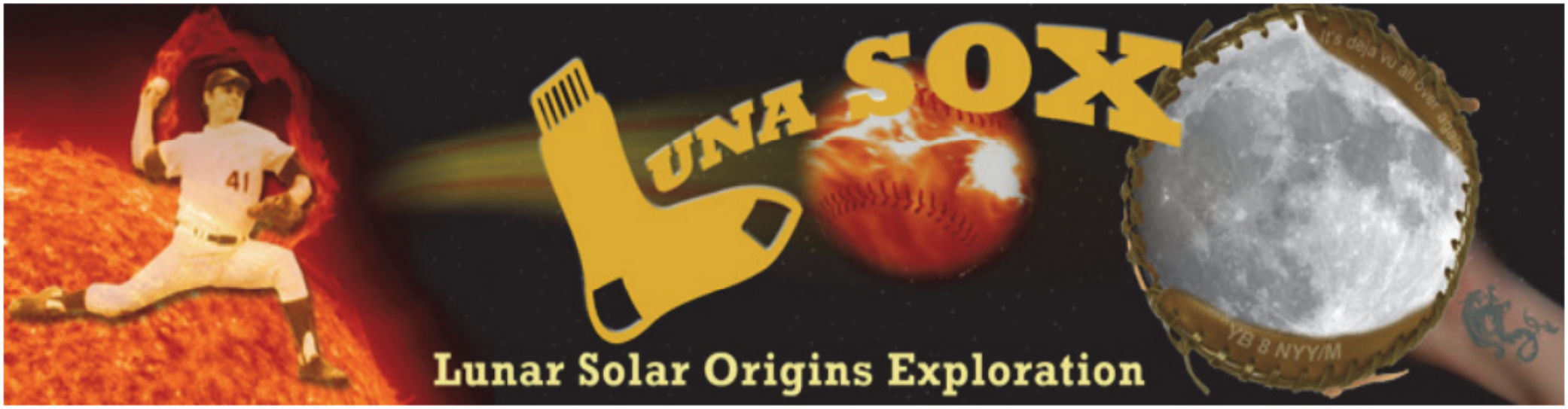


lunasox.gsfc.nasa.gov

+ Home

Lunar Solar Origins Exploration (LunaSOX)

+ Introduction
+ LunaSOX News
+ Data Browser
+ CDAWeb - links to Apollo Era missions
+ Discussion Documents
+ Feedback

LATEST LUNASOX NEWS

+ Twin ARTEMIS Probes to Study Moon in 3D
by Staff, Moon Daily, July 14, 2011

+ LunaSOX Data Services
AGU SPA Section Newsletter, Vol. XVII, Issue 49, July 13, 2011

+ ARTEMIS Spacecraft Prepare for Lunar Orbit
by K. C. Fox, Space Travel, June 24, 2011

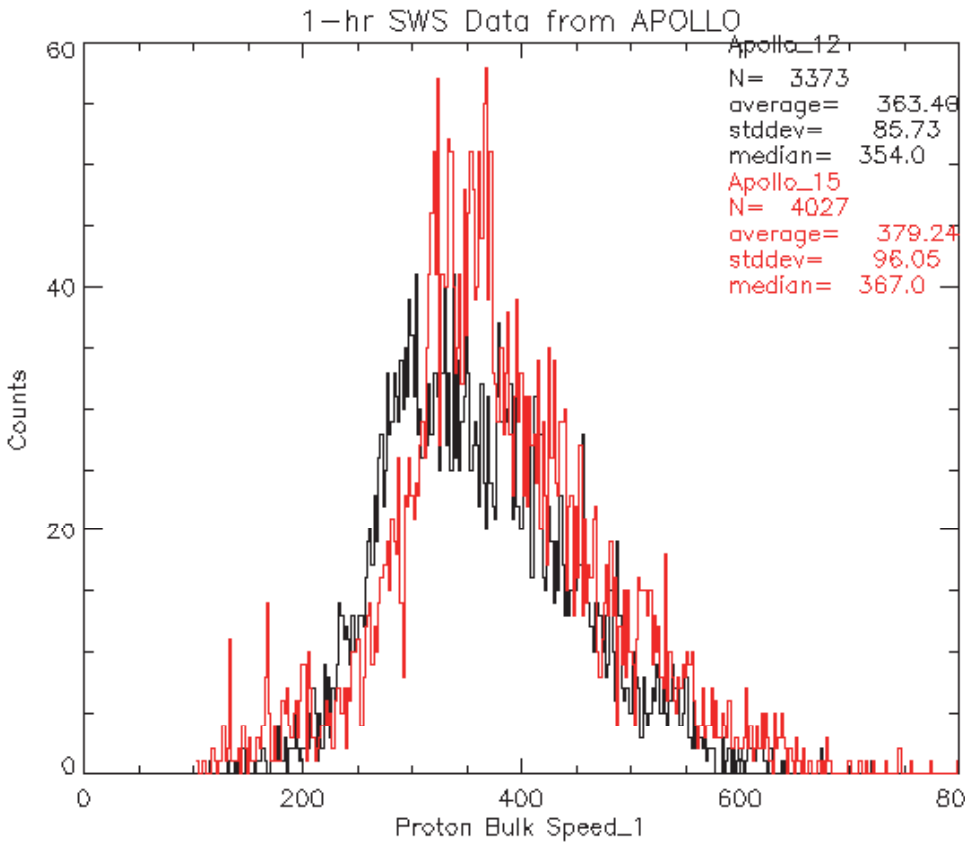
more...

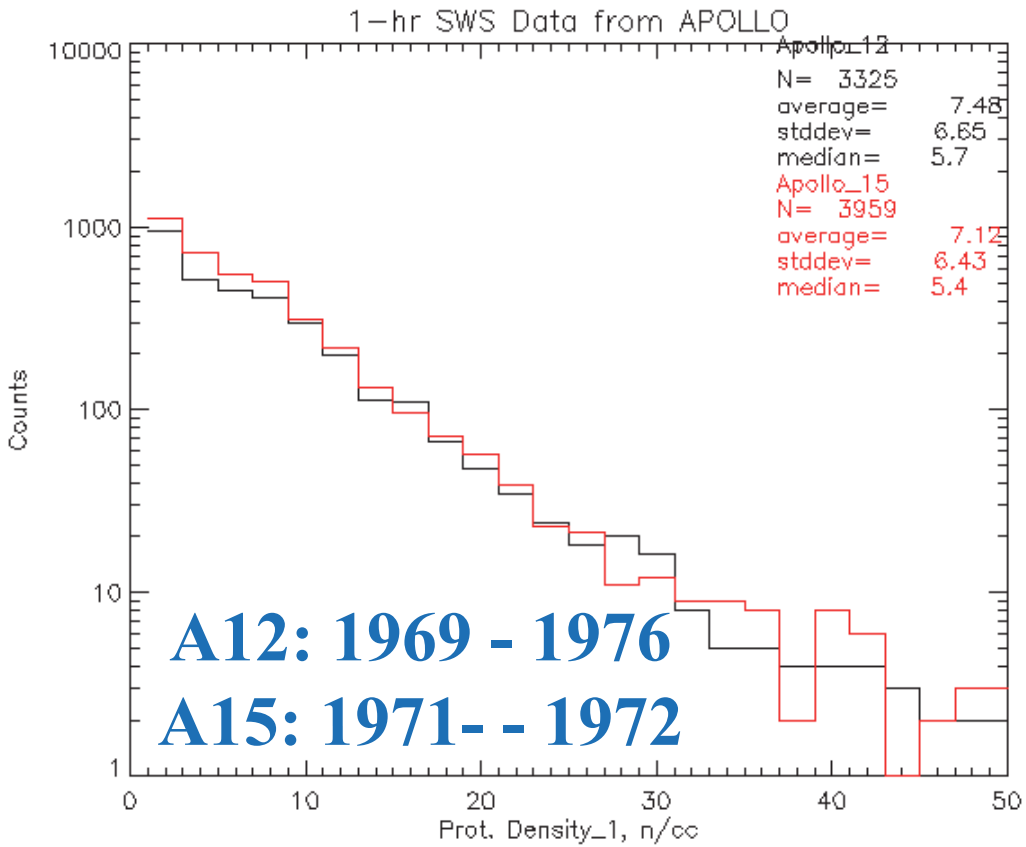
NY METS World Series Effect on Human Lunar Missions ? METS win 1969, lose 1973

INTRODUCTION

Welcome to the focus group web site for Lunar Solar Origins Exploration (LunaSOX) as an affiliated service of the Virtual Heliospheric Observatory

LunaSOX Data Browser Sample Output
Apollo ALSEP 12 & 15 Frequency Distributions: Speed & Density





Average and median speeds lower at Apollo 12 ALSEP site

→ Correlates to higher crustal magnetic field & SW ion deflection

Also supporting Explorer 35, Artemis P1-P2 field & plasma data

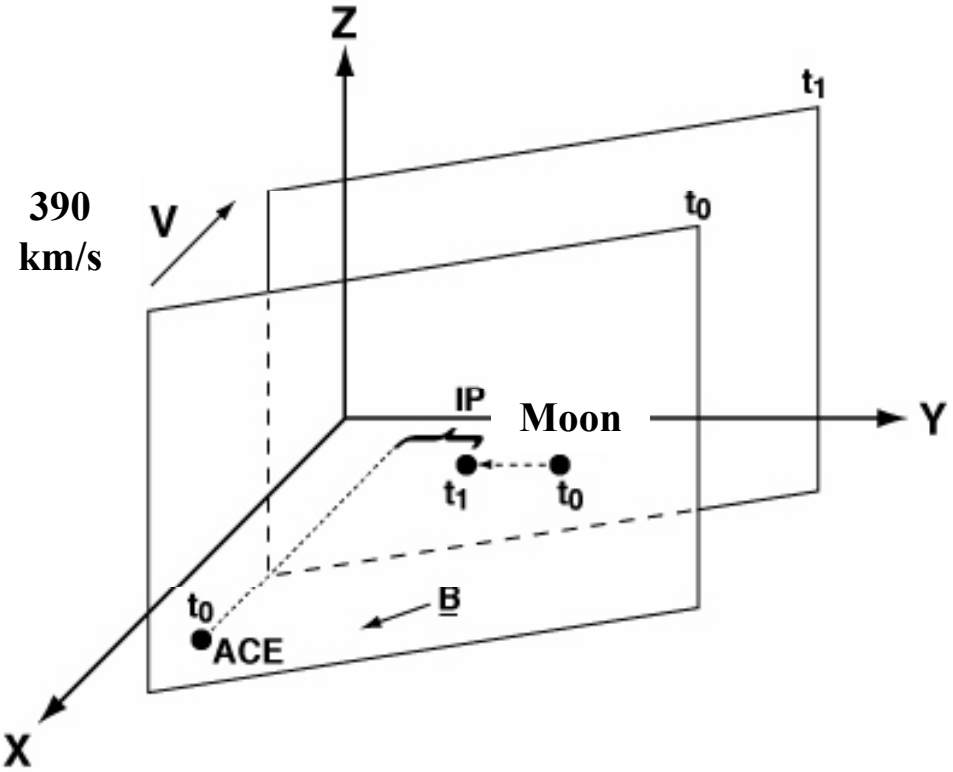
Coming: Lunar Prospector Electron and other PDS data sets

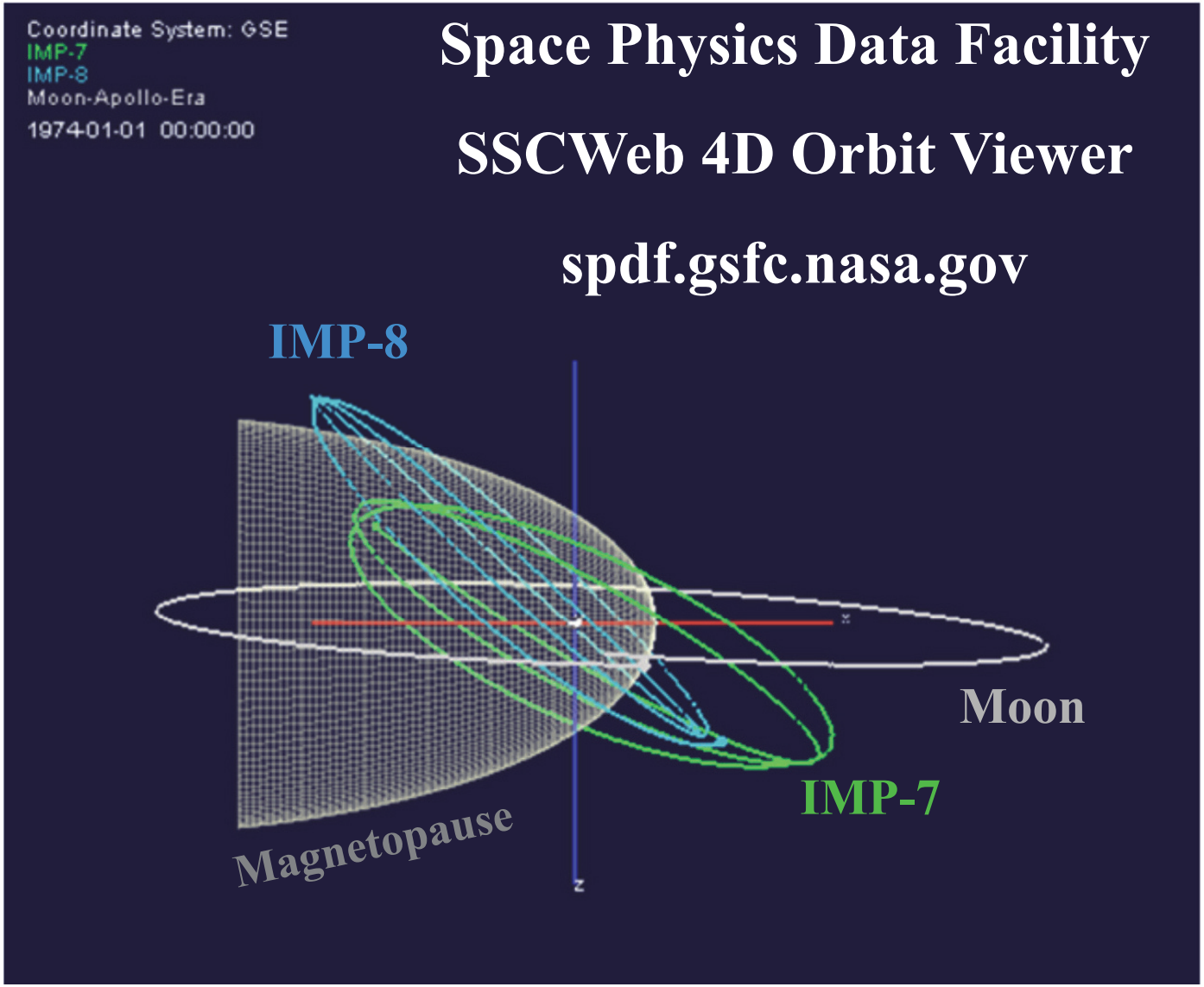
Lunar Impact Parameters for Radial Solar Wind Flow

This interface provides access to hourly resolution "impact parameters" for pairs of Moon and IMP 8, Wind, ACE Geotail and Earth. These are the distances by which a plasma element moving radially away from the sun with a speed of 390 km/s, observed at an upstream spacecraft would miss intercepting a downstream spacecraft (or Earth), allowing for the 30 km/s motion of the Earth and its nearby spacecraft about the sun.

Object Ephemeris Dates

Moon	1969-01-01 - 2009-12-31
Earth	1969-01-01 - 2009-12-31
IMP-8	1974-01-01 - 2006-12-31
WIND	1995-01-01 - 2009-12-31
ACE	1998-01-01 - 2009-12-31
Geotail	1995-08-09 - 2006-12-31





LunaSOX leverages collaboration with SPDF on infrastructure for enhanced access & analysis of instrument and ephemeris data.

Effects of Na^+ and He^+ pickup ions on the lunar plasma environment:

3D hybrid modeling

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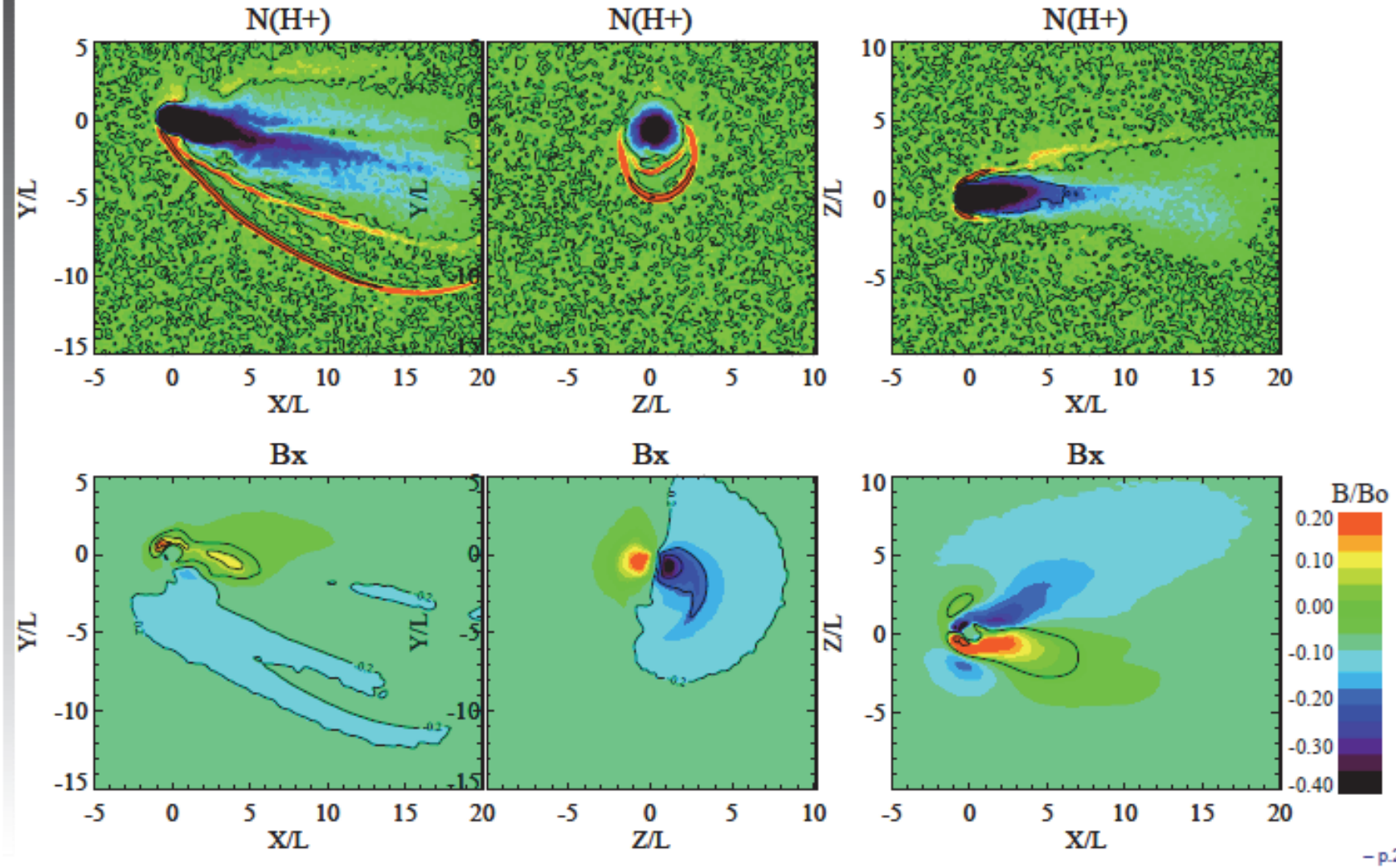
Fall AGU, San Francisco, CA, Dec. 5-9, 2011

2-D cuts of the background H^+ ion density (top) and magnetic field B_x (bottom)



2-D cuts of the pickup ion Na^+ (top) and He^+ (bottom) density profile