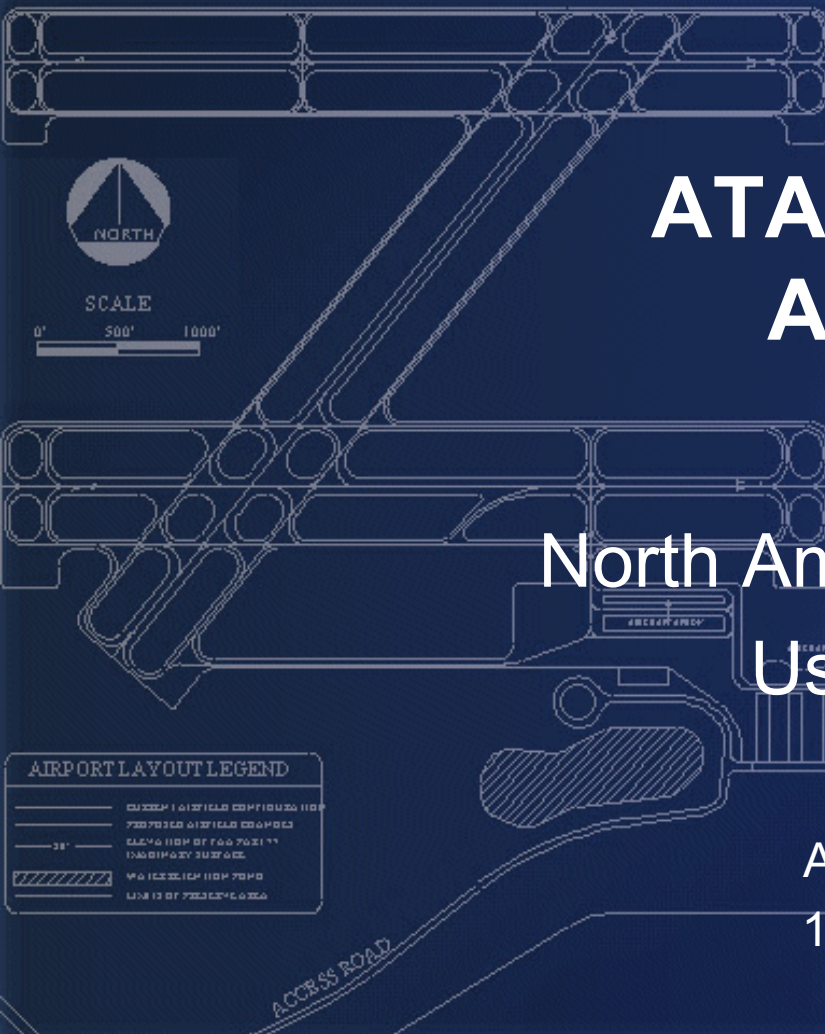


ATAC SIMMOD Activities

North American SIMMOD Users Group

Alexandria, VA
16 March 2005



General News

We moved in
December!



New address:

755 N Mathilda Avenue, Suite 200
Sunnyvale, CA 94085-3511
USA

Tel: +1 408 736 2822 (same as
Fax: +1 408 736 8447 before)



General News

- Current version of Simmod *PLUS!PRO!* is 6.2.4
- Next release is version 7.1 in May 2005
 - What happened to 7.0?
 - It was only used within ATAC. After we made all the planned changes for Simmod 7.0, our chief programmer of the user interface proposed even more changes!

General News

- Simmod usage appears to be expanding
 - New users
 - Existing users have new projects after inactivity
- ATAC has acquired the trademark for SIMMOD™

Simmod *PLUS!* / *PRO!* Activities

Major update of Simmod *PLUS!* / *PRO!*

- Using the latest version of Java
 - Major structural changes to the source code
- Updated “look-and-feel”
 - Integrated toolbars

Simmod *PLUS!* / *PRO!* Activities

Network Builder changes

- Curved ground links
- Detailed coastline
- Numerous improvements

Animator changes

- Time slider
- Time incrementer/decrementer
- Greater internal precision (millisecond accuracy)

SIMMOD Engine Maintenance

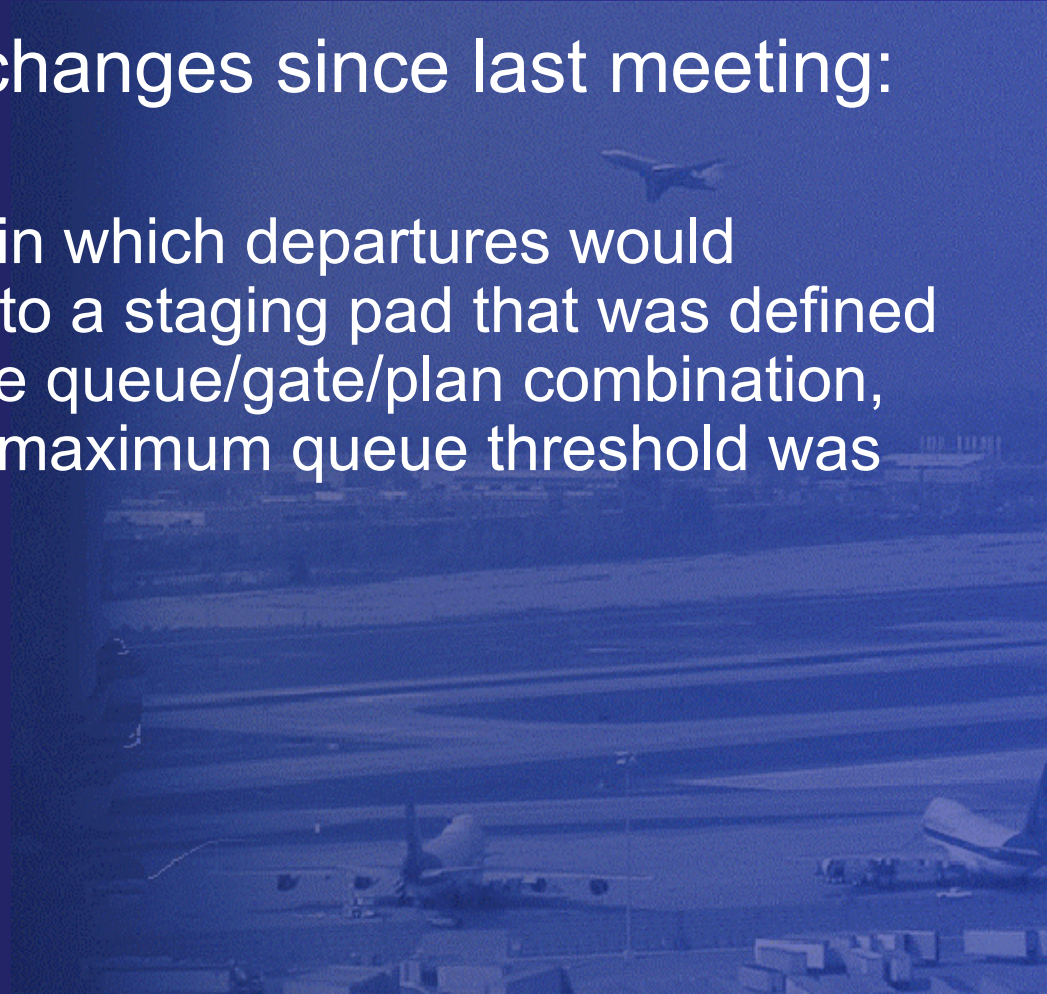
Engine ground logic changes since last meeting:

1. A flaw that would cause the engine to crash if the acceleration/deceleration during the takeoff/landing roll was zero has been fixed.
2. The taxicheckpoint logic no longer erroneously checks for a valid departure queue for arrival aircraft.

SIMMOD Engine Maintenance

Engine ground logic changes since last meeting:

3. Fixed a problem in which departures would automatically go to a staging pad that was defined for their departure queue/gate/plan combination, even though the maximum queue threshold was not exceeded.



SIMMOD Engine Maintenance

Engine ground logic changes since last meeting:

4. The logic for selecting a runway exit from a distribution has been extensively reworked.
 - The probabilities specified in the distribution were not properly considered.
 - The logic was not considering runway plan directionality properly when choosing exits based on distributions. Distributions defined for either plan would be considered.
 - The logic would always use the value of the displaced threshold in the primary direction for a runway, even when the aircraft was traveling in the opposite direction.

SIMMOD Engine Maintenance

Engine ground logic changes since last meeting:

5. The gate selection logic was originally designed such that when a flight is choosing from among available gates with identical capacity, preference will be given to those gates that have the fewest airlines assigned to them. This preference was erroneously deactivated in 1999 and has now been reactivated.

SIMMOD Engine Maintenance

Engine airspace logic changes since last meeting:

1. A flaw in the logic could cause an aircraft to wait indefinitely for a sector that was unsaturated through a SETSECT has been fixed.
2. The 4-digit airspace node separation option was not applied correctly for aircraft arriving to a node. Fixed.

SIMMOD Engine Maintenance

Engine airspace logic changes since last meeting:

3. The departure procedure logic was using an arrival tail factor rather than a departure tail factor when calculating the procedure separations for subsequent departures. Fixed.

SIMMOD Engine Maintenance

Engine input/output changes since last meeting:

1. A number of erroneous messages have been eliminated from SIMU02 output.
2. Logic has been revised to reduce memory consumption.



SIMMOD Engine Maintenance

- Ongoing work for next version of the engine:
 - Departure queue enhancements:
 - User-defined groupings of departure queues
 - All aircraft in the group of queues are considered as being in one queue.
 - Useful for controlling sequencing of aircraft in multiple physical queues that feed the same runway
 - Inputs for the maximum number times and maximum total time that an aircraft can be passed in the queue.
 - A number of global data values will be changed to a value unique to each departure queue

SIMMOD Engine Maintenance

- Ongoing work for next version of the engine:
 - Takeoff/landing rolls specified as a combination of runway occupancy time and exit link
 - Inputs as user-defined probabilities based on runway/aircraft type
 - Extension of the existing RUNWAY_EXIT_LINKS feature

ATAC SIMMOD User Base

153 users (including 62 Simmod *PLUS!* customers) have obtained the ATAC SIMMOD engine since the release of version 2.5 in October 2001. These users are from the following 32 countries:

Argentina	Croatia	Italy	Spain
Australia	Denmark	Japan	Sweden
Austria	Estonia	Kazakhstan	Taiwan
Bosnia and Herzegovina	France	Malaysia	Thailand
Brazil	Germany	Poland	Turkey
Canada	Greece	Russia	UK
Chile	India	South Africa	USA
China	Indonesia	South Korea	Vietnam

General News

The ATAC Aviation Modeling Team



Alex Potier, Raymond Bea, Eric Dinges, Mark Cochran, Vince Ticoulet, Jason Kim, Amit Sharma, Lena Mirsky, Eric Boyajian, Dave Holl, Denise Rickel, Alan Whitson, Jae Yu, Don Crisp, Jason Bertino
not pictured: Alex Gilgur, Nicole del Rosario, Ryan Withop