Van Allen Probes SWG Telecon
14 October 2016

- Project news
- Instrument Team meetings (25 October) at APL
- SWG Meeting (26-28 October) Homewood Suits, Laurel, MD
- Publication update (September 2016)
- Properties and Generation of Oblique Whistler-Mode Chorus Waves (Wen Li)

Dial-in Information
(14 October 2016 3:00 EDT)

SWG Telecon (Van Allen Probes)
Host: Aleksandr Ukhorskiy

When it's time, start your meeting from here:
https://apl-webex.jhuapl.edu/orion/joinmeeting.do?ED=O1XBcxu9hsKWzek_gVR8Tw==

When: Friday, October 14, 2016, 3:00 pm (1 hr), Eastern Daylight Time (New York, GMT-04:00).

Access Information

Meeting Number:
995 852 548

Password:
(This meeting does not require a password.)

Host Key:
114846 (Use this key during the meeting if you ever need to reclaim the host role.)

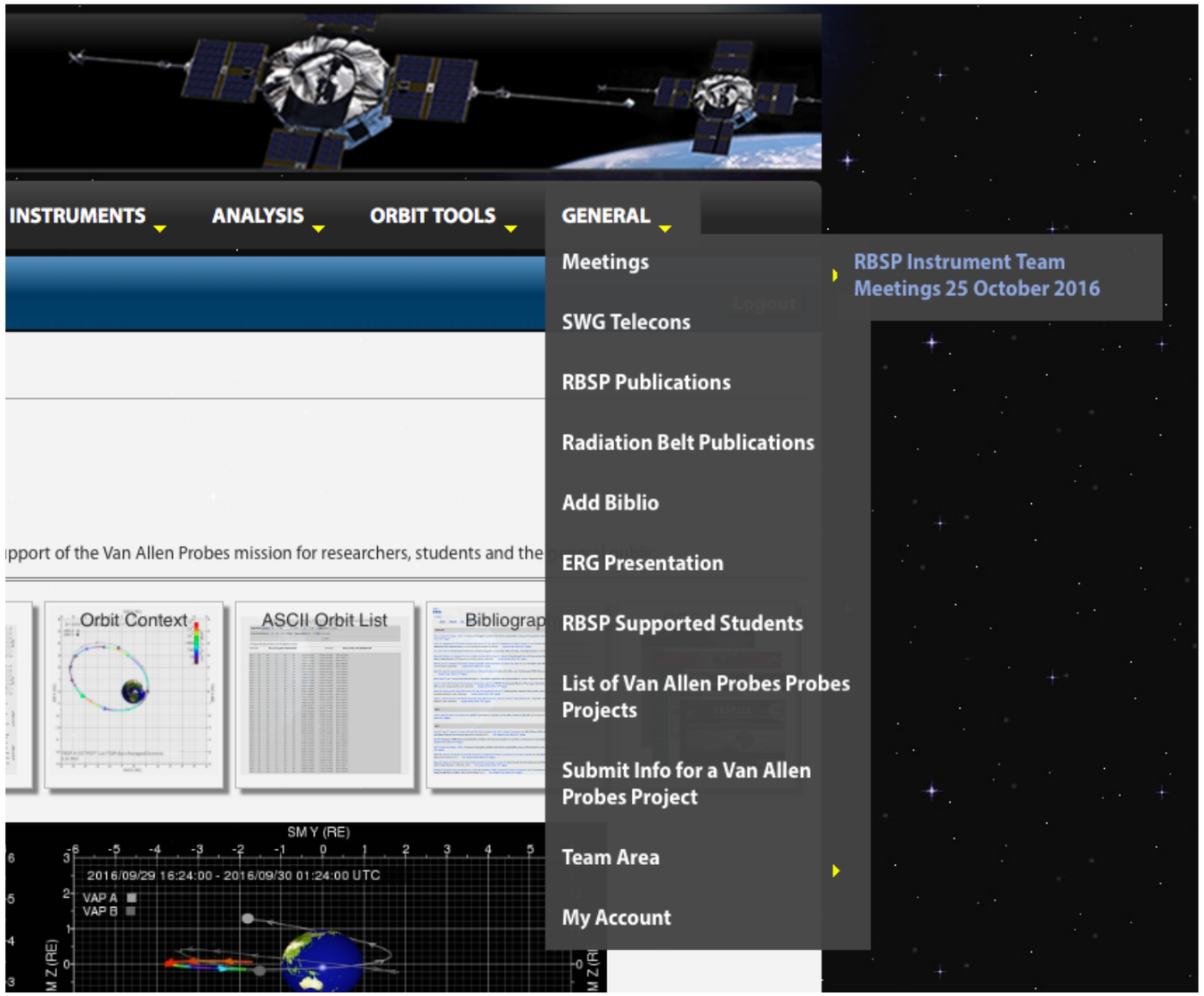
Audio Connection

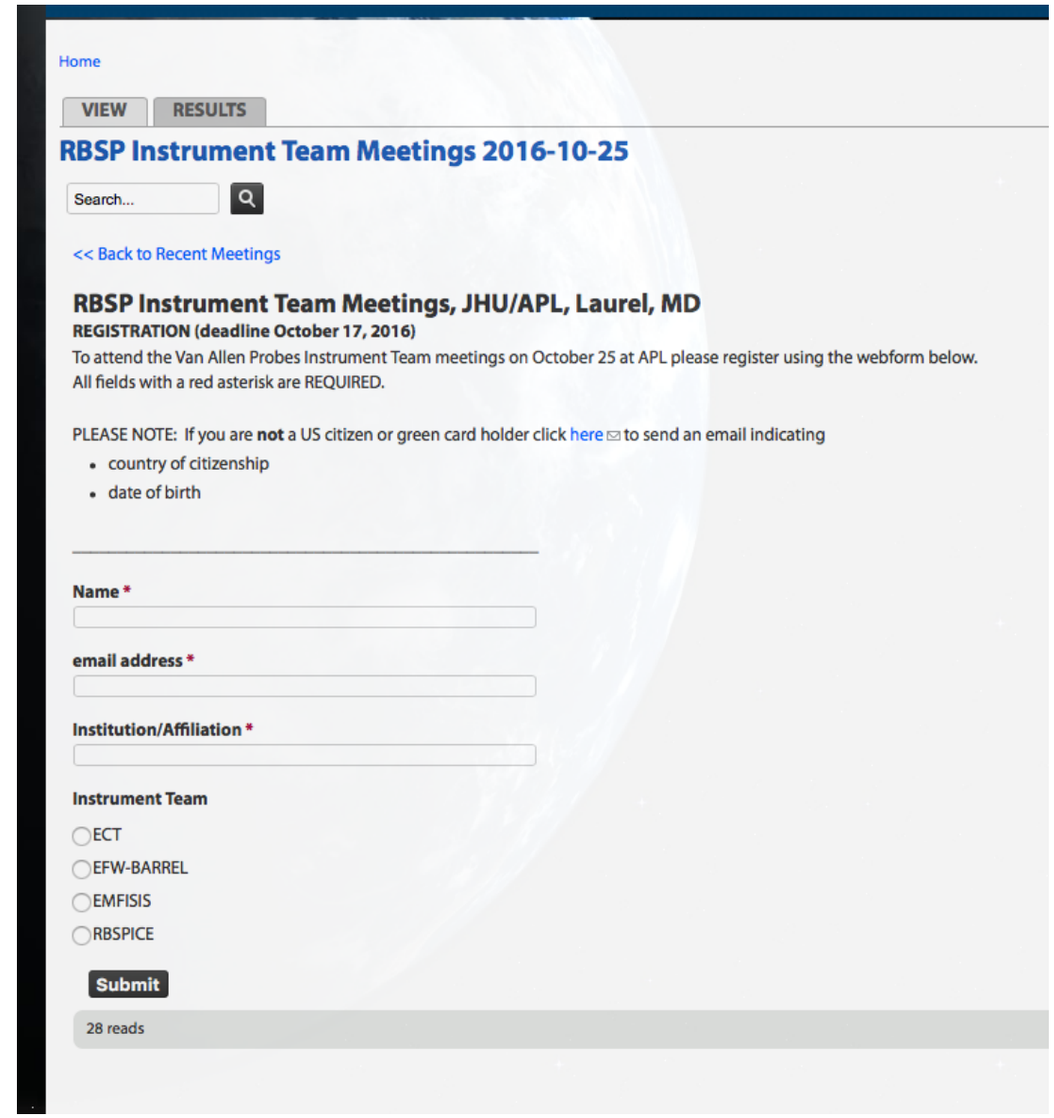
(443)778-1000 (Baltimore, MD)
8-1000 (Internal)
(844)275-9323 (Toll Free)
(240)228-1000 (Washington, DC)

Access Code:
995 852 548

2016 Fall RBSP Instrument Team Meetings (25 October 2016)

If you would like to attend one of the instrument team meetings on 25 Oct 2016: (1) contact the instrument PI; (2) register via Science Gateway - **deadline 17 October (this Monday)**





You need to be a registered Gateway user in order to register for the meetings

2016 Fall RBSP SWG Meeting (26-28 October)

http://homewoodsuites3.hilton.com/en/hotels/maryland/homewood-suites-by-hilton-columbia-laurel-BALCMHW/index.html

The discussion themes will include:

What progress has been made towards achieving the prioritized science goals (PSGs) of the Extended Mission I proposal?

Do any of these PSGs need to be adjusted or modified?

Are there any new objectives that we want to address in the Extended Mission II (e.g., inner belt, lab plasmas, space weather)?

2016 Fall RBSP SWG Meeting
Draft Agenda

October 26

09:00 - 09:10	Welcome, agenda, logistics (*Sasha Ukhorskiy*)
09:10 - 09:15	Mission status (*Ed Reynolds*)
09:15 - 09:20	Spacecraft status (*Kris Fretz*)
09:20 - 10:15	**Q1.1** Quasilinear and nonlinear local acceleration mechanisms (*Wen Li, Chris Crabtree, Jacob Bortnik*)
10:15 - 10:30	Break
10:30 - 11:30	**Q1.1** Quasilinear and nonlinear local acceleration mechanisms (*Wen Li, Chris Crabtree, Jacob Bortnik*)
11:30 - 12:30	**Q1.2** Shock-stimulated acceleration events: impulsive and ULF-driven radial transport (*Kazue Takahashi*)
12:30 - 13:45	Lunch
13:45 - 14:45	**Q1.2** Shock-stimulated acceleration events: impulsive and ULF-driven radial transport (*Kazue Takahashi*)
14:45 - 15:15	**Q2.1** The mechanisms of magnetopause losses (*David Sibeck, Ian Cohen, Sasha Ukhorskiy*)
15:15 - 15:30	Break
15:30 - 17:30	**Q2.1** The mechanisms of magnetopause losses (*David Sibeck, Ian Cohen, Sasha Ukhorskiy*)

October 27

09:00 - 09:20	Science Gateway tools
09:20 - 10:15	**Q2.2** The mechanisms and the role of atmospheric precipitation (*Robyn Millan, Paul O'Brien, Tom Sotirelis*)
10:15 - 10:30	Break
10:30 - 11:30	**Q2.2** The mechanisms and the role of atmospheric precipitation (*Robyn Millan, Paul O'Brien, Tom Sotirelis*)
11:30 - 12:30	**Q3.1** Mesoscale injections and global transport of hot plasma into the ring current (*Matina Gkioulidou, Drew Turner*)
12:30 - 13:45	Lunch
13:45 - 15:15	**Q3.1** Mesoscale injections and global transport of hot plasma into the ring current (*Matina Gkioulidou, Drew Turner*)
15:15 - 15:30	Break
15:30 - 17:30	**Q3.2** Energization mechanisms at injection fronts; The effect of hot plasma injections on geoeffective waves (*Chris Chaston, David Malaspina*)

October 28

09:00 - 11:00	General Contributions (*Tom Sotirelis*)
11:00 - 11:15	Break
11:15 - 12:00	General discussion. Wrap up

Prioritized Science Goals (PSGs)

PSG 1: Perfect understanding of the relative roles of local versus transport mechanisms of particle acceleration and the role that nonlinear mechanisms play in the acceleration processes.

Q1.1: [Wen Li, Chris Crabtree, Jacob Bortnik] Does the presence of nonlinear waves affect the conclusion that quasilinear acceleration suffices? What are the detailed structures and effectiveness of the microphysical processes that act to energize radiation belt particles in the inner magnetosphere?

Q1.2: [Kazue Takahashi] For shock-stimulated acceleration events, what is the relative acceleration by ULF waves extending over hours as compared to that caused more coherently by the initial shock impulse?

PSG 2: Perfect understanding of the relative importance of precipitation and magnetopause losses of energetic particles in the inner magnetosphere and provide more definitive information about the causes and consequences of the precipitation.

Q2.1: [David Sibeck, Ian Cohen, Sasha Ukhorskiy] Which of the following contribute most to magnetopause losses: Magnetopause motion, ULF waves, shell splitting, orbit bifurcation, or ring current inflation?

Q2.2: [Robyn Millan, Paul O'Brien, Harlan Spence] What is the relative importance of the mechanisms that cause precipitation? How important are nonlinear wave interactions in precipitation loss? What is the relative importance of precipitation and magnetopause losses for varying solar cycle conditions?

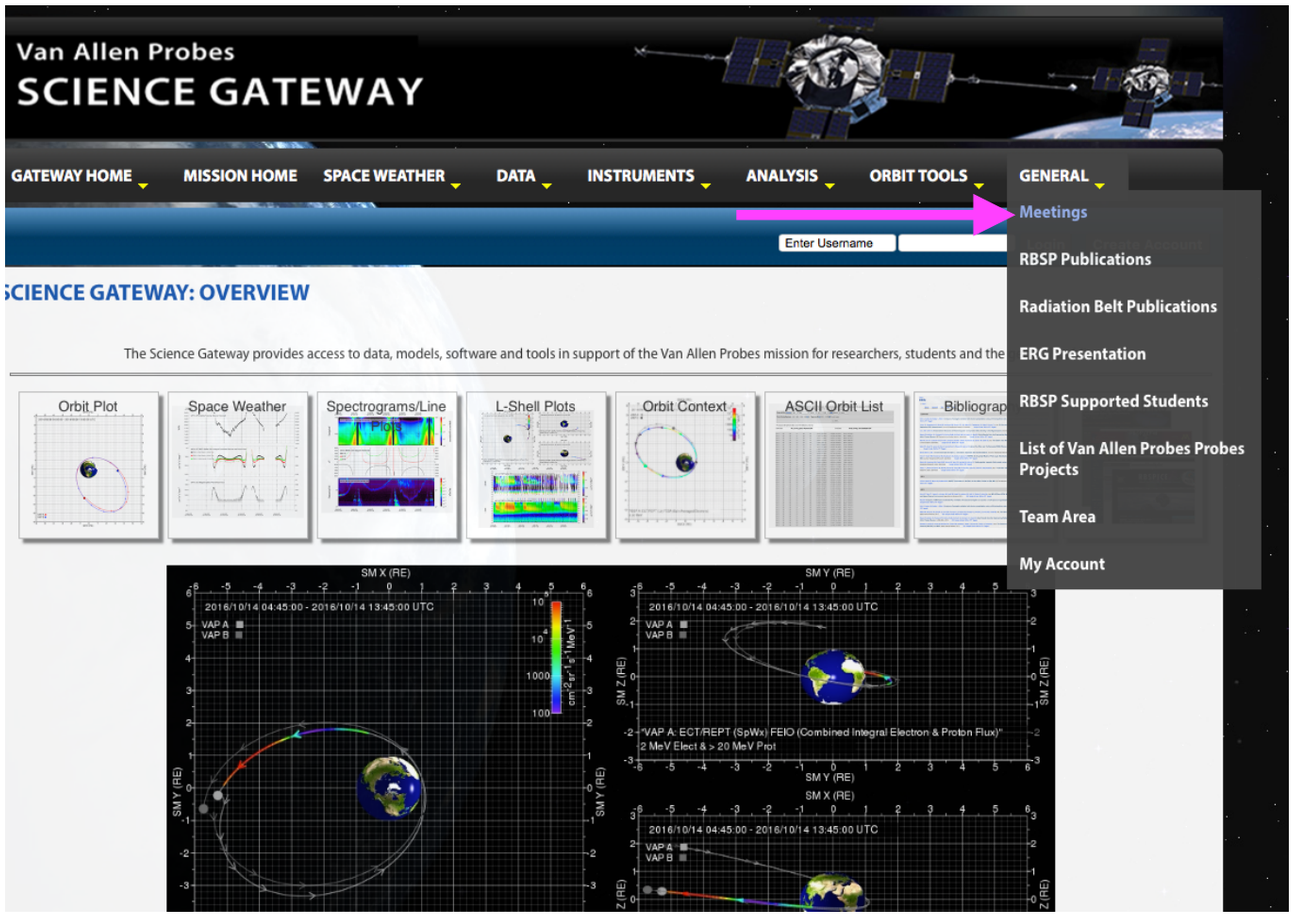
PSG 3: Perfect understanding of the relative roles of global-scale transport processes and mesoscale dynamic injections in the inner magnetosphere and their respective roles in the production of geoeffective waves.

Q3.1: [Matina Gkioulidou, Drew Turner] How do mesoscale injections and global transport processes act (singly or in combination) to transport electrons and ions into the ring current, slot, and inner zones? What are the spatial, temporal, and energy distributions produced by different transport/injection mechanisms?

Q3.2: [David Malaspina, Chris Chaston] How do electron and ion injections into the inner magnetosphere affect or modify the global distribution of geoeffective magnetospheric waves? What mechanisms operate at the injection front to convert flow energy into kinetic nonlinear electric field structures?

SWG Meeting Registration Page

Please register, if you would like to give a talk at the SWG meeting



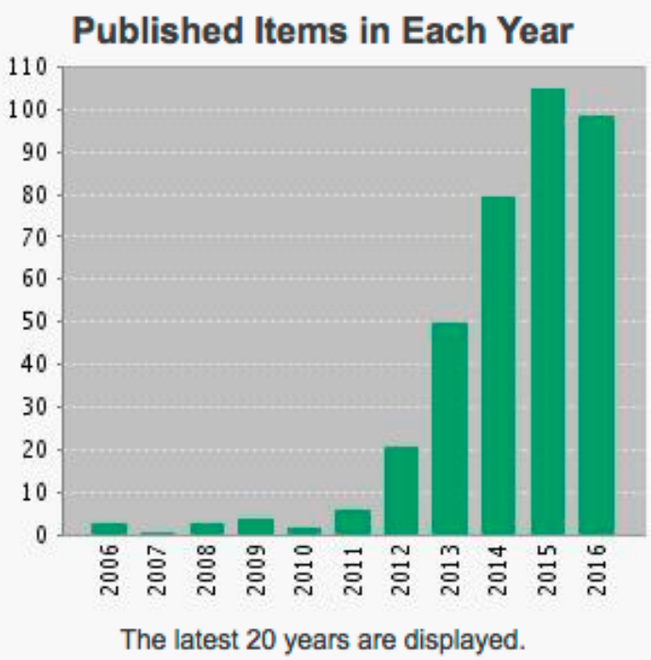
Name

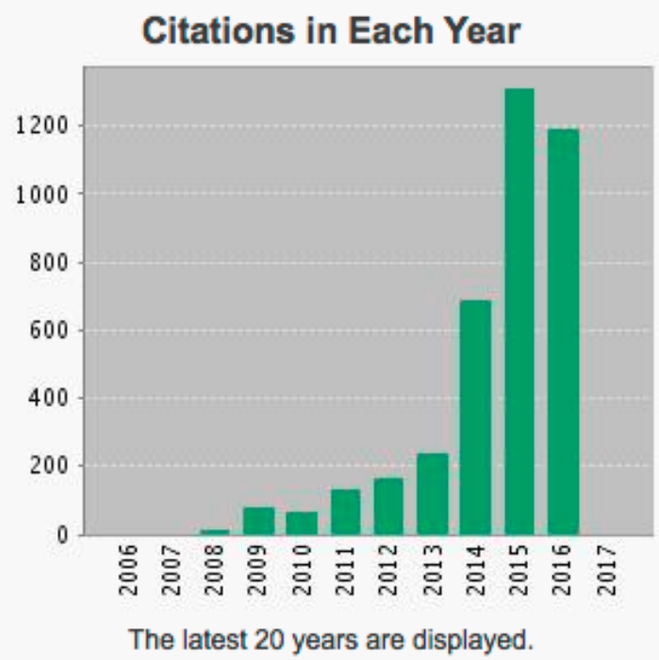
email

Sesssions

- ☐ Q1.1 Quasilinear and nonlinear local acceleration mechanisms
- ☐ Q1.2 Shock-stimulated acceleration events: impulsive and ULF-driven radial transport
- ☐ Q2.1 The mechanisms of magnetopause losses
- ☐ Q2.2 The mechanisms and the role of atmospheric precipitation
- ☐ Q3.1 Mesoscale injections and global transport of hot plasma into the ring current
- ☐ Q3.2 Energization mechanisms at injection fronts; The effect of hot plasma injections on geoeffective waves
- ☐ General Contributions

Publication Update (September 2016) see attached document





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17 new publications
H+=2
H=29

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