



# Simulation and Capacity Analysis User Group (SimCap)

What is SimCap?  
February 28<sup>th</sup>, 2018

# What is SimCap?



- **SimCap** = **Sim**ulation & **Cap**acity Analysis User(s) Group
- **User(s) Group**: Group of motivated individuals who have organized to share information and enhance the practice of a common subject area

**SimCap is open to  
all persons with  
any level of interest  
or experience in  
traffic simulation,  
capacity analysis,  
and related  
practice areas.**

# Mission Statement

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- A volunteer network of professionals working across geographic and organizational boundaries to share information, experiences, and to disseminate, promote, and develop guidance and best practices in the application of traffic simulation and capacity analysis tools, methods, and related practice areas.

# Goals

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- Provide a forum for the meaningful exchange of, ideas, research, questions, and trends;
- Serve as a resource for practitioners and organizations by sharing experiences and developing guidance and best practices; and
- Advocate for consistency, reliability, and advances to the current state of the practice.

# History (Beginnings)

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- Initially founded in June 2006 under the ITE North Carolina Section as a technical Users Group within the local Traffic Engineering Council
- SimCap was created to improve the practice and understanding of traffic simulation and capacity analysis
- Initial meetings held as “Lunch & Learns” at local restaurants across the State

# History (Over the years ....)






## 2007 SIMCAP MEMBERSHIP SURVEY

**NCSITE Annual Meeting  
November 8, 2007**

The 'Simulation and Capacity Analysis User Group' (SimCap) brings together users of different traffic operations software programs to exchange information, answer questions, and share insights related to these analysis tools. The objective of this survey is to determine the needs of users for different applications and tools. In the results of the survey, we will be able to provide information regarding these needs, while also providing information on the use of simulation tools and the use of simulation tools.

**ITE Oregon Traffic Simulation Roundtable**



Gene ...  
• 23 Questions

**Welcome to the ITE Oregon Traffic Simulation Roundtable**

**NEXT UPCOMING ROUNDTABLES** Mark your calendars for the next joint OR and WA ITE Simulation Roundtable Half Day Workshop: September 30th, 2013. The meeting will be held in Portland with a more specific location and agenda to come at a later date.

Already know you want to attend, RSVP to: [gritesimulationroundtable@gmail.com](mailto:gritesimulationroundtable@gmail.com)

Tentative time will be from noon to 4:00pm with plenty of time for the people that will be in town for the PTV User's Group to attend the happy hour at the Benson Hotel. PTV will be opening this happy hour up to people attending the roundtable, and not attending the User's Group.

**SOCIAL MEDIA (@ORSim)**  
The ITE Oregon Traffic Simulation Roundtable, dates, and c

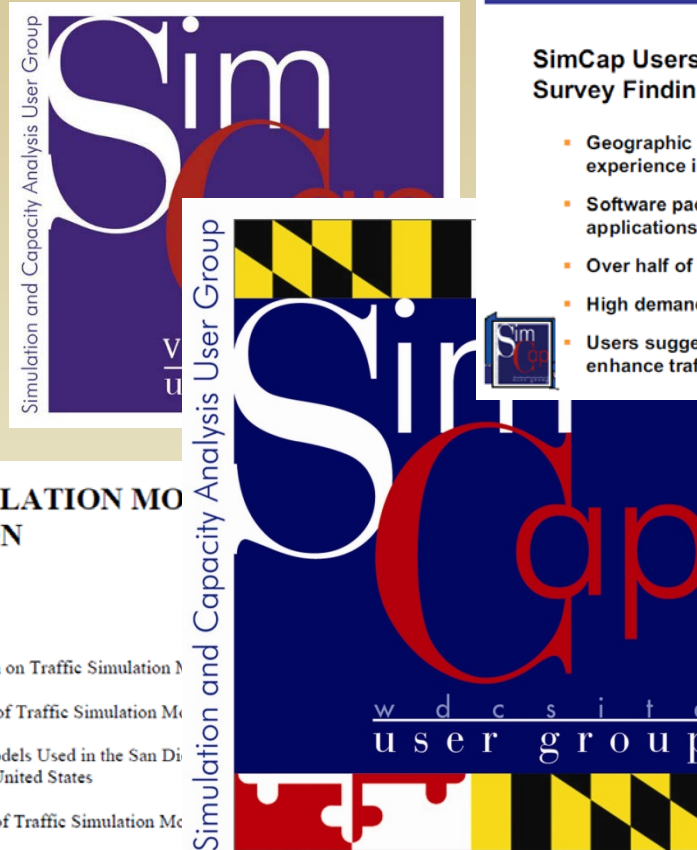
**UPCOMING NATIONALS**  
National ITE Annual Meeting  
Where: Boston, MA  
When: August 4th - August 8th  
To get added to the SimCap list, contact:  
David A. Petrucci @DPet

## A REPORT ON THE USE OF TRAFFIC SIMULATION MODELS IN THE SAN DIEGO REGION

Prepared By:

Institute of Transportation Engineers  
California Border Section  
Highway Capacity Task Force

1. Introduction
2. International Research on Traffic Simulation Models
3. Overview on the Use of Traffic Simulation Models
4. Traffic Simulation Models Used in the San Diego Region and the Western United States
5. Guidance on the Use of Traffic Simulation Models
6. Summary and Conclusions



## SimCap Users Group: Survey Findings and Future Initiatives

- Geographic location, agency preference, and localized experience influence model choice
- Software packages are frequently being used for applications outside of their intended use and capabilities
- Over half of all traffic modeling is done for training purposes
- High demand for training and technical support
- Users suggest change in focus to enhance traffic modeling



Technical Committee Presents:

## Lunch & Learn Session #1

# What is SimCap?



Graphics courtesy of Slanec

**Wednesday, November 28th, 2007 11:30 AM - 1:30 PM**

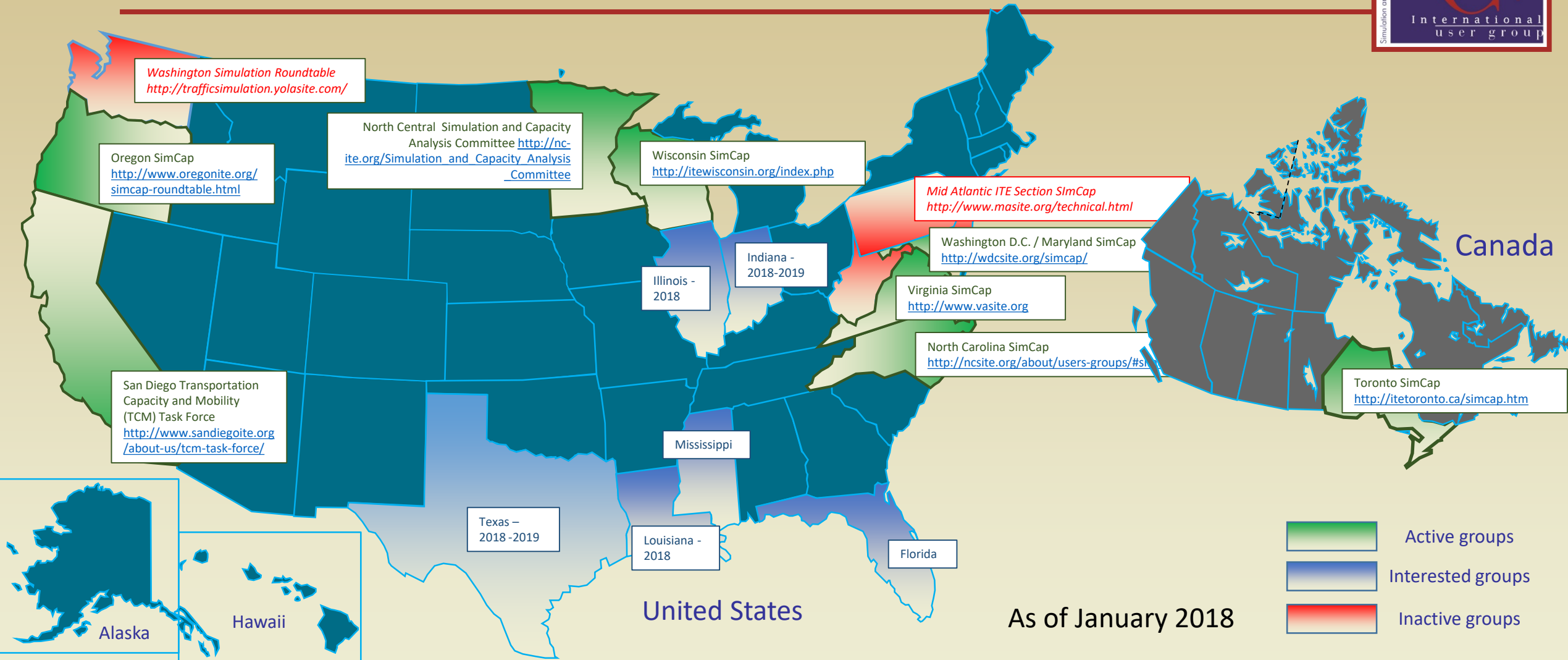
Please RSVP by Wednesday, November 21st, 2007  
Contacts: Mahmood Shehata at [mshahata@mtmail.biz](mailto:mshahata@mtmail.biz)  
Dave Petrucci at [dpetrucci@kmjinc.com](mailto:dpetrucci@kmjinc.com)

**McGillins' Olde Ale House**  
1310 Drury Street  
Philadelphia, PA 19107  
215-735-5562  
[www.mcgillins.com](http://www.mcgillins.com)

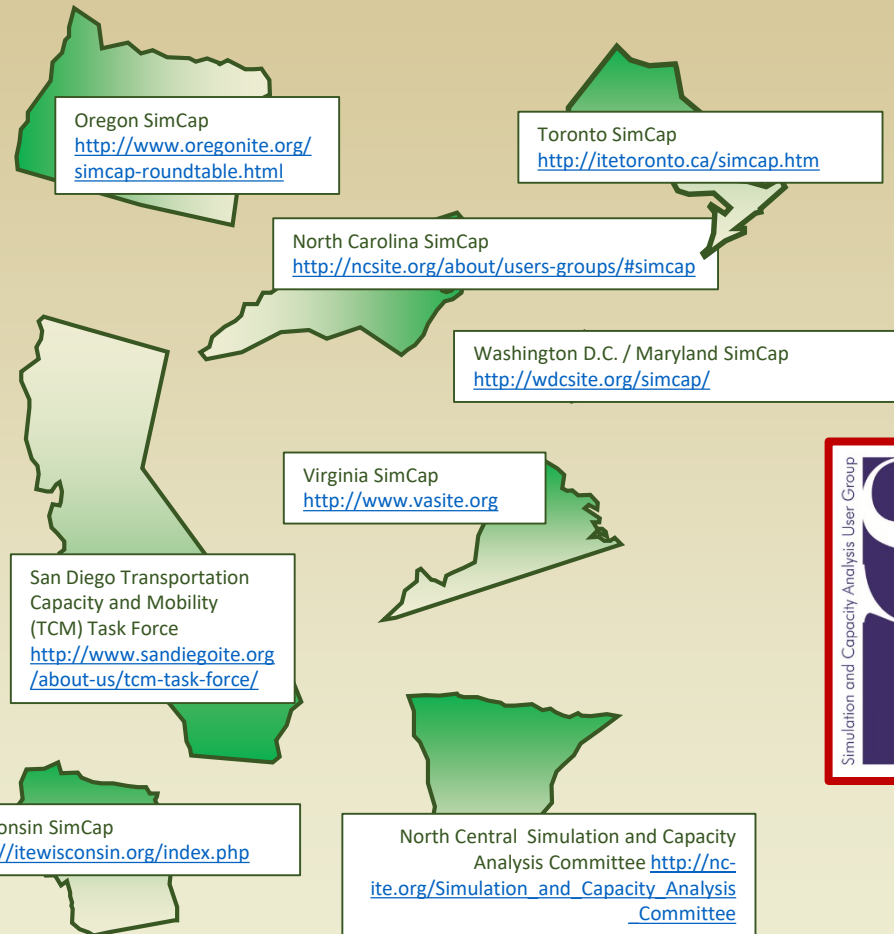
**Cost: \$10 (Consultants), FREE for Agency Participants - Buffet Lunch will be provided**



# Locations



# Organization & Collaboration



<http://www.ite.org/>



Analysis Modeling and Simulation (AMS)

<https://www.fhwa.dot.gov/research/tfhrc/projects/operations/ams/index.cfm%20>



TRANSPORTATION POOLED FUND PROGRAM

Traffic Analysis and Simulation

<http://www.pooledfund.org/Details/Study/403>

TRB Highway Capacity and Quality of Service Committee

<http://sites.kittelson.com/HCQS>



<https://sites.google.com/site/trbcommittee/eahb45/Welcome>

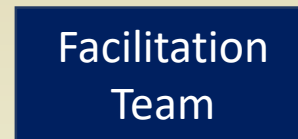
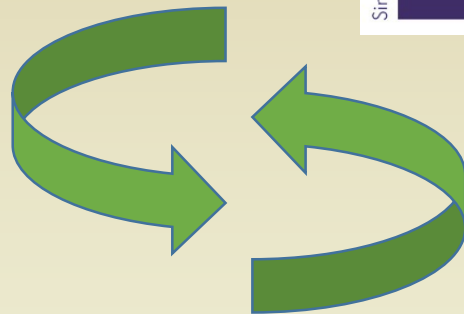
TRB AHB80T Task Force  
Transportation System Simulation Manual

<http://sites.kittelson.com/TSSM>

Software and Technology Vendors



# Communication



Analysis Modeling and Simulation (AMS)



Traffic Analysis and Simulation

TRB Highway Capacity and Quality of Service Committee



TRB AHB80T Task Force  
Transportation System Simulation Manual

Software and Technology Vendors

# SimCap Facilitation Team

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- Jess Billmeyer (AECOM) — [jess.billmeyer@aecom.com](mailto:jess.billmeyer@aecom.com)
- Matt Davis (City of Toronto) — [matthew.davis@toronto.ca](mailto:matthew.davis@toronto.ca)
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- Chris Melson (LSU) — [cmelson1@lsu.edu](mailto:cmelson1@lsu.edu)
- Dave Petrucci (FHWA) — [david.petrucci@dot.gov](mailto:david.petrucci@dot.gov)
- Bastian Shroeder (Kittelson) — [bschroeder@kittelson.com](mailto:bschroeder@kittelson.com)

# How can SimCap Help?

- Increase the knowledge base regarding Simulation & Capacity Analysis tools
  - A hub for user experience and perspectives
  - A storefront for calibration data and techniques
  - Source of training and presentations
- Improve consistency and correct usage of Simulation & Capacity Analysis tools
  - Emphasize importance and utilization of best practices accepted by peers local and abroad
- Improve communication among all Simulation & Capacity Analysis stakeholders
  - A potential bridge between research and practice
  - A “cheerleader” for the community
  - Change the way Simulation & Capacity Analysis are viewed by the non-user (i.e., overall advocacy)



# Latest Meeting (08-15-2017)

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1. Overview of Analysis, Modeling, and Simulation Efforts, including the Transportation Systems Simulation Manual (TSSM)
2. Results from the TSSM State of the Practice Survey and Traffic Analysis Virtual Roundtable Findings
3. Updates to the FHWA Traffic Analysis Toolbox (TAT) Volume III Microsimulation Guidelines and Scoping and Conducting Data-Driven 21<sup>st</sup> Century Transportation System Analyses
4. The Enhanced Transportation Flow Open-source Microscopic Model (ETFOMM) and Surrogate Safety Assessment Model Update (SSAM3.0) Project
5. USDOT Policy Review of Level-of-Service (LOS)

<https://connectdot.connectsolutions.com/p6vgmf3ons9/>

# Next Steps

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- Potential Future Meetings
  - Spring Webinar - March 2018 (TBA)
  - Summer Meeting – August 2018 (possible)
  - Fall Webinar – October 2018 (TBA)
  - TRB Meeting – January 2019
- Develop a SimCap Website (through 2018)
- Additional Collaboration
  - TRB SimSub, TSSM Task Force, ITE TENC, others...

# Thank You!



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david.petrucci@dot.gov*

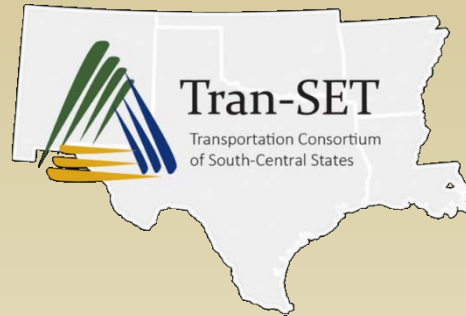
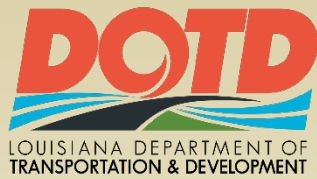




# Louisiana! Welcome!



# Key Players



GRESHAM  
SMITH AND  
PARTNERS

