

# Workshop for an Earthscope Science Plan

October 7-9, 2009  
Snowbird, Utah

## Agenda (v. 09/17/09)

**Tuesday, October 6 – Participants arrive**

**Wednesday, October 7**

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Speakers are listed with general topics; specific titles will be provided soon. Co-chairs of breakout groups are also listed.

7:00 a.m. – 8:00 a.m.	Breakfast/Meeting with writing team and discussion (breakout) leaders			
8:00 a.m. - 8:55 a.m.	<b>Opening Session</b> Welcome & Agenda – From Snowbird 2001 into the next 10 years  NSF Perspectives on the Science Plan  Tribute to Paul Silver and his contributions to EarthScope Lucy Flesch, Fenglin Niu, Maureen Long  <b>Facility Highlights</b> – Brief updates on facilities progress with emphasis on less-familiar aspects of the Earthscope facility SAFOD, PBO, USArray (including MT), Cascadia on/offshore			
8:55 a.m. - 9:45 a.m.	<b>Plenary One - Building on Breakthroughs – The Next Milestone for EarthScope</b> 4 talks (20 min each plus 5 min of questions)  <i>Fault properties and slip processes</i> Chris Marone <i>Plate boundary deformation and dynamics</i> David Sandwell			
9:45 a.m. - 10:00 a.m.	<b>Break</b>			
10:00 a.m. – 10:50 a.m.	<i>The structure and evolution of the North American lithosphere and asthenosphere</i> Richard Allen <i>Deep Earth structure and dynamics</i> Jun Korenaga			
10:50 a.m. – 11:00 a.m.	<b>Plenary - Breakout Group Introductions</b>			
11:00 a.m. - 12:20 p.m.	<b>Breakout Session I - Building on Breakthroughs</b>			
	<i>Fault properties and slip processes</i>	<i>Plate boundary deformation and dynamics</i>	<i>The structure and evolution of the North American lithosphere and asthenosphere</i>	<i>Deep Earth structure and dynamics</i>
	Jim Evans Joan Gomberg	Joanne Stock Louise Kellogg	David Foster Phil Wannamaker	Ed Garnero Jay Bass Rick O'Connell
12:20 a.m. - 1:30 p.m.	<b>Lunch</b>			

1:30 p.m. - 2:30 p.m.

**Plenary IIa – Panel and discussion: Making Interdisciplinary Collaborations Work**

Each group will provide a 5 minute introduction to their project and the highlights and challenges of interdisciplinary work, to be followed by open discussion.

Maureen Long/Randy Keller - High Lava Plains

Ken Creager/Tim Melbourne/Brad Hacker – Cascadia

John Hole, Joann Stock – Salton Trough

Terry Plank - Basin and Range

2:30 p.m. - 3:20 p.m.

**Plenary IIb – New Research Directions**

4 talks (20 min each plus 5 min of questions)

*Geomorphology and landscape evolution: Contributions to EarthScope*

Eric Kirby

*Sedimentology: Contributions to EarthScope*

Michelle Kominz

3:20 p.m. – 3:35 p.m.

Break

3:35 p.m. – 4:25 p.m.

*Linking EarthScope to the hydrosphere and cryosphere*

James Famiglietti

*Linking EarthScope to the atmosphere*

John Braun

4:25 p.m. – 4:30 p.m.

Break

4:30 p.m. – 5:50 p.m.

**Breakout Session II – Interdisciplinary Collaborations and New Research Directions**

*Integrating geological and geophysical constraints to study crust and mantle processes*

Walter Mooney  
Jeff Vervoort

*Integrating geological and geophysical constraints to study Earth surface processes (including the hydrosphere, cryosphere and atmosphere)*

Kristine Larson  
Jeanne Sauber

*New opportunities in education and outreach*

Jim Davis  
Dave Mogk

*EarthScope contributions to understanding earthquake, volcano and landslide hazards*

Tom Heaton  
Steve McNutt

6:00 p.m. – 7:30 p.m.

Dinner

7:30 p.m. - 10:00 p.m.

**Posters (with no-host bar): “Exciting Discoveries and New Opportunities”**

Jazz band as a tribute to Paul Silver – Ed Garner, Mike Wyssession, and others...

**Thursday, October 8, 2009**

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7:00 a.m. - 8:00 a.m. Breakfast  
Early career scientist discussion led by Lara Wagner and Kate Huntington

8:00 a.m. - 9:50 a.m. **Plenary III: New Regions to Explore**  
4 talks (20 min plus 5 min of questions)

*Linking mantle structures to surface deformation through time across the U.S.*  
Mike Gurnis  
*Appalachian geology: Key questions for EarthScope*  
Jim Hibbard  
*Continental rifting and passive margin development*  
Cindy Ebinger  
*Alaskan geology: Key questions for EarthScope*  
Terry Pavlis

9:50 a.m. – 10:05 a.m. Break

10:05 a.m. – 11:25 a.m. **Breakout Session III – New Regions to Explore**

*Cyberinfrastructure and Earthscope: challenges and opportunities...*

Gary Pavlis  
Vince Cronin

*The Appalachians, the passive margin the Gulf Coast and Mississippi embayment*

Jay Pulliam  
Dennis Harry  
Chuck Bailey

*The craton and continental interior*

Dan Holm  
Ernest Hauser

*Alaska*

Sarah Roeske  
Sean Gulick

11:25 a.m. - 12:15 p.m. **Free time (view posters in breakout rooms, take a walk, share ideas...)**  
(Break-out leaders meet to synthesize reports into 5 min presentations)

12:15 a.m. – 1:30 p.m. **Lunch**

1:30 p.m. - 2:40 p.m. **Plenary Session – The Science Plan – reports from breakouts and early career caucus**  
(Full breakout reports will be made available on web.)  
Report from Breakout Session I (20 min report plus 10 min of discussion)  
Report from Breakout Session II (20 min report plus 10 min of discussion)  
Report from early career scientists (5 min report plus 5 min of discussion)

2:40 p.m. - 3:00 p.m. Break

3:00 p.m. - 3:30 p.m. Report from Breakout Session III (20 min report plus 10 min of discussion)

3:30 p.m. – 4:30 p.m. **Moderated Overview Discussion**

4:30 a.m. – 5:30 p.m. **Informal meetings between Writing Group and other Participants**

5:45 p.m. – 7:00 p.m. **Dinner**

7:00p.m. - 8:30 p.m. **Writing Group meets**

**Friday, October 9, 2009**

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**WRITING GROUP ONLY**

7:30 a.m. - 8:30 a.m. Breakfast

8:30 a.m. - 12:00 p.m. **Writing Group meets**