SUCCESSFUL FLIGHT TEST

GMD crews prepare with many hours of training

By MAJ Paul Fritz

The events that led up to the successful flight test seemed to drag on forever for the Ground-based Midcourse Defense test flight crew. However, the development and training preceding the test were the critical components of its success.

Prior to the training, a Missile Defense Element crew was invited down to Huntsville, Ala., to view a training scenario and discuss GMD engagement tactics with the test community and developers that support GMD. This was critical in enabling developers' understanding of the warfighter's tactics, techniques and procedures and it also provided an opportunity for the crew to get a first look at what the flight test would actually look like.

Since it was determined that the defense of the homeland was too critical to sacrifice an active crew for the commitment to flight test training, a sixth crew was assembled from the GMD support staff which consisted of five members who had served on crews in the past. The flight test crew consisted of MAJ Paul Fritz, crew director; CPT Tim Shaffer, deputy director; 1LT Walter Loyola, current operations officer; SFC Brian Clemons, future operations officer; and SSG Eddie Negron, readiness officer. Although this group was not an active crew, all of them had at least eight months to a year of crew experience and were able to dedicate their time to the success of the upcoming flight test.

Most of the training days consisted of Count Down Training events which lead up to a computer based training scenario using the actual GMD system. The training scenario was built to portray what the actual test event would look like utilizing data collected over past test events. The developers did an outstanding job building a training scenario that was as realistic as possible. Using this scenario, the crew was trained to react to several possible system failures.

The crew participated in about 20 Count Down Training events which lasted several hours each over a period of about four weeks. The training events were overseen by the Boeing Test Director, Kelly Bryan, for this flight test. He ensured that the crew reacted correctly and was always ready to step in personally if needed. Several of the test events were designed to test Bryan to make sure he was ready as well.

The test was originally planned for Aug. 31, but heavy fog in both Kodiak, the target launch site, and Vandenberg Air Force Base, Calif., the Ground Based Interceptor launch site, prevented the test from occurring as planned. Everyone went home disappointed after a very long day — knowing that

1LT Jodee Aubol Haining, now the Battalion S-4 Logistics officer, sits on the operating system at Fort Greely, Alaska.

the weather report for the next day was not any more encouraging.

Both the test crew and the flight test support personnel reported to Schriever by 3 a.m. Mountain Standard Time on Sept. 1, hoping that the weather would clear for the flight test. As the local weather reports began to come in to the Missile Defense Element, hopes for a launch started to dwindle. The launch window was scheduled to close at 12 p.m. Mountain Standard Time since the Federal Aviation Authority could only keep the area clear of commercial air traffic for so long. As the hours ticked by, the weather was not getting any better. Finally, at around 11 a.m., a break in the fog and cloud cover at both sites converged and the test was given a green light.

The crew was isolated from the test control communication nets, so we did not know when the actual target launch time was to occur. The intent of the flight test was for us to only use information provided on our GMD systems, just like we would if this were an actual attack against the United States. The GMD system performed exactly as the training models had done during our training. A launch out of Kodiak, Alaska had been detected and was threatening the defended area of the test impact site. We requested permission to go to "weapons free" from the command director located in Cheyenne Mountain who in turn requested the same from the commander of Northern Command. Permission was granted and the GMD system to was transitioned to "weapons free." Once "weapons free" was entered into the GMD system, standard tactics techniques and procedures were followed and we engaged the "threat" re-entry vehicle. The GMD system behaved exactly as designed and a Ground-Based Interceptor was launched from Vandenberg. The Exo-atmospheric Kill Vehicle found its target and successfully intercepted the re-entry vehicle. The final stage of the Ground-Based Interceptor is known as the Exo-atmospheric Kill Vehicle or EKV. This is the portion that actually intercepts the threat re-entry vehicle and destroys it using kinetic energy.

As the reports of how successful the test had been started to trickle into the Missile Defense Element, the crew started cheering as did the support personnel in the test center located in the next room. Everyone on the crew was happy to have taken part in the test and especially happy that it was such a success. Although the train-up was long, each member of the crew would do it all over again to ensure another success.

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