

The background of the page features a large American flag in the upper half, with its stars and stripes clearly visible. Below the flag, the faces of three children are shown in profile, looking upwards and to the right. The child in the center is a young boy with dark skin, wearing a white shirt, with his hand near his chin in a thoughtful pose. The other two children, a girl on the left and a boy on the right, are also looking in the same direction. The overall color palette is dominated by the blue of the flag and the white of the children's shirts, creating a clean and patriotic aesthetic.

THE STARBASE MISSION:
TO RAISE THE INTEREST
AND IMPROVE THE
KNOWLEDGE AND SKILLS
OF YOUTH IN THE AREAS
OF MATH, SCIENCE,
AND TECHNOLOGY

DOD

STARBASE[®]

2005 ANNUAL REPORT

MISSION STATEMENT
TO RAISE THE INTEREST
AND IMPROVE THE
KNOWLEDGE AND SKILLS
OF YOUTH IN THE AREAS
OF MATH, SCIENCE, AND
TECHNOLOGY.



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An Issue of **National Importance**

The United States is currently facing an educational crisis. If it is to remain the world leader in economic development and defense it will require individuals who are highly skilled in science, technology, math and engineering. The development of these individuals cannot be left to chance. We must aggressively pursue policies that will nurture our nation's children's interest, knowledge and skills in these areas.

Recent studies note that, "the proportion of U.S. citizens qualified to fill science and engineering jobs is stagnating. In 1975, the U.S. ranked third in the world in



the percentage of students pursuing natural science and engineering degrees. Now it is 17th. And over the past ten years, the number of high school seniors planning careers in engineering has dropped more than 35%.”¹

Through 2010 there will be a 35 and 36 percent growth in the need for computer hardware and software engineers, respectively, and as much as a 20 percent increase in the demand for chemists, materials scientists and electronic, aerospace and mechanical

engineers, according to the Bureau of Labor Statistics. As the greatest single user of math and science skills in the nation, the Department of Defense is facing an issue of critical proportion.

The rapid pace of technological change, and the globalization of the economy, simply demands that our workforce be literate in science and math. Now, and for the foreseeable future, it is a simple fact that work will migrate to the nations with the largest skilled workforce.

The Department of Defense (DOD) has an increasing need for employees in science, technology, engineering and math (STEM) related career fields. Currently, half of the graduates in STEM career fields are foreign nationals who cannot get the required security clearances and less than one percent of today's elementary school students will seek advanced education in the sciences. According to Dr. Ronald M. Sega, Under Secretary of the Air Force and former Director of Defense Research and Engineering, the downturn in America's science and engineering workforce has become "an issue of national security."

VISION STATEMENT

THE DOD STARBASE®

PROGRAM WILL BE

RECOGNIZED AS ONE OF

AMERICA'S PREMIER

PROGRAMS FOR YOUTH IN

MATH, SCIENCE, AND

TECHNOLOGY EDUCATION

AND WILL PROVIDE EVERY

STATE AND TERRITORY THE

OPPORTUNITY TO

PARTICIPATE.

¹ National Science Board, Science and Engineering Indicators, 2004, Washington, DC: National Science Foundation 2004.

DOD STARBASE® **A History of Excellence and Accomplishments**

DOD STARBASE began in 1989 when Barbara Koscak, a Michigan elementary school teacher, shared her dream of an innovative educational program with Brigadier General David Arendts, USAF (ret), who was then the commander of the 127th Fighter Wing at Selfridge Air National Guard Base. Brigadier General Arendts embraced the idea and gave his full support for the creation of the project.

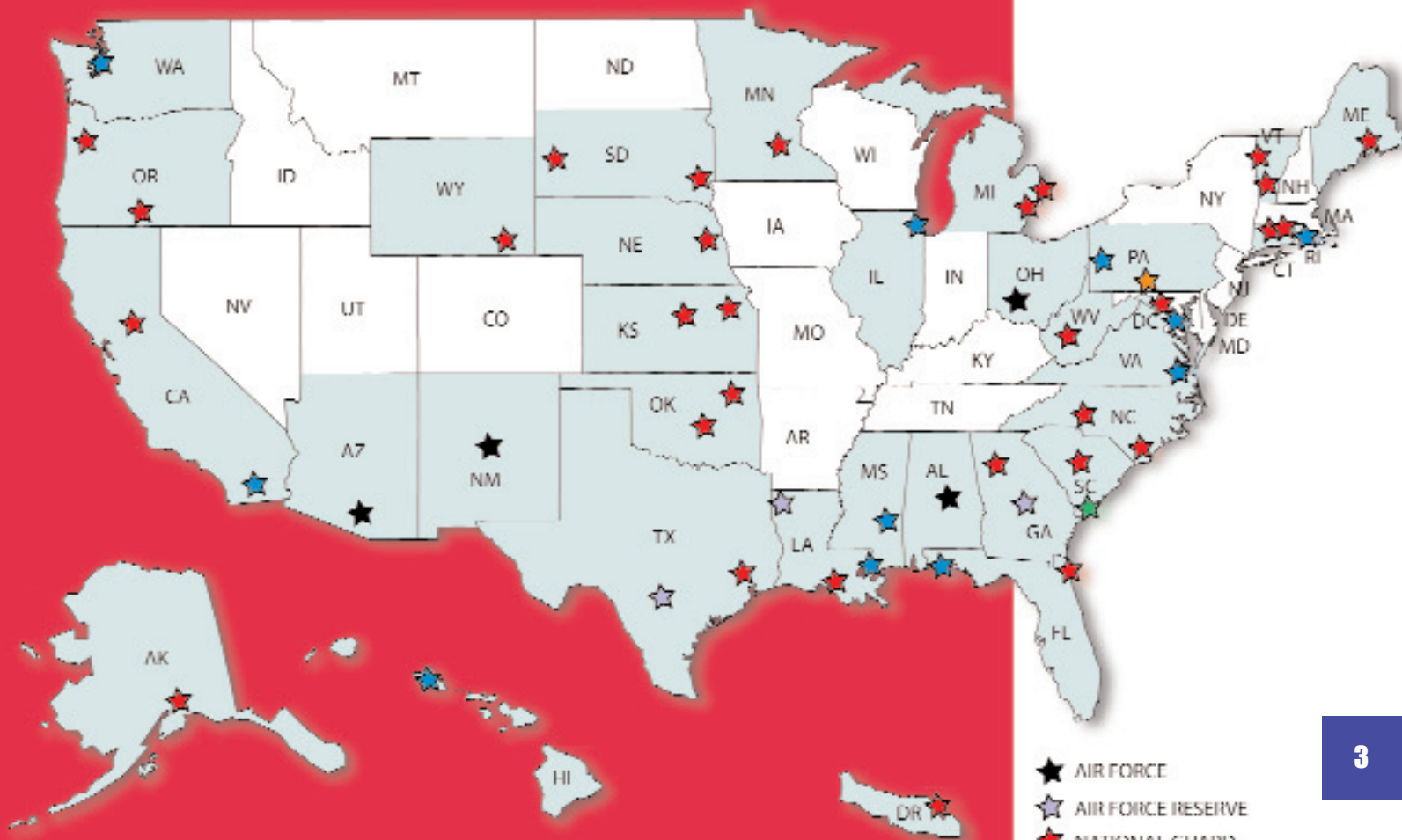
Rico Racosky, an accomplished pilot and author, who wanted to inspire students to achieve their dreams through action, advanced the goal setting objectives of the curriculum. Rick Simms, a local university student, and individuals at the Mount Clemens School District completed the team. Their mission was to create an educational program which would respond to the needs of today's youth through stimulating hands-on activities focusing on science, math, technology, personal development, and drug awareness and prevention.

The dream became a reality in 1991 with an initial grant from the W. K. Kellogg Foundation. The response to and results of the pilot program were exceptionally impressive. In 1993, Congress allocated funds for seven academies across the nation.

After 14 years of success, DOD STARBASE has grown to operate in five regions of the country, 31 states, on Indian Reservations, and U.S. Territories. To date, the program has provided 20-25 hours of direct experiences at military bases for over 300,000 students. National Guard, Navy, Marine, Air Force Reserve and Air Force bases are sites for the program.



DOD STARBASE® AT-A-GLANCE



■ 50 DOD STARBASE Academies

in 31 states plus

the District of Columbia,

and Puerto Rico

■ 3 outreach programs to American

Indians in MS, OK and SD

■ Number of Students Since 1991: Over 300,000

■ Number of Students Per Year: 52,121

■ Cost of Program: \$13,652,000

■ Average Cost Per Academy: \$273,040

■ Average Cost Per Student: \$262

Program Design and **National Science Goals**

The National Center of Educational Statistics reports that the national focus to improve student science scores is based on helping students know and do science, by understanding science concepts, investigating science, and by practical reasoning. This focus is reinforced by the National Science Education Standards (NRC 1996) and Project 2061 (AAAS 1993) and by state education departments to implement standards.

DOD STARBASE instruction focuses on students learning facts, applying the facts in team inquiry, and then adding a reasoning process to build a depth of understanding of applied science, math, and technology. Students in the program are actively involved in learning that results from curiosity. They are responsible for doing the work of learning. They interact with other students as well as the instructor. The environment for learning is supportive of students. Students are expected to listen to one another and respect another's opinions. All students, including those with diverse backgrounds, are empowered to learn in a positive setting by having choices. Competence is engendered when students learn about engaging subject matter that interests them. ²

DOD STARBASE®

13 CORE CURRICULUM AREAS

- **TEAMWORK**
- **PROPERTY AND STATES OF MATTER**
- **PROPERTIES OF AIR**
- **BERNOULLI'S PRINCIPLE**
- **AIRCRAFT CONTROL SURFACES AND COMPONENTS**
- **FOUR FORCES OF FLIGHT**
- **NEWTON'S LAWS OF MOTION**
- **SPACE EXPLORATION**
- **DEVELOPMENT, INNOVATION, AND USE OF TECHNOLOGY**
- **AVOIDING SUBSTANCE ABUSE**
- **GOAL SETTING**
- **FLIGHT SIMULATION**
- **MODEL ROCKETRY**

4



² Wlodkowski, R.J. Enhancing Motivation Among Diverse Learners. August 18, 1997. Wlodkowski@www2.nu.edu

DOD STARBASE® Inspires Students

At the 50 DOD STARBASE® programs across the country, students working under their new call names such as Alpha, X-Ray, Bernoulli, and Lunar, enjoy exploring science and math for five days. They learn the forces of flight, the properties of air, Bernoulli's Principles, and Newton's Laws. They "fly" planes, build rockets, practice teamwork, set goals, and return to their classrooms, "jazzed to learn more about math and science."

DOD STARBASE truly motivates students. "I like to see how stuff works instead of having someone tell me how it works" is a common response from students when they're asked why they like hands-on science. It's not by chance that the design of DOD STARBASE program is a formula for success. It's not by chance that the most common attitude responses from student participants after DOD STARBASE are:

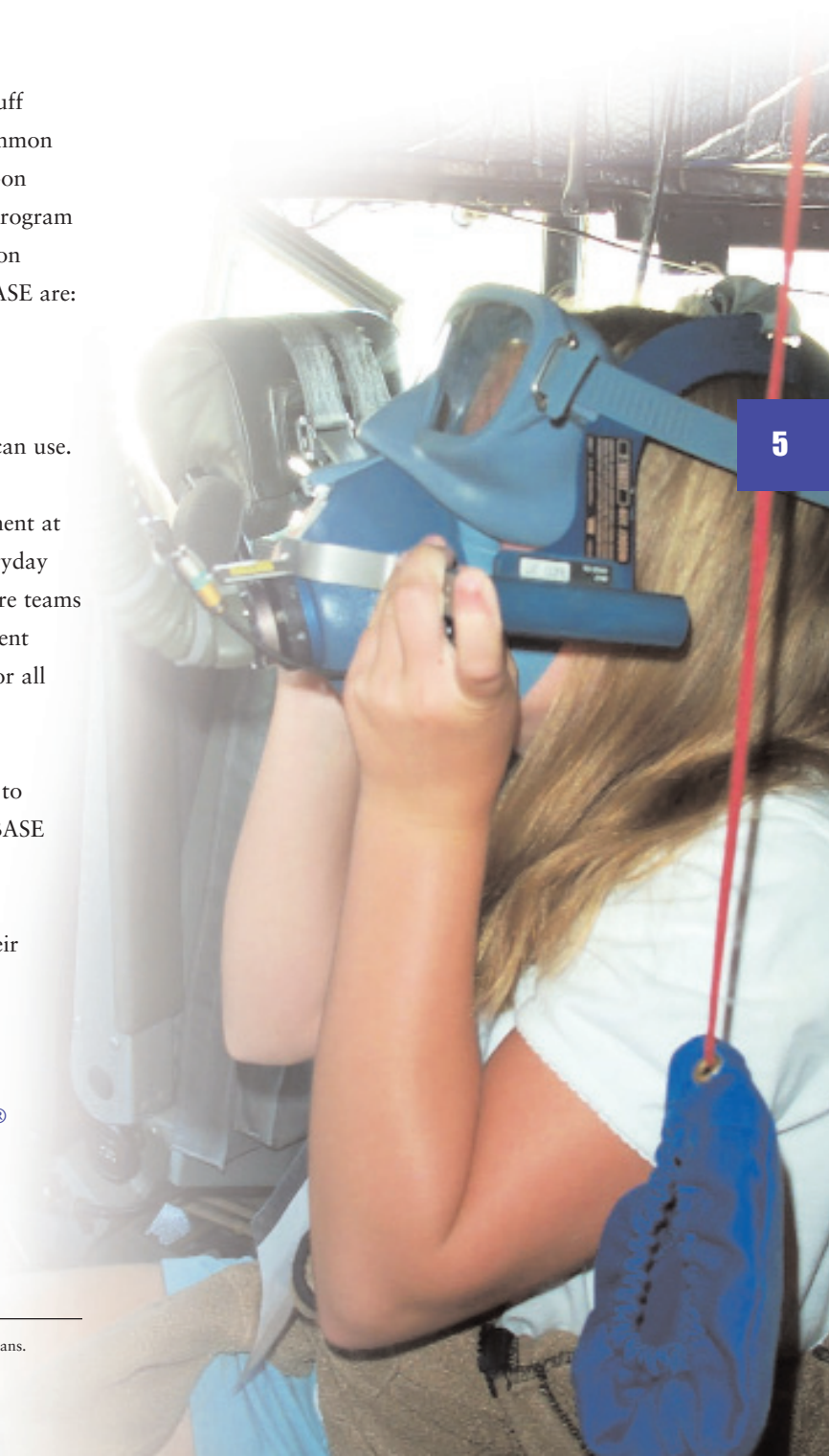
- You can learn a lot by trying things.
- I think I can graduate from high school.
- At DOD STARBASE, I learned a lot of things that I can use.

It's not by chance that the curriculum and the learning environment at DOD STARBASE capitalize on science and math applied to everyday situations using military base resources and personnel that feature teams finding answers to questions they want to know in an environment conducive to learning. These are the goals of scientific literacy for all students.³

Using these goals, DOD STARBASE motivates students to want to explore the fields of science, math and technology. DOD STARBASE challenges our nation's children to set goals and achieve their dreams of careers in these fields. When students graduate from DOD STARBASE, they all understand that their dreams plus their actions equal their reality.

Dreams + Actions = Reality®

³ American Association for the Advancement of Science (AAAS). 1989. Science for All Americans. New York: Oxford Press





24 June 2005

I participated in the DOD STARBASE program at Kingsley Field while in the fifth and sixth grades, and participated in their robotics day camp the summer between my sixth and seventh grade years. Throughout the program I had a great time, and learned a variety of highly valuable lessons and skills.

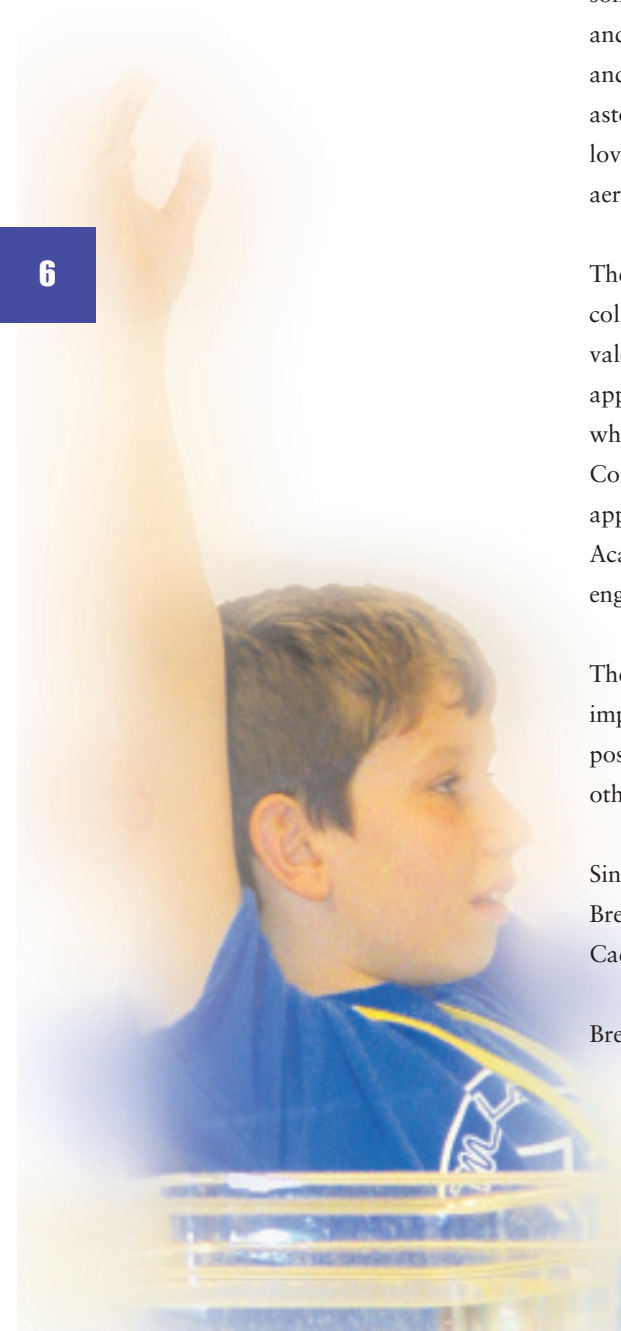
The most valuable lessons I took away from DOD STARBASE were those about setting and achieving goals. One of the most important things in life is to find something that you enjoy doing, then dream big, set yourself some goals to attain, and devote yourself to achieving them. With a positive attitude, a strong work ethic, and a good set of goals the things that can be accomplished are absolutely astonishing. Additionally, through DOD STARBASE I discovered my interest and love for aerospace. Subsequently I decided to make gaining a good career in the aerospace field one of my top personal goals.

The first step in achieving my goal was to work hard in school to prepare myself for college. Throughout high school I maintained a 4.0 GPA and graduated as valedictorian of my class this year. At the end of my junior year I applied for an appointment to the United States Air Force Academy as a way to achieve my goal while benefiting our country at the same time. I received my nomination from Congressman Greg Walden this past December and was offered and accepted an appointment to the Academy in May of this year. On June 30 I will enter the Academy as part of the class of 2009. Currently I plan on majoring in aerospace engineering and would like to become a pilot after graduation.

The DOD STARBASE program is a great way to teach kids science, and more importantly, life skills and good values. I know that the program has had a definite positive impact on my life and will continue to have the same effect on countless other youth.

Sincerely,
Brett Finneran
Cadet 4th Class

Brett M. Finneran attends the U.S. Air Force Academy and is in Cadet Squadron 16.



A Graduate's Story



Two years ago, Scott Lee, walked into a Coast Guard recruiting office ready to enlist. He knew he wanted to do something in aviation but he wasn't quite sure what it was. There on the office wall hung a picture of a C-130. It had been 10 years since he had seen a C-130. Back then, Scott was a 5th grader at Ashley Park School of Math, Science and Technology. He was in the first class to go through the DOD STARBASE program in Charlotte, NC. How proud he had been when he received a dog tag that read, "Flight #1."

It was also the first time Scott had ever been exposed to the military. He remembered how exciting it was to go to the military base and see the "big military things." Scott remembered sitting in the cockpit of a real C-130 flight simulator with a member of the crew showing him what would happen to the aircraft during a lightning storm. He remembered touring a hangar and seeing all the "little boxes," and listening intently as life support personnel brought out life rafts and survival equipment. He remembered his team going onto the C-130 and pretending they were one of the five crew members. He got to be the flight engineer.

Over a decade has passed, 12 years to be exact, and Scott is now an avionics technician 3rd class in the U.S. Coast Guard. When he was accepted into the program his first phone call was to see if the DOD STARBASE program in North Carolina still existed. Scott wanted the staff to know what he was doing. His dream had come true. He was finally going to work and fly on a C-130J.

Scott's stint with the U.S. Coast Guard has allowed him to become involved in several of the hurricane relief efforts. After Hurricane Katrina hit the Gulf Coast area, Scott's C-130 was one of the first transport planes that touched down in New Orleans. For two weeks, Scott and the crew hauled food and supplies to the grief stricken people of New Orleans. They also transported people from the airport in Louisiana to San Antonio, TX, and even rescued a dog. Scott hopes that when new search equipment is installed on the aircraft he will be accepted into the drop master program. If accepted, he will be able to go on many more search and rescue type missions where his job will include operating search equipment during natural disasters.

Scott laments that some things have changed over the years. Those "big military things" looked a lot bigger back then. He doesn't work in a hangar like the one at the base in Charlotte. They still have all those "little boxes," only now Scott can tell you what's in each of the boxes and what each part does. He also understands the importance of teamwork and why his class was broken down into five-member crews at DOD STARBASE.

Scott lost his dog tag several years ago, but still has the certificate, the rocket, and many fond memories of the time he spent at DOD STARBASE.



DOD STARBASE® ALL-AROUND ACCOLADES

From Students

- You can learn a lot by trying things.
- DOD STARBASE Instructors are kind and helpful.
- At DOD STARBASE, I learned a lot of things I can use.
- I think about what I want to be when I grow up.
- I like to make new things.
- Military people do lots of different things.
- I am enjoying coming to a military base.
- You can have fun working in a group.
- I can make my dreams come true.

From Teachers

- All students felt a great sense of accomplishment on “launching day.”
- I loved it and none of us will ever forget the entire experience.
- The best part: children were actively engaged in all lessons.
- Students who were reading below grade level excel in this program.
- Since DOD STARBASE...students have a better attendance record and higher test scores.

From Parents

- When she comes home from DOD STARBASE, she is so excited to tell me what they did.
- I was glad to see the children completing such challenging tasks.
- I feel that it has shown the children a different way of thinking about science, math, and technology, which will be useful for them to learn in their future as adults or to gain knowledge of things going on in our world today.

From Military Volunteers

- It made me a better individual because I wanted to give the kids a more positive outlook on their lives and future.
- This program really encourages kids to do well in school by sparking an interest in mathematics and science.
- Like the students in DOD STARBASE, I too have learned the value of pursuing my dreams. Each time I get the privilege of sharing with students; I get the chance to live my dream of shaping tomorrow by shaping our youth today.

The 2005 **DOD STARBASE® Report**

DOD STARBASE is authorized under Section 2193b, Title 10, United States Code. The authorizing legislation requires the Secretary of Defense to submit an annual report to Congress on the conduct of the program and on an evaluation of its effectiveness.

For the FY'05 program report, the assessment process focused on garnering information via structured interviews, questionnaires, testing and attitude assessment, program visits, and conversations with all program participants. This year 16 academy visitations were made and assessments were obtained from 1,955 students, 285 Teachers, 141 military service volunteers and all DOD STARBASE Directors.

This report is structured so that each section provides an assessment of the program's progress in the designated area and also describes the unanticipated and unresolved issues that emerge in program operations. The report is organized as follows:

- **Program Overview:** Partners, program elements, academy staffing, not-for-profit organizations, and steering committees;
- **Program Assessment Overview:** Student composite, student assessment overview, a graduate's story, classroom teacher composite, parents' views, and military volunteer assessment;
- **Program Growth:** Growth history, current growth data, growth issues, and unforeseen world and natural events affecting the program;
- **Program Compliance:** Compliance procedures and adherence;
- **Fiscal Information:** Cost per academy and supplemental funds;
- **Observations and Considerations:** Program operations, curriculum and instruction, data collection and analysis, compliance issues and fiscal matters;
- **Program Assessment Full Report:** Student, teacher, and military assessment results;
- **Appendices:** Research instruments and general information such as a listing of schools/school districts served, an academy directory, and an academy time line;
- **Glossary:** Alphabetical listing of research and other terms used in this study.

PROGRAM OVERVIEW

Official Ribbon Cutting by Col. Andy Weaver, 88 ABW Commander; a student from Mad River Middle School; Mrs. Hope Taft, First Lady of Ohio, and Kathy Schweinfurth, Executive Director of STARBASE Wright-Patterson.



DOD STARBASE® is authorized under Section 2193b, Title 10 United States Code. The requirements for its implementation are contained in Department of Defense Instruction (DODI) 1025.7. The goal of the DOD STARBASE program is to raise the interest and improve the knowledge and skills of at-risk youth in math, science, and technology by exposing them to the technological environment and positive role models found on military bases and installations. The program is unique in that it provides students with a “hands-on” approach to learning with the guidance of trained teachers and experienced military personnel.

The DOD STARBASE program is based on partnerships between military installations, school districts, and the community. In FY’05, the program served over 52,000 students at 909 schools and 237 school districts for an average cost per student of \$262. The total cost of the program was \$13,652,000, or an average cost per academy of \$273,040.

The Partners

The DOD STARBASE program operates under the auspices of the Department of Defense through the Office of the Assistant Secretary of Defense for Reserve Affairs (OASD/RA), but it is through the relationships between the local military installations, school districts, and communities that the program becomes a reality. The roles and participation of each partner are described below.

The Military Installation

DOD STARBASE programs are housed and supported by the military.⁴ From the initial installation to full operation, the base commander's sponsorship and ongoing participation are essential. It is through the commander that access to the resources and services of the base are obtained. Classroom space, utilities, and security are the primary services provided by the base. Computer accessibility, administrative support, and reproduction services are optional. Occasionally, physical renovations are provided. More importantly, commanders encourage their military personnel to volunteer time to the program as mentors, teacher aides, tour guides, expert speakers, and through other support activities. In FY'05, over 2,362 members of the military volunteered 19,907 hours to the DOD STARBASE academies.

The School District

School districts are major partners in the program and commit to support the program in a formal agreement prior to program installation. The school district's commitment includes the availability of students, targeting of at-risk children, transportation, student lunches, a designated time of instruction, and teachers as monitors. Discretionary services may be provided, such as reproduction services, supplies and media applications.

Exhibit 1 presents the range and scope of services provided by the school systems. Coverage ranges from 90 percent to 100 percent for the three key areas of support. Over the past three years, the rates have increased in each key service area.

Program Support by School District
Exhibit 1

Support Service Provided By School District	2003 Total%	2004 Total %	2005 Total %	Difference +/-From FY'03-FY'05
Transportation	79%	90%	90%	+ 11%
Teachers as Monitors	88%	92%	96%	+ 8%
Lunches	93%	100%	100%	+ 7%
Printing/Reproduction	19%	7%	24%	+ 5%
Supplies	7%	8%	6%	- 1%
Graphics	0%	0%	0%	0%
Audio Visual	2%	8%	4%	+ 2%
Communications	12%	6%	10%	- 2%
Computers	5%	6%	4%	- 1%
Other	26%	19%	16%	- 10%

⁴ Most of the Academies operate within the confines of a military base. A few operate in an affiliate site contiguous to the military installation but under the property management of the base or in a military unit tenant.

The classroom teacher of the participant school attends each DOD STARBASE class along with his/her students. While the presentation and delivery of the curriculum is the responsibility of the DOD STARBASE instructors, classroom teachers occasionally assist in test administration and lab experiments. In FY'05, 1,025 teachers provided 21,661 hours for student participants.

The Community

There is a long-standing history of community participation in the DOD STARBASE program. Public-private partnerships support and enhance the program's curriculum and operation. This often involves community leaders who volunteer time by serving on boards, resulting in increased access to community facilities and ability to generate financial support. In this reporting period, 521 community leaders devoted 6,410 hours in support of the program.

The Program Elements



Mrs. Susan Allen, wife of Senator George Allen, watches as students at the STARBASE Atlantis-Norfolk Academy launch their rockets.

The DOD STARBASE program primarily serves at-risk students who are: historically under-represented in math, science and technology; living in inner cities or rural locations; disabled; socio-economically disadvantaged; and low in academic performance. The program links these children with military base resources, and provides hands-on aviation and space exploration activities in science, math, and technology. Military personnel interact with students to show real world science connections and applied science career options. Students learn about the benefits of teamwork, goal-setting, and staying off drugs.

Grade Level

The program's legislative mandate provides that the program may serve grades K through 12. National statistics indicate that there is a lack of significant progress in improving competency that begins at the fourth grade⁵. DOD STARBASE has therefore chosen to emphasize the fifth grade. Currently, all but two academies work with the fifth grade and these academies work with contiguous grade levels i.e. fourth, sixth, seventh and eighth grade. At present, 27 of the academies work with two or more grades.

Class Size

The DODI stipulates that class size should range from 20 to 35 students, with exceptions approved on a case-by-case basis. Smaller class size is critical to the DOD STARBASE design, which focuses on experiential, "hands-on" applications, student interaction and problem-solving experiments. These methods and techniques require close teacher supervision, student feedback, and individual involvement to facilitate the student's understanding and application of principles. Almost all academies meet these requirements. Over the past several years, the average class size for DOD STARBASE has been approximately 24 students. The average this year was 24.5.

⁵ Results for the 2000 National Assessment of Educational Progress (NAEP) science assessment show no significant change in grades 4 and 8, and a decline in performance at grade 12 since 1996.

Program Schedule

An entire class of a participating school attends either a four- or five-day DOD STARBASE⁶ program. The program provides 20 or 25 hours of classroom instruction, respectively. Children are transported each program day to the military base for DOD STARBASE instruction that covers 13 core curriculum topics.

The five-day program is by far the most popular schedule. The major advantage is that it provides more time to cover the basic core curriculum material and/or allows the academy the chance to add topics that take advantage of their unique base and community resources. Of the 909 schools served this year, 750 received the five-day program while the remaining 159 schools participated in the four-day program. The four-day format is usually used by an academy when its goal is to increase the number of schools and classes it can serve.

Program Service Area

The program area that each academy serves presents a number of logistical challenges, as it affects scheduling, hours available for instruction, transportation costs and selection of schools. The majority of students served (71 percent) were within 50 miles of the academy. Growth continues in the number of programs serving students on a statewide basis; 27 percent of the programs reached students statewide in FY'05 as compared to 16 percent in FY'04. Overall, the shifts are relatively minor, as Exhibit 2 demonstrates.

Program Service Area
Exhibit 2

Service Area	2002	2003	2004	2005
20 Miles or Less	40%	31%	35%	28.5%
20-50 Miles	31%	45%	47%	47.0%
Statewide	20%	17%	16%	24.5%
Other	9%	7%	2%	2.0%

Ethnic Composition

As new academies open and become fully operational, there are accompanying shifts in the DOD STARBASE program's ethnic composition (See Exhibit 3). Over the last five years, the Hispanic population has grown the most, with a 5 percent increase, and now comprises 16 percent of the total DOD STARBASE student body. During the same time period, the Caucasian population dropped 6 percent but remains the majority in student representation with 48 percent of the total. DOD STARBASE now serves more than 2,600 American Indians due to the opening of several outreach programs.

⁶ Each Academy determines whether it will offer a four or a five-day program.

Ethnic Composition of Students 2001-2005

Exhibit 3

Ethnicity	2001	2002	2003	2004	2005
African American	25%	27%	27%	23%	22%
Asian	4%	5%	5%	4%	4%
Caucasian	54%	47%	46%	46.5%	48%
Hispanic	11%	14%	15%	15.0%	16%
Multi-National	0%	1%	2%	3%	3%
American Indian	3%	4%	4%	5.5%	5%
Other	3%	2%	1%	3.0%	2%

Gender Composition of Students

Male and female representation in the student composition is the same as last year, at 51 percent male and 49 percent female.

Academy Staffing

The staffing model established in the DODI is four full-time paid staff members: 1) a director; 2) a deputy director/instructor; 3) an instructor; and 4) an office manager/administrative assistant. Reorganization of this staffing model has been made by several academies, which is permissible with OASD/RA approval, as long as it is managed within the funding allocations. Changes include: replacing the deputy director with an instructor-only position, splitting the instructor position into two part-time positions, reducing the hours of or eliminating the administrative assistant, or expanding the duties of the administrative assistant to include instructional assistance. Most of the changes increase instructor capability and resources. Five academies share a director, and these programs typically serve multiple sites within a state. Exhibit 4 provides an accounting of the FY'05 DOD STARBASE composition.

Academy Staffing Profile

Exhibit 4

Position	Number of Staff	Full-Time	Part-Time
Director	44	42	2
Deputy Director/Instructor	36	35	1
Program Instructor	102	75	27
Administrative Assistant	39	33	6
Other (EA, Maintenance, etc.)	10	2	8
TOTAL	231	187	44

Instructors

Academies are urged to hire experienced, fully credentialed, highly-trained personnel in math-science. The DOD STARBASE program methodology promotes the experiential and “hands-on” classroom applications where students are actively involved in simulations, lab applications, demonstrations and practical problem-solving. This approach and methodology requires instructors to have several years of teaching experience, certification, content skills, and an openness and desire to apply the techniques that are incorporated in the curriculum.

Employment Relationships

DOD STARBASE programs are affiliated with different organizations for administrative and auditing purposes. Programs may be affiliated with their state, school district, local university, a private contractor, a not-for-profit board, or the federal government. While DOD has provided general guidance on equivalencies for the employment relationship and budget allocations, the differences in the academies’ organizational affiliations and their military service components have led to employee relationships that are variable within and between sites.

Academies may have more than one set of guidelines for benefits, salary administration, and employee practices because of the different organizational affiliations (see Exhibit 5). More than half of the DOD STARBASE academies have state or federal employee affiliations. When affiliate agencies experience limitations and/or freezes in hiring, DOD STARBASE personnel are sometimes employed as independent contractors, consultants, or employed under a different organizational umbrella; thus, their employee status, benefits, and salary administration may be different from those of their peers. These differences influence budget management decisions, changes in organizational structure, and the rate of staff turnover.

Employer Affiliations of Academies
Exhibit 5

Organizational Affiliation	# Staff Members
Federal Employee	52
State Employee	69
State Contractor	18
School District/University Employee	27
School District Contractor	6
Non-Profit Employee	33
Non-Profit Contractor	2
For-Profit Employee	13
For-Profit Contractor	11
Total	231

Staff Turnover

Staff turnover is steadily increasing as the program matures (see Exhibit 6). This year's turnover is 17 percent; furthermore, 79 staff members have left in the last three years. This represents a significant loss of experience and talented personnel who are trained in the DOD STARBASE curriculum and methods, but over the three year period the rate is lower than the 13 percent experienced by the education profession as a whole.⁷ There are various reasons for the turnover as shown in Exhibit 7. However, there are three factors in the program that make alternative options in the educational field attractive, especially when 64 percent of the departures are at the instructor level (see Exhibit 8). The factors are: few career steps for DOD STARBASE employees; the lack of benefits for some personnel; and the relatively stagnant payrolls. This shift is progressive and a challenge to DOD STARBASE managers who must be sensitive and aware of whether their local concerns are in retention or recruitment strategies.

Staff Turnover Rate 2003-2005

Exhibit 6

Staff Turnover	2003	2004	2005
Staff Members	168	238	231
Number Departing	10	30	39
Turnover Rate	6%	13%	17%

Reasons for Departure

Exhibit 7

Reason	#Staff Members
Moved	5
Retirement	7
Personal	7
Termination	2
Better Opportunity	6
Went Back to School	2
Benefits/Pay	2
Career Change	3
Job Changed from PT to FT	4
Position Eliminated	1

⁷ Teachers wanted: Attracting and Retaining Good Teachers, Daniel A. Heller, Association for Supervision and Curriculum Development, Alexandria, Virginia, August 1, 2004.

Departures by Staff Member
Exhibit 8

Staff Member	Number Departed	Percentage
Directors	3	7.7%
Deputy Director	1	2.6%
Instructors	25	64.1%
Administrative Assistants	10	25.6%

Not-for-Profit **Organizations**

The Secretary of Defense and the Secretaries of the military departments are authorized under Section 2193 (b) subparagraph (f) to accept financial and other support for the program from not-for-profits and other organizations in the private sector. While several academies make use of this option to enhance and expand their program, there are units that are not comfortable with this opportunity (see Exhibit 9). The Navy, for example, does not encourage its academies to use not-for-profits.

Not-For-Profits by Military Components
Exhibit 9

Military Component	#Academies	#Not-For-Profits	%Academies
National Guard	30	24	80%
Navy/Navy Reserve	11	0	0%
Air Force	4	1	25%
Air Force Reserve	3	3	100%
Marines	2	2	100%

Most of the not-for-profits were established prior to 2001 when fiscal sponsorship was uncertain and attempts were made by academies to find alternative sources of funding. Today, these organizations assist in obtaining funds to enhance the program's operations; market the program to the community; write and submit grants; assist with program and budget planning; and help with in-house review of program operations (see Exhibit 10). Most commanders find the involvement of not-for-profits an added venue for positive community relations.

Not-For-Profit Services
Exhibit 10

Service	%Academies
Marketing/Fundraising	80%
Grant Writing/Submissions	57%
Program Planning & Annual Review	47%
Budget Planning & Review	47%
DOD Compliance Review	27%
Other	27%
Review of Potential Staff	23%
Review of Subcontractor Relations	23%

Steering Committees

This year, Steering Committees were formed to guide the program into the future and to support the Administration's five-year Mathematics and Science Initiative (MSI). The initiative to create the committees was proposed and acted upon during the FY'04 Director's Conference. Individuals were selected from academy staffs and military personnel based upon content expertise/interest, a range of academy experience, and a willingness to commit time and energy to the committee. OASD/RA provided funding, support, and guidance for the committees. Each steering committee created a mission and action plan to enhance DOD STARBASE and support the MSI goals. The five committees are:

■ PARTNERSHIPS

- **Mission:** To identify, assess and review potential partnerships with local/national organizations that would enhance and support DOD STARBASE.
- **Action:** Identifying and reviewing local, government and corporate agencies with the resources, technology and interest in a partnership. Initial identification and assessments are currently under review.

■ PROFESSIONAL DEVELOPMENT

- **Mission:** To identify, review and recommend steps to enhance professional development and activities for all staff.
- **Action:** Developing a matrix of the strengths of the staff as well as areas that need development. Particular emphasis is placed on directors and instructors as well as activities that are supportive of DODI.

■ MIDDLE SCHOOL COMPONENT

- **Mission:** To identify, review and assess instructional materials to strengthen and enhance the standard core curriculum of the middle school component
- **Action:** Collecting and evaluating middle school curriculum materials from academies; and reviewing after-school programs for middle school.

■ MENTORING INITIATIVE

- **Mission:** To identify and review mentoring programs that would be compatible, supportive and effective in improving student performance in the subject areas of the DOD STARBASE curriculum.
- **Action:** Researching and assessing mentoring programs with math and science components, which would be portable across DOD STARBASE sites and support the curriculum. The committee is also reviewing the possibility of the committee members attending a mentor-training program.

■ PROGRAM OPERATIONS

- **Mission:** To review and update the current program management and training manuals.
- **Action:** Reviewing the Director's Guide and considering recommendations to update curriculum to reflect the changes that have been made over time.

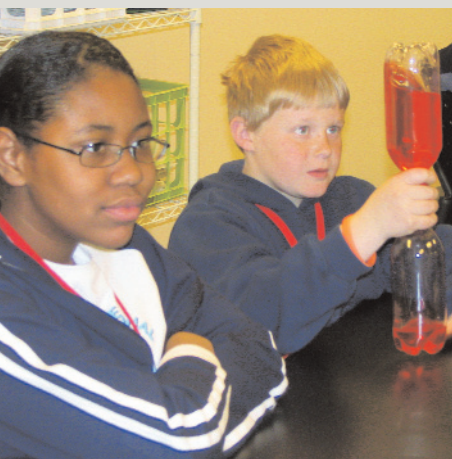


PROGRAM ASSESSMENT OVERVIEW



The assessment process has two objectives: 1) to determine whether the DOD STARBASE program meets its program goals; and 2) to measure the impact of the DOD STARBASE program on students and participants. To achieve these objectives, the assessment process focuses on gathering information via structured interviews and questionnaires from key participants.

In the following summary, Joe and Amy are composite children representing the average student who submitted a pre and post attitude and knowledge assessment for FY'05. Mrs. James is their composite classroom teacher, representing 285 teacher respondents who had students participate in the program. Statements about composite students and teachers reflect the findings of statistically treated data. Lists reflect the most frequent, highest ranked, and most significant data results (for more details, please refer to the full report in Section 8).



DOD STARBASE® Student Composite

Joe is a 10-year-old fifth grader from a southeastern state and Amy is an 11-year-old fifth grader in a midwestern state. Joe had heard of DOD STARBASE and Amy knew a friend who attended DOD STARBASE and both were enthusiastic to try new things before they participated. Both students struggled in math and science in school, did not find learning easy, and were unsure if DOD STARBASE would help them in school before they attended the program.

At DOD STARBASE, Amy and Joe applied science, math, and technology in their experiences with the properties of air and flight and space exploration at the military base. Amy learned about flying an airplane on a flight simulator. That helped her later when she answered a question about aircraft controls. Joe worked on a team that built a rocket to launch, using math and science skills. Later he was asked about the forces that cause a rocket to launch. Amy's group visited a jet engine shop and talked to a pilot about his adventures. Later she was asked about the forward movement produced by a jet engine. Joe got to see the inside of a refueling tanker and military personnel explained how it worked. Later he was asked about one of Newton's Laws of Motion. Amy's group visited an air museum on the military base. Later she was able to answer questions about air pressure from an exhibit she saw there.

After the five days of hands-on experience at military bases near their schools, both Joe and Amy felt they learned a lot by trying things. They are optimistic about graduating from high school. Both found a lot of useful information that they could use from DOD STARBASE. Although Joe and Amy's assessment results differed slightly, both had improved attitudes about science, math, the military, and the DOD STARBASE program. The program fostered positive attitudes for learning, a necessary component for success.

Both Joe and Amy had improved post assessment scores in science, math, and technology that showed that they understood the concepts presented at greater depths. Their views of teamwork were more positive after the program. They enjoyed the experiences on the military bases that applied science related learning, and planned to tell others about it. They viewed alcohol as decreasing "our body's ability to do easy things." Joe and Amy's scores improved as they self-rated "I can make my dreams come true." Program instructors were praised. They agreed, "Military people do lots of different things."

Although Amy and Joe struggle with learning in school, both had optimistic post assessment responses. Before and after the DOD STARBASE program Joe's view of his own ability in science and math was more positive than Amy's view of her ability. However, Amy's view of her ability in science and math improved the most by the end of DOD STARBASE. Likewise, Joe's overall post assessment scores were higher than Amy's scores, but Amy improved the most during the program.

Student Assessment Overview

The student assessment focused on measuring student changes in knowledge/skills and attitudes before entering and upon completion of the DOD STARBASE curriculum. Two instruments were used in the student assessment: one focused on knowledge and skills; and the other on pro-social, citizenship and community awareness attitudes.

As in previous years, the DOD STARBASE student scores improved significantly from pre to post tests. Students learned about applied science, math, and technology concepts at the military base. Many students showed some understanding of the concepts before the program. The program gave students a deeper understanding of concepts and introduced new material. Student scores improved in all answers from pre to post assessment. Post assessment scores of answers related to the below concepts were significantly higher than their pre-test scores. While individual students' scores varied widely, all concepts taught showed students understanding the concepts well or with 20 percent improvement in scores after the program.

Concepts students learned about at DOD STARBASE:

- Teamwork
- Bernoulli's Principle
- Four forces of flight
- Space exploration
- Avoiding substance abuse
- Properties and states of matter
- Aircraft control surfaces and components
- Newton's Laws of Motion
- Development, innovation, and use of technology
- Goal setting

Sample questions students answered:

- (True or False) The earth is the closest planet to the sun.
- Air presses down 15 pounds on every square inch of our bodies. The reason we don't feel this pressure is...
 - A. The atmosphere cushions the weight of the air.
 - B. Our bodies push out 15 pounds on every inch to equalize the pressure.
 - C. We are inside a building, so we don't feel it.
 - D. The air is thinner closer to the ground than up in space.
- If you are landing an airplane in a city that is 5,000 feet above sea level, what will your altimeter read when you are on the ground?
 - A. 0 feet
 - B. 500 feet
 - C. 1,000 feet
 - D. 5,000 feet

A key program objective of DOD STARBASE is the development of positive feelings about self, life choices, citizenship, social responsibility, team building and the ability to develop positive attitudes and skills related to problem-solving and math use. As in previous years, the 2005 student population continued to have positive attitudes about themselves, the DOD STARBASE program, the educational process and their future endeavors.

Post-test item scores that have improved the most in the last five years of DOD STARBASE student data:

- I like math.
- I am good at math.
- I like science.
- I am good at science.

For students participating in DOD STARBASE, factors that help “make my dreams come true”:*

- I set goals for myself.
- I think I can graduate from high school.
- I think about what I want to be when I grow up.
- DOD STARBASE Instructors are kind and helpful.
- You can accomplish a lot in a group.
- I like science.
- Learning is easy for me.

**These statements are statistical predictors of student success.*

Program factors that reinforce student views that “military bases are fun”:

- I am enjoying coming to a military base.
- The military is a good place to work.
- I think about what I want to be when I grow up.
- You can have fun working in a group.
- Learning is easy for me.

Items students rank as most important after participation in DOD STARBASE:

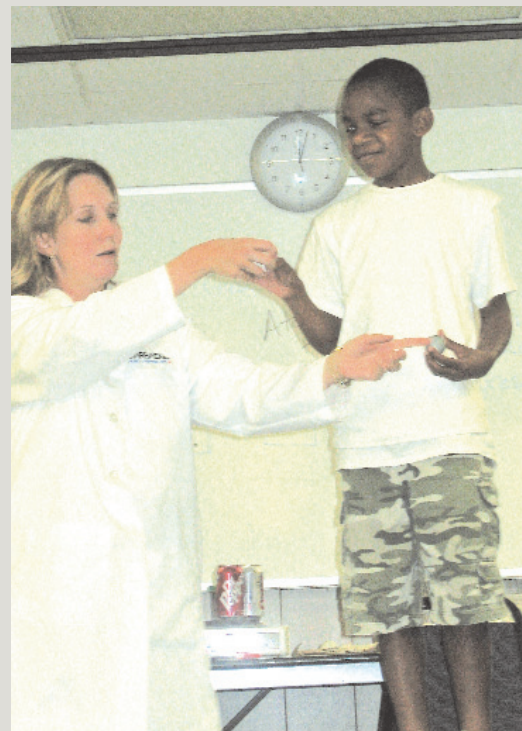
- You can learn a lot by trying things.
- DOD STARBASE Instructors are kind and helpful.
- At DOD STARBASE, I learned a lot of things I can use.
- I think about what I want to be when I grow up.
- I like to make new things.
- Military people do lots of different things.
- I am enjoying coming to a military base.
- You can have fun working in a group.
- I can make my dreams come true.

Classroom Teacher **Composite**

The assessment process has increasingly utilized the participant school teachers as one of the expert panel of observers of the DOD STARBASE program and its impact upon the students and their performance during and upon their return to their original classroom environment. Because of the breadth of their participation as observers and active contributors, they provide an important and useful documentation of the effect the program has on their students, the school system, and their own attitudes and behaviors. In many cases they can express and describe, in experiential terms, events about the program and the students that no other participant can provide.

Mrs. James, the composite classroom teacher of students like Amy and Joe, has been teaching for 15 years in a western state. She had been on a military base before and had been involved in past DOD STARBASE programs. Mrs. James enjoyed her experience and extended her students' experience by using resources provided by DOD STARBASE in her classroom. She would use other additional materials if provided. Because DOD STARBASE concepts were linked to the state standards, learning about science applications were validated as teaching priorities. The program materials reinforce her positive behavior objectives for students. Her principal is an advocate for DOD STARBASE. Parent feedback is positive. She thinks the DOD STARBASE experience will be a positive influence on her students, herself, and her community in coming years. The students enjoyed the military base experience.

She says that students continue to talk about DOD STARBASE long after the program has ended. She observes that the students are more excited about learning and especially more interested in science. They show more group cooperation and improved climate for learning. Mrs. James' observations support her students' views that the program offers opportunities for building self-esteem and associating with positive role models. She thinks that students have a better understanding of science after DOD STARBASE. The program meets its goals.



Classroom Teacher **Assessment Overview**

The classroom teachers' perspectives add dimension to the impact of DOD STARBASE on the students, the classroom, and on others. Classroom teachers acting as monitors during the program get valuable time to observe student learning and interaction. Over 1,025 teachers volunteered 21,661 hours for participants and provided many positive comments, including:

- All students felt a great sense of accomplishment on “launching day.”
- I loved it and none of us will ever forget the entire experience.
- The best part: children were actively engaged in all lessons.
- Students who were reading below grade level excel in this program.
- Since DOD STARBASE...students have a better attendance record and higher test scores.

Classroom teachers are also asked to respond to questions about their students' interest in learning as the result of their DOD STARBASE experience. Following is the response to one such question

How does the DOD STARBASE program encourage students to learn math?*

- DOD STARBASE has helped to improve appreciation of how math can be applied to a variety of situations.
- (Students are) more comfortable making decisions.
- The students ask more questions about technology.
- (Students are) better at following directions.
- (Students are) more interested in learning about science.
- Because of my participation in DOD STARBASE, I am more comfortable with military personnel.
- The students talk about DOD STARBASE long after the program has ended.

**These statements are statistical predictors of student success in learning math.*

Parents' View

The classroom teachers and academy directors report that parent feedback on the DOD STARBASE program is very positive. In 2005, 3,696 parents volunteered 19,633 hours for participants. Some of the comments they offered include:

- When she comes home from DOD STARBASE, she is so excited to tell me what they did and HOW.
- I was glad to see the children completing such challenging tasks.
- I feel that it has shown the children a different way of thinking about science, math, and technology, which will be useful for them to learn in their future as adults or to gain knowledge of things going on in our world today.

Military Volunteer Assessment

A sample of 141 volunteers from a cross-section of academies provided input for this assessment. The volunteers were asked questions on the amount of time committed to the program; the perceived value of the program to them personally and the community's perception of the military; the impact of DOD STARBASE on the community; feedback from the community, students and other military personnel; their willingness to continue their volunteer work; and any extemporaneous comments they wished to make.

Military volunteers are overwhelmingly positive about the program's impact on community relations, themselves, and the students. The volunteers see the program as providing a powerful tool for community relations. They feel the DOD STARBASE program helps children, parents and teachers see military personnel as "regular people" who have unique training and experiences. Sharing their knowledge and skills with students and teachers helps the military be seen by community members as an "approachable, useful organization; it removes some of the mystery that surrounds us."

Working with DOD STARBASE appears to have the benefit of improving morale and job satisfaction. Responses from several volunteers indicate that it gives them "a good feeling about what we do." One volunteer wrote that it "made me a better individual because I wanted to give the kids a more positive outlook on their lives and future." Another wrote that he took a personal interest in DOD STARBASE because he had a troubled youth and felt "this program really encourages kids to do well in school by sparking an interest in mathematics and science."


There were practical benefits to volunteers as well. Individuals commented that giving presentations had given them confidence to speak in front of older groups; improved their knowledge of their job because of additional research that they had done prior to presenting to the children; and one member found the experience was useful in pursuing a master's degree. A volunteer summarized the experiences and comments: "Like the students in DOD STARBASE, I too have learned the value of pursuing my dreams. Each time I get the privilege of sharing with students, I get the chance to live my dream of shaping tomorrow by shaping our youth today."

DOD STARBASE will have a positive long-term impact on the lives of the children, in the opinions of the volunteers. Looking into the future, one volunteer commented on a growing concern about staying competitive as a nation. "As the world gets more technologically advanced and more nations compete directly with the U.S. we, as a country, need to get our children excited about science and technology if we're going to keep our standard of living."

The ongoing deployment of personnel to Iraq and Afghanistan has made time commitments a challenge. Yet 2,362 members of the military volunteered 19,907 hours to DOD STARBASE academies. They found the experience a benefit to themselves, the children, the community and to the future of the country. They are committed to the program and plan to continue as volunteers.



Colonel Deborah S. Rose, Vice Commander, 190th Air Refueling Wing at Forbes Field in Topeka, Kansas, is a strong supporter of DOD STARBASE. She summarized the feelings of the respondents when she wrote, "The benefit these students receive from attending the DOD STARBASE program is phenomenal! I am simply amazed every time I watch these young minds complete a hands-on experiment, launch a rocket or program a robot to complete a particular task. I have had parents stop me in the community to tell me what a difference DOD STARBASE made in their child's life. As a tax payer, I am very pleased to see my tax dollars being utilized in a program that truly enhances the future of our children."



PROGRAM GROWTH



While the demand for increased growth of DOD STARBASE academies persists, attention to adding and installing new ones was limited because of funding boundaries and a focus on infrastructure activities in FY'05. One academy was established and is currently in process of becoming operational.

In spite of limitations in the installation of new academies, the number of classes, students, and supplemental programs reflected growth and demand. Student growth is about 12 percent over last year while the number of classes conducted also increased at about the same rate at 11 percent or 234 more classes than in FY'04. The academies are demonstrating an ability to aggressively reach more schools, classes, and students each year, which is reflected in numbers and the ratios per academy (see Exhibit 11). Supplemental programs add an additional 9,226 students to the total.

Average Number of Classes Per Academy

Exhibit 11

Program Year	2002	2003	2004	2005
Classes Per Academy	36.0	41.5	43.16	43.51

This year there was a 20 percent reduction in volunteers and staff, because of troop mobilization to Iraq and Afghanistan, and natural disasters. However, the program maintained its ability to reach more classes and students.

Most of the programs now operate on a year-round basis. During summer sessions, when school systems are on vacation, DOD STARBASE conducts classes for children with disabilities, the children of base personnel, and groups such as the Boy Scouts and Girl Scouts. Special efforts were also made to reach school districts in remote areas. Wherever programs are established, the demand by contiguous school systems to expand the program to additional school districts and across the state is almost immediate. Demonstrated capability and results that can be observed have been the most effective marketing instrument of the program. Seventeen states have dual academies to respond to the demonstrated success and demand established because of the original installation and operation of the academy in their state. Most of the remaining academies in other regions are making similar requests. Meeting demand for expansion and outreach remains a major challenge for each operating academy. Given the limitation on current budgets and supplementary funding, each academy must exercise some caution in supplemental and expansion of services since, once committed, there is pressure for continued service.

Balancing demand and growth with available resources remains a constant challenge. Offering additional services without damaging the quality of existing commitments or overburdening staff is a constant balancing act. At this point the challenge has been met by innovative programming, economies of scale and personal energy. DOD is aware of the pressure of demand, and has enhanced the infrastructure and support systems.

Critical Events

Over the past few years, several unanticipated events have had a direct impact on the operation and delivery of DOD STARBASE programs. The September 11, 2001 attack restricted base accessibility, resources and the availability of military volunteers. Subsequent deployment of military personnel to Iraq and Afghanistan further reduced the availability of volunteers. The severe storms of 2004 and 2005 forced the cancellation or rescheduling of classes, closed bases, and restricted the availability of personnel and facilities.

About a third of the academies had to cancel and reschedule classes because of the weather. Several academies had limitations placed on transportation for classes because the schools budgets were limited with the increase in gas prices.

Overall, the DOD STARBASE staff made the necessary adjustments to meet and surpass the basic requirements in numbers and student performance, but these events did affect program delivery and quality of experience. Residual effects are anticipated in continued reduction in military volunteer time, some security restrictions, and, for a period, adjustments in transportation coverage since gas prices cut into the fixed budgets of several of the school systems. There will be some readjustments in the latter until gas prices become more predictable.

One advantage of these crises is that the role and importance of the military is more directly observable and transparent in these times. The awareness by members of the community is heightened and more positive towards the military and the program.



PROGRAM COMPLIANCE



The visitation procedures, combined with the annual data collection process, provide an effective instrument for obtaining compliance with the DODI and for identifying potential areas of concern. Over the years, academy compliance with the DODI has been positive with minor technical violations that are resolved on-site and with proper documentation. This year follows that pattern as the academies continue to be attentive to DODI guidelines, and the violations, while minor, are similar to those identified in past audits.

Fiscal audits are required every three years. The audits are conducted by a state, military or an independent government agency auditor. Audits are sometimes delayed at the state level because of insufficient time or lack of staff to conduct them. It is essential the OASD/RA be notified in writing, preferably before the three year deadline, that an audit will be delayed.

Three academies had difficulty meeting the class size guideline. Two academies had ratios below 20 because of the state's desire to reduce the number of students per class. One academy had classes slightly above the 35 student limit. Academies are required to notify OASD/RA if they cannot meet requirements and explain if the situation is temporary or if it appears to be a permanent change. A request for an exemption may be made if the academy staff feels the situation will persist and alternative solutions have been exhausted. Class size remains an important consideration in DOD STARBASE, which promotes experiential and "hands-on" applications. Large class size has proven to be an impediment to this approach. While class size in selected academies is of concern, the issue at this time is not of sufficient magnitude for action.

One academy has revised the core curriculum requirement by substituting content that better utilizes the resources of their military base. However, teaching this content means that an area of the core curriculum is not taught. A request for an exception was not submitted to OASD/RA. Upon learning of this issue, OASD/RA corrected the discrepancy. Compliance in such key areas as the core curriculum and methodology allows for the development of a standardized testing instrument across all academies. This is important in providing an overall assessment of the program's ability to affect student performance and changes in personal skills. Standardization in selected areas of program operation also allow each academy a platform to accept and transport materials and lessons-learned.

In summary, most managers and directors are positive and supportive about the need for compliance and its role in protecting the basic concepts approach, and integrity of DOD STARBASE.





FISCAL INFORMATION



COST PER ACADEMY

The primary funding agency for DOD STARBASE academies is the Department of Defense. Many of the academies operate solely from that source. The total funding allocation for academy operations in FY'05 was \$13,652,000 for 50 academies, of which 49 were fully operational and one was in the installation process. This budget was \$301,000 more than FY'04 when the budget was \$13,351,000.

Over the past three years, the budget increases have remained at about 2 percent each year. Exhibit 12 displays the average cost of an academy operation at \$273,040, which is slightly higher than last year’s average of \$272,469. The average cost per student in FY’05 was significantly lower this year at \$262.03 per student as several of the newly installed programs became fully operational.

FY’04 – FY’05 Average Annual Costs Per Academy/Per Student
Exhibit 12

Year	Average Annual Cost Per Academy	Average Number of Students Per Academy	Average Cost Per Student
FY’04	\$272,469	932	\$292.35
FY’05	\$273,040	1042	\$262.03

Operational costs vary from one academy to another. There are several factors that explain cost differences, such as: geographical location; variance in in-kind support by the local military bases; supplemental funding by outside sources; salary scales of the different sponsoring affiliates, service expansion to additional school systems; and outreach programs. Each factor produces a challenge in fiscal budgeting and allocation requests. OASD/RA understands that academies have different fiscal needs, and attempts to distribute funds equitably.

DOD follows a standardized operational funding process. Academies are given broad organizational guidelines on the staffing, equipment, supplies and transportation expenses. Each academy presents its budget through its command system or affiliate organizational agency prior to budget allocation. Any variation from prior budget submissions requires explanation and documentation. For the newly installed academies, there are “start-up” costs for upgrading facilities, purchasing computers, and equipment, which are a one-time allocation. After initial installation, each academy follows the same budget process under the same guidelines. Overall, the operating budgets are similar in coverage and line items although funding differences can be found in considerations of multi-site operations, geographical location and breadth of function. The following Exhibit 13 displays the funding allocations by service component.

Budget Allocations by Service Component
Exhibit 13

Service Component	Number of Academies	Average Cost Per Academy
National Guard	30	\$260,968
Navy	11	\$296,277
Air Force	4	\$233,000
Air Force Reserve	3	\$261,667
Marine Corps	1	\$302,000
Navy Reserve	1	\$284,000

DOD funds generally cover the academy’s operating costs. However, as programs mature and equipment upgrades and replacements are needed, costs of living increase, and services are expanded, the pressures on increasing operating costs go beyond the prototype budgets. Directors’ budget adjustments are usually made by the re-organization of staff, and efforts to obtain supplemental funding.

At present, salary and benefits account for more than 80 percent of academy operation costs. Last year, salary and benefits accounted for 75 percent of operation costs. This year's expenditures increased by 6 percent. The remaining 20 percent covers supplies, travel, equipment, communication, and staff development. Supplies are approximately 6 percent of the budget and the second largest item expenditure beyond salary/benefits (see Exhibit 14).

FY'05 DOD Expenditures

Exhibit 14

Expenditure	Percentage
Staff	81%
Facilities	1%
Travel	4%
Supplies	6%
Equipment	5%
Services	2%
Communications	1%

Supplemental Funds

Only 60 percent of the academies have a not-for-profit mechanism for pursuing supplemental funding. The amount of additional contributions for FY'05 was \$457,276, which was about the same as in FY'04 (see Exhibit 15). Sixty-Five (65) percent of these funds are dedicated to three academies.

FY'05 Supplemental Funding

Exhibit 15

Source	Donation	%
Grants	\$ 97,091	21%
Donations	\$ 73,462	16%
State	\$ 96,000	21%
AFRL	\$139,000	30%
Other	\$ 51,723	12%
Total:	\$457,276	100%

Expansion of services usually demands more instructor time for delivery. The expenditure of the supplemental funds reflects that reality. About 44 percent of the use of supplemental funds is dedicated to staff salaries (see Exhibit 16). Supplies cover almost 20 percent of the remaining expenditures.

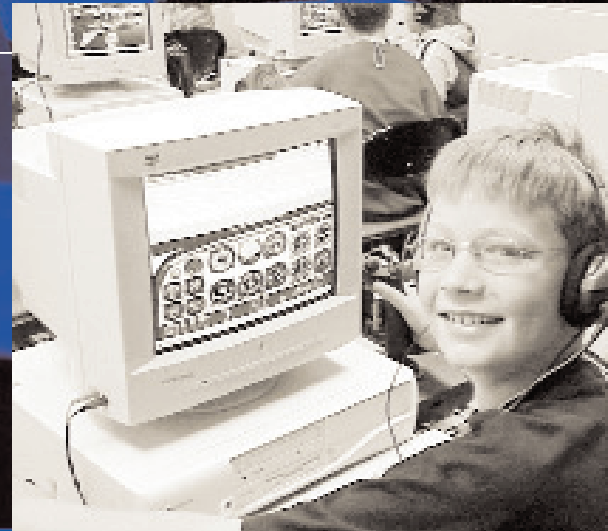
FY'05 Supplemental Expenditures

Exhibit 16

Staff Salaries	\$179,617	44%
Staff Development	\$ 6,332	2%
Facilities/Furnishings	\$ 1,179	0%
Transportation/Travel	\$ 17,396	4%
Supplies	\$ 75,989	19%
Equipment	\$ 32,804	8%
Services	\$ 52,315	13%
Program/Curriculum Development	\$ 9,400	2%
Communications/Outreach	\$ 4,790	1%
Other	\$ 27,114	7%



**OBSERVATIONS
AND CONSIDERATIONS**



Program observations are drawn from a comprehensive review of DOD STARBASE that included 16 site visits, evaluation of the Director's Questionnaire submitted by each academy, review of comments from 141 military volunteers, and an analysis by Pearson Performance Solutions of 1,955 student pre- and post-tests as well as 285 assessments by classroom teachers. The program considerations, listed below, flow from the observations, as well as suggestions of program participants, academy staff, and sponsors and are intended to build on the program's success.

Program Operations

Program Instruction Schedule

Twenty-three academies offered supplemental programming. All of these programs were offered after the academies completed DODI requirements, usually during the summer months. Supplemental offerings often involve innovative programs on topics such as robots, space exploration, and advanced curricula for program graduates. A rural state has developed a teleconferencing curriculum to present selected DOD STARBASE content to students across the entire state. This year 9,227 students were added to the DOD STARBASE experience through supplemental programs.

Consider

- Reviewing and analyzing the impact of supplemental programming on academy resources.

Staff Retention

Staff turnover is steadily increasing and is higher than the turnover in education as a whole. There are various reasons for the turnover, many of them personal. However, there are factors unique to the program that makes alternative teaching options attractive. The factors are:

- Few career steps for DOD STARBASE employees;
- Lack of benefits for some personnel; and
- Relatively stagnant payrolls.

Consider

- Examining the role that lack of benefits, for some employees, plays in the retention process.
- Collecting data in a more rigorous end-of-employment process that will obtain detailed and useful information on the reasons for terminating employment. This can be done through a confidential interview with the program director or through the development of an instrument that would be completed at the end of employment.
- Examining staff needs for training, retention, and development.

Employee Relationships and Salary

DOD STARBASE programs are affiliated with organizations for administrative and auditing purposes. Programs may be affiliated with their state, school district, local university, a private contractor, a not-for-profit board, or the federal government. This affiliation structure results in a set of conditions that are unique to DOD STARBASE:

- Eight federal employees have a salary and benefit package that is above the published guidance by OASD/RA for staff cost.
- To keep within the guidelines, some sites lower salaries to offset the high cost of the required benefit package (benefit packages run as high as 45 percent of base salary).
- Contract employees who do not have an employer affiliation do not receive any benefits.
- Affiliates' personnel limitations and/or freezes on hiring result in DOD STARBASE employees being hired as independent contractors, consultants, or employed under a different organizational umbrella; thus, their employee status, benefits, and salary administration may be different from their peers.
- Academies may have more than one set of guidelines for benefits, salary administration, and employee practices because of the different organizational affiliations.

DOD has provided general guidance on equivalencies for the employment relationship and budget allocations; however, the differences in the academies organizational affiliation and their military service component has led to employee relationships that are variable within and between sites.

Consider

- Evaluating the compensation structure to determine if a more equitable salary structure could be developed.
- Reviewing optional salary administrative resources.

Staffing Module

Budget pressures have forced academies to reallocate personnel resources in many sites. This has resulted in significantly different roles for staff.

Consider

- Reviewing and evaluating the staffing module with particular attention to job descriptions for all positions.

Website

The DOD STARBASE website is underused. It does an adequate job of presenting general information to the public, but does not have the appeal of sites that offer a more interactive format. The website has the potential to be a source for students to continue their interest in math, science, technology and engineering. However, this is not currently available on the national level.

Consider

- Continuing to develop the website.
- Modernizing the site to make it more appealing to visitors.
- Investigating more options for data collection, particularly in regard to all phases of the assessment process.

Not-for-Profit Organizations

Not-for-Profit organizations (NPO) are used with varying success. While several academies make use of this option to enhance and expand their program, there are units that are not comfortable with this opportunity.

Consider

- Developing not-for-profit materials. Topics covered would include: how to organize an effective board; grant writing; marketing, etc.
- Offering a preliminary session, at the Director's Conference, for academies that have an interest in developing a NPO. In addition, present a special session on key functions of a NPO, such as fundraising and marketing.

Military Volunteers

The volunteers enrich the DOD STARBASE experience for the students. A formalized system is not currently in place to thank them for this important service.

Consider

- Creating a log for military volunteer involvement to tabulate: tasks performed, time volunteered, and demographics.
- Formalizing acknowledgement by DOD and individual academies for volunteer contributions. Letters, certificates, and file references to base commander are encouraged.

Critical Events

Rising gas prices during the year affected some school systems. Several academy directors are concerned about their school district's ability to continue to transport students to DOD STARBASE because of high-energy costs.

Transportation costs are the largest single commitment of school districts to the academies. For some school systems, it determines which schools and classes can be participants in the program.

Consider

- Monitoring this issue, especially in rural areas.

Curriculum & **Instruction**

Staff Development

Site visits found that math was not being consistently embedded across the curriculum. It appeared that many teachers felt comfortable teaching science, but less comfortable with math. In addition, instructors requested more opportunities for training and regional meetings with other academies. They expressed a desire to share with and to learn from their peers.

Consider

- Emphasizing the need for embedding math throughout the curriculum and accentuating academy activities that incorporate math objectives in the core curriculum.
- Offering presentations at the Director's Conference that will highlight this area and presenting specific ideas for curriculum development.
- Offering regional meetings for instructors to share ideas.
- Developing training materials, for new and existing staff, to assist in curriculum delivery.

Data Collection & **Analysis**

Student Assessment

An annual psychometric review of the student assessment tools along with information from the field enables the best possible measurement of the DOD STARBASE program. Additionally, the incremental nature of the annual modifications allow for the most accurate year-to-year comparisons.

Consider

- Balancing item difficulty levels with a range of easy to difficult items because DOD STARBASE students enter the program with various levels of knowledge. The range of item difficulty provides a level that establishes a pre-program baseline and allows for measuring even small post-program improvements.
- Designing and developing additional knowledge items. Changes and additions should reflect changes in the core curriculum and allow for revisions and differences in annual testing without affecting the degree of difficulty of the total test.
- Reviewing coverage of curriculum in item construction. All new items should be rotated into the assessment with a view towards adequate coverage of the core curriculum.
- Developing additional items that require application or synthesis of basic concepts.
- Rotating one or two new items each year. Also, rotate old items back in subsequent years.

Compliance **Issues**

Although most of the academies are in full compliance with the DODI, there continue to be a few minor technical violations. Most of the violations occur because the academy has not notified OASD/RA and requested an exemption. In addition, when violations are reported there is not a formal follow-up procedure. Another issue is the accuracy and complete response of academies in the data collection process.

Consider

- Developing a formalized system of follow-up for non-compliance issues.
- Offering a session on proper reporting procedures at the Director's Conference.
- Developing written guidance for completion of Director's Questionnaire.

Fiscal **Matters**

As the academies mature they are confronted with the need to upgrade, replace, and repair equipment. Under the current budget allocations, 81 percent of expenditures are allocated to salaries and benefits, 5 percent to equipment and the remainder to travel, supplies, communication and other miscellaneous expenditures.

Consider

- Developing a plan to systematically replace and upgrade equipment for academies as they mature.





STUDENT ASSESSMENT

FULL REPORT



The student test is designed to ascertain the students' participation, understanding, and use of the knowledge, skills, and attitudes reflected in the core curriculum prescribed in the DOD STARBASE program. Two instruments are used in the student assessment: one focuses on knowledge and skills; and the other on pro-social, citizenship and community awareness attitudes. Student assessment constructs include:

- **Knowledge, skills and problem solving items presented in DOD STARBASE curriculum and concepts;**
- **Attitudes towards math, science and technology;**
- **Attitudes towards the military, military personnel, command and military base locations;**
- **Attitudes towards citizenship, community awareness and pro-social behaviors;**
- **DOD STARBASE experiences and effectiveness; and**
- **DOD STARBASE impact upon them individually.**

The development of a single, standardized test has its limitations and challenges in both design and application for assessing the abilities and skills across the diverse cultural and geographic dimensions that present themselves at the 50 DOD STARBASE academies. The academies have a number of differentiating influences such as resources, funding, curriculum, at-risk composition, size, enrollment policies and other school district distinctions. To reduce the variations, the assessment relies on specific control features, such as grade levels, at-risk composition of the student population, content curriculum, and other testing administrative design and controls.

The testing design used in this assessment focused on the content of the core curriculum that each academy is required to cover. The basic assumption is that the content knowledge and skill objectives are consistent across all academies, but in reality the intensity and completeness of that coverage will vary with each individual academy. While the standard core concepts embedded in the DOD STARBASE curriculum are the basis of the test constructs, some discretion is given to the academies in lab applications, utilization of local resources, and a number of other factors that create variations between programs.

All test and assessment instruments are reviewed and revised annually with input from field personnel and professional testing personnel. This includes test administration, curriculum content changes, item analysis and sample size.

Fifth grade is the target population for test construction design.¹ Originally two versions of the knowledge and aptitude tests were developed, piloted and installed. Over time, several versions, refinements, and reductions in the number of items were obtained through field-testing, item analysis, and field staff input. Currently there is one test in operation. The knowledge/skills test is a composite of true/false, multiple choice and matching terms/concepts and graphic images (a copy can be found in Appendices). The attitudinal or opinion test utilizes a seven-point scale from negative to positive.

The knowledge test items are designed from 11 of the 13 core curriculum content areas:

- Properties and states of matter
- Properties of air
- Bernoulli's Principle
- Aircraft controls, surfaces and components
- Newton's Law of Motion
- Space exploration
- Development, innovation and uses of technology
- Avoiding substance abuse
- Goal setting
- Teamwork
- 4 Forces of Flight

The use of mathematics is not a separate topical area in the curriculum but is embedded in the presentation of core curriculum areas. In general, there is more than one test item for each of the eleven curriculum areas while some test items combine application of more than one concept.

¹ Original design and documentation of the test is available in prior reports.

A key program objective of DOD STARBASE is the development of positive feelings about self, life choices, citizenship, social responsibility, team building and the ability to develop positive attitudes and skills related to problem-solving and math use. A separate pre- post-attitudinal and perception test is part of the testing process. It is designed to measure shifts in attitudes as a consequence of program participation in DOD STARBASE. The design of attitudinal items includes:

- Attitudes towards math, science, and technology
- Attitudes towards the military, military personnel, the military environment and military careers
- Community awareness, citizenship, social responsibilities
- Program effectiveness
- Program impact on students and others

There are 23 attitudinal items in the pre-test and 26 items in the post-test. Each test included items for rating scale reliability (i.e. negatively scaled items). The post-test was constructed by adding three items to the pre-test.

Instrument **Design**

The core curriculum is the basis for the development of the knowledge and skills portion of the student assessment. Both knowledge and opinion items were based on a combination of the assessment constructs (listed above), review of current program curricula, field responses to constructs through survey and interviews, academy test items used in locally developed tests and a review of the professional testing literature on comparative test applications in the content areas. Analysis of the reliability and validity of each item is conducted annually for identifying the utility of the constructs and changes are periodically made base on field review, analysis and changes in curriculum content emphasis, and coverage. The basic assumption in the test construction is the use of a single assessment instrument covering an agreed upon standard curriculum on key concepts that are presented to the students across each of the academy locations.

Item design for the student assessment includes true/false, multiple choice, matching words to images, and problem solving applications. The opinion assessment measures attitudinal responses of the students and teachers in the program, themselves, and the participants on a seven-point scale from negative to positive.

Changes made in the student assessment in 2005 involved:

- Dropping the item “ a team works together to achieve a common goal” because of its diminishing discriminating ability
- Adding the item “what is the smallest particle of water?”
- Adding the item “what force causes a rocket to launch?”
- Refining the wording of four knowledge/skill items based on instructor feedback.

Standardized instructions are provided for the assessment process to the DOD STARBASE instructors for test administration. The instruments are designed, and periodically reviewed for easy to read application even for those students with limited English reading ability. A Spanish version is available for academies that need that option. Word use refinements are periodically made in response to field review of student misunderstanding. This is often confirmed in item analysis. Each academy is given directions on sample size, matching requirements, test administration, scheduling, data retrieval procedures, and control. Upon completion of these tasks, the tests are forwarded to the assessment team for scanning and analysis.

Data Collection Administration and Logistics

Forty-five DOD STARBASE academies were able to capture matched pre-and post-program data for their students. A total of 4,898 student pre/post tests were returned of which 1,955 individual students were matched for pre-and post-program data analysis (3,910 of the 4,898 tests were matched students). This is a sample group of the total student population in the winter/spring of 2004/05 and an increase over last year's student test group. A sample population is tested each year and the sample size is designed to be representative of the total population. This format helps to reduce the intrusiveness of the testing process, ease scheduling logistics, and maximize instructional time availability. If downstream longitudinal analysis proves feasible in the future, the sample size may have to be increased to allow for attrition of students that would occur in tracking them in subsequent years due to student migration to other locations and non-responsiveness to inquiry.

Student assessment instruments were sent to all fully operating DOD STARBASE academies with instructions on sample size, test administration, and scheduling guidelines. DOD STARBASE instructors were asked to administer the test prior to the start of the program and at the completion of the program to obtain pre-post requirements. Each academy was requested to review the tests for completion, matching and proper identification of site, student and class affiliation.

Analytical Approach

The analytical approach of student knowledge/skills assessment includes comparisons on performance over the past several years of operation and is organized along the following content dimensions:

- Pre-Post Program Comparisons
- Age and Grade Comparisons
- Program Strengths
- Identifying Drivers of Preferred Student Outcomes
- Gender differences
- Test Item Difficulty
- Program Development Needs

Attitudinal analysis includes the pre-post program experiences; gender comparisons, age and grade level comparisons; prior experience with the military; site location comparisons; and attitudinal clusters. Differences and shifts in each of the dimensions are described to demonstrate the effect of the program upon the student population. Shifts over time are also included.

Student Assessment Results

Of the 1,955 students that comprised this year's sample population the geographic and gender distributions were well represented. The student population is almost evenly split between girls and boys and each of the five geographic regions have no less than 15.8 percent of the representation. The National Guard is the largest service branch represented with almost 60 percent of the total student sample. The Navy has the next largest representation with nearly a quarter of the sample size, while the Marines, Air Force Reserves and Air Force comprise the remainder. The sample regional representation reflects the numbers of academy locations by the service component and is representative of the total sample composition. More than three quarters of the students (76.2 percent) are from the fifth grade and close to eight percent (79.8 percent) are ten and eleven years of age. More than half of the students had met military personnel before DOD STARBASE and the majority had heard about DOD STARBASE or knew of somebody who had previously attended the academy.

There were very few students who did not complete the test requirements in the sample population and they were attributed to the omission of a few items by a small number of the respondents. This had no significant effect on the analysis or the sample size.

As in previous years, the 2005 student population demonstrates positive increases in knowledge and skills application in key DOD STARBASE concepts in math, science and technology. In addition, the students continue to have positive attitudes about themselves, the DOD STARBASE program, the educational process, and their future endeavors. Overall, mean scores in testing and attitudinal assessment were similar to previous years with some increases in several items over prior assessments. Gender differences remain in both test and attitudinal scores. Geographic location of the program displayed the greatest variation in test scores and in attitudinal assessments, although all were positive. Program location suggests that the program content and emphasis varies from site to site and accounts for the majority of score and attitudinal differences.

Pre-test analysis indicated that the range of ability by the students at point of entry in the DOD STARBASE program varied considerably, which suggests for some students, the content of the concepts covered in the program were not novel. In most cases, variability is accounted for by location and school systems. To provide an understanding of the effect of the program on student performance, the pre-program knowledge and skills assessment established the baseline of where the program students stood on each of the basic core curriculum concepts before they attended the DOD STARBASE sessions; while the post-program assessment measured the range and depth of knowledge, skills and problem-solving of the students upon completion of the program.

Student Knowledge/Skill Results

The following assessment highlights the pre/post comparisons and test scores over the past several years. Exhibit 17 demonstrates a significant increase in knowledge and skills over the past several years in pre/post average mean scores. As in the past, knowledge and skills increased in almost all areas of the curriculum. The mean score indicates that concepts that are less known at the pre-program stage, significantly increased after completing the program. The mean score for the pre-test was 17.81 (out of 30 items) while the post-test mean score was 23.28 with a mean score increased difference of +5.47, the highest rates of increase over the past four years. The lower mean scores are partially accounted for by the addition of a few more difficult items and the dropping of a few easier test items. The previous highest mean increase prior to this year was in 2003 at +5.30 and this year increase reached +5.47 as compared to +4.23 in 2002.

	Pre/Post Test Scores ² (FY 2002 – FY 2005)			
	Exhibit 17			
	2005	2004	2003	2002
	mean	mean	mean	mean
Pre-Test Mean Score	17.81	19.09	19.12	18.44
Post-Test Mean Score	23.28	24.25	24.42	22.67
Mean Increases	+5.47	+5.16	+5.30	+4.23

Pre-test scores demonstrate a mixed understanding of the basic concepts presented in the DOD STARBASE curriculum. There were several concepts with which the students were familiar, while a significant number were new and unfamiliar. As the scores indicate, where there was less familiarity, the scores at the post-test increased significantly (see Exhibit 18). As the analysis consistently demonstrates, site location exhibits the greatest difference in both pre-and-post scores; however, the positive increase in scores persists in spite of the location variations. More importantly, the data suggests that the participant schools do not teach math and science concepts in the same depth and intensity, as does DOD STARBASE. This observation is reinforced by the pre-program scores where math, science and technology items are less familiar to the students upon entry and are consistently higher in improvement scores at the completion of the program.

² The rank order chart is based on a thirty-item test and the means are significantly different.

Pre/Post Test Average Scores

Exhibit 18

Test Item	% of Pre-Test Correct	% of Post-Test Correct	+/-% of Improvement
Which of the following is not a team?	97	99	+2.0
Negative actions may make it hard for you to reach your goals?	90	94	+4.0
Which of the following can destroy an individual's dreams?	90	94	+4.0
Wing	87	93	+6.0
If you have something you want to do, or something you want to be in life, you should	89	96	+7.0
Which planet has more than 30 moons and thousands of rings?	80	89	+9.0
The Earth is the closest planet to the sun	80	90	+10.0
Drinking alcohol may decrease our bodies ability to do easy things	78	88	+10.0
Matter does not take up space	72	82	+10.0
Force that pulls an aircraft down	76	87	+11.0
What force causes a rocket to launch?	41	53	+12.0
Forward movement produced by a propeller, jet, or rocket engine	70	84	+14.0
The earth's atmosphere is how thick?	55	69	+14.0
If you are landing an airplane in a city that is 5,000 feet, how many feet are you above the ground?	50	64	+14.0
Which planet do humans believe they could inhabit in the future?	70	86	+16.0
The development of something new, or improvement of something already existing is	62	78	+16.0
Elevator	66	82	+16.0
To move an airplane's nose to the left, you would move the	39	56	+17.0
If you threw two balls of different weight using the same amount of force	57	77	+20.0
What is the smallest particle of water?	29	49	+20.0
Technology usually decreases in cost after many units are sold	50	71	+21.0
Rudder	61	82	+21.0
Slows the forward movement of an aircraft	58	80	+22.0
Which of the following is NOT one of the states of matter?	46	69	+23.0
Produced by air flow over the wings and the angle of the wing into the wind	56	80	+24.0
One reason an airplane is able to gain lift is because the air moving across the top of the wing...	24	52	+28.0
The air is composed mostly of what element?	25	63	+38.0
What is Sir Isaac Newton's Law of Inertia?	24	67	+43.0
Air presses down 15 pounds on every inch of our bodies. The reason we don't feel this is	24	70	+46.0

Given the changes in reducing some of the earlier and easier team-building test items and adding more difficult science and math items, the post-program percentages for correct items out of 30 are about the same over the past five years (Exhibit 19).

**Percentages of Correct Answers in
Post-Program Knowledge/Skills Test
2001-2005
Exhibit 19**

2005	2004	2003	2002	2001
% Correct	%Correct	%Correct	%Correct	%Correct
23.28	24.25	24.42	22.78	22.78

Gender Differences on Knowledge Test

Last year's report identified that gender differences matter in education and in performance. The DOD STARBASE students are reflecting these changes both in the knowledge/skills test and in the attitudinal expressions assessment. While the attitudinal differences are more dramatic and are discussed in the following section; the girls in the pre-post comparison reflect the gender difference in the knowledge test in the gap score improvement.

**Gender Differences on Knowledge Test
Exhibit 20**

Gender	Number of Students	Pre-Test Score	Post-Test Score	Improvement Gap Score
Boys	979	18.27	23.60	+5.33
Girls	962	17.29	22.93	+5.64

While the boys started the program with a slightly higher knowledge score than the girls, the girls demonstrated a greater improvement score as a result of their program experience (Exhibit 20). Both genders have improved their performance areas over last year's scores as indicated below with the girls maintaining the greater increase over both years.

**Gender Performance Improvement
Exhibit 21**

	2004 Performance Gap Score	2005 Performance Gap Score
Boys	+5.08	+5.33
Girls	+5.25	+5.64

Post-Program Test Scores – A Five Year Comparison

Performance by students over the past five years on the post-program test scores remains relatively constant. While there have been a few additions and a change in items over the past several years as the following chart demonstrates, the bulk of items are relatively unchanged. Comparisons in yearly performance are noticeable, particularly by academy-site location where differences are more pronounced. Academies are encouraged to look at their local post-program scores and compare them with the normative data presented in the following chart (Exhibit 22). Given the changes this year on some of the items and their degree of difficulty, the use by the practitioners should be carefully scrutinized. Overall, the scores are comparable.

Average Post-Program Knowledge Test Scores

Percent Correct³

Exhibit 22

Stem Item	2005	2004	2003	2002	2001
<i>A team works together to achieve a common goal.⁴</i>		99	99	98	97
Drinking alcohol may decrease our bodies ability to do simple things	88	81			
<i>Drinking alcohol may decrease our bodies' ability to do simple tasks.</i>			89	95	
Matter does not take up space	82	85	85	82	
The Earth is the closest planet to the sun	90	87	90	85	80
Negative actions may make it harder for you to reach your goals.	94	93	94	91	
Technology usually decreases in cost after many units are sold.	71	70	70	63	
What is the smallest particle of water?	49				
<i>Using teamwork results in?</i>		98	98	97	93
What force causes a rocket to launch?	53				
Which of the following is NOT a team?	99	95	96	93	89
Which of the following is NOT one of the states of matter?	69	66	68	59	60
<i>How thick is the earth's air?</i>		68	60	58	48
The earths atmosphere is how thick?	69				
Air presses down 15 pounds on every inch of our bodies. The reason we don't feel this is...	70	67	70	64	51
The air is composed mostly of what element?	63	63	56	53	46
Cockpit	95	96	97	94	91
Wing	93	95	94	93	91
Elevator	82	82	87	81	73
Rudder	82	82	86	78	72
If you are landing an airplane in a city that is 5,000 feet above sea level and your altimeter reads 5,500 feet above sea level what will your altimeter read when you are on the ground?	64				
<i>If you are landing in a city that is 5,000 feet above sea level what will your altimeter read when you are on the ground?</i>		57	58	52	48
To move an airplane's nose to the left, you would move the.....	56	60	58	53	
One reason an airplane is able to gain lift is because the air moving across the top of the wing.....	52	55	51	44	
Produced by air flow over the wings and the angle of the wing into the wind...	80	84	84	78	69
Forward movement produced by a propeller, jet, or rocket engine	84	85	84	79	74
Force that pulls an aircraft down	87	88	84	84	80
Slows the forward movement of an aircraft	80	82	80	76	71
What is Sir Isaac Newton's Law of Inertia?	67	66	70	60	49
If you threw two balls of different weight using the same amount of force....	77	82	84	77	67
<i>Our Solar System consists of how many planets?</i>			91	86	82
<i>Which planet is the smallest of all planets and the farthest away from the sun?</i>			97	95	93
<i>Which planet has 23 known moons and thousands of rings?</i>		90			
Which planet has more than 30 moons and thousands of rings?	89				
Which planet do humans believe they could inhabit in the future?	86	89			
The development of something new, or improvement of something already existing is...	78	79	80	68	50
If you have something you want to do, or something you want to be in life	96	95	96	93	89
Which of the following can destroy an individual's dreams?	94	95	95	92	89
Post-test score	23.28	24.25	24.42	22.78	22.78

³ Scores based on a 30 question test ⁴ Items in italics were removed from the assessment.

Student Attitudinal Results

1,955 students responded to the pre/post attitudinal assessment questionnaires. On a seven point scale from strongly disagree (1) to strongly agree (7), close to half of the items were rated positively at the 6+ level and the remaining items were above 5+ on the pre-program assessment (one item was a negatively-stated control item). The responses indicate that the students arrive in a positive state of anticipation and have high expectations about the potential experience.

Given the high scores at pre-program level, there would appear to be little room for improvement on the ratings. However, at the end of the program, the students almost universally moved further in the positive range. They particularly scored science, the military, and their futures on a very positive level. The average scores across all opinion items for the post-program assessment were significantly higher than the pre-program ratings. The majority of mean scores were above six and this included three post-only items and two central ratings (i.e., negatively structured items). The pre-test mean rating was 5.83 and the post-mean rating was 6.06 on a seven-point scale.⁵

While the ratings expressed were high on the program experience, the results were more supportive of individual student skills in moving the students closer to their personal ability to succeed in the academic environment, team building, self-actualization and trying new things. The DOD STARBASE curriculum emphasizes these personal skill attributes. Overall, the data demonstrates that the program obtains positive results in promoting the student's affirmative attitudes about themselves, their future aspirations, and their willingness to try new things as well as positive views towards math, science and technology. These results should encourage the DOD STARBASE practitioners that they are focusing on and producing the outcomes that the program was designed to achieve.

A Comparison of Highest Ranked Pre and Post-Program Attitudes
Exhibit 23

Stem Item	Pre-Program Attitudes	Post-Program Attitudes	% shift
You can learn a lot by trying things	6.46	6.57	+ .11
I think I can graduate from High School	6.40	6.54	+ .14
I like to make new things	6.30	6.36	+ .06
DOD STARBASE Instructors are kind and helpful	6.26	6.54	+ .28
I think about what I want to be when I grow up	6.24	6.37	+ .13
You can have fun working in a group	6.15	6.24	+ .09
I like to make new things	6.07	6.13	+ .06
Learning can be fun	6.04	6.12	+ .08
I enjoy coming to a military base	5.96	6.30	+ .34
I set goals	5.88	6.07	+ .19
You can accomplish a lot in a group	5.85	6.10	+ .25
I can make my dreams come true	5.84	6.23	+ .39

Post-program responses are similar to previous year assessments. The overall scores were very high and almost all of the items moved in a more positive shift by the end of the program as demonstrated in the highest ranked student views in the above Exhibit 23. Several of the scores in 2005 were the highest achieved over the past five years as illustrated in the following Exhibit 24.

⁵ The control items and the variability in the use of the scales indicate that the majority of the students understood the use of the scaling methodology.

**Ten Highest Post-Program Student Attitudinal Scores
Over A Five-Year Period
Exhibit 24**

Post-Program Attitude	2005 Mean	2004 Mean	2003 Mean	2002 Mean	2001 Mean
I like math	5.39	5.33	5.24	5.34	5.26
I am good at math	5.35	5.26	5.27	5.32	5.06
I like science	5.78	5.67	5.56	5.67	5.52
I am good at science	5.50	5.43	5.39	5.43	5.31
You can learn a lot by trying things out	6.57	6.51	6.48	6.49	6.36
I think I can graduate from High School	6.54	6.47	6.43	6.53	6.43
I make good decisions	5.79	5.73	5.62	5.76	5.58
I can make my dreams come true	6.25	6.17	6.16	6.07	6.14
At DOD STARBASE I learned a lot of things I can use	6.53	6.53	6.53	6.51	6.40
I like to make new things	6.36	6.29	6.29	6.36	6.36

This chart also illustrates that math and science items, along with positive views of personal responsibility for individual achievement, were the items that had the highest mean scores over the past five years.

Rank ordering attitudinal scores on a pre-post comparison will demonstrate some of the shifts in values as a consequence of program exposure. In addition, further shifts in rank order can be illustrated by examining changes from last year's rankings to this year's assessment.

There was some shifting in the rank order from the pre-to-post program assessment; however, the first seven, with the exception of one item, remained in that cohort in the post assessments as Exhibit 25 demonstrates. In last year's assessment, the first five attitudinal items were the same in coverage but differed in rank order. Overall, the rankings are relatively stable over the years. Interestingly, "You can accomplish a lot in a group" moved from eighth position last year to fourteenth this year, while still retaining one of the highest means score increases from the pre-program to the post assessment. It suggests that team-building concepts retain their positive value while remaining in the middle of the rankings.



Pre-Post Program Ranking and Mean Scores of Student Attitudinal Responses

Exhibit 25

Attitudinal Item	Pre-program		Post-Program		Shift +/-	04 Rank
	Rank	Mean	Rank	Mean		
You can learn a lot by trying things	1	6.46	1	6.57	+11	3
DOD STARBASE instructors are kind...	4	6.26	02	6.54	+28	01
I think I can graduate from HS	2	6.40	03	6.54	+14	04
At DOD STARBASE, I learned a lot of things that I can us	Post only		04	6.53	Post only	02
I think about what I want to be when I grow up	5	6.24	05	6.37	+13	05
I like to make new things	3	6.30	06	6.36	+06	10
Military people do lots of different things	7	6.11	07	6.30	+19	09
I am enjoying coming to a military base	10	5.96	08	6.3	+34	06
You can have fun working in a group	6	6.15	09	006.24	+09	07
I can make my dreams come true	13	5.84	10	6.23	+39	12
I would tell my friends to come to DOD STARBASE	Post only		11	6.15	Post only	11
I like to think of new ways to use things	8	6.07	12	6.13	+06	13
Learning can be fun	9	6.04	13	6.12	+08	14
You can accomplish a lot in a group	12	5.85	14	6.10	+25	08
I set goals for myself	11	5.88	15	6.07	+19	15
Military bases are fun	17	5.56	16	5.93	+37	16
I am good at following directions	14	5.71	17	5.79	+13	17
I make good decisions	15	5.66	18	5.79	+13	17
I like science	16	5.64	19	5.78	+14	19
Learning is easy for me	18	5.37	20	5.54	+17	20
I am good at science	19	5.32	21	5.50	+18	21
The military is a good place to work	21	5.12	22	5.40	+28	22
I like math	20	5.27	23	5.39	+12	23
I am good at math	22	5.10	24	5.35	+25	24
I do not think DOD STARBASE will help me do better in school	.23	2.22	25	1.97	Negative base	Post only
DOD STARBASE is boring	Post only		26	1.64	Post only	Post only

One area demonstrating the greatest shift in pre-post comparisons was the area in which the items related to military experience. Out of the top eight shift increases, four of the military items were included, as the following Exhibit 26 demonstrates.

Attitudes Towards Military Service

Exhibit 26

Attitudinal Item	Post-Program Rank	Shift is +/-
Military people do lots of different things	7	+19
I am enjoying coming to a military base	8	+34
Military bases are fun	16	+37
The military is a good place to work	22	+28

The DOD STARBASE experience at the military base appears to have a positive effect upon the students. The average total shift for the attitudinal items is +.183 and all the military related items are well above that average (+.295). This shift in attitudes is even more impressive when the effect of the item's high ranking reduces the potential range of shift from the pre-to-post program assessment. The key observation is that the students' experience on the base with its resources, military personnel, and their practical grounding in the use of math, science and technology is reflected in the pre-post shift assessment scores. The military base experience has a very positive effect upon student attitudes.

Academy location continues to have an effect on the shifts in ranking and ratings. Location produces the greatest variation in scores. Attitudinal rankings and shifts should be examined carefully by each academy to identify areas where they produce the desired or less-than desired attitudinal movement as compared to their sister academies. Another observation that continues to emerge is that personal desirability items rank higher than personal skill items as they have in past assessments e.g., "I think I can..." versus "I am good at..." However, this observation is relative since the rankings and ratings are quite high, especially in this year's assessment where the post test mean score is 6.06 out of a seven-point scale. The average mean rating in the pre-test was 5.83 and 6.06 on the post assessment producing an average shift of +.23. These scores were higher on all levels over last year as reflected in the following Exhibit 27.

Attitudinal Score Means and Shift for FY 2004 and 2005

Exhibit 27

Year	2004	2005
Pre-Test Mean Score	5.98	5.83
Post Test Mean Score	5.97	6.06
Score Shift (+/-)	+.19	+.23

Gender Comparisons

Last year we gave attention to research that gender differences matter in education. Females tended to have higher expectations in the utility of education for life goal achievement and they are currently closing the gap in performance scores. In addition, females are increasingly filling the student positions at the university levels in greater numbers. The numbers and intensity in gender differences continue both on a national and local level. During the last decade, females have increased their numbers of bachelor's degrees at three times the level of men, and more than twice the number at the master's level; at the doctorate level the women have increased their numbers at a rate of 42 percent as compared to 3 percent for the men. That suggests that females have confidence in education as the vehicle for career and life aspirations more than their male counterparts. The data from last year's DOD STARBASE student body reflected some of these differences. These differences are currently reflected in the 2005 assessment. In the knowledge/skills test, the girls demonstrated the greatest improvement at the end of the program with a +5.64 gap in average scores as compared to the boys at +5.33. This is double the performance gap over last year. The performance gap improved for both genders this year (see Exhibit 28).

Knowledge Means/Gap Scores by Gender (2004 and 2005)

Exhibit 28

Year	Gender	Pre-Test Means⁶	Post-Test Means	Individual Performance Gap
2005	Boys	18.27	23.60	+5.33
	Girls	17.29	22.93	+5.64
2004	Boys	19.45	24.53	+5.08
	Girls	18.72	23.97	+5.25

As with the FY '04 student assessment, the FY '05 data reflects the gender differentiation in their attitudinal assessment scores particularly with respect to the value of the educational process in achieving life goals. Girls were particularly more positive in interpersonal and personal attitudinal items; while the boys scored more positively on items regarding the military, math and science. Examination of the attitudinal differences within the current cultural context along gender lines is another challenge in content and delivery of the curriculum.

One of key themes of DOD STARBASE, “I can make my dreams come true,” came through as a dominant theme once again for both boys and girls with a high positive value. Both groups scored higher on this item than last year with a gap increase for boys at +.39 and girls at +.38 as compared to +.30 and +.31 respectively in FY 2004. One of the more interesting differences between the genders relates to the attitudes expressed as a consequence of experiences on a military base. On the pre-post performance gap, the girls had the two highest performance increases on those items in the attitudes assessment profile. Even more interesting is that the boys had high scores at the pre-post as well, but the gap was much greater on the part of the girls. The experiences on the military base had the greatest effect on the female student population (see Exhibit 29). This was an increase over last year’s scores.

Gender Differences on Military Base Experiences

Exhibit 29

Year	Gender	Pre Test Mean	Post-Test Mean	Gap
2005	Boys	6.04	6.29	+.25
	Girls	5.63	5.87	+.24
2004	Boys	5.88	6.30	+.42
	Girls	5.47	5.99	+.52

Overall, the differences and similarities between the girl and boy students at the end of the program were comparable to last year’s assessment. Most of the top ten ranked items from last year were included in this year’s rankings with the exception of, “I would tell my friends to come to DOD STARBASE,” which had almost the same mean score as in the past, but as scores for other items increased this item dropped out of the top ten.

The highest rating for both girls and boys was “you can learn a lot by trying things out” which was second and third by the respective genders last year. This item replaced “DOD STARBASE instructors are kind and helpful,” which dropped to second and fourth by the girls and boys in that order this year. Both agree on the inclusion of the top four items as reflected in the following chart (Exhibit 30). “I can make my dreams come true” emerged as the breakthrough value by the girls this year by a seventh ranking and a mean score of 6.33; while the boys added “you can accomplish a lot in a group” to their top ten.

⁶ Means are significantly different for males and females.

While “liking” and “being good at” math were the lowest ranked items for girls at the completion of the program, their gap improvement scores were relatively high when compared to the majority of items in the assessment. While the boys’ scores on those same items had higher mean scores, they were also the lowest ranked scores. The confidence level with math, which ranked high on a seven-point scale at the end of the program, remains an area that requires more attention for remedial action to demonstrate a commitment towards accomplishing one of the premier program goals of DOD STARBASE at a higher level.

**Post Program Rank Order Attitudinal Comparisons
by Gender
Exhibit 30**

Expressed Attitude	GIRLS		BOYS	
	Rank	Mean	Rank	Mean
You can learn a lot by trying things out	1	6.61	1	6.53
DOD STARBASE instructors are kind and helpful	2	6.60	4	6.48
I think I can graduate from high school	3	6.57	3	6.51
At DOD STARBASE, I learned a lot of things I can use	4	6.54	2	6.52
I think about what I want to do when I grow up	5	6.48	8	6.27
I like to make new things	6	6.38	5	6.35
I can make my dreams come true	7	6.33	1	6.13
I am enjoying coming to a military base	8	6.30	7	6.29
Military people do a lot of different things	9	6.27	6	6.33
You can have fun working in a group	10	6.26	9	6.22
You can accomplish a lot in a group	12	6.15	10	6.15

While the girls tend to express positive responses to interpersonal and pro-social items in the attitudinal assessment, the boys displayed some positive movement on those items. The girls on the other hand, displayed more positive responses to the military, math and science than in the past. The shifts between the genders appear to move towards each other in a more normative basis in this year’s assessment.

Prior Experiences with Military Personnel

Students’ prior experiences with the military, or the lack of it, have different attitudinal preferences at the start of the program. Of the 23 items, eleven were significantly different based on prior military exposure at the start of the program. At the conclusion of the program, only five items were significantly different between the two groups. The exposure of the students to the DOD STARBASE experience on the military base and its personnel brings all of the students closer together in their perceptions of themselves, the military and the program’s objectives.

Prior Knowledge of DOD STARBASE®

Students who had knowledge of the DOD STARBASE program prior to attendance in the program displayed different attitudinal patterns both in the pre- and the post- program assessments from those who had no knowledge of the program. About two-thirds of the students surveyed had prior knowledge. They displayed more positive ratings about the program and the military than those who did not have prior DOD STARBASE experience. Upon completion of the program, students who had prior knowledge maintained a higher positive attitude toward the program and the military. Overall, the two groups tended toward a more common view on the attitudinal items across the attitudinal parameters. Last year, there were very few differences between the two groups under study.

Age and Grade Impact on Attitudes

Age and grade analytical correlations display only minor differences on the attitudinal profile of the students. This observation is fairly consistent over prior assessments where small correlations indicate little thematic differences other than minor less positive ratings by older students. This same finding exists in this year's analysis.

Academy Location and Attitudes

No other factors produced greater variation across assessment variables than the location of the academies. Student perceptions and test scores displayed statistically significant variation across locations. There is more variation than commonality across those indicators. It is higher this year than last year when the same finding was demonstrated. Since the ratings and test scores remain positive and progressively so from the pre- to the post- assessments, it would suggest that each academy delivers the curriculum differently and with different intensity along with the natural differences that the variations that students carry with them to the program in demographic and aptitude. These variations by academy emphasize the need by each academy director to examine their assessment results with the normative data for clues on the differences in the desired delivery and coverage of the curriculum.

Regional Differences

Aggregating the attitudinal and test scores along regional lines i.e. five regions (East, South East, Midwest, South and West), tends to cancel out the differences that were so dramatic by academy location. Thus, differences and variations are more location-specific than region-specific. Since the DOD STARBASE program is organized along national service arm affiliations, and academy location dimensions, the usefulness of this factor in providing insight to comparative analysis with the broad statistical data of the Department of Education and other governmental agencies is more limited.

Military Service Branches

Aggregating the academies by military service branches does not produce statistically significant differences in attitudinal scores, which further reinforces the finding that academy specific location is the more highly differentiating factor in producing variations. The knowledge test, however, is significantly different across branches as demonstrated by the following mean scores on the knowledge test by service branch in the Post-Program Assessment.

Student Post Program Responses by Service Branch

Exhibit 31

Military Branch	Air Force (N=51)	AF Reserves (N=120)	Marines (N=126)	NG (N=1156)	Navy (N=460)
Knowledge Means Score	27.6	22.0	23.3	23.1	23.8
Standard Deviation	2.4	4.1	4.0	4.5	4.8

Caution should be taken with the small sample size for some of the service branches; however, the percent correct scores by individual test items are illustrative in an examination of the differences by branch. Some of the larger variations in scores are probably reflective of the differences in content delivery of the curriculum. While it is expected that some academies are teaching to the test on some of the more difficult items, the program does not appear to heighten the expectation of performance testing with the students, as some of the observational visitations indicate. Aside from the Air Force scores, the other branch units are relatively close in average score ratings with some fairly large differences in item scores.

Student Summary

The student assessment analysis continues to demonstrate positive and progressive results in knowledge and attitudinal performance. The enthusiasm by the students both before and after the program is completed remains high. This is encouraging in that students come into the program in a positive mode and graduate with an even more positive view about themselves and their ability to achieve their life goals. Variations along gender lines, location, prior military experience and prior DOD STARBASE knowledge provide insight into new challenges and emerging issues for program delivery, curriculum content and program emphasis.

Participant School Teacher Assessment

The assessment process has increasingly drawn on the classroom teachers, as expert observers of the DOD STARBASE program. The number of teachers responding this year is twice the number of last year's respondents. They are professional educators, knowledgeable about their students, DOD STARBASE methodologies and their students' environment. The participant teachers observe the behaviors, attitudes and skills of the students in all phases of the DOD STARBASE experience: prior to program entry, during the program delivery and when they return to their original classroom environment. Some even observe downstream results in subsequent years of the student's performance.

This year's teacher panel is an experienced professional group. Their average tenure is fifteen years plus, which is comparable to last year's teacher population. In all, 285 teachers responded to this year's assessment, of which two-thirds claimed the fifth grade as their focus and the remainder in grades contiguous (i.e. fourth and sixth). The vast majority of teachers have had prior visits to military institutions.

This year's assessment was similar to previous years. It was exceptionally positive in that 23 out of the 33 items were above the 6.00 level on a seven-point scale. Last year, with 31 items, the 6.+ ratings reached 10 and the year prior to that the score was 16. The average rating in FY'05 reached 6.18, as compared to ratings of 6.15 in FY '04 and 6.10 in FY '03. Overall, the rating demonstrates continued and positive improvement.

The 285 teachers rated the DOD STARBASE program positively for themselves, and their students. In particular, they indicate that the students' attitudes about school, the educational process and their own skills and abilities improved as a result of the experience. As in previous years, they use DOD STARBASE materials in their own classes.

There were two new items added to the teacher assessment ratings this year and they related to the future and downstream influence of the program. While all the items were highly rated, the lowest ranked item related to the students' interest in learning math, which at a 5.51 rating suggests that the emphasis on math by the program instructors may not be as intense as it is with the other core curriculum items, such as science, which was rated almost a full point higher at 6.41. Part of this may be a function of the fact that math is embedded in the other core curriculum concepts and is not singled out as a stand-alone, self-sustaining construct in the program.

The highest ratings for this year are similar to the ratings for the previous four years (see Exhibit 32) except for the two new items, which introduced themselves into the top echelon in this year's assessment.

Ten Highest Teacher Ratings Over A Five-Year Period

Exhibit 32

Stem Item	2005	2004	2003	2002	2001
DOD STARBASE instructors are good role models	6.72	6.75	6.82	6.73	6.77
DOD STARBASE experiences will be a positive influence in the future	6.70	new item			
Children enjoy sharing DOD STARBASE experience with others	6.68	6.74	6.70	6.77	6.81
DOD STARBASE reinforces positive behaviors I try to teach my students	6.67	6.71	6.68	6.72	6.81
DOD STARBASE is a positive influence on me	6.65	new item			
DOD STARBASE curriculum supports state standards	6.63	6.75	6.75	6.66	6.76
Students admire DOD STARBASE instructors	6.58	6.59	6.66	6.61	6.57
Students talk about DOD STARBASE long after program	6.53	6.57	6.66	6.64	6.73
Students enjoy being on military base	6.52	6.70	6.61	6.69	6.50
DOD STARBASE helps improve students use of science	6.52	6.40	6.48	6.37	6.66

DOD STARBASE rankings this year pushed the program's support of state standards to sixth position. It was first last year. The other items retained their relative position except for the new items. Overall, the ratings were high and the top rankings were retained.

Teachers who have more teaching experience indicate that their students appear to have more positive attitudes about learning and helping each other; teachers with less experience report that they desire to take advantage of DOD STARBASE resources in the classroom. The data also indicate that teachers and students at the lower grades appear more enthusiastic and talk about the program long after they return to normal class environments. None of these characteristics are inconsistent with other findings, nor unexpected.

Last year's assessment indicated that teacher assessments mirrored student perceptions about the DOD STARBASE experiences on several levels. This same observation holds true this year and along many of the same constructs. They appear to agree on: positive pro-social factors that include positive role models, an opportunity to build and maintain self-esteem and a "can-do" student attitude (see Exhibit 33).

Comparison of Teacher and Student Assessment of Student Pro-Social Attitudes

Exhibit 33

Student Statement	Mean Score	Teacher Statement	Mean Score
I set goals for myself	6.07	Students more confident in what they can accomplish	6.02
I can make my dreams come true	6.23	More goal oriented	5.78
I think about what I want to be when I grow up	6.37	More excited about the future	5.78
I think I can graduate from high school	6.54	More excited about future	5.92
You can have fun working in a group	6.24	More willing to cooperate	6.03
You can have fun working in a group	6.24	Better at working in a group	6.01
You can achieve a lot in a group	6.10	More willing to encourage each other	5.96

The ratings on teacher and student perceptions of the military are almost the same scores as last year. While both groups rate the military environment and experience at a very high level, with most scores at 6 or above, the teachers rate the impact on the students more favorably (see Exhibit 34).

Comparison of Teacher-Student Perception About The Military
Exhibit 34

Student Statement	Mean Score	Teacher Statement	Mean Score
Military people do lots of different things	6.30	Students appear more comfortable with military personnel	6.09
I enjoy coming to a military base	6.30	The students enjoyed being on a military base	6.52
Military bases are fun	5.93	The students enjoyed being on a military base	6.52
STARBASE instructors are kind and helpful	6.54	Students admire their STARBASE instructors	6.58
The military is a good place to work	5.40	STARBASE instructors are good role models	6.72

Teachers' perceptions of student attitudes and behaviors towards science are appreciably higher than the students on the same topic. While the teachers' assessment of the student's interest in math and how it can be applied are higher than the students, the gap is smaller. The perception of both in regards to following directions, the value of learning and making good decisions are similar. Student interests and comfort with the content of science material is consistently higher than math applications over the history of the program. Once again the sublimation of math as a core curriculum construct module and its embedded role in other modules may require re-examination of its position to change the current status of the ratings (see Exhibit 35).

Comparison of Teacher-Student Perceptions of Student Math/Science Interests
Exhibit 35

Teacher Statement	Mean Score	Student Statement	Mean Score
Students are interested in science	6.41	I like science	5.78
DOD STARBASE improves the student interest in science	6.52	I'm good at science	5.50
Students are more interested in learning about math	5.51	I like math	5.35
Students improve in their appreciation of how math can be applied....	5.97	I am good at math	5.35
Students better at following directions	5.64	I am good at following directions	5.79
More excited about learning	6.11	Learning can be fun	6.12
More comfortable about making decisions	5.78	I make good decisions	5.79

Summary of Teachers' Assessments

Teachers are strong advocates of the DOD STARBASE program. They consider that it achieves many of the shared objectives they have with the DOD STARBASE program and the educational process. They note the positive shifts in student attitudes, skill development, and their own confidence in the experience and the program's support in obtaining better performance in state standards in math, science and technology. Positive ratings were obtained in all areas related to student attitudinal development, curriculum methodologies and applications, team building and pro-social attitudes and the instillation of personal confidence. While they consistently rate the program positively over the years, they also pass positive judgment by their persistence in re-enlisting their student charges in the program each year – sometimes aggressively when the annual selection of schools and classes is determined. Their view that the program has a carry-over effect into their ongoing classes is also another vote of confidence. As a key observer and as a group who has a comprehensive view of the program's impact, their assessment has particular merit. One area that they note needs additional attention and re-examination is that of instilling greater interest, on the part of students, in math and its applications.



APPENDICES



Pre-Flight and Post-Flight Questionnaire

DOD STARBASE Teacher Survey

Military Volunteer Questionnaire

Director's Questionnaire

Directory of DOD STARBASE Academies

Listing of School Districts and Schools Served

Academy Time Line

Pre-Flight and Post-Flight Questionnaire

ASSIGNED STUDENT NUMBER									
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

My school grade is: 1
 2
 3
 4
 5
 6
 7
 8
 9

My age is: 0 0
 1 1
 2
 3
 4
 5
 6
 7
 8
 9

I am a: Boy
 Girl

I have met military people before coming to STARBASE. N No Y Yes

I heard about STARBASE before I knew I was coming here. N No Y Yes

I know someone that went through STARBASE before me. N No Y Yes

For each statement, fill in True if you agree or fill in False if you disagree.

True False

- T F 1. Drinking alcohol may decrease our bodies' ability to do easy things.
 T F 2. Matter does not take up space.
 T F 3. The Earth is the closest planet to the sun.
 T F 4. Negative actions may make it hard for you to reach your goals.
 T F 5. Technology usually decreases in cost after many units are sold.

6. What is the smallest particle of water?

- A a water molecule
 B a water atom
 C a water nucleus
 D a water drop

7. What force causes a rocket to launch?

- A lift
 B gravity
 C thrust
 D drag

8. Which of the following is NOT a team?

- A Fire Department
 B Police Force
 C Military Squad/Platoon
 D Wal-Mart customers

9. Which of the following is NOT one of the states of matter?

- A air
 B gas
 C liquid
 D solid

Wait for your instructor to read the directions and questions.

PLEASE DO NOT WRITE IN THIS AREA

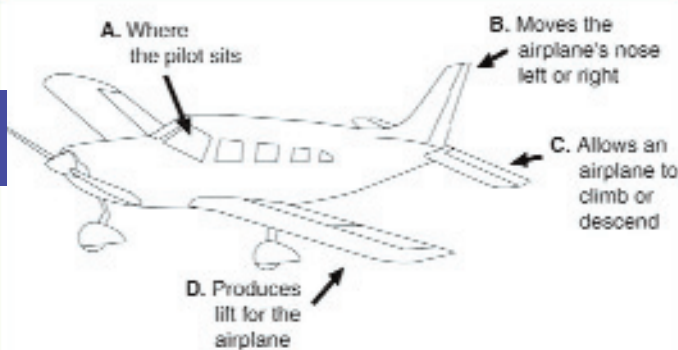


[SERIAL]

10. The earth's atmosphere is how thick?
- (A) About 10 miles
 - (B) About 25 miles
 - (C) About 40 miles
 - (D) More than 50 miles
11. Air presses down 15 pounds on every inch of our bodies. The reason we don't feel this pressure is....
- (A) The atmosphere cushions the weight of the air.
 - (B) Our bodies push out 15 pounds on every inch to equalize the pressure.
 - (C) We are inside a building, so we don't feel it.
 - (D) The air is thinner closer to the ground than up in space.
12. The air is composed mostly of what element?
- (A) hydrogen
 - (B) helium
 - (C) chlorine
 - (D) nitrogen

Match each airplane component with the letters from the diagram below.

58



A B C D

- (A) (B) (C) (D) 13. Cockpit
- (A) (B) (C) (D) 14. Wing
- (A) (B) (C) (D) 15. Elevator
- (A) (B) (C) (D) 16. Rudder

Select the best answer by filling in the appropriate circle.


17. If you are landing an airplane in a city that is 5,000 feet above sea level and your altimeter reads 5,500 feet, how many feet are you above the ground?
- (A) 500 feet
 - (B) 1,000 feet
 - (C) 5,000 feet
 - (D) 5,500 feet

18. To move an airplane's nose to the left, you would move the....
- (A) rudder right
 - (B) rudder left
 - (C) left flap
 - (D) right flap
19. One reason an airplane is able to gain lift is because the air moving across the top of the wing....
- (A) exerts less pressure than the air moving along the bottom.
 - (B) exerts more pressure than the air moving along the bottom.
 - (C) exerts the same amount of pressure as air moving along the bottom.
 - (D) does not exert any pressure on the wing.

Match each force of flight with the letters from the picture below.

A. Lift

▲



A B C D

- (A) (B) (C) (D) 20. Produced by air flow over the wings and the angle of the wing into the wind.
- (A) (B) (C) (D) 21. Force that pulls an aircraft down.
- (A) (B) (C) (D) 22. Forward movement produced by a propeller, jet, or rocket engine.
- (A) (B) (C) (D) 23. Slows the forward movement of an aircraft.

24. What is Sir Isaac Newton's Law of Inertia?
- (A) Unless acted upon by an outside force, an object at rest will stay at rest and an object in motion will stay in motion.
 - (B) The more force given to an object, the more it will accelerate.
 - (C) The greater the mass of the object, the greater the force needed to accelerate it.
 - (D) For every action, there is an equal and opposite reaction.

25. If you threw two balls of different weight using the same amount of force the....
- A heavier ball would go the farthest.
 - B lighter ball would go the farthest.
 - C two balls would go the same distance.
 - D heavier ball would go twice as far as the lighter ball.
26. Which of the following planets has more than 30 moons and thousands of rings?
- A Mercury
 - B Pluto
 - C Saturn
 - D Earth
27. Which planet do humans believe they could inhabit in the future?
- A Mercury
 - B Mars
 - C Saturn
 - D Neptune
28. The development of something new or improvement of something already existing is....
- A gravity.
 - B inertia.
 - C technology.
 - D law.
29. If you have something you want to do, or something you want to be in life, you should....
- A wish for it really hard in order to make it come true.
 - B watch other people on TV to see how they do it.
 - C do something everyday that will help you reach your goal.
 - D wait for someone to give you what you want.
30. Which of the following can destroy an individual's dreams?
- A setting goals
 - B using illegal drugs
 - C obtaining an education
 - D practicing a skill

Wait for your instructor to read the directions and questions.

What is your opinion?



Strongly Disagree
(1)

Disagree
(2)

Slightly Disagree
(3)



(?) Uncertain
(4)

Slightly Agree
(5)

Agree
(6)



Strongly Agree
(7)

1. I like math.	1	2	3	4	5	6	7
2. I am good at math.	1	2	3	4	5	6	7
3. I like science.	1	2	3	4	5	6	7
4. I am good at science.	1	2	3	4	5	6	7
5. I am good at following directions.	1	2	3	4	5	6	7
6. Learning is easy for me.	1	2	3	4	5	6	7
7. Learning can be fun.	1	2	3	4	5	6	7
8. You can learn a lot by trying things.	1	2	3	4	5	6	7
9. I think I can graduate from High School.	1	2	3	4	5	6	7
10. Military people do lots of different things.	1	2	3	4	5	6	7
11. I set goals for myself.	1	2	3	4	5	6	7
12. I make good decisions.	1	2	3	4	5	6	7
13. STARBASE Instructors are kind and helpful.	1	2	3	4	5	6	7
14. I can make my dreams come true.	1	2	3	4	5	6	7
15. You can accomplish a lot in a group.	1	2	3	4	5	6	7
16. You can have fun working in a group.	1	2	3	4	5	6	7
17. I like to make new things.	1	2	3	4	5	6	7
18. I think about what I want to be when I grow up.	1	2	3	4	5	6	7
19. The military is a good place to work.	1	2	3	4	5	6	7
20. I am enjoying coming to a military base.	1	2	3	4	5	6	7
21. Military bases are fun.	1	2	3	4	5	6	7
22. I do not think STARBASE will help me do better in school.	1	2	3	4	5	6	7
23. I like to think of new ways to use things.	1	2	3	4	5	6	7
Post STARBASE							
24. At STARBASE, I learned a lot of things that I can use.	1	2	3	4	5	6	7
25. STARBASE is boring.	1	2	3	4	5	6	7
26. I would tell my friends to come to STARBASE.	1	2	3	4	5	6	7

Thank You!

PLEASE DO NOT WRITE IN THIS AREA



[SERIAL]

DOD STARBASE Teacher Questionnaire

All information gathered by this questionnaire is for development purposes. The information you provide will help us to continue to improve the STARBASE program. Please provide honest feedback about various issues presented in this questionnaire. Completed questionnaires will be tallied by an agency outside of your school and outside of the STARBASE. Individual responses will be strictly confidential and will not be released to your school or to any STARBASE representative. We are collecting information from all of the STARBASE programs. This questionnaire contains a total of 33 questions and should take less than 10 minutes to complete. Please do not fold.

Thank you.

The STARBASE location I work with is: _____ I teach grade: _____

Did you ever visit a military base prior to your current STARBASE involvement?

- 1 Never, this is my first STARBASE program
- 2 Yes, for prior STARBASE programs only
- 3 Yes, for activities not related to STARBASE
- 4 Yes, for STARBASE and non STARBASE activities
- 5 Other _____

I have been involved with STARBASE for (# of years and months): _____ yrs. _____ mos.

I have been a Teacher for (# of years): _____

Respond to the following statements by completely darkening the appropriate numbered circle next to each item.

After attending STARBASE, the students appear.....

	Disagree							Agree
1. ... more interested in learning about math.....	1	2	3	4	5	6	7	
2. ... more interested in learning about science.....	1	2	3	4	5	6	7	
3. ... more willing to try new things.....	1	2	3	4	5	6	7	
4. ... better at following directions.....	1	2	3	4	5	6	7	
5. ... better at working in groups.....	1	2	3	4	5	6	7	
6. ... more confident about what they can accomplish.....	1	2	3	4	5	6	7	
7. ... more goal oriented.....	1	2	3	4	5	6	7	
8. ... more comfortable with military personnel.....	1	2	3	4	5	6	7	
9. ... more comfortable making decisions.....	1	2	3	4	5	6	7	
10. ... more excited about their futures.....	1	2	3	4	5	6	7	
11. ... more excited about learning.....	1	2	3	4	5	6	7	
12. ... more likely to encourage each other.....	1	2	3	4	5	6	7	
13. ... more willing to cooperate with each other.....	1	2	3	4	5	6	7	

Please go on to the next section.

Please indicate your level of agreement with these statements.

	Disagree							Agree						
1. After STARBASE, the students ask more questions about technology.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2. STARBASE has helped to improve the students' understanding of science.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3. STARBASE has helped to improve appreciation of how math can be applied to a variety of situations.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4. STARBASE has helped to improve the climate for participative learning in the classroom.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5. Because of my participation in STARBASE, I am more comfortable with military personnel.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6. The students talk about STARBASE long after the program has ended.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
7. STARBASE reinforces many positive behaviors I try to teach my students.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8. I use the resources STARBASE provides to teachers.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
9. I would like more STARBASE resources to take back to my classroom.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
10. My principal is a strong advocate of STARBASE.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
11. My School Board is very involved in supporting STARBASE.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
12. The STARBASE Instructors are good role models for the students.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
13. I have included many STARBASE resources in my curriculum.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
14. The students admire their STARBASE Instructors.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
15. The STARBASE curriculum supports our state standards.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
16. The children enjoy sharing their STARBASE experiences with others.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
17. Parents are delighted that their children are participating in STARBASE.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
18. The students enjoyed being on a military base.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
19. The STARBASE experience will be a positive influence on students in coming years.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
20. The STARBASE experience has been a positive influence on me personally.	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Thank you!

Please mail to: **The SPECTRUM Group
11 Canal Center Plaza, Suite 103
Alexandria, VA 22314
Attn: Deb Ovenden**

If you have any questions, please call 1-703-683-4222

Military Volunteer Questionnaire

Overview

This brief questionnaire is part of a general assessment on the effectiveness of the DOD STARBASE program that will be presented in an Annual Report to Congress. Your experiences and observations are an important part of the assessment. While the evaluation focuses primarily on student performance and attitude changes, the input that you can provide is another dimension of the contribution made by military personnel to this program. Your candid response and timely cooperation is appreciated. Please send your response by October 17, 2005, to: DOD STARBASE Program, The Spectrum Group, 11 Canal Center Plaza Suite 103, Alexandria, VA 22314 or email to: dovenden@spectrumgrp.com.

Survey

1. Name: (optional) _____

2. Rank: _____

3. Branch of service: _____

4. STARBASE site: _____

5. Activity in support of the program (check all that apply):

Tour Guide

Teacher Aide

Presenter

Facilitator of Experiments/display e.g. rockets, computer simulator, etc.

Administrative

Other(s) _____

6. Estimated hours you committed to DOD STARBASE in FY'04 (October 1, 2004 – September 30, 2005): _____

7. Do you think DOD STARBASE influences the community's perception of the military?

Yes No If yes, in what way? _____

8. Has the work you have contributed to DOD STARBASE affected you? Yes No If yes, in what way? _____

9. Has the military made a difference in the community as the sponsor of the program?

Yes ___ No ___ If yes, in what way(s)? _____

10. Do you know of any feedback from the community, military personnel, or others?

Yes ___ No ___ If yes, from what source and what were the responses? _____

11. If available, will you volunteer your time in the future? Yes ___ No ___

Comments: _____

12. Please make any comments, suggestions and/or recommendations for the program.

Director's Questionnaire

Overview

It is time again to update the information requested for the 2005 DoD STARBASE Annual Report to Congress. The data not only documents your Academy's current operational activities but it also identifies key issues, challenges, and future concerns that potentially affect future program development and operational concerns. All information requests relate to Federal FY'05 (October 1, 2004-September 30, 2005) activities unless otherwise indicated. Your cooperation and timely response is essential to the successful completion of this requirement to Congress by the end of this calendar year. Before returning the questionnaire, review each item for completeness and/or explain the data's unavailability. The due date is on or before October 17, 2005. Send to: DOD STARBASE Program, The Spectrum Group, 11 Canal Center Plaza Suite 103, Alexandria, VA 22314 or email to: dovenden@spectrumgrp.com

Site Information

1. Please state the following information as you would like it to appear in the Annual Report and in participant directories:

Name of Site: _____

Military Location: _____

Address: _____

Telephone Number: _____

DSN Line: _____

Fax Number: _____

Email Address: _____

Website Address: _____

Academy Statistics

2. FY'05 Statistics:

Type of Program	Number of Schools Served *	Number of Classes Held	Number of Students Served
5-day			
4-day			
Other			

* Please attach names of schools served for longitudinal study purposes.

Briefly describe the type of program(s) taught outside the 4 or 5-day program, if applicable.

Note: Questions 3 through 9 refer only to 4 or 5-day on-base programs.

3. FY'05 Average class size: _____

4. FY'05 Grade Level(s) Served (Check all that apply):

K	1	2	3	4	5	6	7	8	9	10	11	12

5. FY'05 Demographics (Total numbers):

Females Served	Males Served

6. FY'05 Ethnicity (Total numbers):

Black/ African American	Asian/ Pacific Islander	Caucasian	Hispanic or Latino	Multi-Race	Indian/ Alaska Native	Other

7. Total Number of Students with Learning Disabilities (include mentally and physically challenged): _____

8. Total Number of Students with Free/Reduced Lunch Program: _____

9. FY'05 Locally Administered Pre/Post Test Raw Data:

Number of Test Questions	Average Number of Answers Correct - Pre test	Average Number of Answers Correct - Post Test

Example:

Name of Student	# of Test Questions	# Answers Correct Pretest	# Answers Correct Post Test
Tom Smith	20	10	20
Sarah Toms	20	8	15
Sally Roberts	20	12	18
John Black	20	6	12
Total Sum of Scores:		36	65
Average: (Sum of scores divided by number of scores)		9.0	16.25

Curriculum

10. Check all the areas of instruction that you currently cover in your program. Then indicate out of the 20-25 required hours, the estimated hours devoted to each topic.

Curriculum Topic	Current Program	Estimated Hours
Newton's Law of Motion		
4 Forces of Flight		
Bernoulli's Principle		
Model Rocketry		
Aircraft Control		
Properties of Air		
Development and Innovative Use of Technology		
Properties of States of Matter		
Flight Simulation		
Space Exploration		
Goal Setting		
Teamwork		
Avoiding Substance Abuse		
Other (specify)		

If topic is embedded in other topical areas, please explain. _____

Is this different from last year? Yes ___ No ___

11. Out of the 20-25 required hours per class, indicate the estimated number of hours spent at each location:

Location	Hours
Military	
Non-military	

12. Do you have an instructor-training program? Yes _____ No _____ If yes, please describe.

13. Do you provide training to local teachers? Yes _____ No _____

If yes, please check all that apply.

Continuing Education Workshops

Local, State, National Conference Workshops

Student-Teacher Workshops

Experiential Training for Student Teachers

Methods Courses through Local Universities

Other (specify)

14. How often did you share materials/lessons-learned with other academies?

More than once a week

About once a week

Once or twice a month

Less than once a month

Never

15. Do you provide additional curriculum materials to schools/teachers? Yes ___ No ___

If yes, were they used? Yes ___ No ___ Not Sure ___

If yes, what materials did you provide?

16. **New Sites Only:** To what degree did you borrow materials, teaching aids, curriculum, and other program operation procedures from other DOD STARBASE programs?

Almost all the material

A majority of the material

Almost half

A fair amount

Very little

17. Identify materials that are new this year that other academies may find useful upon review:

Operations

18. FY'05 Staffing (Check full-time. For part-time, estimate hours/week):

Position	Number	Full-Time	Part-Time (Hours/week)	State/Federal/ Contract/Non- profit Employee
Director				
Deputy Director/Program Instructor				
Program Instructor				
Secretary/Administrative				
Assistant				
Other (specify)				

19. FY'05 Personnel funded by Non-DOD cash donations. If none, please write "N/A":

Position	Total Number

20. Staff Retention (Staff changes from last reporting cycle) If none, please write "N/A":

Position	Reason for Departure

21. Volunteer Activity (Please estimate the number of volunteers and volunteer hours committed in FY'05):

Volunteer Group	Number of Volunteers	Number of Hours
Military		
Teachers		
Parents		
Other (Specify)		

22. Current program service area (Please check one):

Local School District (within 20 mile radius)	Countywide (between 20-50 mile radius)	Statewide	State and Beyond	Other (specify)

If other, please explain. _____

23. What support services, in whole or in part, did the participating schools provide?

(Check all that apply)

- | | | |
|--|---|------------------------------------|
| <input type="checkbox"/> Transportation | <input type="checkbox"/> Teachers as monitors | <input type="checkbox"/> Lunches |
| <input type="checkbox"/> Duplication/printing | <input type="checkbox"/> Educational supplies | <input type="checkbox"/> Graphics |
| <input type="checkbox"/> Audio visual equip | <input type="checkbox"/> Communications | <input type="checkbox"/> Computers |
| <input type="checkbox"/> Other (specify) _____ | | |

24. Have you had a real property audit of your program over the past three years? Yes ___ No ___

If yes, please specify the year and auditing agent. _____

25. Do you have a real property listing on file? Yes ___ No ___

If yes, does it include all non-expendable property or just property at a certain dollar amount?

26. Have you had a fiscal audit of your program in the last three years? Yes ___ No ___

If yes, please specify the year and auditing agent. _____

27. Do you give DOD STARBASE presentations to community groups? Yes ___ No ___

If yes, please list which groups and how often.

28. Do you have a non-profit organization? Yes ___ No ___

If yes, what is the function of the board of directors? (Check all that apply)

- Selection of schools
- Review of potential staff personnel
- Budget planning and review
- Review of recommendation of subcontractor relationships
- Grant writing/submissions
- Program planning/annual review
- Fundraising/marketing of program
- Compliance with DODI policies and review
- Other (specify)

29. Review the following list of core documents. Please check the status in the appropriate column.

Documents	On File at Site	N/A
Staff/Students Schedules		
Curriculum Outline		
Local/State Testing Data		
FY'04 Strategic Plan/Program Goals		
Memorandums of Understanding (MOU)		
Minutes of Board Meetings		
Bylaws and Articles of Incorporation		
DODI Exemption Letter(s)		
Voluntary Participation Form		
Hold Harmless Agreement		
Emergency Health Form		
Public Affairs Release		
Incident Report Form		
Parent/Guardian Acknowledgement of Responsibility for Property Damage		

30. Over this past program year, have there been any events that have had an effect on your program's operation (e.g., Homeland Security, Iraq information, staff turnover, weather, etc)?

Yes ___ No ___ If yes, please briefly explain the event(s) and its effect on the program.

If yes, will the event have residual consequences into the federal FY'05 program year?

Please explain.

Financial Information

31. FY'05 Academy Income:

Total Income (\$)	Federal Funds (\$)	Other (\$)

32. FY'05 Supplemental Income (additional cash income beyond DOD Budget Allocation):

Source Of Funding	Amount (\$)
Grants	
Donations	
State	
Other (specify)	
Total:	

33. FY'05 DOD Expenditures :

Category of Expenditure	Amount Expended (\$)
Staff	
Facilities/ Furnishings	
Transportation/Travel	
Supplies	
Equipment	
Contract Services	
Communications/Outreach	
Total:	

Staff	Total Amount Expended (\$)
Program Director	
Deputy Director/Program Instructor	
Program Instructor	
Office Manager	
Other	
Total:	

34. FY'05 Supplemental Expenditures (non-DOD funds expenditures):

Category of Expenditure	Amount Expended (\$)
Staff Salaries	
Staff Development	
Facilities/ Furnishings	
Transportation/Travel	
Supplies	
Equipment	
Services	
Program/Curriculum Development	
Communications/Outreach	
Other	
Total:	

35. FY'05 In-kind Donations (non-cash gifts):

Donation	Source of Donation	Estimated Dollar Value
Facilities		
Furnishings		
Supplies		
Transportation/Travel		
Services		
Equipment		
Communication/Outreach		
Other		

36. FY'06 Supplemental Income (Provide best estimate):

Source Of Funding	Amount (\$)
Grants	
Donations	
State	
Other (specify)	
Total:	



Directory of DOD STARBASE® Academies

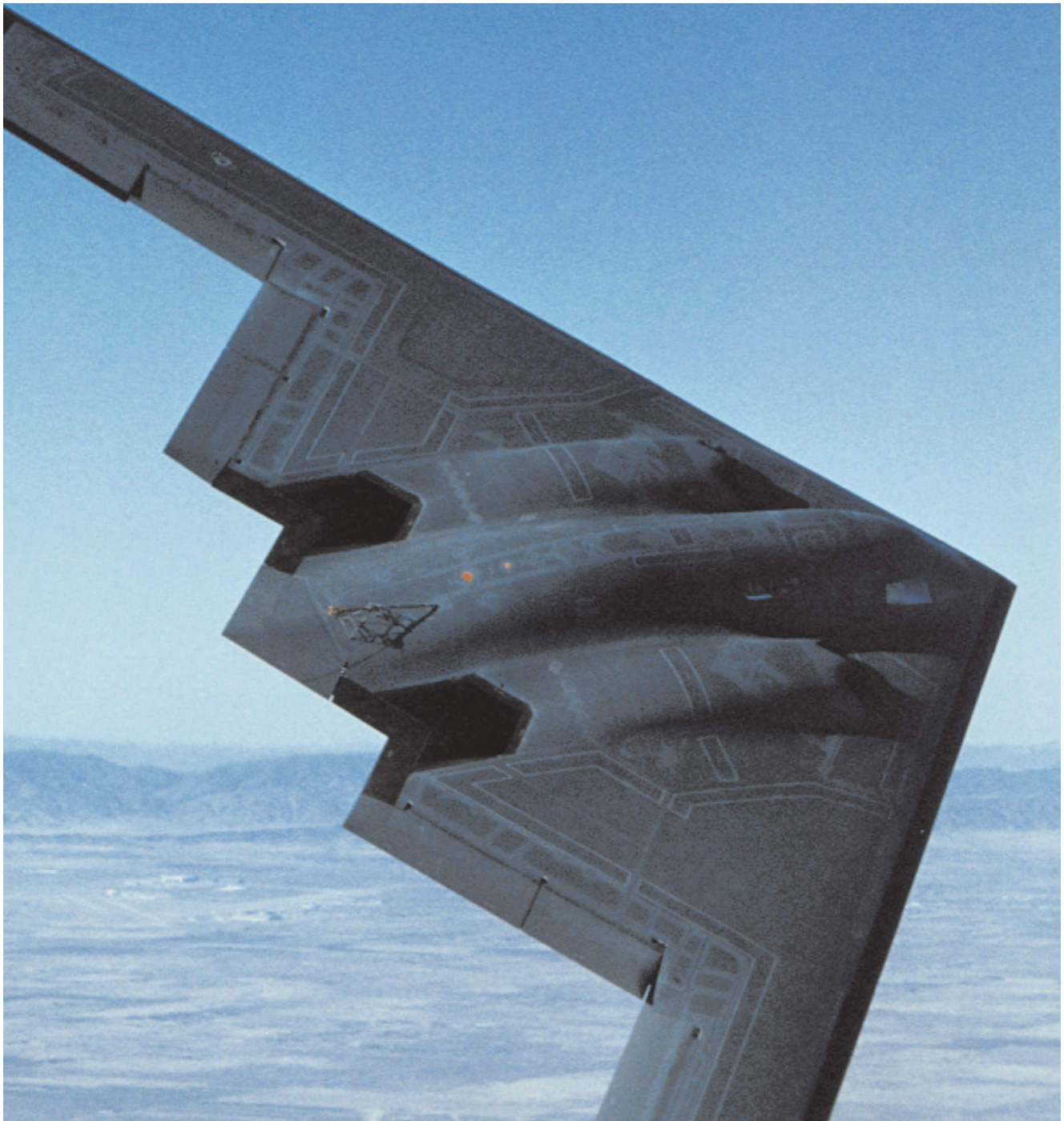
STATE	CITY	MILITARY INSTALLATION	DIRECTOR	EMAIL ADDRESS	PHONE	MAILING ADDRESS
Alabama	Montgomery	Maxwell Air Force Base	Chip Haughton	marvin.haughton@maxwell.af.mil	Phone: 334.953.4821 Fax: 334.953.4626 DSN: 493.4821	STARBASE Maxwell 42 MSS/STR 60 West Maxwell Blvd (Bldg. 835) Maxwell AFB, AL 36112
Alaska	Anchorage	Fort Richardson	Shanna McPheters	smcpheters@ngchak.org	Phone: 907.384.6351 Fax: 907.384.6350	STARBASE Alaska Camp Carroll Bldg. 60730 P.O. Box 5185 Fort Richardson AK 99505-5185 www.akmya.org/starbase
Arizona	Tucson	Davis-Monthan Air Force Base	Margaret Cole	Margaret.cole@dm.af.mil	Phone: 520-288-7827 DSN: 228-7827	STARBASE Arizona Davis-Monthan AFB 5260 E. Granite St. Tucson, AZ 85707
California	Sacramento	California National Guard Armory	John Lamb	castarbase@sbcglobal.net	Phone: 916.387.7405 Fax: 916.387.8309	California STARBASE 8400 Okinawa St. Suite 1, Sacramento, CA 95828-0904
California	San Diego	Naval Station San Diego, Training Support Center	Nicholas Jordan	nicholas.jordan@navy.mil	Phone: 619.556.7589 Fax: 619.556.9310 DSN: 922.7589	STARBASE Atlantis San Diego 3975 Norman Scott Road San Diego, CA 92136-5589
Connecticut	Hartford	Bradley Air National Guard Base	Bob Gillanders	BOBCMS86@aol.com	Phone: 860.728.0090 Fax: 860.728.3292	STARBASE Hartford (Warthog) 251 Maxim Road Hartford, CT 06114STATE
Connecticut	Waterbury	Bradley Air National Guard Base	Bob Gillanders	BOBCMS86@aol.com	Phone: 203.575.8272 Fax: 203.575.8018	STARBASE Waterbury (Warthog) 750 Chase Parkway Waterbury, CT 06708
	District of Columbia	Washington Navy Yard	Dr. Judy Kalish	judy.kalish@navy.mil	Phone: 202.433.0531 Fax: 202.433.0534 DSN: 288.0531	STARBASE Atlantis Washington Navy Yard Bldg. 21, Suite 102 645 Rickover Street Washington, DC 20374-5001
Florida	Jacksonville	Florida Air National Guard 125th Fighter Wing	Greg Stritch	Starbase.fl@fjack.ang.af.mil	Phone: 904.741.7320 Fax: 904.741.7324 DSN: 641-7320	STARBASE Florida 125th Fighter Wing 14300 Fang Drive Jacksonville, FL 32218-7933
Florida	Pensacola	Naval Air Station Pensacola Naval Air Station Whiting Field	Donna Eichling	deichling@aol.com	Phone: 850.452.8287 Fax: 850.452.8288 DSN: 922.8287	NAS Pensacola STARBASE Atlantis 6490 Saufley Field Road Pensacola, FL 32509-5237 http://www.cnet.navy.mil/ community/starbase/sa.html
Georgia	Dobbins	Dobbins Air Reserve Base	Bill Wells	Bill.wells@ga.ngb.army.mil	Phone: 678.655.4667 Fax: 678.655.4667 DSN: 625.4667	Peach State STARBASE 1484 Patrol Road, Bldg. #934 Dobbins ARB, GA 30069
Georgia	Warner Robins	Robins Air Force Base	Wesley Fondal Jr.	Wesley@starbaserobins.org	Phone: 478.926.1769 Fax: 478.926.1770 DSN: 468.1769	STARBASE Robins 1941 Heritage Blvd. P.O. Box 2469 Warner Robins, GA 31099 www.starbaserobins.org
Hawaii	Pearl Harbor	Naval Submarine Training Center Pacific	Crystal Trujillo	crystal.trujillo@navy.mil	Phone: 808.472.7389 Fax: 808.472.9923 DSN: 315.472.7389	STARBASE Atlantis Hawaii Naval Submarine Training Center, Pacific 1130 Bole Loop, Bldg. 39 Fort Island Pearl Harbor, HI 96860

STATE	CITY	MILITARY INSTALLATION	DIRECTOR	EMAIL ADDRESS	PHONE	MAILING ADDRESS
Illinois	Great Lakes	Naval Station Great Lakes	Steve Surbrook	steven.surbrook@navy.mil	Phone: 847.688.2509 Fax: 847.688.3136 DSN: 792.2509	STARBASE Atlantis Great Lakes 2221 Mac Donough Dr Bldg. 617 Rm. 122 Great Lakes, IL 60088
Kansas	Topeka	Forbes Field / KARNG Armory	Jeff Gabriel	Jeff.Gabriel@kstope.ang.af.mil	Phone: 785.861.4709 Fax: 785.861.4127 DSN: 720.4709	STARBASE Topeka and Kansas City 5920 SE Coyote Dr. Topeka, KS 66619-5370 www.kansasstarbase.org
Kansas	Wichita	McConnell Air Force Base/KSTRI	Jeff Gabriel	Jeff.Gabriel@kstope.ang.af.mil	Phone: 785.861.4709 Fax: 785.861.4127 DSN: 720.4709	STARBASE Wichita and Salina 52870 Jayhawk Dr. McConnell AFB, KS 67221 www.kansasstarbase.org
Louisiana	Barksdale	Barksdale Air Force Base	Sheila Schencke	sheila.schencke@ barksdale.af.mil	Phone: 318.456.1315 Fax: 318.456.1151 DSN:781.1315	STARBASE Louisiana 1000 Davis Ave. E. Barksdale AFB, LA 71110 https://26ows.barksdale.af.mil/starbase/
Louisiana	New Orleans	Jackson Barracks	Cheryl Arbour	Cheryl.arbour@la.ngb.army.mil	Phone: 504.278.6606 Fax: 504.278.6599	Pelican State STARBASE 102 C Jackson Barracks New Orleans, LA 70146
Maine	Bangor	Maine Air National Guard Base	Michele Barnes	michele.barnes@ mebngr.ang.af.mil	Phone: 207.990.7505 Fax: 207.990.7150 DSN: 698.7505	STARBASE Maine 105 Maineiacs Ave Suite 510 Bangor, ME 04401
Michigan	Detroit	Selfridge Air National Guard Base	Barbara Koscak	mistarbase@aol.com	Phone: 586.307.4884 Fax: 586.307.5751 DSN: 273.4884	STARBASE Detroit PO Box 450082 27310 D Street Selfridge ANG Base, MI 48045
Michigan	Harrison Township	Selfridge Air National Guard Base	Barbara Koscak	mistarbase@aol.com	Phone: 586.307.4884 Fax: 586.307.5751 DSN: 273.4884	STARBASE One PO Box 450082 27310 D Street Selfridge ANG Base, MI 48045
Minnesota	St Paul	Minnesota National Guard Base 133rd Airlift Wing	Kim Van Wie	kvanwie@starbasemn.org	Phone: 612.713.2530 Fax: 612.713.2540 DSN: 783.2530	STARBASE Minnesota 659 Mustang Ave St Paul, MN 55111 www.starbasemn.org
Mississippi	Gulfport	Naval Construction Training Center	Shelley Bard	shelley.bard@navy.mil	Phone: 228.871.3735 Fax: 228.871.3468 DSN: 868.3735	STARBASE Atlantis Gulfport Naval Construction Training Center 5510 CBC 8th St. Gulfport MS 39501
Mississippi	Meridian	Naval Air Station Meridian Choctaw Indian Reservation	Gordon Harman	gordon.harman@navy.mil	Phone: 601.679.3809 Fax: 601.679.3812 DSN: 637.3809	STARBASE Atlantis Meridian NAS 266 Rosenbaum Ave. NAS Meridian, MS 39309
Nebraska	Lincoln	Lincoln National Guard Base	Chuck Lewis	chuck_lewis@alltel.net	Phone: 402.309.1044 Fax: 402.309.1045 DSN: 279.1044	STARBASE Nebraska Rm. 201 Penterman Armory 2400 NW 24th St. Lincoln, NE 68524 www.starbasene.org
New Mexico	Albuquerque	Kirtland Air Force Base	Gerald Mora Ronda Cole	Gerald.mora@kirtland.af.mil Ronda.Cole@kirtland.af.mil AFSTARBASELaLuz@ kirtland.af.mil	Phone: 505.846.8042 Fax: 505.846.8932 DSN: 246.8042	AF STARBASE La Luz Kirtland Air Force Base PO Box 9556 Albuquerque, NM 87119

STATE	CITY	MILITARY INSTALLATION	DIRECTOR	EMAIL ADDRESS	PHONE	MAILING ADDRESS
North Carolina	Charlotte	North Carolina Air National Guard 145th Airlift Wing	Barbara Miller	Barbara.miller.ctr@ ncchar.ang.af.mil	Phone: 704.398.4819 Fax: 704.398.4822 DSN: 213.4819	STARBASE North Carolina- Charlotte 5225 Morris Field Dr. Charlotte, NC 28208-5797
North Carolina	Kure Beach	National Guard Training Center Kure Beach	Barbara Miller Tom Simmons	Barbara.miller.ctr@ ncchar.ang.af.mil Tom.simmons@nc.ngb.army.mil	Phone: 910.251.7332	STARBASE Fort Fisher 116 Air Force Way Kure Beach North Carolina 28449 www.starbasenc.org
Ohio	Wright-Patterson	Wright-Patterson Air Force Base	Kathy Schweinfurth Connie Jensen	Kathleen.schweinfurth@ wpafb.af.mil conniestarbase@kascable.com	Phone: 937.255.0692 Fax: 937.904.8622	STARBASE Wright-Patt Det. 1 AFRL/WSC 2130 8th St. Wright-Patterson AFB, OH 45433 http://edoutreach. wpafb.af.mil
Oklahoma	Oklahoma City	Will Rogers Air Natl. Guard Base 137th Air Wing	Bill Scott	Bill.scott@oktuls.ang.af.mil	Phone: 450.686.5950 Fax: 450.686.5229 DSN: 720.5950	STARBASE Oklahoma (Oklahoma City) 137th Fighter Wing Will Rogers Air National Guard Base 5901 Air Guard Dr. Oklahoma City, OK 73179 www.starbaseok.org
Oklahoma	Tulsa	Tulsa Air National Guard Base Native American Initiative	Bill Scott	bill.scott@oktuls.ang.af.mil	Phone: 918.833.7757 Fax: 918.833.7769 DSN: 894-7757	STARBASE Oklahoma (Tulsa) 138th Fighter Wing Tulsa Air National Guard Base 4200 N. 93rd East Ave. Tulsa, OK 74115 www.starbaseok.org
Oregon	Klamath Falls	Kingsley Field 173rd Fighter Wing	Marsha Beardslee Col Rick Williams	starbase2@earthlink.net Richard.Williams@ or.ngb.army.mil	Phone: 541.885-6472 Fax: 541.885.6196 DSN: 830.6472	STARBASE Kingsley 173rd FW/STARBASE 302 Bong Street, Suite 19 Klamath Falls, OR 97603 www.starbasekingsley.org
Oregon	Portland	Jackson Armory/ Portland Air National Guard Base	Marilyn Sholian Col Rick Williams	starbasepdx@mil.state.or.us Richard.Williams@ or.ngb.army.mil	Phone: 503.335-5282 Fax: 503.335.5393 DSN: 638.5282	STARBASE Portland 142nd Fighter Wing, Portland ANG Base 6801 NECornfoot Rd Bldg. 494 Portland, OR 97218 www.mil.state.or.us/starbase OR./STARBASEPDX/ starbase.html
Pennsylvania	Boswell	US Marine Corp Johnstown	Brandon Jones	brandon@outdoorodyssey.org	Phone: 814.629.6516 Fax: 814.629.9172	STARBASE Pennsylvania 450 Boy Scout Road Boswell, PA 15531 www.starbasepa.org
Pennsylvania	Pittsburgh	Navy and Marine Corps Reserve Center	Ken Mechling, Jr.	starbase.ken.mechlingjr@ adelphia.net	Phone: 412.672.4890 Fax: 412.672.4894	STARBASE Atlantis Pittsburgh Naval Operational Support Center 625 East Pittsburgh/ McKeesport Blvd. North Versailles, PA 15137 http://www.starbase-atlantis- pittsburgh.org
Puerto Rico	Carolina	Muniz Air National Guard Base	Idabells Matos	starbase@prsanj.ang.af.mil	Phone: 787.253.7502 Fax: 787.253.2513	STARBASE Puerto Rico Muniz ANG Base 200 Jose A. Santana Ave. Carolina, PR 00979-1514 www.starbasepr.com

STATE	CITY	MILITARY INSTALLATION	DIRECTOR	EMAIL ADDRESS	PHONE	MAILING ADDRESS
Rhode Island	Newport	Naval Station Newport	Patrick Rossoni	patrick.rossoni@navy.mil	Phone: 401.841.4072 Fax: 401.841.4075 DSN: 948.4075	STARBASE Atlantis Newport Perry Hall, Rm. 12 440 Meyerkord Avenue Naval Station Newport, Rhode Island 02841
South Carolina	Beaufort	Marine Corps Air Station Beaufort	Wendell Roberson	robby@islc.net	Phone: 843.524.1320 Fax: 843.524.1326	STARBASE MCAS Beaufort MCAS Beaufort Bldg. 660/1011 P.O. Box 55013 Beaufort, SC 29904-5013 www.homestead.com/ starbaseinc/homeindex.html
South Carolina	Columbia	McEntire Joint National Guard Station	Jim Prater	praterje@tag.scmd.state.sc.us	Phone: 803.806.4444 Fax: 803.806.1466	STARBASE Swamp Fox 1 National Guard Road Columbia, SC 29201 www.scstarbase.com
South Dakota	Rapid City	Camp Rapid/ Ellsworth Air Force Base	Judy Gorman	starbase@sd.ngb.army.mil	Phone: 605.737.6083 Fax: 605.737.6082 DSN: 747.8083	STARBASE-Rapid City Camp Rapid, Bldg. 123 2823 West Main St. Rapid City, SD 57702-8186
South Dakota	Sioux Falls	South Dakota Air & Army National Guard/Project NOVA	Susan Garrett	sdstarbase@hotmail.com	Phone: 605.367.4930 Fax: 605.367.4926	STARBASE Sioux Falls 801 W. National Guard Dr. Sioux Falls, SD 57104
Texas	Houston	Ellington Field	Gail Whittemore -Smith	Gail.whittemore@txelli.ang.af.mil	Phone: 281.929.2034 Fax: 281.929.2036 DSN: 454.2034	Texas STARBASE 14657 Sneider St. Bldg. 1055 Houston, TX 77034
Texas	San Antonio	Lackland Air Force Base	Ron Jackson	starbase@stic.net	Phone: 210.925.3708 Fax: 210.925.3702	STARBASE Kelly 203 Galaxy Road, Suite 112 Lackland AFB, TX 78236-0112
Vermont	Rutland	Vermont Army National Guard	Doug Gilman	Douglas.gilman@ vtburl.ang.af.mil	Phone: 802.786.3820 Fax: 802.786.3822	STARBASE Vermont (Rutland) 15 West Street Rutland, VT 05701 www.starbasevt.org
Vermont	South Burlington	Vermont Air National Guard	Doug Gilman	Douglas.gilman@ vtburl.ang.af.mil	Phone: 802.660.5201 Fax: 802.660.5940 DSN 220-5201	STARBASE Vermont (South Burlington) Vermont ANG 100 NCO Drive South Burlington, VT 05403 www.starbasevt.org
Virginia	Norfolk	Norfolk Naval Base	Gary McGowan	gary.mcgowan@navy.mil	Phone: 757.445.5905 Fax: 757.445.2624 DSN: 565.5905	STARBASE Atlantis Norfolk Norfolk Naval Base 9549 Bainbridge Ave. Norfolk, VA 23511 www.npdc.navy.mil/ starbase.norfolk/index.html
Washington	Bangor	Naval Base Kitsap (Bangor Submarine Base)	TBD	TBD	Phone: 360.315.2618 Fax: 360.315.2747 DSN: 322.2618	STARBASE Atlantis, Trident Training Facility, Bangor 2000 Thresher Ave, Rm. D-222 Silverdale, WA 98315 https://www.cfs.cnet.navy. mil/ttbbangor/pers_dev/ starbase/starbase.htm
West Virginia	Charleston	West Virginia National Guard 130th Airlift Wing	Dennis Christian	starbase@wvchar.ang.af.mil	Phone: 304.341.6440 Fax: 304.341.6445 DSN: 366.6440	West Virginia STARBASE Academy 130th Airlift Wing 1679 Coonskin Dr. Charleston, WV 25311 http://kcs.kana.k12.wv. us/starbase/

STATE	CITY	MILITARY INSTALLATION	DIRECTOR	EMAIL ADDRESS	PHONE	MAILING ADDRESS
West Virginia	Martinsburg	West Virginia Air National Guard 167th Airlift Wing	David Frush	STARBASE@wvmart.ang.af.mil	Phone: 304.616.5501 Fax: 304.616.5478 DSN: 242.5501	STARBASE Martinsburg 222 Saber Jet Blvd. Martinsburg, WV 25401-7704 http://www.WVSTARBASE.org
Wyoming	Cheyenne	Wyoming Air National Guard	David Orr	davido@starbasewy.org	Phone: 307.772.6161 Fax: 307.772.6017 DSN: 388.6161	Wyoming STARBASE Academy 217 Dell Range Blvd. Cheyenne, WY 82009 www.starbasewy.org



FY'05 School Districts and Schools Served

ALABAMA

STARBASE Maxwell

District: Autauga County School District
Autaugaville Elementary School

District: Elmore County School District
Wetumpka Intermediate School

District: DODESS
Maxwell Elementary School

District: Montgomery County School District
Catoma Elementary School
Dalraida Elementary School
Head Elementary School
T. S. Morris Elementary School
E.D. Nixon Elementary School
Paterson Elementary School
Pintlala Elementary School

ALASKA

STARBASE Alaska

District: Anchorage School District
Lake Otis Elementary School
Ptarmigan Elementary School
Russian Jack Elementary School
Sustina Elementary School
Take Elementary School
Ursa Major Elementary School
Williwaw Elementary School
Willow Crest Elementary School

District: Matanuska-Susitna Borough Schools
Colony Middle School
Finger Lake Elementary School
Glacier View Elementary School

Other:
Achorage Christian School
Boys and Girls Club

ARIZONA

STARBASE Arizona

CALIFORNIA

California STARBASE

District: Elk Grove Unified School District
Butler Elementary School
Elliott Ranch Elementary School
Markoffer Elementary School
Pleasant Grove Elementary School
Union House Elementary School

District: Folsom-Cordova Unified School District

Carl Sundahl Elementary School
Cordova Gardens Elementary School
Cordova Meadows Elementary School
Cordova Villa Elementary School
Folsom Hills Elementary School
Gold Ridge Elementary School
Mather Heights Elementary School
Natoma Station Elementary School
Oak Chan Elementary School
Peter J. Shields Elementary School
Rancho Cordova Elementary School
Riverview Elementary School
Theodore Judah Elementary School
White Rock Elementary School
Williamson Elementary School

District: Galt Joint Union Elementary School District
Madison Elementary School

District: Loomis Union Unified School District

Franklin Elementary School
Loomis Elementary School
Newcastle Elementary School
Ophir Elementary School
Penryn Elementary School
Powers Elementary School

District: Rio Linda Union School District

Aero Haven Elementary School
Dry Creek Elementary School
FC Joyce Elementary School
Foothill Elementary School
Frontier Elementary School
Hillsdale Elementary School
Holmes Elementary School
Larchmont Elementary School
Madison Elementary School
Oakdale Elementary School
Orchard Elementary School
Pioneer Elementary School
Ridgepoint Elementary School
Sierra View Elementary School
Westside Elementary School
Woodridge Elementary School
Village Elementary School

District: Robla Union School District

Bell Avenue Elementary School
Glenwood Elementary School
Main Avenue Elementary School
Robla Elementary School
Taylor Street Elementary School

District: Sacramento City Unified School District
Cesar Chavez Elementary School

Other:
Gloria Dei Elementary School

STARBASE Atlantis San Diego

District: Chula Vista Elementary School District

Feaster-Edison Elementary School
Harborside Elementary School
Montgomery Elementary School
Rice Elementary School
Vista Square Elementary School

District: National School District
El Toyon Elementary School
Kimball Elementary School
John A. Otis Elementary School

District: San Diego Unified School District
Jefferson Elementary School
Kennedy Elementary School

DISTRICT OF COLUMBIA

STARBASE Atlantis

District: District of Columbia Public Schools
Aiton Elementary School
Amidon Elementary School
Gibbs Elementary School
Ludlow-Taylor Elementary School
Martin Luther King Elementary School
Patterson Elementary School
Raymond Elementary School
Savoy Elementary School
Slowe Elementary School
Thurgood-Marshall Elementary School
Truesdell Elementary School
Whittier Elementary School

Other:
Kipp DC/Key Academy

CONNECTICUT

STARBASE Hartford (Warthog)

District: Hartford School District
Barnard-Brown Elementary School
Batchelder Elementary School
Burns Elementary School
Burr Elementary School
J.C. Clark Elementary School
Dwight Elementary School
Fisher Elementary School
M.D. Fox Elementary School
Fox Middle School
Hooker Elementary School
Kennelly Elementary School
M.L. King Elementary School

Kinsella Elementary School
McDonough Elementary School
Milner Elementary School
Moylan Elementary School
Naylor Elementary School
Parkville Elementary School
Rawson Elementary School
Sanchez Elementary School
Sand Elementary School
Simpson-Waverly Elementary School
Twain Elementary School
Webster Elementary School
West Middle School
Wish Elementary School

District: Jumoke Academy District
Jumoke Academy

STARBASE Waterbury (Warthog)

District: Brooklyn School District
Brooklyn Elementary School

District: Waterbury School District

Barnard Elementary School
Bucks Hill Elementary School
Bunker Hill Elementary School
Carrington Elementary School
Chase Elementary School
W. Cross Elementary School
Driggs Elementary School
M. Generali Elementary School
Hopeville Elementary School
Kingsbury Elementary School
Maloney Elementary School
Regan Elementary School
Rotella Elementary School
Sprague Elementary School
Tinker Elementary School
Walsh Elementary School
Washington Elementary School
Woodrow Wilson Elementary School
State Street Elementary School

FLORIDA

STARBASE Florida, Inc.

District: Duval County School District
Alimacani Elementary School
Gregory Drive Elementary School
Martin Luther King Elementary School
Pinedale Elementary School
Samuel A. Hull Elementary School
St. Claire Evans Elementary School
Woodland Acres Elementary School

District: Nassau County School District
Sunshine Academy Elementary School
Tiburón Elementary School

NAS Pensacola STARBASE-Atlantis

District: Escambia School District
Brentwood Elementary School
Edgewater Elementary School
Ensley Elementary School
Hallmark Elementary School
Jim Allen Elementary School
Lincoln Park Elementary School
Pleasant Grove Elementary School
Semmes Elementary School
Warrington Elementary School
Weis Elementary School
Yniestra Elementary School

NAS Whiting Field STARBASE-Atlantis

District: Santa Rosa County
Bagdad Elementary School
Berryhill Elementary School
Chumuckla Elementary School
East Milton Elementary School
Gulf Breeze Elementary School
Holley-Navarre Intermediate School
Jay Elementary School
Munson Elementary School
Oriole Beach Elementary School
Rhodes Elementary School
West Navarre Elementary School

GEORGIA

Peach State STARBASE

District: Cobb County School District
Bellmont Hills Elementary School
Brown Elementary School
Fair Oaks Elementary School
Green Acres Elementary School
Harmony Leland Elementary School
Milford Elementary School

District: Marietta City School District
Park Street Elementary School

STARBASE Robins

District: Houston County School
Lindsey Elementary School
Linwood Elementary School
Miller Elementary School
Parkwood Elementary School
Tucker Elementary School
Westside Elementary School

District: Bibb County School
Bernd Elementary School
Burghard Elementary School
Hartley Elementary School
Burdell-Hunt Elementary School
Ingram-Pye Elementary School
Jones Elementary School
King Elementary School
Morgan Elementary School

Skyview Elementary School
Vineville Academy
Williams Elementary School

District: Twiggs County School
Jeffersonville Intermediate School

HAWAII

STARBASE-Atlantis Hawaii

District: Aiea-Moanalua-Radford
Aliamanu Elementary School
Hickam Elementary School
Mokulele Elementary School
Makalapa Elementary School
Nimitz Elementary School
Pearl Harbor Elementary School
Pearl Harbor Kai Elementary School
Shafter Elementary School

District: Campbell-Kapolei-Waianae
Iroquois Elementary School

Other:

Christian Academy
Our Savior Lutheran School
Pearl Harbor Christian Academy
St. Elizabeth School

ILLINOIS

STARBASE-Atlantis Great Lakes

District: North Chicago District #187
A.J. Katzenmaier Elementary School
Forrestal Elementary School
Greenbay Elementary School
Hart Elementary School
North Elementary School
South Elementary School

District: Zion District #006
Beulah Park Elementary School
East Elementary School
Elmwood Elementary School
Shiloh Park Elementary School
West Elementary School

KANSAS

STARBASE Topeka

District: Emporia Unified School District
Riverside Elementary School

Kansas City Unified School District
Banneker Elementary School
Bethel Elementary School
Emerson Elementary School
Eugene Ware Elementary School
Grant Elementary School
Stoney Point South Elementary School
White Church Elementary School

Whittier Elementary School

District: Kaw Valley Unified School District
Delia Grade School

District: Lawrence Unified School District
Pinckney Elementary School

District: Oskaloosa Unified School District
Oskaloosa Middle School

District: Rock Creek Unified School District
St. George Elementary School

District: Santa Fe Trail Unified School District
Carbondale Attendance Center

District: Seaman Unified School District
East Indianola Elementary School
Lyman Elementary School

District: Shawnee Mission Unified School District
Nieman Elementary School

District: Topeka Unified School District
Linn Elementary School
Lowman Elementary School
McEachron Elementary School
Whitson Elementary School
Williams Science and Fine Arts Magnet School

District: Washburn Rural Unified School District
Indian Hills Elementary School

STARBASE Wichita

District: Andover Unified School District
Meadowlark Ridge Elementary School

District: Augusta Unified School District
Garfield Elementary School
Lincoln Elementary School
Robinson Elementary School

District: Burrton Unified School District
Burton Elementary School

District: Concordia Unified School District
Concordia Elementary School

District: El Dorado Unified School District
Jefferson Elementary School

District: Ell-Saline Unified School District
Ell-Saline Elementary School

District: Hutchinson Unified School District
Wiley Elementary School

District: Mulvane Elementary School District
Mulvane Elementary School

District: Newton Unified School District
South Breeze Elementary School

District: Nickerson Unified School District
South Hutchinson Elementary School

District: North Ottawa County Unified School District
Minneapolis Elementary School

District: Renwick Unified School District
St. Marks Elementary School

District: Rural Vista Unified School District
Hope Elementary School
White City Elementary School

District: Salina Unified School District
Stewart Elementary School

District: South Haven Unified School District
South Haven Elementary School

District: Sterling Unified School District
Sterling Grade School

District: Sylvan Grove Unified School District
Sylvan Grove Elementary School

District: Twin Valley Unified School District
Bennington Elementary School
Tescott Elementary School

District: Wichita Unified School District
College Hill Elementary School
Lawrence Elementary School
Pleasant Valley Elementary School
Washington Elementary School

Other:
Holly Family School
Salina Christian School

LOUISIANA

STARBASE Louisiana

District: Bossier Parish School Board
Meadowview Elementary School
Plantation Park Elementary School
Waller Elementary School

District: Caddo Parish School Board
Keithville Elementary/Middle School
Oil City Elementary School
Shreve Island Elementary School
Werner Park Elementary School
West Shreveport Elementary School

Pelican State STARBASE

District: Jefferson Parish
Dunbar Elementary School
Jefferson Elementary School
Terrace Elementary School

District: St. Bernard Parish
Arabi Elementary School
Gauthier Elementary School
Joseph Davies Elementary School
Lacoste Elementary School
Rowley Elementary School
Sebastien Roy Elementary School
W. Smith Elementary School

Other:
CHEF/Montessori
St. Robert's School

MAINE

STARBASE Maine

District: Greenville School Department
Greenville Middle School

District: Bucksport School Department
Bucksport High School

District: Brewer School Department
State Street School

District: Dedham School Department
Dedham School

District: Glenburn School Department
Glenburn Elementary School

District: Herman School Department
Herman Middle School

District: Msad 22 Hampden
George B. Weatherbee School

District: Msad 56 Searsport
Frankfort Elementary School

District: Msad 63 Holden
Holbrook School

District: Orland School Department
Orland School Department

District: Orono School Department
Asa C. Adams School

District: Orrington School Department
Center Drive School

District: Otis School Department
Beech Hill School

District: Surry School Department
Surry Elementary School

District: Trenton School Department
Trenton Elementary School

Other:
All Saints Catholic School

MICHIGAN

STARBASE Detroit

District: Detroit City School District
Bates Elementary School
Cadillac Elementary School
Clippert Elementary School
Cleveland Elementary School
Courville Elementary School
Davison Elementary School
Gohlightly Elementary School
Greenfield Union School
Harms Elementary School
Sherrard Elementary School
Stark Elementary School
Von Stueben Elementary School

Other:
Academy of Detroit Southfield
Detroit Academy of Arts and Sciences
Plymouth Educational Center
Warrendale Charter Academy

STARBASE One

District: Anchor Bay School District
MacDonald Elementary School
Ashley Elementary School

District: L'Anse Cruese School District
Carckenrod Elementary School
South River School

District: Clintondale School District
Rainbow Elementary School

District: Lamphere School District
Hiller Elementary School

District: New Haven School District
New Haven Elementary School

District: Taylor School District
Eureka Heights Elementary School
Federal Elementary School
Fischer Elementary School
Holland Elementary School
Moody Elementary School
Myers Elementary School

District: Van Dyke Elementary School District
Lincoln Middle School

District: Warren Consolidated School District
Zoe Christian Elementary School

MINNESOTA

STARBASE Minnesota

District: Minneapolis Public Schools and Charter Schools
Andersen Elementary School
Green Central Park
Hale Elementary School
Harvest Prep Academy Charter School
Jefferson Community School
Nellie Stone Johnson Elementary School

District: Saint Paul Public Schools and Saint Paul Charter Schools
Achieve Language Academy Charter School
American Indian Magnet School
Battle Creek Middle School
Bruce Vento Elementary School
Cleveland Middle School
Como Park Elementary School
Community of Peace Charter School
Crossroads Elementary School
Farnsworth Aerospace Magnet School
Four Seasons Elementary School
Franklin Music Magnet School
Hayden Heights Elementary School
Homecroft Elementary School
John A. Johnson Elementary School
New Spirit Charter School
Phalen Lake Elementary School
Sheridan Elementary School
World Cultures and Language Magnet School
Washington Middle School

District: East Metro Integration District Schools

North St. Paul Elementary School
Roseville Elementary School
South St. Paul Elementary School
Stillwater Elementary School

Other:
Risen Christ School
St. Agnes School
St. Bernard's School

MISSISSIPPI

STARBASE-Atlantis Gulfport

District: Harrison County School District
Bel Aire Elementary School
D'Iberville Middle School
Lyman Elementary School

Orange Grove Elementary School
Pineville Elementary School

District: Gulfport School District
Central Elementary School
Pass Road Elementary School

Other:
Coast Episcopal Elementary School
Our Lady of Fatima Elementary School
St. Thomas Elementary School

STARBASE –Atlantis Meridian

District: Meridian Public School District
Crestwood Elementary School
Oakland Heights Elementary School
Parkview Elementary School
Poplar Springs Elementary School
West Hills Elementary School
Witherspoon Elementary School

District: Lauderdale County School District
Clarkdale Attendance Center
West Lauderdale Middle School

Other:
St. Patrick Catholic School
Meridian Christian Home Educators

STARBASE Choctaw Academy

District: Choctaw Tribal Schools
Bogue Chitto Elementary School
Choctaw Tribal Alternative School
Conehatta Elementary School
Pearl River Elementary School
Red Water Elementary School
Standing Pine Elementary School
Tucker Elementary School

NEBRASKA

STARBASE Nebraska

District: Lincoln Public Schools
Arnold Elementary School
Belmont Elementary School
Clinton Elementary School
Everett Elementary School
Hartley Elementary School
Hawthorne Elementary School
Huntington Elementary School
Norwood Park Elementary School
Randolph Elementary School
West Lincoln Elementary School

District: Cheney Public Schools
Cheney Elementary School

Other:
Blessed Sacrament Elementary School
St. Mary's Elementary School

Lincoln Christian Elementary School
Parkview Christian Elementary School
St. Patrick Elementary School
Sacred Heart Elementary School
Messiah Lutheran Elementary School
Faith Lutheran Elementary School
Good Shepard Lutheran Elementary School
St. John's Elementary School

NEW MEXICO

AF STARBASE La Luz

District: Albuquerque Public Schools
21st Century Public Academy Charter School
Eisenhower Middle School
Ernie Pyle Middle School
Hayes Middle School
Roosevelt Middle School
Van Buren Middle School

District: Archdiocese of Santa Fe
Our Lady of Fatima School

District: Bernalillo Public Schools
Bernalillo Middle School

District: Bureau of Indian Affairs
San Felipe Pueblo Elementary School

District: Jemez Valley Public Schools
San Diego Riverside Charter School

District: Los Lunas Public Schools
Raymond Gabaldon Intermediate School

District: Moriarty Municipal Schools
Edgewood Middle School

District: Rio Rancho Public Schools
Eagle Ridge Middle School
Mountain View Middle School

Other:
Hope Christian Middle School
New Mexico Boys Ranch
Prince of Peace Lutheran School

NORTH CAROLINA

STARBASE North Carolina

District: Alamance County Schools
B. Everett Jordan Elementary School

District: Buncombe County Schools
WD Williams Elementary School

District: Cabarrus County Schools
Forest Hills Elementary School

District: Charlotte-Mecklenburg
Devonshire Elementary School
Landsdowne Elementary School
Reedy Creek Elementary School
Smith Academy
Smith Language Academy
Statesville Road Elementary School
Tuckaseegee Elementary School

District: Davidson County Schools
Southwood Elementary School

District: Davidson City Schools
Liberty Drive Elementary School

District: Iredell County Schools
Ebenezer Elementary School
Lakeshore Elementary School

District: Lincoln County Schools
Rock Springs Elementary School

District: Rowan County Schools
Salisbury Elementary School
Southeast Elementary School

District: Stokes County Schools
Germantown Elementary School

District: Transylvania County Schools
Rosman Elementary School
T.C. Henderson Elementary School

District: Yancey County
Burnsville Elementary School

STARBASE-Fort Fisher

District: Beaufort County Schools
Beaufort Elementary School
John Small Elementary School
Northeast Elementary School

District: Carteret County Schools
Bogue Sound Elementary School
Harker's Island Elementary School
Smyrna Elementary School
Morehead Elementary School

District: Brunswick County Schools
Lincoln Primary School
Union Primary School

District: Columbus County Schools
Jessie Mae Monroe School
Waccamaw Elementary School

District: Dare County Schools
Manteo Elementary School

District: Martin County Schools
Eastend Elementary School
EJ Hayes Elementary School

District: New Hanover County Schools
Belville Elementary School
Blair Elementary School
Bolivia Elementary School
Eaton Elementary School
Johnson Elementary School
Southport Elementary School
Supply Elementary School

OHIO

STARBASE Wright-Patterson

District: Greenon Local Schools
Indian Valley Elementary School

District: Mad River Local Schools
Spinning Hills Middle School

District: Miamisburg City Schools
Kinder Elementary School
Bear Elementary School

District: Northmont City Schools
Northwood Elementary School

District: Springfield Local Schools
Warder Park-Wayne Elementary School
Kenton Elementary School

District: Yellow Springs Exempted Village Schools
Mills Lawn Elementary School

District: Jefferson Township Local Schools
Blairwood Elementary School

District: Beaver Creek Schools
Parkwood Elementary School

OKLAHOMA

STARBASE Oklahoma Oklahoma City

District: Kingfisher School District
Hennessey Elementary School

District: Oklahoma City School District
Parker Elementary School
Rockwood Elementary School
Stonegate Elementary School
Westwood Elementary School

STARBASE Oklahoma -- Tulsa

District: Anderson School District
Anderson Elementary School

District: Berryhill School District
Berryhill Elementary School

District: Catoosa School District
Catoosa Elementary School

District: Coweta School District
Central Elementary School

District: Tulsa School District
McKinley Elementary School

District: Tulsa Catholic Dioceses
St. Catherine's Elementary School
Sts. Peter and Paul's Elementary School

STARBASE Oklahoma
Native American Institute

District: Anadarko School District
Mission Elementary School
East Elementary School

District: Okay School District
Okay Elementary School

District: Woodall School District
Woodall School

OREGON

STARBASE Kingsley

District: Klamath Falls City Schools
Altamont Elementary School
Bonanza Elementary School
Chiloquin Elementary School
Conger Elementary School
Fairview Elementary School
Ferguson Elementary School
Gearhart Elementary School
Gilchrist Elementary School
Henley Elementary School
Keno Elementary School
Malin Elementary School
Merrill Elementary School
Mills Elementary School
Pelican Elementary School
Peterson Elementary School
Roosevelt Elementary School
Shasta Elementary School
Stearns Elementary School

Other:
Hosanna Christian School
Henley Middle School

STARBASE Portland

District: Portland School District 1J
Arleta Elementary School
Clarendon Elementary School
Grout Elementary School
Faubion Elementary School
Forest Park Elementary School
James John Elementary School
Kenton Elementary School

Laurelhurst Elementary School
Marysville Elementary School
Peninsula Elementary School
Rigler Elementary School
Sitton Elementary School

District: Canby County School District 86
Eccles Elementary School

District: David Douglas County School District 40
Mill Park Elementary School

PENNSYLVANIA

STARBASE Pennsylvania

District: Forest Hills School District
Forest Hills Elementary School

District: Greater Johnstown School District
East Side Elementary School

District: North Star School District
North Star East Elementary School
West Elementary School

District: Rockwood Area School District
Kingwood Elementary School
Rockwood Elementary School

District: Salisbury-Elk Lick School District
Salisbury Elementary School

District: Shade/Central City School District
Shade Elementary School

District: Somerset School District
Eagle View Elementary School

District: Windber School District
Windber Elementary School

Other:
Cambria County Christian School
St. Andrew's School
St. Benedict's School
Our Mother of Sorrows School
St. Patrick's School

STARBASE Atlantis Pittsburgh

District: California Area School District
California Elementary School

District: Diocese of Pittsburgh/Woodland Hills
Good Shepherd School

District: East Allegheny School District
Westinghouse Elementary School

District: McKeesport Area School District
Cornell Middle School

District: Penn Hills School District
Penn Hebron Elementary Academy
William Penn Elementary School

District: School District of the City of Monessen
Monessen Elementary School

District: Urban League of Pittsburgh Charter Schools
Urban League of Pittsburgh Charter School

Other:
Good Shepherd Catholic
Braddock Summer Camp

PUERTO RICO

STARBASE Puerto Rico

District: Arecibo Region
Esc. SU Ramón E. Betances (Int.)
Esc. Int. Dr. Francisco Vázquez
Esc. Int. Antonio Reyes Reyes
Esc. Ricardo Rodríguez Torres
Esc. Manuel Corchado Juarbe
Esc. SU Eugenio Ma Hostos (Int.)
Esc. S.U. Marta Lafontaine

District: Bayamón Region
Esc. Braulio Dueño Colón
Esc. Luis Muñoz Rivera
Esc. Int. De La Com. Felipe Díaz González
Esc. Int. Martín García Giusti

District: Caguas Region
Esc. Santa Clara
Esc. Federico Degetau
Esc. S.U. Rexford Guy Tugwell (Int.)
Esc. Int. Benigno Fernández García
Esc. Piñas Arriba
Esc. José Padín Elemental

District: Fajardo Region
Esc. Domingo Nieves Ortiz
Esc. Eugenio Ma. De Hostos
Esc. Elemental Urbana Nueva
Esc. SU Antonio Rios (Int.)
Esc. Int. Rafael Rexach Dueño

District: Humacao Region
Esc. Int. Matías González García
Esc. Pre-Técnica José Toro Ríos
Esc. Pre-Técnica José Toro Ríos
Esc. SU Cruz Ortiz Stella
Esc. Int. Juan Ponce de León
Esc. Int. Juan De Dios López
Meléndez Esc. Int. Leoncio
Esc. Luis Muñoz Rivera
Esc. SU Andrés Sandín Martínez (Int.)

District: Mayagüez Region
Esc. SU Aquilina Cabán (Int.)

Esc. SU Rio Cañas (Int.)
Esc. Int. Narciso Rabell Cabrero

District: Morovis Region

Esc. Inocencio Cintrón Zayas (Maná Abajo)
Esc. Int. José Berrios Berdecia
Esc. Int. Pedro Laboy
Esc. Pedro N. Ortíz
Esc. Int. De La Com. SU Saltos
Esc. SU Bonifacio Alvarado (Int.)
Esc. Ofelia Díaz Rodríguez

District: Ponce Region

Esc. SU Eugenio Nazario Soto
Esc. De La Com. Luis Muñoz Rivera II
Esc. Emilia Bonilla Negrón
Esc. Int. Ernesto Ramos Antonini
Esc. Int. Francisco Zayas Santana

District: San Germán Region

Esc. Ramón E. Betances
Esc. María L. McDougall
Esc. Elemental Urbana
Esc. Georgina Alvarado

District: San Juan Region

Esc. Juana Méndez
Esc. Int. Eduardo J. Saldaña
Esc. Juan B. Huyke
Esc. Int. Antonio Sarriera Egozcue
Esc. Villa Granada Elemental

RHODE ISLAND

STARBASE-ATLANTIS Newport

District: Newport Public Schools
Carey Elementary School
Coggeshall Elementary School
Cranston-Calvert Elementary School
Underwood Elementary School

District: Middletown Public Schools
Gaudet Middle School

District: Portsmouth Public Schools
Portsmouth Middle School

District: Bristol-Warren Schools
Mary V. Quirk Elementary School
Reynolds Elementary School
Guiteras Elementary School

SOUTH CAROLINA

STARBASE MCAS Beaufort County School District

District: Beaufort County School District
Beaufort Elementary School
Blufon Elementary School
Broad River Elementary School
Coosa Elementary School

Davis Elementary School
Hilton Head Elementary School
Lady's Island Elementary School
Mossy Oaks Elementary School
Okatie Elementary School
Port Royal Elementary School
Shanklin Elementary School
Shell Point Elementary School
Whale Branch Elementary School

District: Colleton County Schools

Bells Elementary School
Black Street Elementary School
Cottageville Elementary School
Forest Hills Elementary School
Hendersonville Elementary School

District: Hampton County Schools:

Brunson Elementary School
Estill Elementary School
Hampton Elementary School
Varnville Elementary School

District: Jasper County Schools

Ridgeland Elementary School

Other:

Agape Christian Academy
Beaufort Academy
Beaufort Marine Institute
Blufon Home School Group
Community Bible Church
Home School Group
Praise Assembly
St. Peter's Catholic School

STARBASE Swamp Fox

District: Fairfield County School
Geiger Elementary School

District: Fort Jackson Schools
Charles C. Pinckney Elementary School

District: Richland County School District

One
Arden Elementary School
Burton Pack Elementary School
Brennan Elementary School
Caughman Road Elementary School
E.E. Taylor Elementary School
Forest Heights Elementary School
Gadsden Elementary School
Horrell Hill Elementary School
Hyatt Park Elementary School
Logan Elementary School
Saint Andrews Middle School
W. A. Perry Middle School
Webber Elementary School

District: Richland County School District
Two

Summit Parkway Middle School

District: Sumter County School District Two
R. E. Davis Elementary School

SOUTH DAKOTA

STARBASE Rapid City

District: Rapid City School District

General Beadle Elementary School
Black Hawk Elementary School
Canyon Lake Elementary School
Horace Mann Elementary School
Knollwood Elementary School
Rapid Valley Elementary School
Robbinsdale Elementary School
South Park Elementary School
Valley View Elementary School
Wilson Elementary School

District: Douglas School District

Vandenburg Elementary School

Other:

Believer's Fellowship Academy
Children's House Montessori
Home Schooled
Memorial Christian School
Zion Lutheran School

STARBASE Sioux Falls

District: Beresford School District
Beresford Middle School

District: Canton School District
Canton Middle School

District: Sioux Falls School District

Anne Sullivan Elementary School
Eugene Field Elementary School
Garfield Elementary School
Garretson Elementary School
Hawthorne Elementary School
Hayward Elementary School
Laura B. Anderson Elementary School
Longfellow Elementary School
Lowell Elementary School
Terry Redlin Elementary School
Renberg Elementary School
Axtell Park Middle School

District: Brandon Valley School
Brandon Valley Elementary School

Project NOVA (outreach program)
American Horse Elementary School
Cheyenne Eagle Butte Elementary School
Crow Creek Elementary School
Dupree Elementary School
Little Wound Elementary School
Loneman Elementary School
Lower Brule Elementary School

Mission Elementary School
Pierre Indian Learning Center
Red Cloud Elementary School
Rosebud Elementary School
St. Joseph's Indian School
Timber Lake Elementary School
Tiospaye Topa Elementary School

TEXAS

Texas STARBASE

District: Cleveland ISD
Eastside Intermediate School

District: Dickinson ISD
Barber Middle School
Dunbar Middle School
McAdams Jr. High School

District: Hitchcock ISD
Stewart Elementary School

District: Houston ISD
Berry Elementary School
Betsy Ross Elementary School
Bruce Elementary School
Cornelius Elementary School
DeZavala Elementary School
Fleming Middle School
Gordon Elementary School
Helms Community School
Law Elementary School
McReynolds Intermediate School
Park Place Elementary School
Pleasantville Elementary School
Wainwright Elementary School

District: La Marque ISD
Westlawn Elementary School

District Pasadena ISD
Frazier Elementary School
Jensen Elementary School
Meader Elementary School
Morris Elementary School
Pomeroy Elementary School

District: Shepherd ISD
Shepherd Intermediate School

District: Texas City ISD
Levi Fry Intermediate School

STARBASE Kelly

District: San Antonio ISD
Bowden Elementary School
Tynan Elementary School
Riverside Park Elementary School

District: Southwest ISD
Sky Harbour Elementary School

Kriewald Road Elementary School

District: Edgewood ISD
Emma Frey Elementary School
Winston Elementary School

District: Lackland ISD
Lackland Elementary School

VERMONT

STARBASE Vermont Rutland

District: Addison Central S.U.
Salisbury Elementary School
Ripton Elementary School

District: Addison Rutland S.U.
Benson Elementary School
Orwell Elementary School

District: Bennington-Rutland S.U.
Currier Memorial (Danby) Elementary
School

District: Rutland City School District
Rutland Intermediate School

District: Rutland Central S.U.
Proctor Elementary School
Sherburne Elementary School
West Rutland Elementary School

District: Rutland South S.U.
Clarendon Elementary School
Wallingford Elementary School

District: Rutland Southwest S.U.
Poultney Elementary School
Tinmouth Elementary School

District: Rutland Windsor S.U.
Mount Holly Elementary School

District: Southwest Vermont S.U.
Stockbridge Central School

District: Windsor Central S.U.
Sherburne Elementary School

District: Windsor Southeast S.U.
Windsor State School

Other:
Christ the King School
Kurn Hattin Memorial School
Home School Group - Moretown

STARBASE Vermont South Burlington

District: Addison Northeast S.U.
Bristol Elementary School

District: Burlington Public Schools
C.P. Smith Elementary School
JJ Flynn Elementary School
Lawrence Barnes Elementary School

District: Caledonia Central S.U.
Danville Elementary School
Walden Elementary School

District: Chittenden East S.U.
Hinesburg Elementary School

District: Franklin Central S.U.
St. Albans Town Educational Center

District: Franklin West S.U.
Bellows Free Academy

District: Grand Isle S.U.
Grand Isle Elementary School

District: South Burlington School District
South Burlington Central School

District: Washington South S.U.
Northfield Elementary School

District: Winooski School District
JFK Elementary School

Other:
St. Michael's Elementary School

VIRGINIA

STARBASE-Atlantis Norfolk

District: Norfolk City Public Schools
Campostella Elementary School
Dreamkeepers Elementary School
Fairlawn Elementary School
Ingleside Elementary School
Little Creek Elementary School
Oakwood Elementary School
Tidewater Park Elementary School
Willoughby Elementary School
Young Park Elementary School

WASHINGTON

STARBASE-Atlantis TTF Bangor

District: Central Kitsap School District
Brownsville Elementary School
Clear Creek Elementary School
Cottonwood Elementary School
Cougar Valley Elementary School
Emerald Heights Elementary School

Esquire Hills Elementary School
Green Mountain Elementary School
Jackson Park Elementary School
Pine Crest Elementary School
Seabeck Elementary School
Silver Ridge Elementary School
Tracyton Elementary School
Woodlands Elementary School

District: Chimichum School District
Chimichum Elementary School

District: North Kitsap School District
Braidablik Elementary School
David H. Wolfe Elementary School
Hilder Pearson Elementary School
Poulsbo Elementary School
Richard F. Gordon Jr. Elementary School
Suquamish Elementary School
Vinland Elementary School

WEST VIRGINIA

West Virginia STARBASE Academy

District: Kanawha County Schools
Alban Elementary School
Andrews Heights Elementary School
Bridgeview Elementary School
Cedar Grove Elementary School
Clendenin Elementary School
Glenwood Elementary School
Grandview Elementary School
Holtz Elementary School
Kenna Elementary School
Lakewood Elementary School
Marmet Elementary School
Midland Trail Elementary School
Montrose Elementary School
Nitro Elementary School
Overbrook Elementary School
Pinch Elementary
Ruthlawn Elementary School
Shoals Elementary School
Weberwood Elementary School

District: Berkley County Schools
Eagle Intermediate School
Mill Creek Intermediate School
Orchard View Intermediate School
Potomack Intermediate School
Tomahawk Intermediate School

WYOMING

Wyoming STARBASE Academy

District: Laramie County School District
No. 1

Afflerbach Elementary School
Alta Vista Elementary School
Anderson Elementary School
Arp Elementary School
Baggs Elementary School
Bain Elementary School
Buffalo Ridge Elementary School
Churchill Elementary School
Clawson Elementary School
Cole Elementary School
Davis Elementary School
Dildine Elementary School
Fairview Elementary School
Gilchrist Elementary School
Hebard Elementary School
Henderson Elementary School
Hobbs Elementary School
Jessup Elementary School
Goins Elementary School
Miller Elementary School
Rossman Elementary School
Pioneer Park Elementary School
Willadson Elementary School

District: Laramie County School District No.
2

Carpenter Elementary School
Pine Bluffs Elementary School
West Elementary School

Other:

Noah Webster Christian School
St. Mary's Catholic School

DOD STARBASE® Academy Time Line

1989	Michigan, Selfridge*		
1993	California, Sacramento Kansas, Topeka/Wichita Minnesota, St. Paul	North Carolina, Chalotte Oklahoma, Tulsa Oregon, Portland/Klamath Falls	
1994	Florida, Jacksonville Florida, Pensacola Iowa, Johnston**	South Dakota, Sioux Falls Texas, Houston Vermont, South Burlington	Wyoming, Cheyenne
1995	Puerto Rico, Carolina Texas, San Antonio Virginia, Norfolk		
1996	Georgia, Warner Robbins		
1998	California, San Diego		
1999	Louisiana, Barksdale Louisiana, New Orleans South Carolina, Beaufort		
2000	Kansas, Wichita*** Michigan, Detroit Oregon, Klamath Falls	Pennsylvania, Boswell Vermont, Rutland	
2001	Connecticut, Hartford DC, Washington Georgia, Atlanta Hawaii, Peral Harbor	Illinois, Great Lakes Maine, Bangor Mississippi, Gulfport Oklahoma, Oklahoma City	South Carolina, Columbia Washington, Silver Dale West Virginia, Charleston
2002	Alaska, Anchorage Mississippi, Meridan Nebraska, Lincoln	Pennsylvania, Pittsburgh Rhode Island, Newport South Dakota, Rapid City	West Virginia, Martinsburg
2003	New Mexico, Albuquerque Connecticut, Waterbury		
2004	Alabama, Maxwell AFB North Carolina, Kure Beach Ohio, Wright-Patterson		
2005	Arizona, Tucson		

* Initial pilot program site with grant from the Kellogg Foundation.

** Iowa was officially terminated at the end of FY02 in accordance with the November 21, 2001 OASD/RA Memorandum.

*** January 2000 OASD/RA identified sites in Kansas and Oregon as separate DOD STARBASE Academies.

GLOSSARY



Academy: See DOD STARBASE academy.

Adjusted data: Data derived from the same academies that were operating last year so that comparisons can be made concerning the internal growth of the program.

After-school programs: Center-or school-based programs regularly scheduled at least once each month during after-school hours.

Alternative education provider: A public or private school designed for children who do not function well in the traditional school setting. This may include continuation high schools or schools that fall outside the categories of regular, special education or vocational education.

Appropriations: Budget authority provided through the congressional appropriation process that permits federal agencies to incur obligations and to make payments.

At-risk: Being “at-risk” means having one or more factors that have been found to predict a high rate of school failure at some time in the future. This “failure” generally refers to dropping out of high school before graduation but also can mean being retained within a grade from one year to the next. The risk factors include having a mother whose education is less than high school, living in a single-parent family, receiving welfare assistance, and living in a household where the primary language spoken is other than English.

At-risk youth: Students at risk are those who have characteristics that increase their chances of dropping out or falling behind in school. These characteristics may include being from a single-parent household, having an older sibling who dropped out of high school, changing schools two or more times other than the normal progression (e.g., from elementary to middle school), having Cs or lower grades, being from a low socio-economic status family, or repeating an earlier grade.

Class: Within the context of a DOD STARBASE academy, a class is a grouping of students. This group may not necessarily have been a homogenous entity prior to DOD STARBASE instruction; it may be a temporary grouping only for the purposes of assembling for the 20-hour minimum period of DOD STARBASE instruction.

Classroom contact hour: A period of 60 minutes, plus or minus 5 minutes, in which a DOD STARBASE academy instructor is actively involved with students or in which a military member is demonstrating, displaying, or teaching an application of math, science or technology to the students.

Core curriculum: DOD STARBASE core curriculum is comprised of the 13 following areas: 1) Teamwork; 2) Properties and States of Matter; 3) Properties of Air; 4) Bernoulli’s Principle; 5) Aircraft Control Surfaces and Components; 6) Four Forces of Flight; 7) Newton’s Laws of Motion; 8) Space Exploration; 9) Development, Innovation, and Uses of Technology; 10) Avoiding Substance Abuse; 11) Goal Setting 12) Model Rocketry; and 13) Flight Simulation.

Current expenditures: Expenditures for operating DOD STARBASE academies, excluding capital outlay. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, books and materials, and energy costs.

Current expenditures per pupil: Current expenditures for the DOD STARBASE academies divided by the total number of participating students.

Disability: Physical, mental, or sensory impairments that render major life activities more difficult.

DOD: Department of Defense.

DOD components: Those Department of Defense entities that have established or are in pursuit of establishing a DOD STARBASE academy, including the military departments, defense agencies and defense field activities.

DOD instruction (DODI): Document that implements policies, responsibilities, and procedures for executing the DOD STARBASE program.

DOD STARBASE academy: A DOD educational entity that seeks to improve knowledge and skills of students in kindergarten through twelfth grade in mathematics, science, and technology, and follows the academy model description in DODI 1025.7. A DOD STARBASE academy is not defined in terms of a geographic location.

DOD STARBASE core curriculum: The fixed course of study referenced in the DODI that must be taught by all DOD STARBASE academies. (see also core curriculum).

DOD STARBASE program: The DOD STARBASE Program is authorized by Title 10 United State Code Section 2193b as a DOD science, math, and technology education improvement program. The Office of the Assistant Secretary of Defense for Reserve Affairs administers policy and oversight; the DOD components execute the program at DOD STARBASE Academies. DOD STARBASE is funded by Congress as a Civil Military Program.

DOD STARBASE site: The component of a DOD STARBASE academy that performs instruction. Sites can be co-located at a DOD STARBASE academy or geographically separated from the academy.

DOE: Department of Education.

Driver: Drivers identify a set of related attitudinal clusters for the student population (i.e., when the driver is present, the set of attitudes will most likely be present, or in reverse, when the condition in the list of attitudes are present the target “driver” attitude will also be present).

Elementary school: An elementary/secondary school with one or more grades of K-6 that does not have any grade higher than grade 8.

Elementary/secondary school: Elementary/secondary schools include regular schools (i.e., schools that are part of state and local school systems and private elementary/secondary schools, both religiously affiliated and nonsectarian); alternative schools; vocational education schools; and special education schools. Subcollegiate departments of postsecondary institutions, residential schools for exceptional children, federal schools for American Indians or Alaska Natives and federal schools on military posts and other federal installations are not included in the definition of elementary/secondary school.

Enrollment: The total number of students registered at a DOD STARBASE academy at a given time, generally in the fall of the year.

Expenditures: Charges incurred, whether paid or unpaid, that are presumed to benefit the current fiscal year.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as enrollment, average daily attendance, or average daily membership.

Fiscal year: The yearly accounting period for the federal government, which begins on October 1 and ends on the following September 30. The fiscal year is designated by the calendar year in which it ends; for example, fiscal year 2004 begins on October 1, 2003 and ends on September 30, 2004.

Gap score: Difference between pre-and post-scores.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11 and 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 2 (in a 6-2-4 plan).

Inner city location: Central section of a city, which is usually older and more densely populated.

Kindergarten: Includes transitional kindergarten, kindergarten, and pre-1st grade students.

Mathematics: A body of related courses concerned with knowledge of measurement, properties and relations quantities, which can include theoretical or applied studies of arithmetic, algebra, geometry, trigonometry, statistics and calculus.

MSI: Mathematics and Science Initiative

Median: A number such that half of the data is larger than it and half is smaller. If the itemized data are listed in order of size, the median is the middle number in the list.

Middle school: A separately organized and administered school between the elementary and senior high schools. When called a “junior high school,” a middle school usually includes grades 7, 8, and 9 (in a 6-3-3 plan) or grades 7 and 8 (in a 6-2-4 plan.) In some districts, however, a middle school spans grades 5 to 8 or grades 6 to 8.

Minority: Any individual or racial/ethnic group that is not categorized as White, Hispanic or Latino.

National school lunch program: Established by President Truman in 1946, the program is a federally assisted meal program operated in public and private nonprofit schools and residential child care centers. To be eligible, a student must be from a household with an income at 185 percent of the poverty level for reduced-price lunch or 130 percent of the poverty level for free lunch.

Not-for-profit organization: A legal entity recognized or chartered by competent state authority and to which the Internal Revenue Service has given status as a 501(c) 3 tax-exempt organization.

OASD/RA: Office of the Secretary of Defense/Reserve Affairs

Operational academies: An academy that is processing students.

Participant: The term participant not only includes the DOD STARBASE students, but is utilized to reflect the time, energy, skills, and commitment of institutions and individuals that make the DOD STARBASE program operate successfully. Participants include military service command support units, the local sponsoring base command, community leaders, local community sponsoring committees, school systems, schools, teachers, military service volunteers, DOD STARBASE Board members, staff, and parents. Most participants are voluntary, self-recruiting, and active. Their support and contributions are not limited to a one-time activity, but are usually ongoing and long-term, often covering the life-cycle of the program's operation.

Percentile (score): A value on a scale of zero to 100 that indicates the percent of a distribution that is equal to or below it.

Pre/Post application: Prior to the start of the program and at the completion of the program.

Program year: The DOD STARBASE program year is the same as the government fiscal year, October 1-September 30.

Public school: An institution that provides educational services for at least one of grades 1-12 (or comparable upgraded levels), has one or more teachers to give instruction, is located in one or more buildings, receives public funds as primary support, and is operated by an education or chartering agency. Public schools include regular, special education, vocational/technical, alternative, and public charter schools. They also include schools in juvenile detention centers, schools located on military bases and operated by the Department of Defense, and Bureau of Indian Affairs-funded schools operated by local public school districts.

Rural location: The population and territory outside any urbanized area and the urban part of any place with a decennial census population of 2,500 or more.¹

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

Sample population: A statistically significant representation of the total number of students tested each year.

School district: An education agency at the local level that exists primarily to operate public schools or to contract for public school services.

School year: The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 through June 30.

Science: The body of related course concerned with knowledge of the physical and biological world and with the processes of discovering and validating this knowledge.

Secondary school: An elementary/secondary school with one or more of grades 7-12 that does not have any grade lower than grade 7.

Site: See DOD STARBASE site.

Socio-economic disadvantage: A term used to describe economically deprived, poor, poverty stricken, or disadvantaged individuals or groups (see also Socio-economic status).

Socio-economic status: A measure of an individual or family's relative economic and social ranking based on such factors as father's education level, mother's education level, father's occupation, mother's occupation and family income.

Supplemental programs: These are programs that for one reason or another (e.g. below minimum hours, don't cover the 13 core curriculum areas, etc) do not meet DODI standards. They are more diverse than traditional DOD STARBASE programs, are often conducted during the summer months and are specially designed to reach students that do not fall under the targeted "participant" schools or are in response to requests by members of the community to serve "hard-to-reach" children. Supplemental programs are initiatives that go beyond the normal operation and obligations of the academy. In many cases, supplemental programs are established in response to the demand created by the popularity and success of the DOD STARBASE program within the community.

Teacher certification: License granted by states for teachers to teach a given subject. In 2002, all states required a bachelor's degree that included subject matter as well as pedagogical studies; all but 10 states required basic skills tests in reading, mathematics, or general knowledge; and 31 states required subject-matter examinations.

Tuition and fees: A payment or charge for instruction or compensation for services, privileges, or the use of equipment, books, or other goods.

¹ U.S. Census Bureau definition



The space stations above were designed by DOD STARBASE students across the nation using a design and technology software program developed by PTC.

DOD
STARBASE

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