Throughout the 2011 calendar year, the (US) National Transportation Safety Board conducted a study of Experimental-Amateur Built (E-AB) aircraft to evaluate the safety of this growing and innovative segment of general aviation.

In addition to using the information gathered during its accident investigations, the NTSB has been working with the Federal Aviation Administration (FAA), the Experimental Aircraft Association (EAA), and individual owners and builders to evaluate a range of issues unique to this popular segment of general aviation.

“The co-operation we have received from EAA and the E-AB community has been tremendous,” said NTSB Chairman Deborah A.P. Hersman. She added, “Through this study, we hope that we will be able to give the innovators and aviators in the community information about accidents that will result in a real and immediate safety payoff for them when they are flying these aircraft.”

As part of the study, NTSB investigators have conducted in-depth investigations of 222 E-AB aircraft accidents that occurred during 2011. Fifty-four of these accidents resulted in 67 fatalities. Most of these accidents (93%) involved amateur-built airplanes, the remaining accidents involved gyroplanes (4%), helicopters (2%), and gliders (1%). These accidents occurred in 44 states, with California (18 accidents), Texas (16 accidents), and Florida (14 accidents) accounting for the most. More than half (53%) of the E-AB accidents investigated in 2011 involved E-AB aircraft that were bought used, as opposed to having been built by the current owner.

The EAA has supported the study by conducting a web-based survey of E-AB owners and builders. More than 5,000 E-AB owners and builders responded to EAA’s survey, and 4,923 of these responses were sufficiently complete to use in analyses. Most respondents (97%) described E-AB airplanes, while gliders, gyrocopters, and helicopters were each described by slightly less than 1% of the respondents. Sixty-three percent of respondents had already built their E-AB aircraft, 13% were currently building their E-AB aircraft, and nearly 24% had bought used E-AB aircraft. More than 340 distinct makes of amateur-built aircraft were reported, although kit manufacturers accounted for more than 55% of the reported aircraft.
“The NTSB is extremely pleased with the number of respondents who participated in the survey,” said Dr. Joseph Kolly, Director of the Office of Research and Engineering. “The survey data provides us with quantifiable, factual information that enriches our understanding of how E-AB aircraft are built and operated.”

The safety study is scheduled to be completed in the spring of this year.