

Project Milestones

Milestone	Date	Accomplishment and Impact
CMMI Appraisal	Sept. 2014	<p>Accomplishments: Participated in GSFC center-wide CMMI appraisal. GMAT was evaluated for project monitoring and control.</p> <p>Impact: Demonstrated effective software development process for GMAT and supported GSFC center level accreditation.</p>
Release R2014a	2014	<p>Accomplishments: Released new version of GMAT. First release after certification using new development processes.</p> <p>Impact: Useful new features including attitude models, state representations. First release with features co-developed with the Korea Aerospace Research Institute (KARI).</p>
ACE Operational Certification (Release R2013b)	2014	<p>Accomplishments: Successfully passed operational readiness review for the Advanced Compositional Explorer (ACE). Read more here for details on ACE Flight Qualification.</p> <p>Impact: We demonstrated GMAT is flight quality software setting the stage for broader adoption by flight projects. Since the qualification program, the TESS project has adopted GMAT as the primary flight dynamics tool, and the OSIRIS project has adopted GMAT for launch window analysis and will use GMAT for validation of other tools to be performed during operations.</p>
GMAT Training	2013	<p>Accomplishments: First training class for GMAT provided to 595 and FDF engineers.</p> <p>Impact: Prepared engineering staff for large scale use of GMAT across multiple flight projects. Began broader training effort targeted at the community.</p>
Production Release (Release R2013a)	2013	<p>Accomplishments: Production release: GMAT R2013a. GMAT is no longer beta software! Read more here for V&V results and processes. GMAT was rigorously tested and documented. We wrote approximately 5000 new script regression tests (for a total of nearly 13,000 nightly tests) and grew the GUI regression test suite to approximately 3000 tests. We fixed hundreds of bugs and completed 600 pages of user documentation with tutorials and reference material.</p> <p>Impact: Investments in GMAT are ready for broad application across flight projects. Models are validated and quality is greatly improved. Development processes are improved and ready for long-term development.</p>
NPR Compliance	2013	<p>Accomplishments: Updated documentation and processes for NPR compliance.</p> <p>Impact: Required by the agency. Well positioned for other development areas such as GTDS replacement.</p>
First Feature Complete Beta (Release R012a)	2012	<p>Accomplishments: First feature frozen release in preparation for production release and flight qualification.</p> <p>Impact: Finished initial critical features and dramatically improved quality by addressing hundreds of software defects.</p>
Initial Public Releases	2007-2011	<p>Accomplishment: First public release of GMAT alpha versions. Source code and application were released to the public.</p> <p>Impact: One of first major NASA open source projects. Initial versions of software with proof of concept and significant functionality.</p>