



Published on *DoD STARBASE* (<http://dodstarbase.org>)

[Home](#) > DoD STARBASE Wyoming Mission

---

# DoD STARBASE Wyoming Mission

By 1st Lt. Megan Hoffmann, Public Affairs Specialist

Wyoming National Guard

CHEYENNE, Wyo. –Education is often seen as the crux that makes America great. In the words of Nelson Mandela, “education is the most powerful weapon which you can use to change the world.” For many, it is this “change,” that inspires excitement. Inevitably, as we grow, develop, and mature as humans, we lose that excitement and passion for learning somewhere along the way. At some point, people seem to be instilled with the mentality that learning can’t possibly be fun.

It’s this mentality, making learning fun, where the STARBASE Academy quietly enters the picture. They strive to make learning enjoyable for fifth-grade students in the areas of science, technology, engineering, and math (STEM), and are one of the best in the business of accomplishing this near-impossible feat for upper elementary students.

STARBASE Academy traces their origins back 20 years as a Department of Defense (DOD) program, and since their inception, have grown by leaps and bounds. STARBASE currently encompasses 76 programs across all 50 states; of which, Wyoming STARBASE Academy was the 19th established program.

Founded 18 years ago, the Wyoming STARBASE Academy, which is mandated to be housed on a military facility, is based in Cheyenne, *and has one goal*: to motivate students to explore science, technology, engineering, and math as they continue their education. During the five week, 25-hour program, STARBASE offers their students the opportunity to engage in learning in a risk-free environment where they are free to make mistakes as the outcomes are not grade-dependent.

Because of this, students focus on the learning process while feeling free to explore, ask questions, and experiment with equipment in an environment that vastly differs from that of public schools. Some of this exploration occurs in classes such as Building Blocks of Matter and Newton’s Three Laws (science focus), LEGO Mindstorm robots and Nanotechnology (technology), Eggbert and CAD (engineering), and Pop Goes the Fizz (math).

However, the program does not operate without raising a few eyebrows at times. Specifically, some inquire why the local school districts can’t run this program as part of their local curriculum. Some worry programs like STARBASE could lack the standards mandated by the Department of Education (DOE). Additionally, questions arise as to why the STARBASE program falls under the umbrella of the DOD who provides funding, rather than the DOE.

“The curriculum across all DOD STARBASE Academies was designed and implemented by a team of educators and scientists at the DOD, and focuses on STEM areas while meeting or exceeding the national standards in each curriculum area,” said Barb Marquer, director of the Wyoming STARBASE Academy. STARBASE is not a standardless program without any measure for goals, outcomes, or expectations, but rather reflects a history of exceeding national standards in STEM areas. Additionally, the “STARBASE Academy only hires certified teachers in STEM areas, and mandates a 12-1 student-to-teacher ratio, which is much lower than the 25-1 ratio seen in the public school system,” Marquer said.

So why would this influential program, with such proven positive outcomes, be on the list of DOD programs on the chopping block? Politics.

According to a July article published in Science Magazine, Kathryn Stack, deputy associate director for education and human resources at the White House Office of Management and Budget, argued earlier this year for a dramatic realignment of the current 226 national STEM programs, spread across 13 agencies. This would result in a sizeable monetary and power shift from the DOD to the DOE, along with a handful of other key agencies.

Sadly, those currently involved in STEM programs were never consulted about the proposed reshuffling, let alone how it will be educationally and economically efficient for all involved, Marquer and the article said.

However, proponents of current STEM programs, including the Senate Appropriations Committee, said in July that “what is proposed as a consolidation of existing STEM programs. . . is really the elimination of many proven and successful programs with no evaluation on why they were deemed duplicative or ineffective.”

Simply put, these muddled political discussions mean that the Wyoming STARBASE Academy could be in their last year of operation as they are facing elimination at the end of the fiscal year in September.

“The Wyoming STARBASE Academy has had extensive community involvement over the last few years as we have partnered with groups such as the Boys and Girls Club, 4-H, Girl Scouts, F.E. Warren Youth Camp, and Cowboy Challenge. We hosted a robotics exposition this last year at the National Guard Museum, in Cheyenne, that was free and open to the public in which we saw over 350 people in attendance. This program has far reaches outside of just our hands-on, mind-on learning environment with the students. We are truly a community based program,” said Marquer.

Marquer is not the only advocate of the program, as many people in the Wyoming National Guard and the surrounding community have been positively impacted by what the Wyoming STARBASE Academy offers, as is apparent on the academy’s Facebook page and throughout the area.

One such advocate, current Wyoming STARBASE Academy student, 11-year-old Trowa Armstrong, recalled his positive memories of STARBASE activities.

“What I liked about STARBASE is the code names I got to choose. Also, the fun I had during the experiments like building a safety device for an egg. I watched the other kids safety devices and learned from their mistakes on the impact of the moon (played by a cinder block) that an

object in motion wants to stay in motion. So I put a lot of cushioning in the front to absorb the impact,” said Armstrong.

“Starbase is an outstanding program that encourages young people to achieve their potential. Staff members will see students years later in the grocery store and greet them by call sign remembering the fun and learning. My 28-year-old son still talks about STARBASE.

STARBASE takes a hands-on approach that uniquely showcases the critical areas of STEM. The partnership with the military adds value for both the students and the DOD. The children, future American citizens, see the military through eyes filled with wonder and the military is able to encourage them to seek career fields that add value in America,” said Brig. Gen. Kathy Wright, former educator, now assistant adjutant general for the Wyoming Army National Guard.

“A unique aspect of the STARBASE program is that students will tour a working military facility to see how STEM works. I can’t tell you how many military members have thanked me for taking our classes to visit them as it reminded them of why they serve and brought a smile to their face as they watched the kids enjoy learning and asking questions with excitement and wonderment,” said Marquer.

The Wyoming STARBASE Academy has proven to be an effective program as their mission, to motivate students to explore STEM as they continue their education, has proven to be a worthwhile and successful one. They have positively impacted not only the lives of their students, but also those of local community members.

STARBASE has fine-tuned the formula for making learning enjoyable, and done so while maintaining their status as a relatively cheap, fiscally responsible government program. Only time will tell if the efforts of STARBASE have been acknowledged, appreciated, and seen as relevant. However, no matter the outcome of the next congressional budget session, it is safe to say that STARBASE has conquered the task of turning learning into fun; proof that miracles still do happen.

Posted October 2013.

For the original article, please click [here](#) [1].

---

**Source URL:** <http://dodstarbase.org/articles/dod-starbase-wyoming-mission>

**Links:**

[1] <https://sites.google.com/a/wyo.gov/wyomingmilitarydepartment/news-room/articles/starbasemissionsapositiveexchangeforstudentsociety>