

Civil Air Patrol



Aerospace Education AE 01

1 September 2017
San Antonio, TX



Aerospace Education

- AE Lab Schedule
- NHQ/AE Staff & NHQ Volunteer AE Staff
- AE Mission
- Program Update
- Curricula Update
- Regulation Update



Aerospace Education

- AE Lab Schedule (All in this room)

Friday

- AE 02 Model & Advanced Rocketry
- AE 03 AE Curriculum – Women in Aviation
- AE 04 Raspberry Pi

Saturday

- AE 05 AE Outreach, Community Involvement & Workshops
- AE 06 AE Hands-on Activities
- AE 07 Satellites & Systems Tool Kit (STK)



Aerospace Education

Dr Jeff Montgomery
Deputy Director
AE

Debbie Dahl
AE Program
Manager

Susan Mallett
Youth Development
Coordinator

Sue Mercer
AE Program
Manager

Ginny Smith
AE Program
Manager



Aerospace Education

- Volunteer NHQ/AE Staff

Lt Col Mike McArdle – National AEO

Lt Col Randy Carlson

Capt Spencer Kiper

Lt Col Michael Castania

Lt Col Jonathan Lartigue

Lt Col Karen Cooper

Lt Col Frank Roldan

Lt Col Gary Dahlke

Maj Carol Samuelson

Lt Col Michael Fultz

Lt Col E. J. Smith

Lt Col Dave Garner

Lt Col Sherwood Williams

Lt Col Nick Ham



Aerospace Education

- AE Mission
 - Promote AE & STEM
 - CAP Members & General Public
 - Members – cadets & adults
 - General Public – schools, teachers, organizations
- Best way – products & programs



Aerospace Education

- Products & Programs
 - 40 different products
 - K-12 & Beyond
 - National Educational Standards
 - AE & STEM Related
 - Contain Hands-on Activities



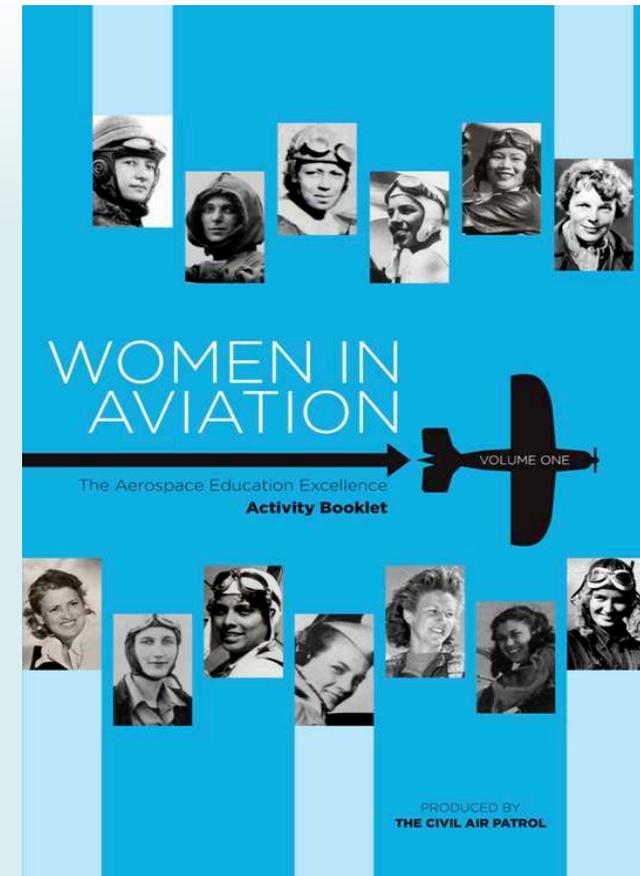
Aerospace Education

- AE Products
 - Aerospace Dimensions
 - Aerospace: The Journey of Flight
 - Rocketry
 - Advanced Rocketry
 - Advanced Math
 - MARC I & II
 - Astronomy & Astronomy Activities
 - Unmanned Aerial Systems (UAS)



Aerospace Education

- More AE Products
 - Robotics
 - Life Sciences
 - Physical Sciences
 - Earth & Space Sciences
- New Curriculum
 - Women in Aviation I & II - 2017
 - Tuskegee Airmen - 2018





Aerospace Education

- AE Programs
 - AEX Award Program – Hands-On
 - Any 6 AE/STEM Activities; + 2 hours
 - Squadrons may enter each activity as it is completed
 - Successor can complete the report
 - Certificates for cadets



Aerospace Education

- Aerospace Education Member (AEM)
 - Membership category
 - AEMs don't wear CAP uniforms or attend CAP meetings on a regular basis
 - AEMs use AE products/programs to promote AE/STEM
 - \$35 to join, with free renewal



Aerospace Education

- Aerospace Connections in Education (ACE)
 - K-6 Program; 21 grade-specific lesson plans
 - Cover academics, Character development & physical fitness revolving around AE theme
 - 27,350 kids, 433 teachers, 188 schools in 38 states

Great pre cursor to cadet programs!





Aerospace Education

- AE STEM Kits FREE & you get to keep them!
- Began FY13, AF STEM Outreach Office
- Developed kits, contacted vendors, distributed kits (CAP sq, AEMs, AFJROTC)
- Initially 5 kits – flight simulators, robotics, rockets, astronomy, & model aircraft remote control
- Expanded to 10 – hydraulic engineering, raspberry pi, quad copter, weather station, & ready-to-fly quad
- Now 15 kits – bee bots, sphero, snap circuitry, renewable energy, & intermediate math

STEM Kit Program

10 Kits

Raspberry Pi



Ready-to-Fly
Quadcopter



Model & Remote Control Aircraft



Astronomy



Quadcopter



Robotics



Rocketry



Hydraulic
Engineering



Flight Simulator



Weather
Station

5 New Kits



Sphero



Bee Bots



Renewable Energy



Intermediate
Math &
Geometry



Snap Circuits
Snaptricity





Aerospace Education

- AE STEM Kits
- Filled 4800 orders, spent \$1.5M
- 91% cadet/comp sq have at least 1 different kit
- 50% have at least 2 different kits
- 60% AEMs and 25% AFJROTC have at least 1 kit
- Order – www.capmembers.com/stem-ed



Aerospace Education

- AE Regulations
- CAP is reengineering all regs
- CAPR 280-2 and 50-20 are becoming CAPR 50-1
- CAPP 15 will become CAPP 50-1
- Transition will be completed by Nov 2017



Aerospace Education

Questions?