IMESAFR v2.1 Improvements

Release Expected Spring 2018

Interface Changes

- Ability to treat a PES as an ES
- Auto save functionality
- Undo button
- Allow PTR labels to be moved
- Ability to have risk contours based on pre-defined ESs
- Note fields for PESs and ESs
- Barricade on and off switch
- Will able to populate effective height and distance for a barricade
- Ability to enter a barricade that blocks vertical debris
- Ability to block side-impact debris when defining a barricade
- Ability to conduct parametric studies
- Option to have a visual indicator that an ES is affected by a PES
- User-defined risk color coding
- Zoom/pan to a specific structure so that a structure can quickly and easily to centered
- Add more keyboard command shortcuts
- IMESAFR will remember window size and position on opening the application
- Multiple updates to reports
- Ability to generate ATF plot maps
- Ability to import user-defined PES and ES types
- User-defined pressure arcs

Algorithm/Model Changes

- Updated debris consequence logic that considers a less conservative treatment of mass distribution. Mass distributions will now have a “Bin G” to account for debris that does not have enough kinetic energy to be considered hazardous (very small pieces). This also includes updated nominal and dynamic mass distributions.
- Updated Potential Debris Window Hazard Floor Area (PDWHFA) calculation that removes conservatism for debris coming through windows.
- The floor and ceiling consequence values have been updated to be more consistent.
- Updated (reduced conservatism) tempered glass logic
- Improved direct blast consequence models
- PES blast attenuation will now consider pressure and impulse separately
- Poisson distribution fix for high debris density debris
- Updated logic on building response when user changes default roof type
- Ability to choose a frangible wall or a frangible roof or both
- The QD module will better handle SLP 2 QD rules