

VASEF Aviation Education News – August 2008

2008/09 Programs, Scholarships, and Conferences Available to Virginia Educators and Students

2009 Virginia Aviation Teachers Grant Program

Available to public school teachers in grades K-12, these grants encourage educators in all subject areas to develop and use aviation-related lesson plans. Grants of up to \$250.00 will be provided to purchase materials for these programs. *Complete details on page 3.*

2009 Virginia Aviation Art Contest

Virginia will once again be participating in the International Aviation Art Contest whose theme for 2009 is “Create a Poster for the World Air Games.” Students are encouraged to learn about the World Air Games, the largest air sports event in the world, and to design a poster. Students in Virginia will send their entries to the Virginia Department of Aviation who will coordinate state judging. State winners will progress to the National Competition. *Complete details on page 4.*

2009 National Conference on Aviation and Space Education

Educators from across the United States will be attending the 2009 National Conference on Aviation and Space Education which will be held October 16-18, 2008 at the Crystal Gateway Marriott Hotel in Arlington, Virginia. Confirmed speakers include retired astronauts, Buzz Aldrin and Bonnie J. Dunbar, and current astronaut Janice Voss. The youngest pilot to fly around the world, Barrington Irving and the Guinness Book of World Records paper airplane record holder Ken Blackburn will also be there. *Complete details on page 2.*

2009 VAOC John R. Lillard Aviation Scholarship Program

The John R. Lillard Aviation Scholarship Program is open to Virginia high school seniors who are planning a career in aviation. *Complete details on page 5.*

2009 Willard G. Plentl, Sr. Aviation Scholarship Program

The Willard G. Plentl, Sr. Aviation Scholarship Program is open to Virginia high school seniors who are planning a non-engineering career in aviation. *Complete details on page 5.*

Virginia Aviation Foundation Student Scholarship Program

The Virginia Aviation Foundation Student Scholarship Program is open to Virginia high school seniors who are planning a career in aviation. *Complete details on page 6.*

National Conference on Aviation and Space Education - A Special Opportunity for Educators

The theme of the 39th Annual National Conference on Aviation and Space Education is “Today’s Students: Tomorrow’s Aerospace Workforce.” The conference; consisting of keynote speakers, educational (and often hands-on) seminars, and over fifty exhibitors; will be held at the Crystal Gateway Marriott Hotel in Arlington, Virginia, October 16-18, 2008.

The program is geared for educators at all grade levels and subject areas. Experienced aviation and space educators as well as teachers who haven’t taught aviation before but are looking for new ways to motivate their students, will be equally comfortable and welcome to this event.

Schedule

Thursday, October 16th

Registration	Noon – 6:00 pm
Opening Reception	5:30 pm –6:30 pm

Hangar Talk 7:00 pm – 8:30 pm
Buzz Aldrin, Ph.D.; Colonel, USAF, Ret.; NASA Astronaut
Janice Voss, Ph.D.; Payload Lead, Mission Specialist; NASA Astronaut
Frank Sietzen, Noted Aerospace Author

Friday, October 17th

Registration 7:30 am – 5:30 pm
General Assembly 8:15 am – 10:00 am
Janice Voss, Ph.D.; Payload Lead, Mission Specialist; NASA Astronaut
Paula Lewis, Deputy Assistant Administrator for Regions and Center Operations
NASA SmartSkies TM Team from NASA Ames including Greg Condon, Program Manager
Exhibit Hall 10:00 am - 3:30 pm
Book Signings 11:00 am – 1:00 pm
Concurrent Sessions 10:30 am - 4:45 pm
10:30 - 11:30
1:30 - 2:30
2:45 - 3:45
3:45 - 4:45
Reception 6:00 pm – 6:45 pm
Crown Circle - Crossfield Banquet 7:00 pm – 9:30 pm
(Ticketed Event)

Saturday, October 19th

Registration 7:30 am – 10:00 am
General Assembly 8:15 am - 10:00 am
Dr. Bonnie J. Dunbar, former NASA Mission Specialist astronaut & veteran of 5 space flights.
President & CEO, Museum of Flight
Barrington Irving, Experience Aviation/Presidents Award/Youngest around the world flight
Ken Blackburn, Guinness Book of World Records, Greatest Airplane Book
Exhibit Hall 10:00 am - 1:30 pm
Ice Cream Social 11:30 pm - 1:00 pm
Concurrent Sessions ` 10:30 am – 3:45 pm
10:30 - 11:30
1:30 - 2:30
2:45 - 3:45
Brewer-Strickler Luncheon 12:00 pm - 1:30 pm
(Ticketed Event)

Graduate Credit (one credit hour) is available from Adams State College, Alamosa, CO. The cost is \$45.00 and registration is online at:

http://www2.adams.edu/extended_studies/news/aero-oct/aero-oct.php

Contact Adams State College at: Toll Free 1.800.548.6679 or at 719.587.7671 or by Fax at 719.587.7974 for more information.

Registration, through Sept. 30, is \$159.00 (one day registration is \$99.00). For complete information and to register visit <http://www.ncase.info>.

2008/09 Virginia Aviation Teachers Grants

Have you ever considered enhancing your students' learning experience by integrating aviation into your teaching?

Have you had a great idea for a lesson plan or other class activity with an aviation-related theme that you felt would benefit your students but couldn't implement because of lack of funding?

The Virginia Department of Aviation's Teachers Grant Program may be able to assist you!

Guidelines:

1. A maximum of one grant per individual teacher and/or school per school year is allowed.
2. The total amount requested for each grant must not be more than **\$250.00**. There is a cap on total grant funding for each school year. Grant applications will be ranked and funded until this cap has been reached.
3. Funds must be used before the end of the school year in which they are approved.
4. The requirements below must be met in order to apply and, once selected, to be reimbursed.

Requirements:

1. Classroom teachers in grades K-12 are eligible to apply. Grants are available to teachers in any discipline provided that the lesson involves aviation.
2. Applications for the 2008/09 school year must be completed and postmarked not later than December 3, 2008. Applications will be evaluated and successful applicants will be notified in January.
3. Successful applicants must complete their program before the end of the year in which the grant is awarded.
4. Successful applicants must agree to submit a final report to the Virginia Department of Aviation at the completion of the program (not later than the end of the school year in which the grant is awarded).

This report must include:

- a. a summary describing the results of the program,
- b. any lesson plans developed (at least one is required),
- c. how many students benefited from the program,
- d. a materials list with costs, and
- e. receipts for items purchased.

This report must be received before reimbursement will be made.

5. Lesson plans and program summaries may be published in Department of Aviation publications (with credit given).

Application forms will be mailed to Virginia public schools in the fall and are also available on the Department of Aviation's website.

Return completed application form to:

Virginia Department of Aviation
Attn: Betty P. Wilson
5702 Gulfstream Road
Richmond, Virginia 23250-2422
Telephone: (804) 225-3783, ext. 107
Fax: (804) 236-3635

E-Mail: betty.wilson@doav.virginia.gov

2009 International Aviation Art Contest - World Air Games 2009

This Year's Deadline

Entries must be postmarked by Friday, January 16, 2009, and must be sent to your state's sponsor office (see return address on this brochure).

This Year's Theme

This year's theme is "Create a Poster for the World Air Games." Artwork will be judged, or at least in part, for its creative use of this year's theme in relation to the aviation world.

For more information about the event visit, <http://www.worldairgames.org/2009>

Eligibility

All children in the age groups shown below are encouraged to participate in the Contest, even if they are related to officials or employees of the FAI or any of its member organizations. Participation in the National contests is limited to residents of that country.

Age Groups

Entries will be judged in three classes (determined by the age of the entrant on December 31, 2008).

I. Ages 6 to 9; II. Ages 10 to 13; Ages 14 to 17

State Awards

Entries in each age group will be judged and state winners and runners-up will be selected. Winners will receive a certificate and recognition from their state. The top three entries in each age group will be forwarded to Washington, DC, to participate in the national competition.

National Awards

A first, second, and third place national winner will be selected from each age group. All national winners will receive certificates, ribbons, and a framed reproduction of their artwork.

International Awards

The first, second, and third place national winners in each age group will be forwarded to FAI headquarters for international judging. Winners of the international competition will receive certificates and gold, silver, or bronze medals.

Contest Rules

Format

The required format is A3 (297 x 420 mm or 11 3/4 x 16 inches) or, if this is unobtainable in your country, the nearest possible equivalent. Artwork must NOT be framed or outlined with borders.

Medium

All artwork must be done by hand (or, in the case of physically challenged children, by foot or mouth).

Any of the following media are permitted: watercolor, acrylic, oil paint, indelible marker pens, felt-tip pens, soft ball-point pens, indelible ink, Crayola, or any similar indelible medium.

The following media not NOT permitted: No pencil, charcoal or other non-permanent medium may be used; no computer-generated artwork is permitted; no collage work involving the use of photocopies is permitted.

Markings

The following details should be clearly shown on the back of the art: Title, family name, given name, address, date of birth, country of residence, name and address of school which child attends and certificate of authenticity ([available on the official contest brochure](#)).

Reproduction Rights

Once received, entries will become and remain the property of the Federation Aeronautique Internationale (FAI) or state sponsor and may be used for a variety of purposes.

Sponsors

The 2009 International Aviation Art Contest is sponsored by the National Aeronautic Association and the National Association of State Aviation Officials, in cooperation with the Federation Aeronautique Internationale (FAI), to motivate and encourage young people of FAI member nations to become more familiar with and participate in aeronautics, engineering, and science.

In 2009, the top air sport athletes from around the globe will travel to Turin, Italy, to compete in the largest air sports events in the world organized under the auspices of the Federation Aeronautique Internationale (FAI), the World Air Games. Over the course of a week, spectators will watch world class competitions and air shows fill the sky in a dazzling display of possibilities that can only take place above the ground.

Airplanes and glider will amaze the crowd with spins, loops, and dives in the aerobatic games. There will even be radio controlled aerobatics, the same spins, loops, and dives, but at a much smaller size. The gliders will also compete in races across the Italian landscape.

People will look up to see colorful hot air and gas balloons dotting the sky. These graceful craft, around for over 100 years, will rest next to the latest experimental aircraft aircraft flown in from around the world, competing in world record attempts to push the possibilities of flight.

Spectators will feel the excitement as hang gliders compete for speed and aerobatic ability while paragliders show off their aerobatic and landing accuracy abilities. They will see parachutists not only practice their accuracy but work together in incredible formation skydiving. Last, but certainly not least, they will see ultralights complete in both long distance flights and pylon races as helicopter pilots show off their craft in freestyle competition.

All of this and much, much more will be at the World Air Games in 2009. Your assignment: Grab your favorite art supplies and create a poster that captures the excitement and possibilities of the FAI World Air Games. Good luck, and remember, the sky's the limit!

For more information on the contest or to obtain a brochure contact Betty Wilson or Davia Archer at the Virginia Department of Aviation, (804) 225-3783 or (804) 236-3624.

VAOC John R. Lillard Aviation Scholarship Award

A letter from the John R. Lillard VAOC Aviation Scholarship Committee --

Dear Prospective Scholarship Applicant,

On behalf of the Virginia Airport Operators Council (VAOC), I would like to express my appreciation for your interest in the John R. Lillard VAOC Scholarship Program.

The scholarship you are seeking is named for a friend, aviation enthusiast and great humanitarian. Through his leadership positions with the Capital Region Airport Commission (which operates Richmond International Airport), Chesterfield County Airport, and Eastern Airlines, John always displayed a zeal and thirst for life, aviation, family and friends. Because of his great spirit, we seek to share and commemorate his unique and special gifts with others. It is also through the kind and generous support of many of the members of the VAOC that this scholarship program is available to assist future aviation leaders as well as honor John. To this end, I am honored that you are contemplating applying for our 2008 scholarship award in the amount of \$3,000.00.

Attached please find a copy of our application for your review and information. In order for your application to be considered, you must be a Virginia high school senior, have at least a 3.75 unweighted GPA; be planning a career in the field of aviation, and must be enrolled or accepted into an aviation related program at an accredited college. It is also necessary for you to:

1. Complete an application form.
2. Have your guidance counselor or other high school official sign all required certifications.
3. Attach an official copy of your current high school transcript and a copy of acceptance letters or other verification of enrollment or acceptance into a post-secondary institution.
4. Attach to the application a typed, double-spaced essay (350 word minimum/500 word maximum) on the subject: "Why I Wish to Pursue a Career in Aviation."
5. Attach recommendation letters (no more than three) and a typed (one-page maximum) sheet listing both school-related and extracurricular activities demonstrating accomplishments and leadership capabilities.
6. Mail all documents to: **VAOC Scholarship, c/o Virginia Department of Aviation, Attn: Betty Wilson, 5702 Gulfstream Road, Richmond, VA 23250-2422.**

The deadline for receipt of applications with all documentation is Friday, February 20, 2009. Applications will be evaluated as follows: 35% Scholarship (GPA), 30% Essay, 20% Accomplishments and Leadership and 15% demonstrated financial need for scholarship.

Thank you again for your interest in the John R. Lillard Virginia Airport Operators Council Aviation Scholarship Program. Best wishes for continued success in your academic endeavors.

Willard G. Plentl, Sr. Aviation Scholarship Award

Willard G. Plentl, Sr. was born in Houston, Texas and began pilot training in the Army Air Corps in 1942. Mr. Plentl had a successful career as a military pilot that included serving during the Korean War and flying a variety of aircraft from trainers to bombers to fighters.

After his retirement from the Air Force as a Lieutenant Colonel in 1962, Mr. Plentl accepted a position with the Commonwealth of Virginia as Assistant Director, Division of Aeronautics, Virginia State Corporation Commission, and in 1964 he became Director of Aeronautics. In 1970, he was a member of the President's Aviation Advisory Commission which helped shape America's current aviation system.

Mr. Plentl retired from the Virginia Department of Aviation in 1984 and was elected to the Virginia Aviation Hall of Fame that same year. Mr. Plentl passed away on May 19, 2005 leaving behind a devoted family and a record of outstanding service to aviation.

In honor of this remarkable gentleman and his 22 years of service to the Commonwealth of Virginia, this scholarship program has been established. The Willard G. Plentl Aviation Scholarship, in the amount of \$1,000, will be awarded to a Virginia High School senior who is planning an aviation career in a non-engineering area.

A certification of acceptance into a non-engineering, aviation-related postsecondary education program is required. Examples of non-engineering aviation careers include (but are not limited to) pilots, aviation maintenance technicians, aviation managers, etc.

Scholarship applicants must have an unweighted GPA of at least 3.5. One scholarship of \$1,000 will be awarded each year and is not renewable. The application deadline is February 20, 2009.

To Apply:

1. Complete an application form.
2. Have your guidance counselor or other high school official sign all required certifications.

3. Attach an official copy of your current high school transcript and a copy of acceptance letters or other verification of enrollment or acceptance into a post-secondary institution.
4. Attach to the application a typed, double-spaced essay (350 word minimum/500 word maximum) on the subject: "Why I Wish to Pursue a Career in Aviation."
5. Attach recommendation letters (no more than three) and a typed (one-page maximum) sheet listing both school-related and extracurricular activities demonstrating accomplishments and leadership capabilities.
6. Mail all documents to: Plentl Scholarship, c/o Virginia Department of Aviation, Attn: Betty Wilson, 5702 Gulfstream Road, Richmond, VA 23250-2422.

Application forms for both scholarships will be mailed to all high school guidance counselors in the fall and are also available on the Department of Aviation's web site.

Aviation Education Corner

Build A Wind Tunnel

SCIENCE CONCEPT:

A wind tunnel is used by scientists to test model airplanes which have the same shape as actual airplanes. Using the wind tunnel gives the scientists information about how a certain plane would respond in flight.

STUDENT OBJECTIVE:

The student will explore how wind currents create lift for an airplane using a wind tunnel, a fan, and model airplanes made out of balsa wood, heavy cardboard, or plastic.

OVERVIEW:

In this activity, the student will build a wind tunnel made out of a dozen one-quart cardboard mail cartons taped together with duct tape. After building the wind tunnel, the student will either make or purchase model airplanes. Then the student will hold the plane on the end of a string behind the wind tunnel, turn on an electric fan set in front of the wind tunnel (which will provide the air currents) and observe how the plane responds to the "wind currents".

MATERIALS NEEDED:

one dozen one-quart cardboard milk cartons
duct tape
glue
scissors
electric fan
model airplanes
string
paper and pencils

BACKGROUND:

In using a wind tunnel, scientists are able to determine how wind currents affect the lift of different types of airplanes. Determining the affects of lift on planes is an important part in the design and make of aircraft.

The design of the airfoil (wing) is such a vital part of the plane's ability in flight. The cross-section of a wing has a shape called an airfoil. As the wing moves through the air, the air divides to pass around the wing. The airfoil is curved so that air passing above the wing moves faster than air passing beneath. Fast-moving air has a lower pressure than slow-moving air. The pressure of the air is therefore greater beneath the wing than above it. This difference in air pressure forces the wing upward. The force is called lift.

A glider is the simplest kind of winged aircraft. It is first pulled along the ground until it is moving fast enough for the lift generated by the wings to exceed its weight. The glider then rises into the air and flies. After release, the glider continues to move forward as it drops slowly, pulled by a thrust force due to gravity. Friction with the air produces a force called drag that acts to hold the glider back. These two pairs of opposing forces - lift and weight, thrust and drag - act on all aircraft.

STEPS TO FOLLOW:

1. Make one wind tunnel with the classroom. Take the dozen one-quart cardboard milk cartons and cut off both ends on each carton. Glue all 12 together, four across (making three stories). Secure with duct tape with two long strips.
2. Decide as a class if you want to make your own model airplanes or purchase a few plastic ones.
3. Next, turn on the electric fan and place in front of the wind tunnel. Hold a plane on the end of a string behind the wind tunnel. Does the wind current create a lift? (You can adjust the elevators on the tail assembly so the airplane will climb) What is the position of the elevators in a nose dive?

Have the students write up a one page report on the experiment with the wind tunnel and model airplanes and how the air currents affect the lift, turning, rolling, and dive of a plane.

**Wind tunnel idea taken from the following book: Science Projects and Activities. Author: Helen J. Challand, Ph.D. Publisher: Childrens Press, Chicago, 1985.) - Visit <http://wings.avkids.com/>*

Virginia Aviation Foundation (VAF) 2009 Scholarship Announcement

The Virginia Aviation Foundation is seeking qualified applicants for our 2009 student scholarships.

The Paul E. Galanti Scholarship is named in honor of Paul E. Galanti, USN (Ret) who many recognize for his years as a P.O.W. during the Vietnam War.

The T. Rudy Howell Scholarship is named in honor of T. R. Howell, M.D., USAF/ANG (Ret), a 37 year veteran who last served on active duty during the Gulf War.

The Virginia Aviation Foundation student scholarships, in the amount of \$1,000, are each awarded to a high school senior, enrolled in a Virginia school district, who plans to attend an accredited school or academy to pursue a career in aviation.

Criteria for application include:

- The student must have applied to a school or academy with an accredited aviation related program.
- The applicant must have a minimum of a 2.8 GPA (based on a 4.0 system).

The application and required attachments must be received by the Virginia Aviation Foundation no later than March 1, 2009 to be considered. The scholarship will be presented to the successful applicants in the Spring.

To apply, please download an application from the Foundation's website at www.vaaf.org.

AIAA Educator Achievement Awards

Every two years, the AIAA (American Institute of Aeronautics and Astronautics) Foundation recognizes up to seven outstanding educators for their accomplishments in exciting K-12 students about math and science and preparing them to use and contribute to tomorrow's technologies.

Each recipient of the Educator Achievement Award and a guest will receive an expenses-paid trip to Washington, DC for the Aerospace Spotlight Awards Gala. The visit includes a tour of Washington, DC, plus travel and lodging.

For more information and to fill out a nomination form, visit <http://www.aiaa.org/content.cfm?pageid=217>.

The deadline for nominations is September 30, 2008.

Region X SAFECON

Each year the National Intercollegiate Flying Association (NIFA) holds regional competitions to qualify flight teams for their national competition.

This year's Region X (10) SAFECON (Safety and Flight Evaluation Conference) will be held at Lynchburg Regional Airport and hosted by Liberty University. It will run from October 29th thru November 1st.

Five to six flight teams from universities in this region should be competing.

For more information on the National Intercollegiate Flying Association (NIFA) visit <http://www.nifa.us/>.

For more information on the Region X SAFECON contact Ernie Rogers, Aviation Department, Liberty University, (434) 582-2183 or erogers@liberty.edu.