

# Induced Seismicity Consortium (ISC)



## **Webinar- Updates on ISC**

Fred Aminzadeh, Don Paul, Iraj Ershaghi, Julie Albright

Los Angeles, CA  
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# Webinar Objectives

- To Update on ISC and recent developments
- Updated Tasks
- Latest version of the proposal
- Management Structure & Formation of Advisory Boards
- Support status & Involvement of Regulators and NGOs
- What is next

# Update on ISC and recent developments

- <http://viterbi.usc.edu/news/news/2012/usc-headquartered-consortium.htm>
- Official Formation of ISC
- Interactions with RPSEA
  - GTI-Marcellus Data Set
  - MEQ Technology Evaluation
- Interactions with PTTC
- Presentations at IS/HF/shale workshops
- Communication
  - Monthly Webinars
  - Website
  - Public Communication and Outreach

# Induced Seismicity Continues to be on the news

<http://www.chicagotribune.com/business/sns-rt-us-earthquakes-injection-wellsbre87519r-20120806,0,4855240.story>

## **Minor earthquakes seen near Texas injection wells: study**

Deborah Zabarenko Reuters 3:01 p.m. CDT, August 6, 2012

WASHINGTON (Reuters) - Dozens of small earthquakes occurred in central Texas over a two-year period, and 23 of them were close to injection wells where waste water from energy extraction was pumped deep underground for disposal, a new study reported on Monday.

The study used temporary seismographs to detect earthquakes of magnitude 1.5 or higher in a geologic area called the Barnett Shale, a swath of land the size of England that includes Dallas and Fort Worth.

## **EARTHQUAKES: Man-made, drilling-related quakes getting harder to ignore**

August 7, 2012 By MIKE SORAGHAN

<http://www.eenews.net/energywire/2012/08/07/1>

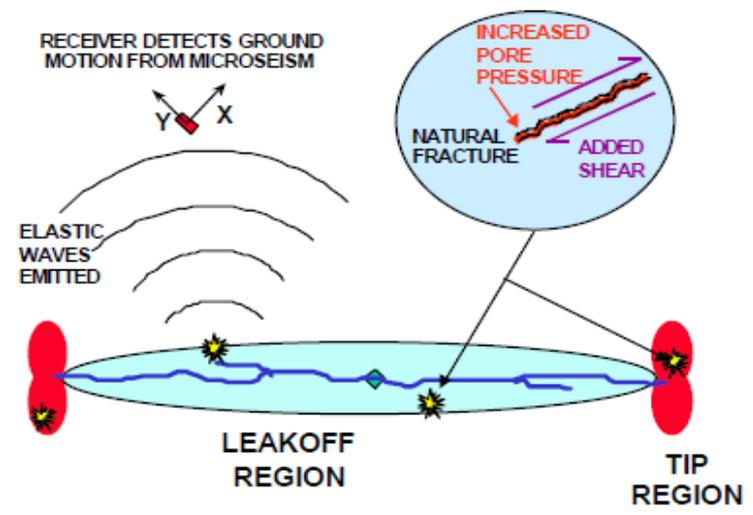
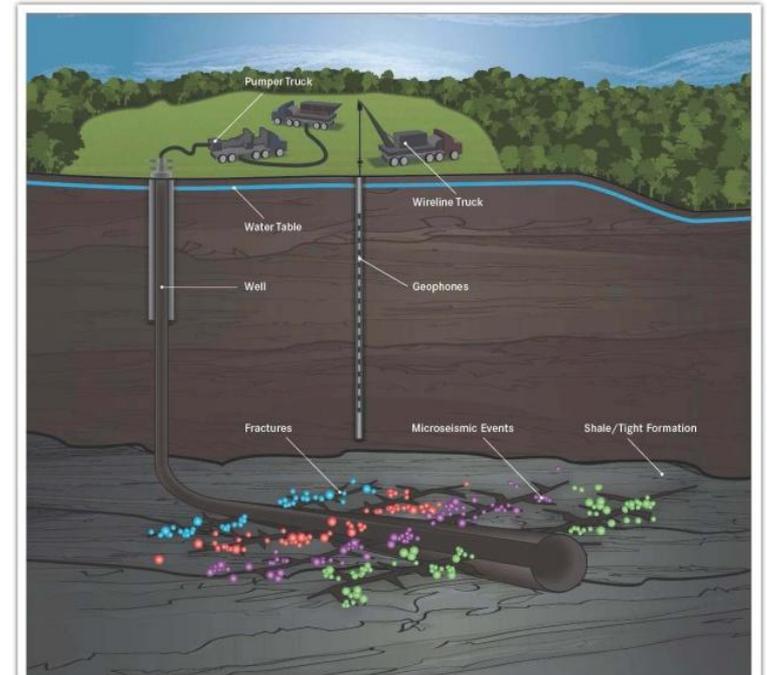
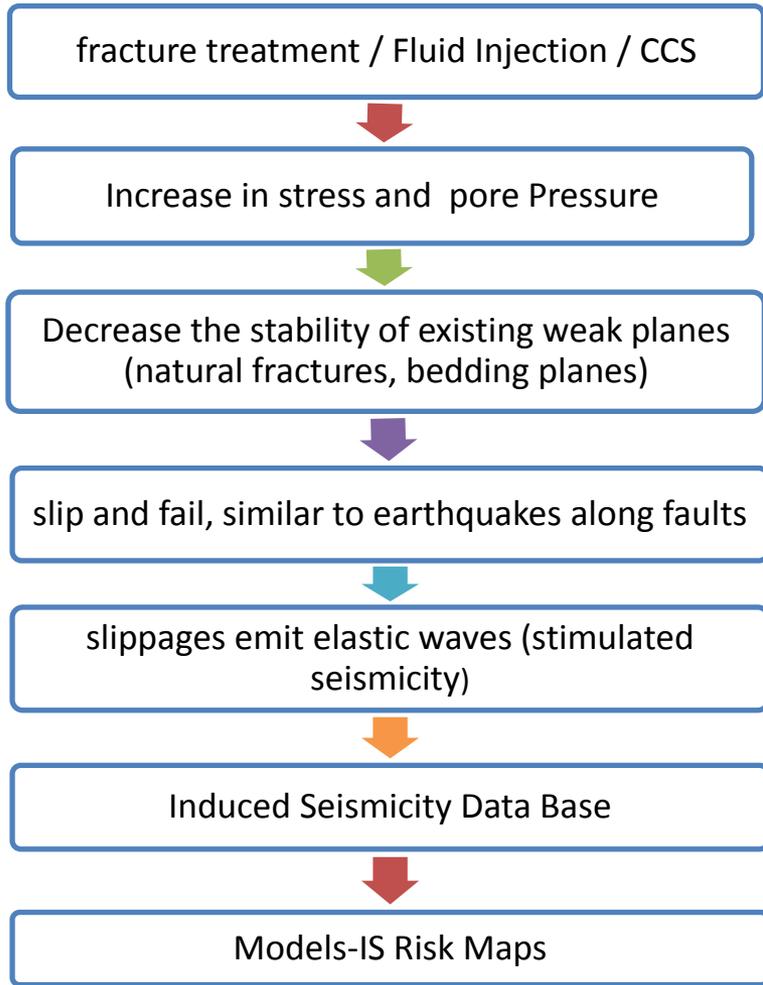
Cliff Frohlich figures his new study has good news and bad news for the oil and gas drilling business.

First, the bad news. The senior research scientist at the University of Texas' Institute for Geophysics found that deep injection of oil and gas wastewater appears to be causing more earthquakes than previously thought.

The good news, though, is that although drillers have to go where the oil and gas is to produce it, they can choose where they dispose of their wastewater.

"There are different levels of good news," Frohlich said in an interview. "Even if things do turn out to be more serious than we thought, they do have options."

# Introduction to Induced Seismicity



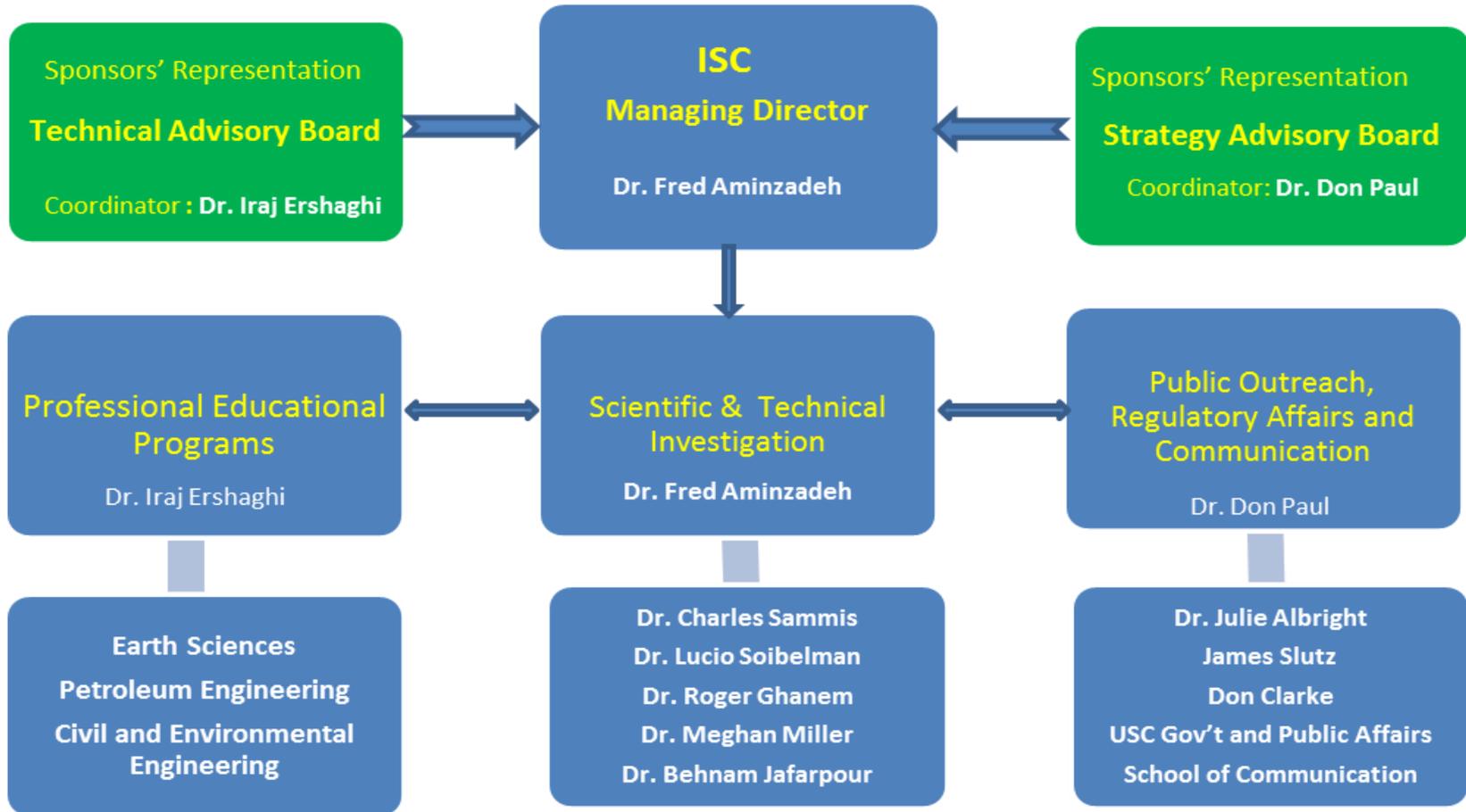
## Updated Tasks

- **Characterizing Fracture Network using microseismic data**
- **Establishing correlations between induced seismic events and microseismic attributes**
- **Developing a hierarchical probabilistic model for understanding the relationship between operational parameters, subsurface stress and observed seismicity**
- **Designing a system to mitigate the seismic hazards associated with SFIP**
- **Providing a regional geologic framework for interpreting observed seismicity and predictive modeling**
- **Creating a science-based framework for input to regulatory and government entities**
- **Introducing educational and communication programs for the professional community and the general public**

# Latest version of the proposal

- <http://gen.usc.edu/assets/001/81341.pdf>
- Contact us for Password to access the Member only Part

# Management Structure & Formation of Advisory Boards



## Support status & Involvement of Regulators and NGOs

- Occidental Petroleum confirms support (August, 6)
- SRS2020 confirms support (August 7)
- Environmental Defense Funds (confirms participation as an Observer)
- Discussion is ongoing with State Geologists, Regulators and Washington DC Think-tanks
- RPSEA: GTI Data/ Technology Test Bed/ (some funding)
- Several companies have shown strong interest and going through the internal approval

## Next Steps

- Follow up individual discussions
- Firming up membership with different organizations
- Next Webinar September 6<sup>th</sup>, 2012
- Meeting at the SPE Annual Meeting in San Antonio