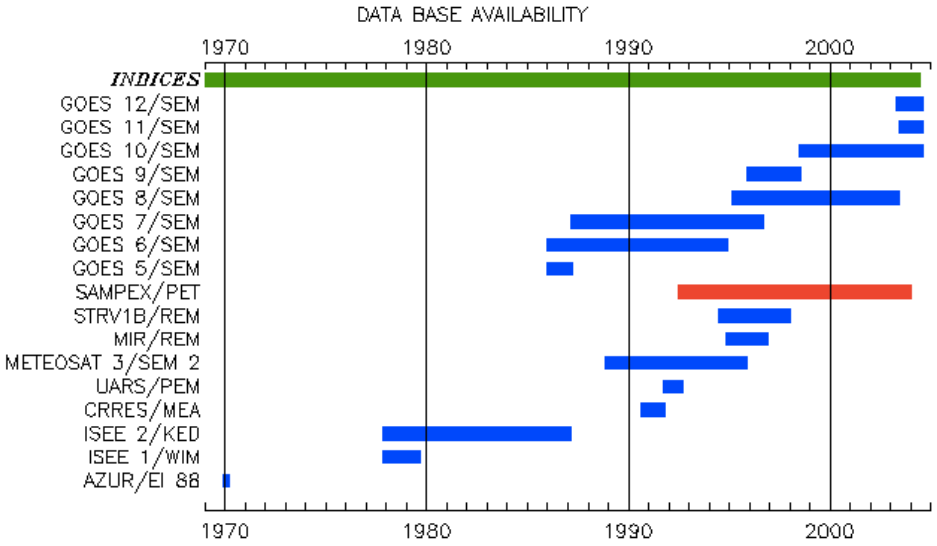
Output

Help

Data bases of in-flight data on the space environment

Time series data:

Missions indicated with a green or blue time bar are accessible on line. Those with a red time bar will be added in the future.



To start a query, click on the green time bar for geomagnetic indices/Solar wind data or the blue time bar for a selected mission.

Tool developed by

BIRA-IASB

Belgian Institute for Space Aeronomy

GOES 1/3

Geostationary Operational Environmental Satellite

http://goes.gsfc.nasa.gov/

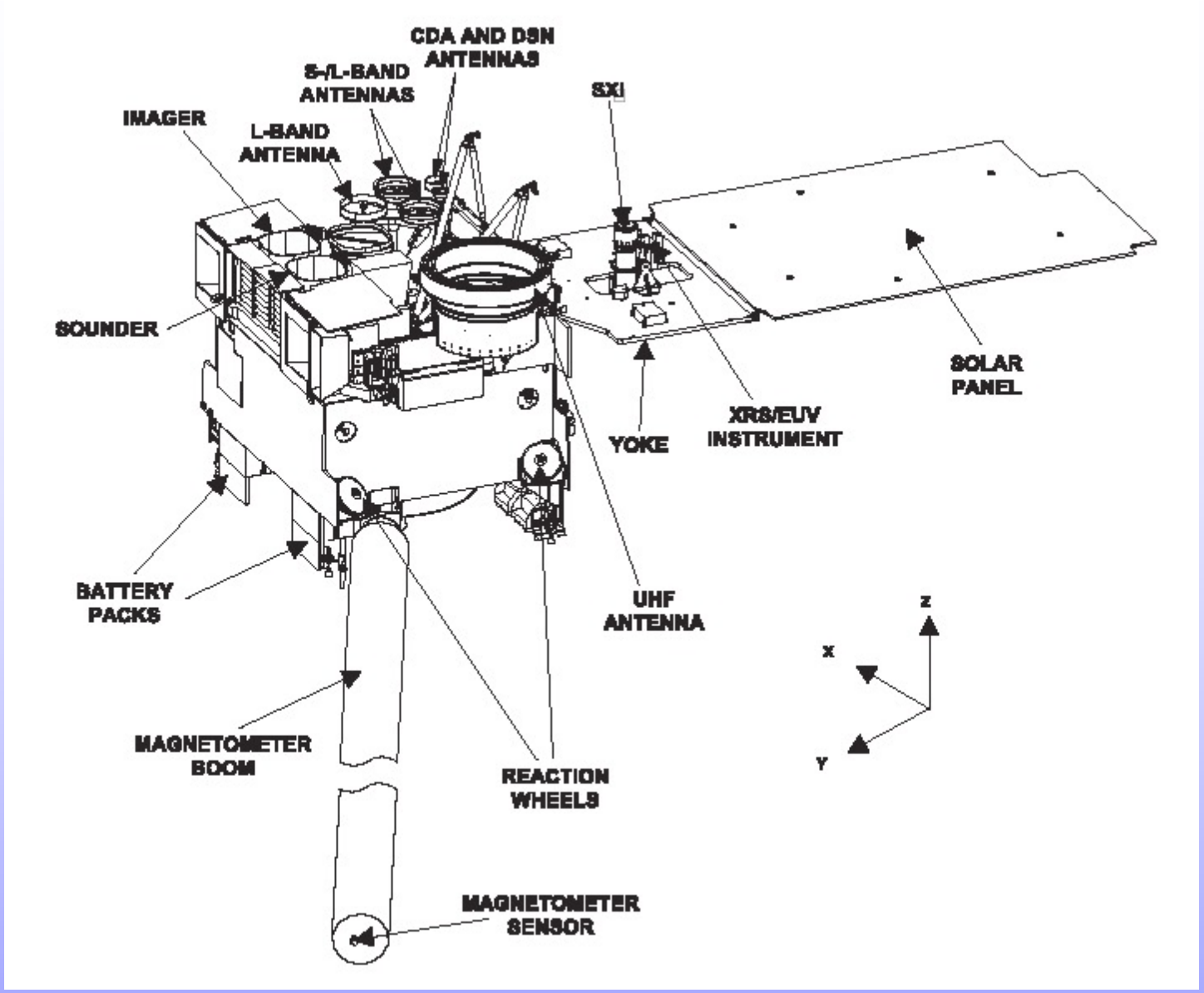
GOES N Satellite

GOES N Satellite

Continued

Payload		Power	
S-Band	1 downlink 5 uplinks	Solar Beginning of life End of life Panels	 2.3 kW 2 kW 1 wing, w/1 panel of dual-junction, gallium arsenide solar cells
L-Band UHF	7 downlinks 1 downlink 2 uplinks	Batteries	24-cell NiH_2, 123 Ah
Propulsion		**Dimensions**	
Liquid apogee motor Stationkeeping thruster (bipropellant)	110 lbf (490 N) 12 x 2 lbf (9 N)	In Orbit	L, solar array: 26 ft 9 in (8.2 m) W, antenna: 7 ft 4 in x 11 ft (2.25 m x 3.37 m)
Antennas		Stowed	H: 12 ft (3.63 m) W: 7 ft 41 x 11 ft (2.25 m x 3.37 m)
2 S-band, cup-shaped with dipole 1 Omni antenna (aft) 1 UHF, cup-shaped with dipole 2 L-band cup-shaped with dipole 1 S-band horn		Weights Launch In orbit (beginning of life)	 7,088 lb (3,215 kg) 3,969 lb (1,800 kg)

GOES 2/3


CDA AND DSN ANTENNAS
S-/L-BAND ANTENNAS
IMAGER
L-BAND ANTENNA
SXI
SOUNDER
SOLAR PANEL
YOKE
XRS/EUV INSTRUMENT
BATTERY PACKS
UHF ANTENNA
z
x
y
MAGNETOMETER BOOM
REACTION WHEELS
MAGNETOMETER SENSOR

GOES 3/3

GOES N Mission Description

- Launch date — May 2006
- GOES N final orbit target
  - Orbit apogee altitude — 18,994 nm
  - Orbit perigee altitude — 3,576 nm
  - Inclination — 12.0 deg
- Launch window

Date	Open	Close	Duration	Date	Open	Close	Duration
5/18/2006	22:14:00	23:14:00	60	5/30/2006	22:11:00	23:11:00	60
5/19/2006	22:14:00	23:14:00	60	5/31/2006	22:11:00	23:11:00	60
5/20/2006	22:14:00	23:14:00	60	6/1/2006	22:11:00	23:11:00	60
5/21/2006	22:13:00	23:13:00	60	6/2/2006	22:11:00	23:11:00	60
5/22/2006	22:12:00	23:12:00	60	6/3/2006	22:11:00	23:11:00	60
5/23/2006	22:11:00	23:11:00	60	6/4/2006	22:11:00	23:11:00	60
5/24/2006	22:11:00	23:11:00	60	6/5/2006	22:11:00	23:11:00	60
5/25/2006	22:11:00	23:11:00	60	6/6/2006	22:11:00	23:11:00	60
5/26/2006	22:11:00	23:11:00	60	6/7/2006	22:11:00	23:11:00	60
5/27/2006	22:11:00	23:11:00	60	6/8/2006	22:11:00	23:11:00	60
5/28/2006	22:11:00	23:11:00	60	6/9/2006	22:10:00	23:10:00	60
5/29/2006	22:11:00	23:11:00	60	6/10/2006	22:10:00	23:10:00	60