

SUMMARY

Range Safety participated in a number of exciting and challenging activities and events in 2013 involving the development, implementation, and support of range safety policies and procedures.

Advancing our effort to provide training at various levels of Range Safety, NASA Range Safety has conducted over 55 training courses for NASA, DoD, FAA, and NASA contractor personnel. Almost 1,100 students have participated to date. While Federal Budget constraints did not provide NSTC funding, the Agency Range Safety Program was able to fund one Flight Safety Operations course from WFF and two NASA Range Flight Safety Analysis classes from KSC. The two NASA Range Flight Safety courses taught at KSC this year were videotaped and will be made available through SATERN to enhance our ability to provide training.

Range Safety representatives took part in a number of panels and councils, including participation in the Inter-Center Aircraft Operation Panel and the 112th Range Safety Group TIM with the Range Commanders Council Range Safety Group and its subcommittees. VAFB is the FTSC Chair with KSC acting as the Co-Chair. FAA Headquarters is currently the Risk Committee (RC) Chair, and NAVAIR Pt. Mugu is the Directed Energy Committee Chair. White Sands Missile Range (WSMR) became the RSG Chair in 2013.

NASA/KSC Range Safety worked side-by-side with DoD counterparts to support 13 launches this year consisting of 11 Eastern Range launches (2 NASA-sponsored ELV and 9 non-NASA launches supported for KSC risk assessment) and 2 Western Range launches of NASA-sponsored ELV vehicles. NASA Range Safety supported the first two successful launches of the Antares medium-class space launch vehicle and the successful launch of LADEE aboard a Minotaur V from Wallops Flight Facility. JSC brought Morpheus back to KSC for flight test operations and to demonstrate the vehicle's autonomous landing and hazard avoidance instrument. The NASA Range Safety Manager and KSC Range Safety Representative coordinated planning documentation while JSC performed the RSO function for the successful test.

Range Safety also participated in the evaluation of several emerging technologies. The NASA AFSS team worked with Northrop Grumman on their SAMPAL project for the DARPA ALASA program that is designed to produce a rocket capable of launching a 100-pound satellite into low Earth orbit for less than \$1 million on short notice. The Joint Advanced Range Safety System (JARSS) and AFSS are tightly integrated into SAMPAL. The NASA AFSS team also worked closely with the 30th Space Wing to modify the original NASA AFSS safety software so it is compliant with the MISRA standard.

We hope you found the 2013 Range Safety Annual Report to be usable and informative. As we move into 2014, we look forward to the opportunities and challenges of ensuring the safety of NASA activities and operations.

Anyone having questions or wishing to have an article included in the 2013 Range Safety Annual Report should contact Alan Dumont, the NASA Range Safety Manager located at the Kennedy Space Center.