

## **Raylene B. Alexander**

*Assistant Professor*

*Kansas State University at Salina*

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### **EDUCATION**

**Master of Science**, Dual Major in Aviation Management and Aviation Safety, Embry-Riddle Aeronautical University, Extended Campus-Fort Campbell, KY, 2005

**Bachelor of Science**, Aviation Maintenance Technology, Embry-Riddle Aeronautical University, Daytona Beach, FL, 1989

### **FEDERAL CERTIFICATES OR LICENSES**

- FAA Airframe Certificate
- FAA Powerplant Certificate
- FCC License
- Aircraft Electronics Technician Certificate

### **ACADEMIC/TEACHING EXPERIENCE**

**Assistant Professor, tenure-track**, Kansas State University-Salina, Salina KS, *July 2006*.

- AVM 121 Aircraft Drawings
- AVM 111 Basic Aircraft Electricity
- AVM 142 Airframe Systems
- PPIL 250 Safety and Security of Airport Ground Operations

**Part-time Aviation Maintenance Technology Instructor**, Everett Community College, Everett WA, *January 2006-*

**Adjunct Instructor**, Embry-Riddle Aeronautical University, Fort Campbell KY, *November 2005*.

- ASCI 609 Aviation Maintenance Management, graduate course (Seattle WA)

**ACADEMIC/TEACHING EXPERIENCE CONT.**

**Aviation Maintenance Technology Instructor, North Central Institute (NCI),  
Clarksville TN, *October 2003 – June 2005***

- Taught the below mentioned courses
- Responsible for Mock-up/Trainer repairs; hydraulic sys, pitot-static sys, airframe fuel sys, engine fuel sys, landing gear retraction sys, ice and rain protection, and oxygen
- Responsible for the battery shop and maintenance and charging of the schools nicad batteries
- Built and Maintained Pitot-Static Trainers
- Repaired various Test Equipment including the Howell Jet-Cal and various pitot-static testers

**COURSE DEVELOPMENT AT KANSAS STATE UNIVERSITY AT  
SALINA**

- PPIL 250 Safety and Security of Airport Ground Operations
- AVM 315. Advanced Avionics.
- AVM 427. Avionics Repair
- AVM 429. Avionics Maintenance

**COURSES TAUGHT IN AVIATION MAINTENANCE AT NORTH  
CENTRAL INSTITUTE**

- |                          |                               |
|--------------------------|-------------------------------|
| • Ground Ops             | • Position and Warning System |
| • Basic Electricity      | • Airframe Instruments        |
| • Aircraft Drawing       | • Avionics                    |
| • Math                   | • Ice and Rain Protection     |
| • Physics                | • Fire Protection             |
| • General Applications   | • Airframe Applications       |
| • Airframe Electricity A | • Powerplant Electricity      |
| • Airframe Electricity B | • Powerplant Instruments      |
| • Airframe Fuel Systems  |                               |

**COURSE DEVELOPMENT AT NORTH CENTRAL INSTITUTE**

Developed the following courses, that include; lesson plans, curriculum, syllabus, PowerPoint, quizzes, and final test.

- Airframe Instruments
- Avionics
- Powerplant Electricity
- Airframe Electricity I
- Airframe Electricity II

## **ACADEMIC PROGRAM DEVELOPMENT**

- Developing a two-year National Center for Aircraft Technician Training (NCATT) approved avionics certificate program for Kansas State University at Salina.
- Developed a two-year proposal for an electricity-electronics-avionics degree program for North Central Institute.

## **PROFESSIONAL MEMBERSHIPS**

- Women In Aviation Association-(1999-) #4634
- Association of Women in Aviation Maintenance-(2005-) #838
- Professional Aviation Maintenance Association-(2005-) #58890
- Aviation Technician Education Council-(2005-)
- University Aviation Association-(2006-)

## **NATIONAL-INTERNATIONAL COMMITTEE MEMBER**

- Women In Aviation Educational Committee (2005)
- University Aviation Association-Safety Committee (2006-)
- University Aviation Association-Technical Education (2006-)

## **ORGANIZATION DEVELOPMENT**

- Developing a mentor program for women A&P students.

## **PROFESSIONAL DEVELOPMENT**

- Aviation Electronics Association Convention (2007)
- University Aviation Association Conference (2006)
- Women In Aviation Conference (1999, 2000, 2001, 2005, 2006, 2007)
- Aviation Technician Education Council Conference (2006)
- Tennessee Mid-South Aviation Maintenance Seminar (2004)
- Aviation/Aerospace Accident Investigation ERAU (2004)
- Aviation/Aerospace Industrial Safety, ERAU (2004)
- Aircraft & Spacecraft Development, ERAU (2004)
- Aircraft Operations Safety, ERAU (2005)
- Aviation/Aerospace System Safety, ERAU (2005)
- Human Factors In Aviation/Aerospace, ERAU (2005)
- Tennessee Association of Independent Colleges and Schools, Inc. Professional Development Workshop: "Career Placement-How a Staff Works Together" (2004)
- CompUSA Computer Training, "Microsoft Excel 2000 Introduction" (2003)
- CompUSA Computer Training, "Microsoft Excel 2000 Intermediate" (2003)

## **PROFESSIONAL DEVELOPMENT...CONTINUED...**

- CompUSA Computer Training, “Microsoft Excel 2000 Advance” (2003)
- CompUSA Computer Training, “Microsoft PowerPoint 2000 Introduction” (2003)
- CompUSA Computer Training, “Microsoft Word 2000 Introduction” (2003)
- United Airlines, “Hazard Communication & First Response” (1999)
- United Airlines, “Human Factors In Maintenance Workshop” (1996)
- International Association of Machinists and Aerospace Workers, “FAA/IAM Federal Air Regulations Certificate Action/Enforcement Training” (1996)
- United Airlines, “The Dynamics Of Safety Awareness” (1995)
- United Airlines, “Diversity In The Workplace” (1995)
- United Airlines, “Maintenance Operation’s Safety Awareness” (1995)
- United Airlines, “Sexual Harassment Prevention” (1993)
- United Airlines, “Drugs At Work” (1993)
- United Airlines, “SIDA-FAA Security Requirements” (1992)

<p><b>UNITED AIRLINES MAINTENANCE TRAINING AND QUALIFICATIONS</b></p>
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- United Airlines
  - Autopilot Qualified- B737-322/522
  - Autopilot Qualified- B757-222
  - Autopilot Qualified- DC10-10/30
  - Airworthiness Maintenance Release all aircraft
  - General Familiarization training; B727, B737-222, B737-322/522, B757, B767-222/322, B747-Anolog/All, B747-422, DC10-10/30, A319, A320
  - Communication and Navigation training; B727, B737-222, B737-322/522, B757, B767-222/322, B747-Anolog/All, B747-422, DC-10/30, A319, A320
  - Avionics
- Customer Aircraft
  - Airworthiness Maintenance Release Singapore Airlines
  - Airworthiness Maintenance Release America West Airlines

## **INDUSTRIAL TRAINING**

### **United Airlines, San Francisco CA, 1989-2003**

- Maintenance Release
- Singapore Maintenance Release
- American West Logbook & Maintenance Release
- One Person Push Back
- ETOPS Policies & Procedures
- TCAS II Familiarization
- Best Maintenance I & II
- Principles of Troubleshooting
- R & E Skills
- Ground Support Equipment Operation
- Fuel Tank Entry
- Fuel System Familiarization
- Interior & Entertainment Systems
- JC Air 429 Data Bus
- Time Domain Reflectometer
- Proximity Sensor W/L-C-R Tester
- Avionics Fundamentals I
- Avionics Fundamentals II
- Dinol Airframe Application
- Corrosion Control Program
- Respirator Training
- Wire Wrap Training
- APU Operation; DC-10, B727, B737, B747, B757, B767
- General Familiarization; DC-10, A319/A320,
- System Introduction; B727, B737-222, B737-322/522, B747-100, B747-400, B757, B767
- Communication/Navigation; DC10, B737-322/522, A319/320, B747-400, B757, B767, B727
- CAT/III; B737-322/522, B757, DC10
- INS System B747-DC10

### **United States Marine Corps, Naval Air Station Whidbey Island WA**

- Basic Electricity and Electronics
- Avionics Tech "A" School
- E-780-0010 Flight and Hanger Deck Firefighting
- EA-6B (I-CAP) Electronic Countermeasures Analyst Organizational Maintenance
- Avionics Corrosion Control
- Electronic Connector Repair
- Plane Captain Training

## **INDUSTRIAL EXPERIENCE**

### **United Airlines, San Francisco, CA, 1989-2003**

- LINE MAINTENANCE ELECTRONICS TECHNICIAN (9/92-9/03)

Line maintenance experience, including contract airlines, international and domestic gates, and out of service aircraft, on all types of aircraft. A member of the UAL safety team.

- AIRFRAME OVERHAUL RADIO-ELECTRICAL MECHANIC (8/90 - 9/92)

Worked on a variety of electrical - electronics on United aircraft. Installed and tested new installations, such as TCAS and ETOPS. Complied with AD notes, COA's and Engineering modifications.

- AIRFRAME MAINTENANCE FUEL MECHANIC (UAL 11/89 - 8/90)

Serviced, troubleshoot, and repaired fuel tanks on all United aircraft

#### **United States Marine Corps, 1980-1984**

- SECRET CLEARANCE

- AVIATION ELECTRONICS TECHNICIAN ( USMC 6/80 - 8/84)

Serviced, troubleshoot, and repaired a wide variety of navigation, communication, and electric counter measures. Flight line troubleshooter for avionics equipment during launch and recovery of EA-6B aircraft.

- FLIGHT LINE HANDLER ( USMC 6/80 - 8/84 )

Performed daily and preflight inspections, refueled and serviced aircraft, launched and recovered aircraft EA-6B.