

Minutes of the 12 March 2009 Meeting of the North American SIMMOD Users Group

1. Welcome

The meeting convened at 9:00am at TransSolutions' Crystal City office. Belinda Hargrove welcomed everyone to the meeting and to the TransSolutions office. Each participant introduced her- or himself. Regrets were shared with the group from Toni Trani (NASUG Chair) who had a bad case of laryngitis and fever, and from Eric Boyajian who had a severe sinus and ear infection. In the Chair's absence, Belinda Hargrove moderated the meeting.

2. Agenda

The agenda was reviewed and approved.

3. Minutes of the Previous Meeting

The minutes of the September 2008 NASUG meeting were approved.

4. FAA Development Activities

John Zinna presented the current status of FAA Tech Center's work on their SIMMOD engine. Version 3.2 will be available at the end of March 2009.

There have been nine requests for the engine since the last release. Changes have been forwarded to ATAC Corporation.

Summary of the code changes from FAA:

- SIMU10 file
 - Result times are to the tenth of a minute.
 - Results are provided by airport and by runway.
- DSDPATH – 3 bug reports from a user. Modified logic with gate pushback blocking and staging.
- Airlines can be specified in RUNWAY_TAKEOFF_OCCUPANCY, RUNWAY_EXIT_LINK, and RUNWAY_EXIT_PROHIBITED_LINK.

There was a discussion about TARGETS. Contact info for TARGETS is Scott Stoltzfus, sstoltzfus@cssiinc.com, 202-863-7406.

5. ATAC SIMMOD Status

In Eric Boyajian's absence, Dave Holl presented the current status of ATAC's SIMMOD-related activities. In general, there have been very few fixes/bugs in the past six months. There are several new users, especially in Asia and Europe. Since 2001, there have been 188 downloads of the SIMMOD engine from ATAC. Version 7.5 of Simmod *PLUS!//PRO!* is being released this month, March 2009. It now also runs on Vista. Changes include:

- Updates to the animation data file. Can define direction for the aircraft to display in the animation.
- MAX_QUEUE_THRESHOLD for multiple queues.

6. Simmod PRO! Modeling of NASA's Advanced Technology Vehicles

Dave Holl provided an overview of studies ATAC has conducted for NASA involving new vehicles. Included in the study are:

- Cruise Efficient Short Takeoff and Landing (CESTOL)
- Supersonic Transport (SST)
- Unmanned Aircraft Systems (UAS)
- Very Light Jets (VLJ's)
- Rotorcraft/Tiltrotor – 100 passenger

The study included eight (8) airports in the New York metroplex. The model was based on a 24-hour VMC day from March 2007. Of note is that JFK used four operating plans that day. The model was calibrated to transit time.

7. SMMOD Modeling of Spokane International Airport

John Zinna discussed a capacity study the Tech Center had conducted for Spokane International (GEG). The study evaluated two runway alignments: (1) parallel to GEG's existing primary runway and (2) parallel to Fairchild Air Force Base's (FAFB) runway.

8. SIMMOD Modeling of Indianapolis International Airport Ramp

Amani Saleh presented an overview of a recent project conducted by TransSolutions at IND. Prior to IND's new terminal opening, the study evaluated taxiflows around the ramp to determine "fail-proof" taxiflows that would not result in excess congestion or head-on conflicts. There was a brief discussion of how "non movement area" is interpreted at different airports.

9. Review of Modeling and Simulation Tools for NextGen

In Toni Trani's absence, Belinda Hargrove presented his slides of an update in the project to identify and catalog the various tools for analyzing work related to NextGen. Some gaps identified with the current tools: wake vortex awareness procedures (arrival-arrival separations are expected to be reduced with NextGen), optimization for intelligent dynamic route changes, 4D capability to have aircraft hit a target time.

10. Date and Location of the Next Meeting

Metropolitan Washington Airports Authority offered to look into hosting the next meeting in fall 2009. September 24 was suggested as a meeting date. Potential topics for future meetings:

- Mitre's *runway* Simulator tool
- NextGen for airports
- TARGETS

Belinda Hargrove, for Eric Boyajian
Secretary, North American SIMMOD Users Group

List of Attendance at the 12 March 2009 Meeting of the North American SIMMOD Users Group

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| Mr. Kalyan Bala | Mitre Aviation |
| Mr. Geoff Baskir | Parsons Brinckerhoff (PMC) |
| Mr. Don Guffey | FAA – ATO-P, NextGen I&I |
| Ms. Belinda Hargrove | TransSolutions |
| Ms. Esther Hernandez | FAA – APO-100 |
| Mr. Mike Hines | Metropolitan Washington Airports Authority |
| Mr. David Holl | ATAC Corporation |
| Mr. Ashraf Jan | FAA Airports |
| Ms. Joy Martin | Ricondo & Associates |
| Dr. Amani Saleh | TransSolutions |
| Mr. Robert Samis | FAA APO-200 |
| Mr. Fariborz Shahzamani | HNTB Corporation |
| Mr. Jianfeng Wang | George Mason Univ. |
| Mr. Clevin Weekes | Mitre |
| Mr. John Zinna | FAA Tech Center |