

International Commission on Aerospace Education United States Annual Report for 2003

The year 2003 was a very special year in the United States as we celebrated 100 years of controlled power flight, marked from the Wright Brothers effort. This yearlong celebration culminated on December 17, 2003, with a re-enactment of the historic flight at Kitty Hawk, North Carolina. Unfortunately, the weather 100 years after the original flight was not the same and thus the re-enactment did not replicate the feat of 1903.

Nonetheless, 2003 was a "Celebration of Flight", energizing the nation to look back at its accomplishments and to consider what the next 100 years will bring to the world of flight. In fact, there is a growing national awareness in returning to a manned space mission, with President Bush stating that the United States would launch a mission to Mars by 2020.

In 2003, the Centennial of Flight Commission education staff, in cooperation with NASA's Headquarter Offices of Education, Aerospace technology, Public Affairs, was very productive. Together they supported more than 50 initiatives related to the Centennial of Flight, as well as numerous additional venues countrywide. NASA Field Center staff also incorporated the Centennial of Flight theme into their educational initiatives and developed numerous major products and activities including a comprehensive web site www.aviationeducation.org.

One of the main activities of the Experimental Aircraft Association is aviation education. In 2003 the EAA met its goal of flying one million young people by the end of 2003. The EAA has many other aviation education activities listed at its web site <http://www.eaa.org/education.html>

During the past year, the Soaring Society of America helped the Civil Air Patrol provide nearly 10,000 cadet glider flights. They also aided the Experimental Aircraft Association reach its one million youth flight goal, by providing over 10,000 glider rides, 1,200 in 2003. A high point for the SSA was the "Return to Kitty Hawk", a trans-continental soaring safari of 36 modern sailplanes from California to the very spot of the Wright Brothers' glider and airplane experiments.

The Civil Air Patrol Aerospace Education continues its strong youth and educator programs. The 2004 National Congress on Aviation and Space Education convened in Atlanta, Georgia. During the National Congress, the CAP inducted five new members to its Crown Circle for Aerospace Education, and hosted the Frank G. Brewer Award for outstanding contributions to aviation education.

The International Association of Machinists and Aerospace Workers continued its partnership with Aviation High School, New York City. They arranged for high school seniors to work alongside experienced IAM members at US Airways and awarded professional mechanic's toolboxes to qualified graduating students. In addition, the IAM

partnered with the Center for Women and Work's Non-Traditional Career Resource Center to provide students in grades 7-12 a glimpse into aviation careers.

The Virginia Department of Aviation Education Programs awarded grants of \$250.00 to six teachers in 2003. The educators represented elementary, middle, and high school educators who used grant money to conduct aviation and space related lesson plans. The Department served as state coordinator for the Virginia 2003 International Aviation Art Contest, in which 164 students participated.

The National Business Aviation Association, in cooperation with the University Aviation Association (UAA), continues to work with colleges, universities and private training companies to offer its Professional Development Program encouraging professional development in the corporate flight department, to build tomorrow's leaders.

These are just a few of the many, many aviation programs currently working to help educate and advance the residents of the United States, helping them meet tomorrow's needs in the aviation industry. More detailed reports are included in the United States Aviation Education Report.

Respectfully Submitted,

Gordon Hoff
CIEA Delegate
United States

Civil Air Patrol Aerospace Education

On July 11, 1946, the Civil Air Patrol was chartered ...

- “To provide aviation education and training especially to ... senior and cadet members...”
- “To help ensure compliance with this Congressional mandate”

The Deputy Directorate for Aerospace Education produces educational products and programs for CAP senior and cadet members as well as the American school system. A sample of the 2003 CAP aviation education program highlights includes the following.

National Congress on Aviation and Space Education (NCASE)

Billed as the “Premiere Aerospace Education Conference in the Nation” the National Congress program development includes:

1. Selecting and contracting for the meeting venue
2. Planning an educational program with general assemblies, breakout concurrent sessions, field trips, and hangar talk sessions
3. Recognizing the top aerospace educators in the nation
4. Planning an exhibit hall with exhibitors, vendors, and displays
5. Planning conference registration
6. Planning the transportation, housing and feeding of attendees, presenters, exhibitors, and staff
7. Planning the solicitation of attendees, volunteer staff members, speakers, and presenters
8. Providing locations for field trip(s).

The National Congress is conducted over a five-day period including travel days to and from the site. Attendees (approximately 1,000 annually) and speakers are solicited throughout the United States and many international locations. Presenters and exhibitors are leaders in the aerospace field and represent military, government, industry, and educational organizations.

Aerospace Education Teaching Materials

These materials include over 30 educational products for free distribution to teachers, CAP members, and the general public to use in aerospace instruction. It also includes two textbooks, a student study guide, two instructor guides, and an opportunity to purchase aerospace education materials and resources through CAP’s CAPMart. Teachers may also participate in **Aerospace Education Membership Development Program**, a special membership program for teachers. Products include unique aerospace education lesson plans and periodic newsletters.

Aerospace Education Workshops

On an annual basis, CAP supports teacher workshops held at colleges and universities across the United States. These workshops help teachers acquire aerospace education knowledge and skills. Workshops qualifying for Civil Air Patrol support receive materials, instruction, and field trip assistance.

Other programs sponsored by the Civil Air Patrol includes **Fly a Teacher**, an orientation flight for Aerospace Education members; **Crown Circle for Aerospace Education Award**, recognition of sustained exceptional teaching; **Aerospace Education Foundation Grants**, grants for K-12 educators.

NASA/U.S. Centennial of Flight Commission 2004 Education Report

2003 marked 100 years of heavier-than-air powered flight for the United States. There were thousands of people planning hundreds of events. Millions of people participated in celebrating the 100 years of powered flight throughout the United States. This brief report cannot possibly mention them all.

The COFC was charged to play a role in encouraging and publicizing activities related to the achievements of the Wright Brothers and a century of powered flight. The COFC education staff participated in more than a dozen conferences, symposia, and seminars in 2003. They also promoted national and international participation in the Centennial of Flight through exhibits at national level events and education conferences, speaking engagements, professional development workshops, and student contests in the U.S. and abroad. The numerous collaborations formed resulted in hundreds of Centennial of Flight related events and activities.

In 2003, the NASA COFC education staff, in cooperation with NASA's Headquarter Office of Education, Aerospace Technology and Public Affairs, supported more than 50 initiatives related to the Centennial of Flight Commissioners' major events, as well as numerous additional venues countrywide that were sponsored by the COFC's partnership organizations and affiliates.

Nearly all of NASA's education program managers adopted Centennial of Flight themes that reflected in nearly all major educational initiatives in 2002 and 2003. This included NASA's Student Involvement Program, the Earth to Orbit Propeller Design Competition, Educational Flight Opportunities Program (ISS downlinks), and three of NASA's distance learning programs, reaching millions of students annually. NASA Field Center staff also incorporated the Centennial of Flight theme into their educational initiatives and developed numerous major products and activities including a comprehensive web site.

The COFC's "Calendar of Events" hosted a broad array of worldwide events related to the Centennial of Flight and the history of aviation. In 2003, 116 educational activities were listed on the calendar, not including the long-term events. Overall, events represented 25 states and more than a dozen countries.

The COFC's Education Staff provided on-site support for nine education related activities that took place in North Carolina in 2003. These events included Women in Aviation Day, Fayetteville Festival of Flight, the International Kite Festival, and the First Flight Celebration. The majority of the activities were presentations, Centennial of Flight related exhibits, and educational demonstrations.

More than a half dozen centennial activities in Ohio received on-site COFC educational support. This included the development of a Wright Brothers interdisciplinary curriculum that was disseminated to all school districts in the state and hundreds of schools across the nation. In addition, the COFC Educational Staff supported two Centennial of Flight themed international

education conferences in Cincinnati, sponsored by the Civil Air Patrol and Women in Aviation, International. Thousands of COFE educational materials were distributed throughout both organizations' educational networks.

The COFC web site provided its users with authoritative sources concerning the Wright Brothers, and the history of aviation and aerospace. Solicitations requesting educational, scholarly, or authentic materials were used to enhance the COFC web site.

In 2000-2002, the COFC Education Staff developed educational products in cooperation with the Offices of Education and Aerospace Technology at NASA headquarters. The most popular were two posters with hands-on activities that featured the Wright Brothers and the scientific and engineering processes used to successfully achieve powered flight. Along with several Field Centers they cooperatively developed numerous additional Centennial of Flight products that included educators' guides, bookmarks, CDs, posters, exhibits, and hands-on activities.

In the last four years, in excess of four million Centennial of Flight related products have been disseminated to educators, students, and the public in all 50 states, Puerto Rico, and more than 20 countries. Also developed was the "Centennial of Flight VIP Educational Tool Kit," that became available in December 2002. The Tool Kit includes an educators' guide, a poster called "The 1902 Glider: How the Problem of Control was Solved", a NACA/NASA timeline; a 32-page, full-color booklet featuring the pre-history of flight, a century of flight, the future of flight, and educational resources; and four bookmarks.

Prepared by

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Mission: Recruit, Educate, Organize, Recognize SSA Members under 26
Dedicated Funds: CADET, BULTMAN, KOLSTAD

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USA: SOARING SOCIETY OF AMERICA, Inc. (www.ssa.org)

Overview slide presentation: www.greeleynet.com/~jhpc/SSAYouth.ppt

Gliding International: www.glidingmagazine.com/FeatureArticle.asp?id=344

SSA Youth Programs page: www.ssa.org/YouthPgms.asp

SSA is an Air Sport Division of the NAA and FAI, a member of the National Coalition for Aviation Education, and a regular exhibitor at CAP's National Congress on Aviation & Space Education, as well as EAA and AOPA. The SSA website has much material on the nature and history of soaring, and flight opportunities in the sport. The SSA Office in Hobbs distributes thousands of free brochures and booklets annually on request (How You Can Become a Glider Pilot, Soaring Fact Sheet, Soaring In America, *Soaring* magazine). Other promotional materials are available at nominal cost (Soaring Coloring Book, IGC video, SSA calendar). A high point in SSA visibility unique to 2003 was "Return to Kitty Hawk", the trans-continental soaring safari from California to a landing of 36 modern sailplanes at the very spot of the Wright Brothers' glider and airplane experiments. Soaring as a sport fosters the best in young adults, it is an ideal context for hands-on aviation education, and adding young pilots to SSA membership has manifold benefits, both short & long term.

- The SSA has signed Partnership Agreements with several youth and aviation groups, such as: CIVIL AIR PATROL. AVIATION EXPLORING. EAA YOUNG EAGLES. In 2003, CAP did nearly 10,000 cadet glider flights, many using staff, equipment, or services of SSA-affiliated soaring Clubs or Operators. We helped EAA reach its 1 million youth ride goal, over 10,000 were in non-CAP gliders, 1,200 in 2003 alone. SPORTY'S PILOT SHOP offers wide commercial distribution of SSA merchandise and membership. FAA, NASA, partner in developing educational materials, as well as the SOARING SAFETY FOUNDATION and commercial authors such as KNAUFF & GROVE and WANDER.

- SSA's own National Programs include:
JUNIOR SOARING TEAM (FAI under-26 World Team). A small team to Nitra '03, we have gone since 1989.
JUNIOR CONTEST GRANTS. For entry fees at SSA sanctioned contests. 2 2003 winners were at Nationals.
JUNIOR CROSS-COUNTRY & RACING CAMPS, organized by the US Team Committee, will start in 2004.
JUNIOR NATIONAL CHAMPION TROPHY, for highest percentage score at any Nationals, will start in 2004.
PLAIN SOARING CAMPS, with 3-time World Champion George Lee in Australia. 4 pilots in 2002, 2 in 2004.

- The SSA YOUTH COMMITTEE oversees a full range of yearly scholarships to support its 4 missions:
CADET (June 30). \$600 for learning to fly gliders. Desire award, open to the public. 2 winners in 2003.
BULTMAN (April 30). \$400 for soaring progress. Service award, for SSA member ground crew. 1 winner
KOLSTAD (October 1). \$1,250 for College expenses. Achievement award for SSA members. 2 winners.
In 2003, the SSA YCOM also contributed material for 2 planned children's books, nominated 2 soaring pilots for an "amazing kids" cable TV series, and distributed 1902 Wright Glider hand-outs to all SSA Clubs & Operators.

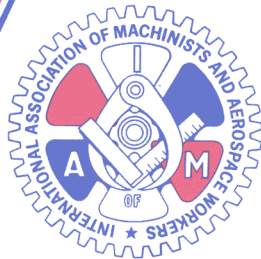
- Several SSA Affiliate and Division Members also run excellent youth and education programs, such as:
GOGOS SCHOLARS (CSA). \$2,500 for soaring study. Program ended in 2001 but could be resumed with new sponsors. The *Collegiate Soaring Association* surged in 2003. Although the USAFA program had setbacks, clubs are strengthening at Embry-Riddle, Parks, Purdue, Mississippi State. CSA sourced a donated composite glider kit for engineering education at MSU in 2003, as for Penn State 5 years ago (kit near completion).
EILEEN COLLINS AVIATION CAMP (NSM, July), KITE-CITEMENT (NSM, Sept.), SKY GHOST Youth Grant (NSM).
SKY GHOST Grant (WSPA, May 15). \$500 for female students. BRIEGLEB Grant (WSPA, May 15). \$500 at Seminar.
WORLD CLASS CONTEST Youth Promotion (WCSA). \$500, full registration at the World Class Nationals.
PHYSICALLY CHALLENGED glider education is available (FWI). SOARING CONTEST operations training (NSF).
HOME-BUILDING workshops (SHA). HISTORY seminars (VSA).

- Finally, many SSA Chapters and Commercial Operators run their own soaring camps, youth scholarships, and line-crew work programs. SSA maintains online directories of YOUTH CAMPS and YOUTH GRANTS.

The SSA Youth Committee is a Sub-Committee in the Growth area of the Soaring Society of America, Inc.
SSA is a National Educational Organization tax-exempt under IRC 501(C)3. Gifts to SSA for Youth funds are tax-deductible.



International Association of Machinists and Aerospace Workers



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OFFICE OF THE GENERAL VICE PRESIDENT

Recurrent Training Programs

The Machinists Union has a state-of-the-art education and technology center in Maryland. Whether at our training center or at airport locations nationwide, the Machinists Union provides training to our members on many subjects, including:

- The Railway Labor Act
- Aircraft accident investigation
Human factors training for aircraft technicians
- Airport safety & health training
- Hazardous material training

Partnership with Aviation High School, New York City

Aviation High School, a New York City public school, trains students in aviation maintenance in addition to more traditional high school studies. The IAM has arranged for seniors from the high school to visit LaGuardia Airport to work alongside experienced IAM members at US Airways.

The Machinists Union also provides annual awards of professional mechanic toolboxes to qualified graduating seniors.

On March 9, 2003 the IAM flew 24 Aviation High School students and their chaperones from LaGuardia Airport in NY to Washington, DC to for a week of intense training at the IAM's Winpisinger Education and Technology Center in Maryland.

Representatives from the National Transportation Safety Board, Transportation Security Administration, Federal Aviation Administration and a Senior Vice President from British Airways met with the future aviation professionals. IAM representatives, including former graduates, also discussed their experiences as aircraft mechanics to provide a glimpse into their chosen profession.

Working with the Federal Aviation Administration, the IAM is continually seeking additional partner schools that focus on aviation programs.

Rutgers University Center for Women and Work

The Center for Women and Work is dedicated to the economic and intellectual advancement of women across the education, income, ethnic, and occupational spectrums, and to challenging the status quo in the organizations that educate, train and employ them.

The IAM has partnered with The Center for Women and Work's Non Traditional Career Resource Center to provide 7th through 12th grade students a glimpse into aviation careers through labor's unique perspective. Additionally, the Machinists Union coordinates with aviation companies to establish job fairs that provide employment opportunities for the students.

National Coalition for Aviation Education

The IAM is a member of the National Coalition for Aviation Education. This organization facilitates aviation programs for students at all grade levels.

Virginia Department of Aviation Education Programs - 2003

The Virginia Department of Aviation conducted several aviation education programs in 2003 and provided assistance to several others.

Teachers Grants in the amount of \$250.00 each were awarded to six teachers in 2003. These educators who represented elementary, middle, and high schools used the grants to conduct aviation and space related lesson plans. Four educators have been already been selected to receive teachers grants this year (2004).

The Virginia Aviation and Space Education Forum (VASEF) Newsletter; which is edited, published, and mailed by the Department; shared aviation education information with educators and was disseminated quarterly to over 2500 addresses including all of Virginia's public schools.

The Department served as state coordinator for Virginia for the 2003 International Aviation Art Contest. There were 164 total entries from across the Commonwealth of Virginia in 2003.

The Department is once again assisting with the John R. Lillard Scholarship, sponsored by the Virginia Airport Operators Council. Application forms for this \$1,500.00 scholarship went out with the Department's school mailing last fall. Applicants are now being reviewed and a selection is expected by April 1 of this year.

The Department participated in the 2003 Summer Transportation Institute at Virginia State University. This program introduced young people to various transportation modes. The Department of Aviation conducted an onsite program which involved building and flying balsa gliders and also arranged for a daylong tour program which included a tour of Newport News/Williamsburg International Airport; a talk by the head of the TSA for the airport; a program at the Aviation Academy, a high school program based at the airport; and then lunch and an airplane ride at Williamsburg-Jamestown Airport, a nearby general aviation airport.

The Department also participated in Rotary Airport Career Day at Richmond International Airport which is a career day that offers students from a number of local high schools the opportunity to learn more about aviation careers.

Finally, the Department has established a relationship with Donahoe Elementary School located near our offices on Richmond International Airport. Volunteer staff members are assigned to classes (grades 2-5). These volunteers eat lunch with students, tutor them, answer their questions about aviation, and present short aviation-related programs.

Betty Wilson, Public Relations Specialist, Virginia Department of Aviation, 03/15/04

PDP and SPDP Courses Offered by NBAA

PDP Obj	Course Title	Provider	Dates	Location	Attendees	Instructor
*L1	Leading & Motivating Flight Dept Personnel	Summit Sol'n	Jan 12, 02	Orlando, FL Renaissance Resort	S&D Conference/~20	Jodie Brown
*C4	Interpersonal Communications	ERAU	Jan 13, 02	"	S&D Conference/~34	Dr. Jeff Atwood
*L2	Leading & Motivating Flt Dept Personnel	Summit Sol'n	Apr 26, 02	Opryland Hotel	Leadership Conference	Jodie Brown
BA5	Flt Dept Customer Service	ERAU	Sept 8, 02	Orlando,	NBAA AM&C/24	Dr. Thorsten Hisam
AM1	Aviation Safety and Security	ERAU	Sept 9, 02	Orlando	NBAA AM&C/56	Dr. Thorsten Hisam
*L2	Personal Leadership Effectiveness	Summit Sol'n	Feb 2, 03	Anaheim	S&D Conference/ 26	Jodie Brown
C5	Power of Effective Flight Dept Communications	Summit Sol'n	Feb 20, 03	Col Springs, CO	CAMC Leadership/37	Jodie Brown
C5	"	"	May 21, 03	Charlotte, NC	Mx Mngrs	"
L5	Developing a High Performance Flt Dept Team	Summit Sol'n	Oct 5, 03	Orlando, FL	NBAA AM&C/43	Jodie Brown
AM8	Legal Issues in Aviation Management	ERAU	Oct 6, 03	Orlando, FL	NBAA AM & C/48	ERAU

*SPDP credit at S&D Conference

PDP and SPDP Courses Offered by NBAA

SPDP Courses Offered

PDP Obj	Course Title	Provider	Dates	Location	Attendees	Instructor
F-01 & F02	Basic Scheduling & International Procedures	Air Routing	Jan 29, 01	Nashville, TN Opryland Hotel	105	Dave Stohr
F01 & PM2	Elements & Practice of Corporate Scheduling & Dispatching	Universal Wx & Aviation	Jan 12, 2002	Orlando, Renaissance Resort	S&D Conference~25	Fred Towers, Lee Medlin
F01	Scheduling Function	Air Training Int'l	Feb 1, 03	Anaheim, Disneyland Resort	S&D Conference/25	Dave Stohr
F02	International Scheduling	Air Training Int'l	Feb 2, 03	Anaheim, Disneyland Resort	S&D Conference/43	Dave Stohr
C3 & C5	Crew Resource Mngmnt & Small Group Communication	Flight Safety Int'l	Feb 1, 03	Anaheim, Disneyland Resort	S&D Conference/23	Susan Harrison
F01 & PM2	The Elements & Practice of Corporate Scheduling & Dispatching	Universal Wx & Aviation	Jan 10, 04	Savannah, GA	S&D Conference/20	Fred Towers
L1*	Strategic Planning	Embry Riddle Aero University	Jan 10, 04	Savannah, GA	S&D Conference/14	ERAU
F02	International Scheduling	Air Training Int'l	Jan 11, 04	Savannah, GA	S&D Conference/35	Dave Stohr
F04 & F05	Flt ops Management & Aircraft Capacity Utilization	Flight Safety Int'l – LaGuardia	Jan 11, 04	Savannah, GA	S&D Conference/	Shafie S. Sabry