On-Line Visualization

Quiet Heliosphere

10.0.1.5/support/ILWS/runs.p

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CCMC Runs-on-request system: demo and hands-on

Sun to L1:

Heliosphere

Results of WSA-ENLIL Cone model simulations:

- Demo run and tutorial
- Runs

Click here

L1 to Geospace:

Magnetosphere

Results of SWMF model simulations:

- Demo run and tutorial
- Runs with artificial conditions
- Real event simulations

Local Network:
http://10.0.1.5/support/ILWS/runs.php

Inner Magnetosphere

Results of inner magnetospheric models simulations (Ring Current, Radiation Belt and CIMI models)

- Demo run and tutorial
- CIMI model run

Ionosphere

Results of CTIPe model simulations:

- Demo run and tutorial
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- Real event simulations

Internet:
http:/ccmc.gsfc.nas.agov/support/ILWS/runs.php

Local Physics

Results of PIC-Hesse model simulation:

- Demo run

10.0.1.5/support/ILWS/results_so

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Demo WSA-ENLIL cone model simulation

Run Number	Event Carrington Rotation	Carrington Rotation Start Time	Carrington Rotation End Time	Model
HSS2011_ENLIL_051311_SH_2	2095	2010/03/26 11:49:03.3600	2010/04/22 18:25:37.9200	ENLIL

Curator: Anna Chulaki | NASA Official: Dr. Masha Kuznetsova | Privacy, Security Notices

CCMC logo designed by artist Nana Bagdavadze

On-Line Visualization
Background Solar Wind (3D Data)

Click here

HSS2011_ENLIL_051311_SH_2

Title/Introduction: Background solar wind solution for the CR2095 when the April 3, 2010 CME occurred

Key Word: HS2011, ENLIL background SW for 2010-04-03 CME

Model Type: Heliosphere
Model: ENLIL
Run Objective: stationary_Solar_Wind
Initial State: analytic_prescription
Boundary Condition Type: Time-Independent
Inner Boundary Condition: from_WSA_model input
Outer Boundary: Mars
Simulation Grid: 256x30x90
Carrington Rotation: 2095

- View 3D Data
- View control file with input parameters for the run.
- View quick look graphics for the run
  Note: Quick look graphics has been designed by the model developer to enable quick evaluation of the results of the run. To find more information regarding this option please contact the CCMC staff.

ENLIL_at_Earth
ENLIL_at_Mars
ENLIL_at_Mercury
ENLIL_at_Messenger
ENLIL_at_Stereo_A
ENLIL_at_Stereo_B
ENLIL_at_Venus

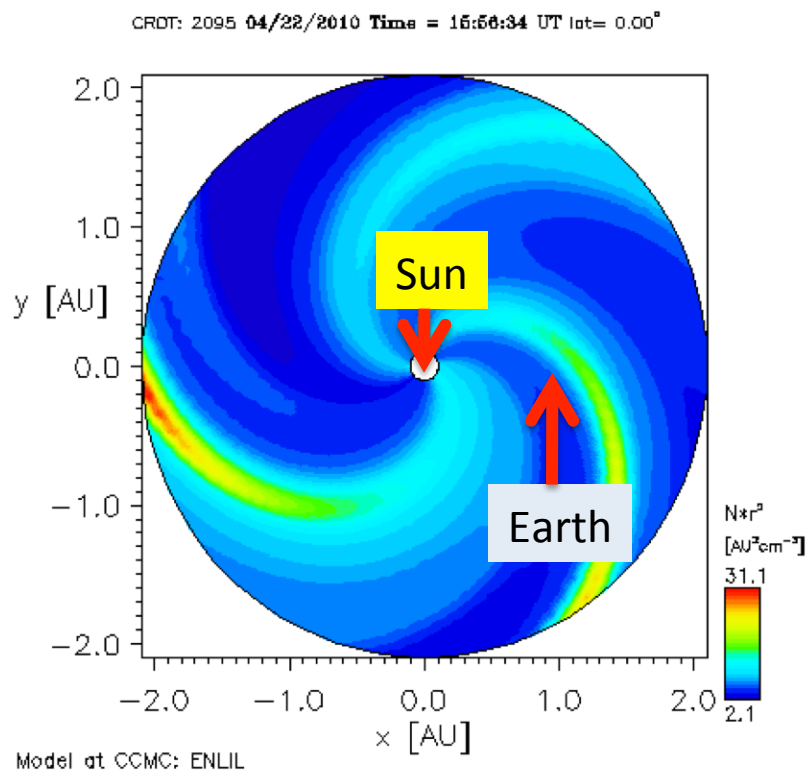
Generate a Plot with Default Selection

Click here

Update Plot *Update Plot* will update (generate) the plot with the chosen time and plot parameters below.
This will take some time (typically 10-30s) as data is read in and processed.

Choose data time:
Date: 2010/04/22 Time: 15:56:34

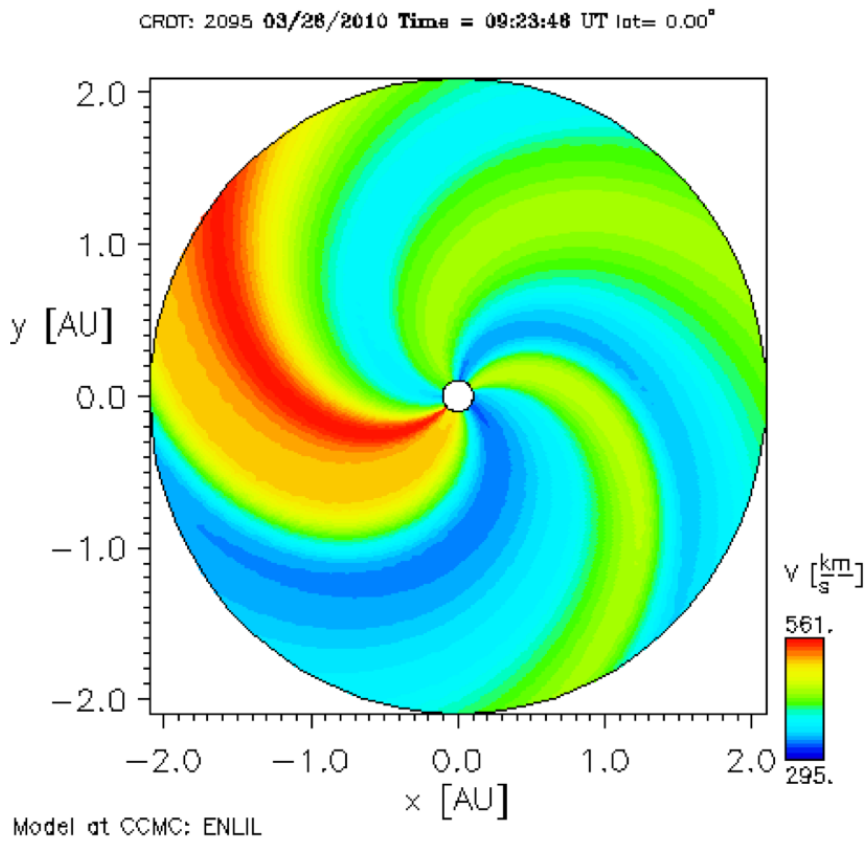
Please wait - computation is estimated to take 0 minutes and 5 seco
A "." will appear for each 5 seconds elapsed.



Color Contour 2D plot in solar equatorial plane (Lat=0) of Nr^2 (number density N scaled with r^2, r – radial distance in au)

Example: Solar Wind Velocity in Lat=0 Plane

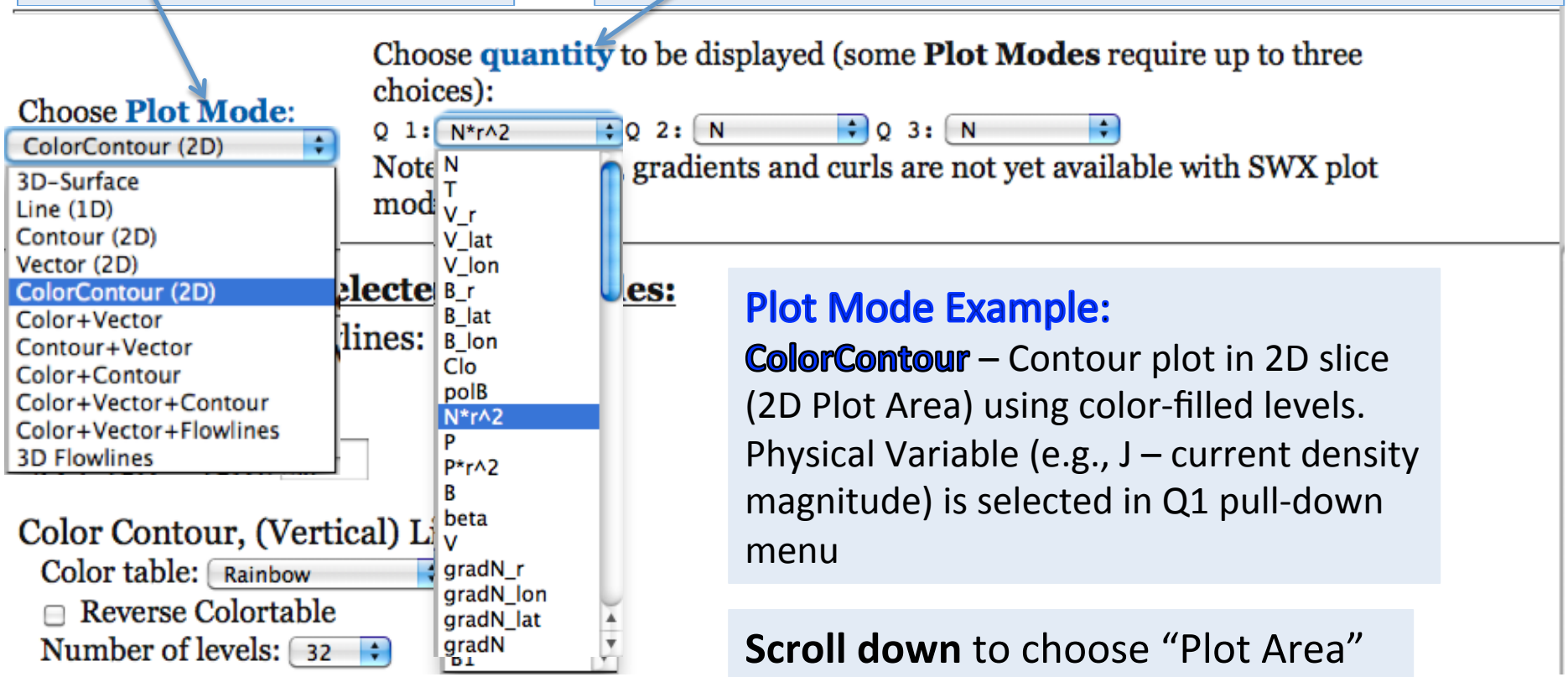
Select Time Step: e.g., Date: 2010/03/26 Time: 09:23:46
Choose Plot Mode: ColorContour (2D)
Choose Physical Variable (Q1 menu): V (solar wind velocity magnitude
Click "Update Plot"



Select Plot Mode and Physical Variables to be Displayed from Pull-Down Menus

Click here for Plot Modes description

Click here for the complete list of physical variables written by global MHD models



Plot Mode Example:

ColorContour – Contour plot in 2D slice (2D Plot Area) using color-filled levels. Physical Variable (e.g., J – current density magnitude) is selected in Q1 pull-down menu

Scroll down to choose "Plot Area"

Choose Plot Area

Choose Plot Area:

All **Plot Modes** except **Line Plot** and **Vertical Plot**: Select lower left corner of plot area on the left, and the upper right corner on the right.

Line Plot: Select start point of line on the left, the end point on the right.

Vertical Plot: Select R and Lon position on the left.

Choose Cut Plane:

R_1	0.10390	R_2	2.09612	Range: 0.103908 ... 2.09612 AU	R=constant ○	1.10001
Lon_1	0	Lon_2	360	Range: 0 ... 360 deg.	Lon=constant ◉	180
Lat_1	-58.0001	Lat_2	58.0001	Range: -58.0001 ... 58.0001 deg.	Lat=constant ○	0

Reset Form — *Reset Form* will reset changes to the defaults specified by the previous run of this script.

Update Plot — *Update Plot* will update (generate) the plot with the chosen time and plot parameters above.

Choose Cut Plane, e.g.,

Lat = 0 – solar equator

Lon = 180 – vertical cut through the sun-earth line

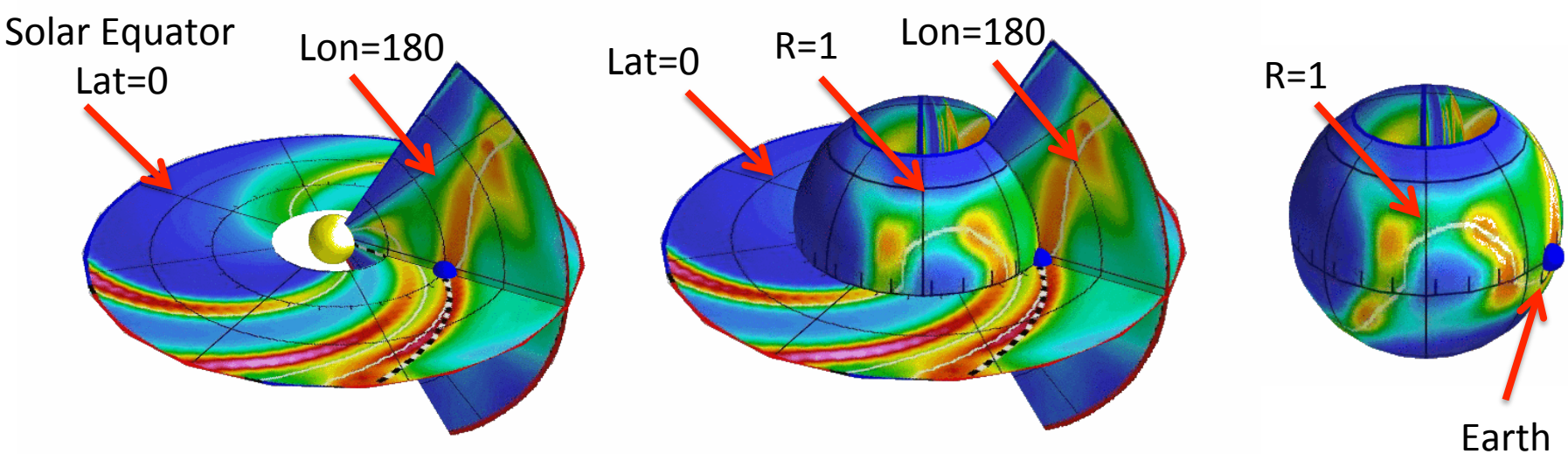
(any Lon can be selected in 0-360 range)

Click "Update Plot"

Enlil: Plot Areas

Choose Cut Plane:

R_1	0.103908	R_2	2.09612	Range: 0.103908 ... 2.09612 AU	R=constant	○	1.100014
Lon_1	0	Lon_2	360	Range: 0 ... 360 deg.	Lon=constant	○	180
Lat_1	-58.0001	Lat_2	58.0001	Range: -58.0001 ... 58.0001 deg.	Lat=constant	⊙	0



Solar Wind Parameters at Earth (L1)

Click here

HSS2011_ENLIL_051311_SH_2

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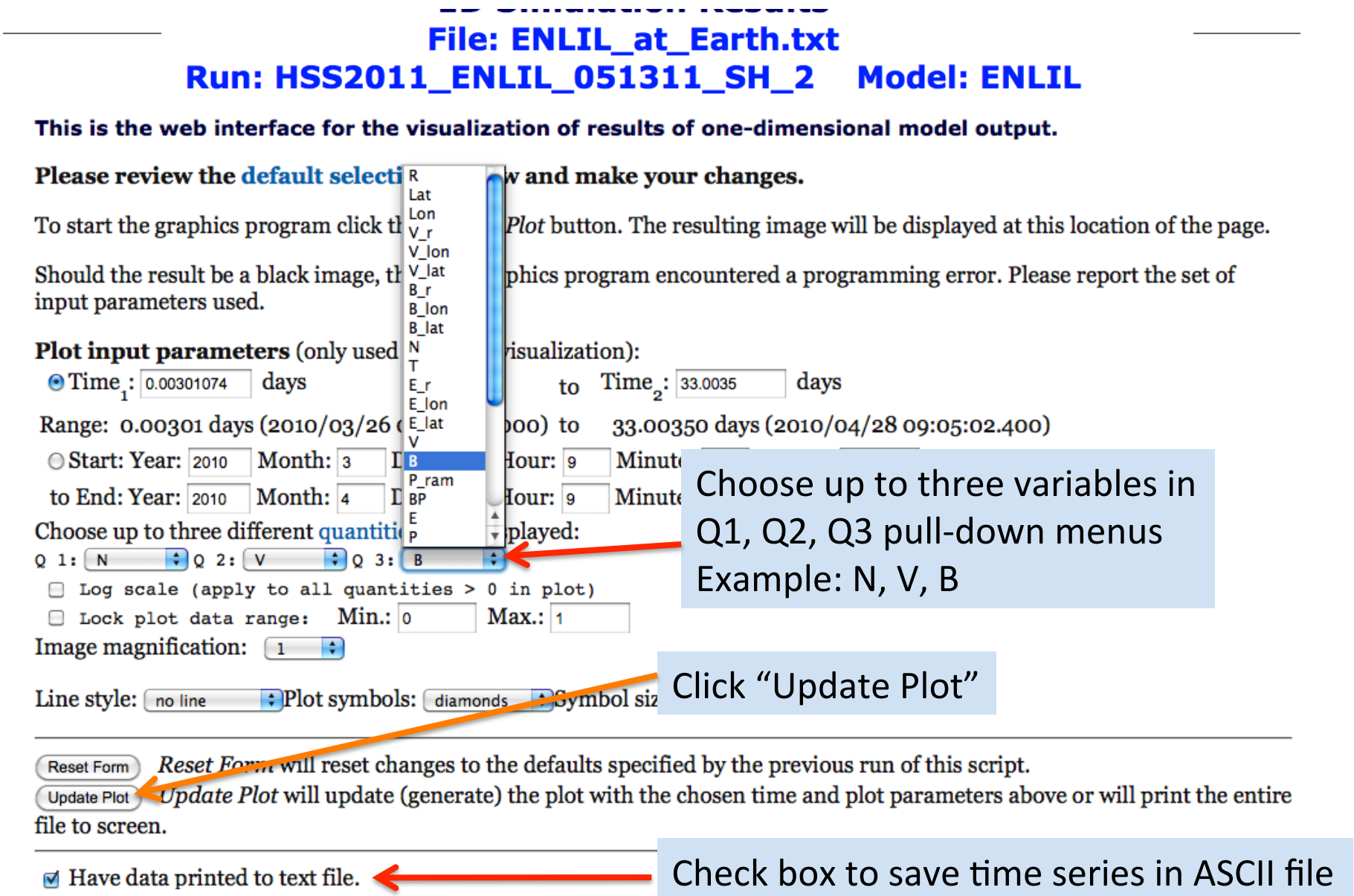
ENLIL_at_Stereo_A
ENLIL_at_Stereo_B
ENLIL_at_Venus

Time Series at L1: Solar Wind
Density (N), Velocity (V), Magnetic Field (B)

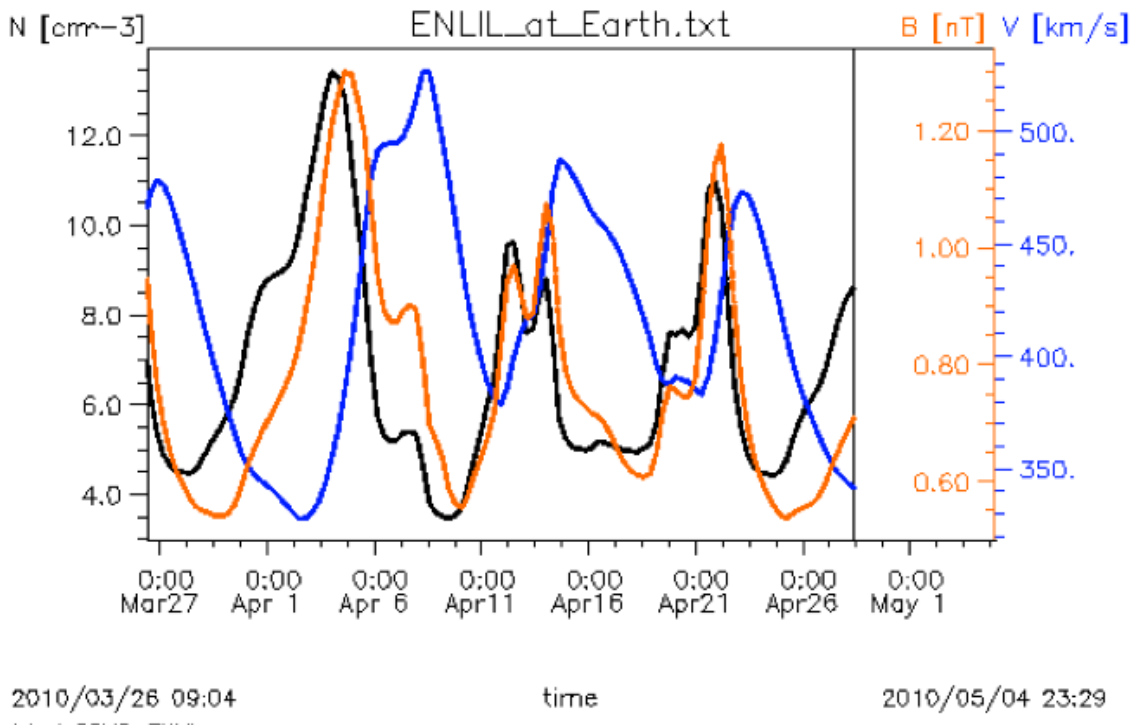


Choose up to three variables in Q1, Q2, Q3 pull-down menus
Example: N, V, B

Click “Update Plot”

Check box to save time series in ASCII file

Time Series at L1 (results)



Scroll down to the bottom of the page

ASCII data output (1055.05 KB)

Click here to download ASCII files