# Scholarly Speaking 2016



### Featuring Annual Faculty Awards Ceremony



### EMBRY-RIDDLE Aeronautical University

PRESCOTT, ARIZONA

### **Scholarly Speaking**

March 31, 2016

### **Program**

### Welcome

Dr. Frank Ayers Chancellor

### **Author Recognition**

Sarah Thomas

Director, Hazy Library and Learning Center

Dr. Richard Bloom

Chief Academic Officer

### **Annual Faculty Awards Ceremony**

Dr. Richard Bloom

Chief Academic Officer

- Teaching
- Research
- Service
- Adjunct

### **Faculty Speakers**

Prof. Dawn Groh

College of Aviation

Dr. Stephen Bruder
College of Engineering

## Bibliography of Publications & Presentations in 2015

Embry-Riddle
Aeronautical University
Prescott Campus
Community

**March 31, 2016** 



### Mehran Andalibi

College: Engineering

**Department:** Aerospace & Mechanical Engineering

**Research Areas:** Autonomous systems; Computer vision; Machine learning.

### 2015 Scholarly Activity:

Andalibi, Mehran; Z. P. Barbeau, S. D. Fehrenbach, J. D. Jacob, and G. Chowdhary. "System Development for the NASA UAS Airspace Operations Challenge." 15th American Institute of Aeronautics and Astronautics (AIAA) Aviation Technology, Integration, and Operations Conference. Dallas, TX. 22-26 June 2015.

Andalibi, Mehran; D. Chandler. "Digital Image Watermarking via Adaptive Logo Texturization", *IEEE Transactions on Image Processing*. Volume 24, Issue 12. Dec. 2015. Pages 5060-5073.

Andalibi, Mehran; D. Gabbert and J. D. Jacob, "System Development for Wildfire SUAS." 33rd American

Institute of Aeronautics and Astronautics (AIAA) Applied Aerodynamics Conference. Dallas, TX.

22-26 June 2015.

Andalibi, Mehran; L. L. Hoberock, and H. Mohamadipanah. "Effects of Texture Addition on the Optical Flow Performance in Images with Poor Texture." *Image and Vision Computing*. May 2015. Pages 1-15.

Andalibi, Mehran; L. L. Hoberock and H. Mohamadipanah. "Predictive Model Reference Adaptive Control to Compensate Heart Motion in Minimally Invasive CABG Surgery." *Cardiovascular Engineering and Technology*. Volume 6, Issue 3. Sept. 2015. Pages 329-339.

### **Quentin G. Bailey**

College: Arts & Sciences

**Department:** Physics & Astronomy

Research Areas: Theoretical and experimental aspects of testing special and

general relativity.



### 2015 Scholarly Activity:

Bailey, Quentin G. "Spacetime Symmetry and Gravity." *IAP Seminar*. Institut D'Astrophysique de Paris. 22

June 2015. Invited Presentation.

Bailey, Quentin G.; Brett Altschul, et al. "Quantum tests of the Einstein Equivalence Principle with the STE-QUEST space mission." *Advances in Space Research*. Volume 55, Issue 1. Jan. 2015.

Pages 501-524.

Bailey, Quentin G.; Aurélien Hees, Christophe Le Poncin-Lafitte, et al. "Testing Lorentz symmetry with planetary orbital dynamics." *Physical Review D – Particles, Fields, Gravitation and Cosmology*. Volume 92, Issue 6. Sept. 2015. Article Number 064049.



### **Angela Beck**

College: Arts & Sciences

**Department:** Humanities & Communications

**Research Areas:** Sociocognitive theories of language acquisition and expertise, especially as they apply to composition studies; Team-teaching and collaborative education; Writing for specific purposes; Strategy instruction especially applied to the teaching of technical writing.

### 2015 Scholarly Activity:

Beck, Angela; Jim Helbling. "From One to Many: Building an Effective Teaching Team for Capstone Courses."

Proceedings of the 2015 American Society for Engineering Education Pacific Southwest Conference.

San Diego, CA. 9-11 Apr. 2015.

### Richard W. Bloom, Chief Academic Officer

College: Security & Intelligence

Research Areas: Aviation intelligence and security systems; Profiling; Terrorism, anti-terrorism, and counterterrorism; Threat, vulnerability, and risk assessment; Intelligence collection and analysis, covert action, and counterintelligence; Personnel security; The psychology of information warfare; Critiques of post-modernism and post-structuralism in the contexts of psychological assessment and hermeneutics historical narrative.



- Bloom, Richard W. "Ain't that peculiar? Peculiar as can be. Review of The Personality of Henry

  Cavendish—A Great Scientist with Extraordinary Peculiarities." PsycCRITIQUES, Volume 60, Issue

  8. 2015.
- Bloom, Richard W. "Can we talk? Review of Psychotherapy Case Formulation." PsycCRITIQUES, Volume 60, Issue 51. 2015.
- Bloom, Richard W. (2015). "The D work in a D world. Review of Detecting Deception: Current Challenges and Cognitive Approaches." PsycCRITIQUES, Volume 60, Issue 32. 2015.
- Bloom, Richard W. (Chair). "Malaysia Airlines Flight 370: Implications for applied research in security, emergency management, and safety." Annual Meeting, Transportation Research Board.

  Washington, DC. 11-14 Jan. 2015.
- Bloom, Richard W. (Chair). "Narcotics smuggling operations as portal for introduction of terrorist devices into commercial aviation aircraft." Annual Meeting, Transportation Research Board. Washington, DC. 11-14 Jan. 2015.
- Bloom, Richard W. (2015). Presentations to various special interest groups: (1) Is the United States-Iran nuclear weapons development deal the right deal?; (2) Operational issues for first-responders to terrorism; and (3) National strategic security issues: 2015 and into the future.



### **Ken Bordignon**

**College:** Engineering

**Department**: Aerospace & Mechanical Engineering

**Research Areas:** Control allocation for redundant systems.

### **2015** Scholarly Activity:

Bordignon, Kenneth; Iacopo Gentilini, Kevin Vicencio, and Tristan Korras. "Energy-Optimal Path Planning for Six-Rotors on Multi-Target Missions." 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). Hamburg, Germany. 28 Sept. – 2 Oct. 2015.

### **Brent Bowen**

College: Aviation, Dean

**Department:** Aeronautical Science

Research Areas: Measurement of airline operational performance and quality;

Collegiate aviation education and scholarship; Research methods in aviation.



- Bowen, Brent D.; Erin E. Bowen, Chrissy M. Clary, Michelle Bennett, and Krystal Megha. "Utilizing Macro Data to Create a Micro Experience: Personalizing the Air Passenger Selection Process." *International Symposium for Aviation Psychology*. Columbus, OH. May 2015.
- Bowen, Brent; Mary Fink, et.al. (Eds.). *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference.* Scholarly Commons, Hazy Library and Learning Center, Prescott, AZ. Mar. 2015.
- Bowen, Brent; Mary Fink, Juan Merkt, Tim Sestak., et al. "Conference Communiqué and Results of the Aviation/Aeronautics/Aerospace International Research Conference (A³iR Con)." Phoenix, AZ. 15-18 Jan. 2015.
- Bowen, Brent; Jacqueline Luedtke and Michelle Bennett. "Comparative Analysis of the U.S. Airline Industry."

  Poster presentation at the Arizona Nevada Academy of Science. Arizona State University, Phoenix, AZ.

  18 Apr. 2015.
- Bowen, Brent; Jacqueline Luedtke, Michelle Bennett, and D. Headley. "Benchmarking Economic Trends and Airline Performance." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.
- Bowen, Brent; Jacqueline Luedtke, and Dawn Groh. "Undergraduate Research Outcomes Resulting from an Intensive Capstone Experience." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.
- Bowen, Brent; Juan Merkt, Dawn Groh., Jacqueline Luedtke, and Scott Ritchie. "Retention and Student Success in University Flight Training Programs: A Model Process Plan." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.

### **Brent Bowen (continued)**

- Bowen, Brent; D. Ison, J. Mott, et al. "Research and Scholarship: An Interactive Discussion with Journal Editors and More." Round table discussion. Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A3iR Con). Phoenix, AZ. 15-18 Jan. 2015.
- Bowen, Brent; C. Willard, Michelle Bennett, and Jacqueline Luedtke. "A Trend Analysis Comparing Qualitative and Quantitative Performance Data on Economic Indices." Abstract presented at the 7th Annual Undergraduate Research Symposium. Embry-Riddle Aeronautical University, Prescott, AZ. Oct. 2015.
- Bowen, Brent; Michelle Bennett, and Jackie Luedtke. "Comparative Analysis Applied to the U.S. Airline Industry.

  \*Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).

  \*Phoenix, AZ. 15-18 Jan. 2015. Undergraduate Poster Session.
- Bowen, Brent; Michelle Bennett, and Jacqueline Luedtke. "A concept Model for Comparative Analysis Applied to the U.S. Airline Industry." *ERAU URI Discovery Day*. Prescott, AZ. 10 April 2015.

### **Erin Bowen**

College: Arts & Sciences

**Department:** Behavioral & Safety Sciences, Department Chair

Research Areas: Industrial psychology and safety; Aviation psychology; Safety

culture; Statistical research; Methodological assessment methods in safety.



- Bowen, Erin E. "Current issues in commercial air travel: The passenger perspective." 27<sup>th</sup> Annual Ethnographic and Qualitative Research Conference. Las Vegas, NV. 9-10 Feb. 2015.
- Bowen, Erin E. "The growth of discipline-specific undergraduate programs in Psychology." 18<sup>th</sup> Annual

  American Association of Behavioral and Social Sciences Conference. Las Vegas, NV. 9-10 Feb 2015.
- Bowen, Erin E. "Human error: Psychology, aviation, and public (mis)perceptions in recent accidents."

  International Air Transport Association (IATA) Communicators Workshop. Miami, FL. Oct. 2015. Invited keynote presentation.
- Bowen, Erin E.; W. Alsumiri and W. Waldock. "Human factors issues in UAV accidents: Considerations in UAS development." 18<sup>th</sup> International Symposium on Aviation Psychology. Dayton, OH. 4-7 May 2015.
- Bowen, Erin E.; Brent D. Bowen, Chrissy M. Clary, M. M. Bennett, and Krystal M. Megha. "Utilizing macro data to create a micro experience." 18<sup>th</sup> International Symposium on Aviation Psychology. Dayton, OH. 4-7 May 2015.
- Bowen, Erin E. Interviewed: Finfrock, Rob. "Studies in Aviation Psychology Open Doors to a Diverse Range of Careers:

  What aviation careers in psychology and human performance are available?" Flying Magazine. 4 Feb. 2015.

  Media appearance Interview for online article.
- Bowen, Erin E. Interviewed: Grisham, Lori; Bart Jansen. "Airlines largely rely on pilots 'self-monitoring' mental health." *USA Today*. 26 Mar. 2015. Media appearance Interview.
- Bowen, Erin E. Interviewed: Mangla, Ismat Sarah. "Commercial Airline Pilots May Face Stricter Psych

  Evaluations In Wake of Germanwings Flight 9525." *International Business Times*. 26 Mar. 2015. Media

  appearance Interview for online article.
- Bowen, Erin E. Interviewed: Tapper, Jack. Germanwings Pilot segment. 30 Mar. 2015. Media appearance Interview.
- Bowen, Erin E. Interviewed: "How to Put Better Pilot Screening in Place." *BloombergBusiness*, 30 Mar. 2015. Media appearance Live Interview.
- Bowen, Erin E. Interviewed: "Is the Germanwings Tragedy a 'Mental Health Failure'?" *Meet the Press.* 29 Mar. 2015.

  Media appearance Live Interview.



### **Leeann Chen**

College: Arts & Sciences

**Department:** Humanities & Communications

**Research Areas:** Foreign-language and Chinese as a foreign language pedagogy;

Study abroad; College writing in a specialized discipline.

### 2015 Scholarly Activity:

Chen, Leeann. "ERAU Chinese Language Assessment." Assessment Session at Project GO Annual Conference.

University of Mississippi. 16 Mar. 2015.

Chen, Leeann. "Teaching Training at the Advanced Level", *Chinese Teaching Training Conference*. Beijing, China. July 2015.

### **Nick Devereux**

College: Arts & Sciences

**Department:** Physics & Astronomy

Research Areas: Astronomy; Theoretical computer science and applied

mathematics.



### 2015 Scholarly Activity:

Devereux, Nick. "Giant Broad Line Regions in Dwarf Seyferts." *Journal of Astrophysics and Astronomy*. Volume 36, Issue 4. Dec. 2015. Pages 427-432.



### **Erica Diels**

College: Aviation

**Department:** Aeronautical Science

Research Areas: Attitudes in commercial pilot training.

### **2015 Scholarly Activity:**

Diels, Erica; J. Howrey, Brian Peacock, and Gary Northam. "The Geometry of Near Midair Collisions." *Proceedings of the Chartered Institute of Ergonomics and Human Factors annual Human Factors in Aviation Safety Conference*. Staverton Park, Daventry, Northamptonshire, UK. 13-16 Apr. 2015.

Diels, Erica; Mark R. Sinclair, and Melanie A. Wetzel. "Turbulence Estimation from Aircraft and Sounding Data."

Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).

Phoenix, AZ. 15-18 Jan. 2015.

Diels, Erica; Melanie Wetzel, Mark R. Sinclair, Curtis N. James, and Jennah Perry. "Application of Meteorological Observations from Technologically Advanced Aircraft (TAA) to Support Flight Training Operations and Regional Forecasting." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 15-18 Jan. 2015.

### **Hillary Eaton**

**College:** Arts & Sciences

**Department:** Biology

Research Areas: Microbiology; Bioremediation; Toxicology.



### 2015 Scholarly Activity:

Eaton, Hillary. "Microbes to the Rescue of Planet Earth!" *ERAU Prescott Science Speaker Seminar Series / AC-1*.

11 Sept. 2015.

Eaton, Hillary. "New degree program at ERAU offers multiple possibilities." *The Daily Courier*. Prescott, AZ. 8 Feb. 2015.

Eaton, Hillary; H. E. Fuller, P. B. Hatzinger, C. W. Condee, C. Andaya, S. Vainberg, M. M. Michalesen, F. H. Crocker, K J Indest, C M Jung, J. D. Istok. "Laboratory evaluation of bioaugmentation for aerobic treatment of RDX in groundwater." *Biodegradation*. Volume 26, Issue 1. Feb. 2015. Pages 77-89.

Eaton, Hillary – Interviewed: Figueroa, Emma. "A Look into the New Wildlife Studies Degree Program."

ERAU Horizons. Issue 3, Volume 32, A4. 9 Sept. 2015. Interview.

Eaton, Hillary – Interviewed: Figueroa, Emma. "New Forensic Biology Major to Expand Campus' Vision." *ERAU Horizons.* Issue 3, Volume 31, A5. 8 Apr. 2015. Interview.

Eaton, Hillary – Interviewed: Stewart, Michaela. "Science Seminar: Microscopic Heroes Offer Solutions." *ERAU Horizons*. Issue 2, Volume 32. 15 Sept. 2015. Interview.



### **Thomas Field**

**College:** Security & Intelligence

**Department:** Intelligence Studies & Global Affairs

Research Areas: International history of Latin America; Cold War in the Third World;

Third World diplomatic history; Contemporary Bolivian history.

### 2015 Scholarly Activity:

From Development to Dictatorship named a 2015 Outstanding Academic Title, Choice magazine.

Thomas McGann Book Award 2015, Rocky Mountain Council for Latin American Studies.

Field, Thomas. Commentator, "New Approaches to the History of Development in U.S.-Latin American

Relations." Society for Historians of American Foreign Relations. 2015 Annual Meeting. Arlington, VA. 25-27

June 2015.

- Field, Thomas. "Bolivia: A Splintering Left and the Failure of Armed Struggle, 1963-65." *Conference on Latin American History Annual Meeting*. New York, NY. 2-5 Jan. 2015.
- Field, Thomas. "A General with a Social Conscience: René Barrientos, Authoritarian Development, and the Struggle for Cold War Bolivia." Rocky Mountain Council on Latin American Studies. Tucson, AZ. 9-11 Apr. 2015, and at the Annual Conference of the Latin American Studies Association. San Juan, PR. 27-30 May 2015.
- Field, Thomas. "La Ruptura Diplomática con Cuba y la Caída de la Revolución Boliviana." *Conference on the Cuban Revolution*. Havana, Cuba. 13-15 Oct. 2015.
- Field, Thomas. Review of "Becoming 'Mr. Latin America': Thomas C. Mann Reconsidered," by Thomas Tunstall Allcock. *Diplomatic and International History Discussion Network* [H-Diplo]. 25 Apr. 2015.
- Field, Thomas. Review of "Rhythms of the Pachakuti: Indigenous Uprising and State Power in Bolivia, by Raquel Gutiérrez

  Aguilar." Canadian Journal of History / Annales Canadienne d'Histoire. Volume 50, Issue 3. 2015. Pages 568-570.
- Field, Thomas. Response to Roundtable Review of *From Development to Dictatorship: Bolivia and the Alliance for*\*Progress in the Kennedy Era, by Thomas C. Field Jr. \*Diplomatic and International History Discussion Network

  [H-Diplo]. 30 Mar. 2015.

### **Thomas Foley**

College: Security & Intelligence

**Department:** Intelligence Studies & Global Affairs

**Research Areas:** School shootings, school security, active shooter, workplace violence, behavioral threat assessment, and securing large venues from drone

threats.



### 2015 Scholarly Activity:

Foley, Thomas; Tyrone Groh. "UAS Threats in Sport Venues." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 17 Jan. 2015.



### Jonathan Gallimore

College: Arts & Sciences

**Department:** Behavioral & Safety Sciences

**Research Areas:** Action and perception; Working memory; Transportation research;

Aviation psychology.

### **2015** Scholarly Activity:

Gallimore, Jonathan M.; L. M. Fournier. "Proximal and distal effects in action plan representation." *Fifty-Sixth Annual Meeting of the Psychonomics Society*. Chicago, IL. 19 – 22 Nov. 2015.

Gallimore, Jonathan M.; Jennah C. Perry. "True course simulations: Will this reduce flight costs and decrease certification time?" *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 15-18 Jan. 2015.

Gallimore, Jonathan M.; Russell Romeo. "Are we safe yet: Discriminating pilot performance based on safety climate." *The 18th International Symposium on Aviation Psychology*. Dayton, OH. 4-7 May 2015.

### **lacopo Gentilini**

College: Engineering

**Department:** Aerospace & Mechanical Engineering

**Research Areas:** Robotics.



### 2015 Scholarly Activity:

Gentilini, Iacopo; Kevin Vicencio, Tristan Korras, and Kenneth A. Bordignon. "Energy-Optimal Path Planning for Six-Rotors on Multi-Target Missions." 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS). Hamburg, Germany. 28 Sept. – 2 Oct. 2015.



### **Cindy Greenman**

College: Arts & Sciences

**Department:** Business

Research Areas: Accounting ethics.

### 2015 Scholarly Activity:

Greenman, Cindy; Karuri Mwangi. "Does Technology make a Difference in Student Success in an Accounting Classroom?" *American Journal of Educational Research*. Volume 3, Issue 9. 2015. Pages 141-1138.

### **Dawn Groh**

College: Aviation

**Department:** Aeronautical Science

Research Areas: Undergraduate research capstone models in aviation degree pro-

grams, retention in higher education flight training.



### 2015 Scholarly Activity:

Groh, Dawn. "The Evolution of Night Vision Systems." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 16 Jan. 2015.

Groh, Dawn; Jacqueline Luedtke, and Brent Bowen. "Undergraduate Research Outcomes Resulting from an Intensive Capstone Experience." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.

Groh, Dawn; Juan Merkt, Jacqueline Luedtke, Brent Bowen, and Scott Ritchie. "Retention and Student Success in University Flight Training Programs: A Model Process Plan." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.



### **Tyrone Groh**

College: Security & Intelligence

**Department:** Intelligence Studies & Global Affairs

**Research Areas:** International Relations.

### 2015 Scholarly Activity:

Groh, Tyrone. (Chair). "Applying Undergraduate Research in our Disciplines: UAS, Maintenance, Military,

Space." Research Roundtable. *Aviation/Aeronautics/ Aerospace International Research Conference*(A<sup>3</sup>iR Con). Phoenix, AZ. 17 Jan. 2015.

Groh, Tyrone (Chair). "Discovering Undergraduate Research across Academia: UAS, Maintenance, Military,

Space." Research Roundtable. *Aviation/Aeronautics/ Aerospace International Research Conference*(A<sup>3</sup>iR Con). Phoenix, AZ. 17 Jan. 2015.

Groh, Tyrone. "Use of UAS in Proxy Warfare." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A<sup>3</sup>iR Con).* Phoenix, AZ. 17 Jan. 2015.

Groh, Tyrone; Thomas Foley. "UAS Threats in Sport Venues." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A<sup>3</sup>iR Con)*. Phoenix, AZ. 17 Jan. 2015.

### **Jon Haass**

College: Security & Intelligence

**Department:** Cyber Intelligence & Security

Research Areas: Cyber security: Securing the Internet of things.



- Haass, J. (Chair). "Applying Undergraduate Research in our Disciplines: UAS, Maintenance, Military, Space."

  Research Roundtable. *Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*.

  Phoenix, AZ. 17 Jan. 2015.
- Haass, J. "Cyber Security and the Internet of Things." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A<sup>3</sup>iR Con)*. Phoenix, AZ. 17 Jan. 2015.
- Haass, Jon. "Cyber Workforce of the Future." *CCAITS Information Technology Summit*. Prescott, AZ. June 2015.
- Haass, Jon. "Developing a Cyber Workforce What is needed to meet the NICCS Workforce Framework."

  CYBERWEST. Phoenix, AZ. 25-26 Mar. 2015.
- Haass, J. (Chair). "Discovering Undergraduate Research across Academia: Global Security, Cyber Intelligence,
  Systems Safety including Fire, Law Enforcement, Emergency Response." Research Roundtable.

  Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con). Phoenix, AZ. 17 Jan.
  2015.
- Haass, Jon. "From Touchdown to Take-off: Cybersecurity on the Tarmac." *Aviation Cyber Security Summit.*Washington DC. 16-18 Nov. 2015.
- Haass, Jon C.; Gail-Joon Ahn, and Frank Grimmelmann "ACTRA A Case Study for Threat Information Sharing."

  ACM Journal of Computer and Communications Security. Oct. 2015.



### James Helbling

**College:** Engineering

**Department:** Aerospace & Mechanical Engineering

**Research Areas:** Structural fatigue life prediction.

### 2015 Scholarly Activity:

Helbling, Jim; Angela Beck. "From One to Many: Building an Effective Teaching Team for Capstone Courses."

Proceedings of the 2015 American Society for Engineering Education Pacific Southwest Conference.

San Diego, CA. 9-11 Apr. 2015.

### **Dorothea Ivanova**

**College:** Aviation

**Department:** Applied Aviation Sciences

Research Areas: Cloud physics; Climate variability studies; Atmospheric modeling;

Global and regional climate models.



- Ivanova, Dorothea. "Use of Data from the International Space Station and Automated Interplanetary

  Spacecraft for Initializing and Running NASA Community Coordinated Heliosphere Model in the Space

  Weather Classroom." Proceedings of the Aviation/Aeronautics/ Aerospace International Research

  Conference (A³iR Con). Phoenix, AZ. 15-18 Jan. 2015.
- Ivanova, Dorothea. "Visible, IR, and Water vapor Satellite Images of a Tropical Cyclone, Coastal Hazards, Risk and Environmental Justice." NSF-funded InTeGRATE project. Tulane University. New Orleans, LA. 20-22 May 2015.
- Ivanova, Dorothea; David L. Mitchell. "WRF and MM5 Modeling of the 1999 North American Monsoon Onset and the Las Vegas Flood." 2015 AGU-GAC-MAC-CGU Joint Assembly. Montreal, Canada. 3-7 May, 2015.

  Also: American Meteorological Society. 27<sup>th</sup> Conference on Climate Variability and Change. Phoenix, AZ. 4-8 Jan. 2015.
- Ivanova, Dorothea; Travis Swaggerty, and Melanie Wetzel. "Prediction and Analysis of a Convective Frontal Passage in the Southwest." *NASA Space Grant Symposium*. Phoenix, AZ. 17-18 Apr. 2015.
- Ivanova, Dorothea; Victoria A. Walker. "Ice Crystal Parameterizations in Arctic Cirrus Towards a Better

  Representation in Global Climate Models and Aircraft Icing Potential Studies." *American Meteorological Society, Annual Meeting.* Phoenix, AZ. 3-8 Jan. 2015.
- Ivanova, Dorothea; Melanie Wetzel, J. R. French, L. D. Oolman, and T. D. Drew. "Deployment of a Research

  Aircraft for Interdisciplinary Education." 24<sup>th</sup> Symposium on Education. American Meteorological

  Society, Annual Meeting. Phoenix, AZ. 3-8 Jan. 2015.



### **Curtis N. James**

College: Aviation

**Department:** Applied Aviation Sciences

Research Areas: Mesoscale; Radar; Mountain meteorology.

### 2015 Scholarly Activity:

James, Curtis N.; Erica Diels, Melanie Wetzel, Mark R. Sinclair, and Jennah Perry. "Application of Meteorological Observations from Technologically Advanced Aircraft (TAA) to Support Flight Training Operations and Regional Forecasting." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).* Phoenix, AZ. 15-18 Jan. 2015.

James, Curtis N.; L. Panziera and U. Germann. "Mesoscale Organization and Structure of Orographic Precipitation Producing Flash Floods in the Lago Maggiore Region." *Quarterly Journal of the Royal Meteorological Society.* Volume 141, Issue 686. Jan. 2015. Pages 224-248.

James, Curtis N.; Jeff Weber, Gary R. Woodall, and Brian A. Klimowski. "A Cloud-Based Mobile Weather Server to Support Emergency Response Meteorology Training and Operations." *24th Symposium on Education. American Meteorological Society, Annual Meeting.* Phoenix, AZ. 3-8 Jan. 2015.

James, Curtis N.; Gary R. Woodall and Brian A. Klimowski. "The "Emergency Response Meteorologist"

Curriculum Development at Embry-Riddle Aeronautical University, Prescott, AZ." 24th Symposium on

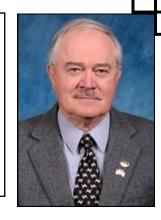
Education. American Meteorological Society, Annual Meeting. Phoenix, AZ. 3-8 Jan. 2015.

### **Philip Jones**

**College:** Security & Intelligence, Dean

Research Areas: Military, political, and cultural studies of the southwest Asia

region.



### 2015 Scholarly Activity:

Jones, Philip E. "Zulfikar Ali Bhutto: Triumph and Tragedy," in Roger D. Long, *A History of Pakistan*. Pages 246-600. New York: Oxford University Press, 2015.



### **Eileen Landis-Groom**

College: Arts & Sciences

**Department:** Humanities & Communications

Research Areas: Travel literature; Nonfiction about animals; the teaching of writing;

Creative writing.

### 2015 Scholarly Activity:

Landis-Groom, Eileen. "The Wishes of Mr. Hochstadtler, a Pennsylvania Dutch Man and Therefore, a Pretty Serious Guy" - First place in fiction in the Arizona English Teachers Association's Teachers as Writers Contest. *Connections: News of the Arizona English Teachers Association*. Fall 2015. Page 3.

Landis-Groom, Eileen. "Chasing Arizona, a Review." *Connections: News of the Arizona English Teachers Association*. Summer 2015. Page 3.

Landis-Groom, Eileen. "Coming Home to Horses." Equus. Nov. 2015. Issue 458. Pages 71-79.

Landis-Groom, Eileen. "The Importance of Images" ERAU – Prescott, College of Liberal Arts & Sciences. *The Black Box*. 2015.

### **Jacqueline Luedtke**

College: Aviation

**Department:** Applied Aviation Sciences

**Research Areas:** Aviation safety; Aviation management; Effects of marketing in aviation; Service quality in aviation; Women's contributions to aviation; Retention

issues, pedagogical issues in higher education.



### 2015 Scholarly Activity:

Luedtke, Jacqueline. "High School Student, Career, Networking: The Importance of UGR." *Aviation/ Aeronautics/ Aerospace International Research Conference (A³iR Con).* Phoenix, AZ. 17 Jan. 2015.

Luedtke, Jacqueline. "Research on Gender Diversity in Aviation: A Twenty-five Longitudinal Study."

Proceedings of the University Aviation Association Fall Education Conference. Salt Lake City,

UT. 7-9 Oct. 2015.

- Luedtke, Jacqueline; Michelle Bennett, and Brent Bowen. "Comparative Analysis of the U.S. Airline Industry."

  Poster presentation at the Arizona Nevada Academy of Science. Arizona State University. Phoenix, AZ.

  18 April 2015.
- Luedtke, Jacqueline; Brent Bowen, Michelle Bennett, and D. Headley. "Benchmarking Economic Trends and Airline Performance." *Proceedings of the University Aviation Association Fall Education Conference*.

  Salt Lake City, UT. 7-9 Oct. 2015.
- Luedtke, Jacqueline; Dawn Groh, and Brent Bowen. "Undergraduate Research Outcomes Resulting from an Intensive Capstone Experience." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.
- Luedtke, Jacqueline; Juan Merkt, Dawn Groh, Brent Bowen, and Scott Ritchie. "Retention and Student Success in University Flight Training Programs: A Model Process Plan." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.

### **Jacqueline Luedtke (continued)**

- Luedtke, Jacqueline; C. Willard, Michelle Bennett, and Brent Bowen. "A Trend Analysis Comparing Qualitative and Quantitative Performance Data on Economic Indices." Abstract presented at the 7<sup>th</sup> Annual Undergraduate Research Symposium, Embry-Riddle Aeronautical University. Prescott, AZ. Oct. 2015.
- Luedtke, Jacqueline; Michelle Bennett. "The Undergraduate Research Example." Proceedings of the Aviation/
  Aeronautics/ Aerospace International Research Conference (A3iR Con). Phoenix, AZ. 15-18 Jan. 2015.

  Student Career and Networking Session.
- Luedtke, Jacqueline; Michelle Bennett, and Brent Bowen. "Comparative Analysis Applied to the U.S. Airline Industry. Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A3iR Con). Phoenix, AZ. 15-18 Jan. 2015. Undergraduate Poster Session.
- Luedtke, Jacqueline; Michelle Bennett, and Brent Bowen. "A concept Model for Comparative Analysis Applied to the U.S. Airline Industry." ERAU URI Discovery Day. Prescott, AZ. 10 April 2015.
- Luedtke, Jacqueline; Q. Lennex. "Use of UAS for National Park Fire Control." Proceedings of the Aviation/
  Aeronautics/ Aerospace International Research Conference (A3iR Con). Phoenix, AZ. 15-18 Jan. 2015.
  Undergraduate Poster Session.

### Lisa Maroni

**Department:** Center for International Programs and Services (CIPS)

**Research Areas:** Entrepreneurship and culture.



### 2015 Scholarly Activity:

Maroni, Lisa, George Puia, Rosalie Stackpole, Zachary Gibson, and Heidi Hicks. "Indulgence, Restraint, and
Within-Country Diversity: Exploring Entrepreneurial Outcomes with New Constructions." Said Business
School – University of Oxford. 22-23 Nov. 2015.



### Juan R. Merkt

College: Aviation

**Department:** Aeronautical Science, Department Chair

Research Areas: Energy management training; Aerospace physiology; Aviation

program accreditation; Aviation curriculum development.

### 2015 Scholarly Activity:

Merkt, Juan R. "Energy Management: Demystifying Altitude and Airspeed Control." *Flight Training,* Volume 27, Issue 8. 2015. Pages 46-49.

Merkt, Juan R. "Solving an Age-Old Debate: What Really Controls Altitude and Airspeed." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 16 Jan. 2015.

Merkt, Juan R. "Unlocking the Mysteries of Flight: From the Top Down." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A<sup>3</sup>iR Con)*. Phoenix, AZ. 17 Jan. 2015.

Merkt, Juan R.; Mary Fink, Brent Bowen, Timothy A. Sestak, et al. "Conference Communiqué and Results of the Aviation/Aeronautics/Aerospace International Research Conference (A³iR Con)." Phoenix, AZ. 18 Jan. 2015.

Merkt, Juan R.; Dawn Groh, Jacqueline Luedtke, Brent Bowen, and Scott Ritchie. "Retention and Student Success in University Flight Training Programs: A Model Process Plan." *Proceedings of the University Aviation Association Fall Education Conference*. Salt Lake City, UT. 7-9 Oct. 2015.

Merkt, Juan R.; Randall Rehbach, et al. *Self-Study Report for the Aviation Accreditation International Board:*Department of Aeronautical Science. Embry-Riddle Aeronautical University, Prescott Campus. Auburn, AL.

May 2015.

Merkt, Juan R. (Moderator) Debate: Academia and Industry Solutions for Implementing the ATP/CTP Course. *Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 16 Jan. 2015.

### Sarah Nilsson

College: Aviation

**Department:** Aeronautical Science

Research Areas: Aviation; Space; Unmanned aerial systems law.



### 2015 Scholarly Activity:

Nilsson, Sarah. "In the Aftermath of Pirker: Questions of Policy Versus Law on Unmanned Aerial Systems

(UAS)." Proceedings to The Citadel 2015 Intelligence and Homeland Security Enterprise Conference.

Charleston, SC. 16-18 Sept. 2015.

Nilsson, Sarah. "Pirker and Beyond: Questions of Policy Versus Law on Unmanned Aerial Systems (UAS)."

Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).

Phoenix, AZ. 15-18 Jan. 2015. Conference Presentation and associated Scholarly Commons article.

Nilsson, Sarah; J. Scott Hamilton. *Practical Aviation and Aerospace Law*, 6<sup>th</sup> edition. Chapter 18: Commercial Space Operations. Newcastle, WA: Aviation Supplies and Academics, Inc., 2015.



### Nika Nordbrock

College: Arts & Science

**Department:** Humanities & Communications

**Research Areas:** Cowboy poetry; Composition; Diversity.

### 2015 Scholarly Activity:

Nordbrock, Nika. "24th Trappings of the American West." Rope Burns Magazine. Fall 2015.

- --- "28th Arizona Cowboy Poets Gathering." Rope Burns Magazine. Fall 2015.
- --- "Cowboy Poetry and the Theater of Your Mind." *46<sup>th</sup> Annual College English Association Conference.*Indianapolis, IN. 26-28 March 2015.
- --- "Photos from the 28th Arizona Cowboy Poets Gathering." Rope Burns Magazine. Fall 2015.
- --- "Photos from the 28th Arizona Cowboy Poets Gathering, <u>Cowboy Poetry and Western Life</u>, Aug. 2015."

  28<sup>th</sup> Arizona Cowboy Poets Gathering, Cowboy Poetry and Western Life. Aug. 2015.
- --- "Presenter <u>Cowboy Poetry and Western Life</u>, Aug., 2015." *"28<sup>th</sup> Arizona Cowboy Poets Gathering."*Cowboy Poetry and Western Life. Aug. 2015.
- --- "Session Host." 28<sup>th</sup> Arizona Cowboy Poets Gathering. Prescott, Arizona. 6-8 Aug., 2015.
- --- "Substitute Moderator Oral and Traditional Arts Session." *Rocky Mountain Modern Language Association*69<sup>th</sup> Annual Conference. Santa Fe, New Mexico. 8-10 Oct. 2015.

### **Jennah Perry**

**College:** Aviation

**Department:** Applied Aviation Sciences

Research Areas: : Flight Simulation Training, Education/Pedagogical studies, and

Human Factors.



### 2015 Scholarly Activity:

Perry, Jennah; Erica Diels, Melanie Wetzel, Mark R. Sinclair, Curtis N. James. "Application of Meteorological Observations from Technologically Advanced Aircraft (TAA) to Support Flight Training Operations and Regional Forecasting." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 15-18 Jan. 2015.



### John E. Post

College: Engineering

**Department:** Computer, Electrical, & Software Engineering

Research Areas: Design and optimization of planar microwave circuits and devices;

Engineering education.

### 2015 Scholarly Activity:

Post, John E. "Optimizing Magnetically Coupled Loop Antennas." *QEX: A Forum for Communications*Experimenters. Jan. / Feb. 2015. Pages 17-30.

# **Brian Roggow**

**College:** Aviation

**Department:** Aeronautical Science, Flight

Research Areas: Aviation safety - primarily; Flight data analysis, safety reporting, and

human factors investigation.



#### 2015 Scholarly Activity:

Roggow, Brian. (Chair). "AOPA Post-Crash Survivability." *Aviation/ Aeronautics/ Aerospace International Research Conference (A<sup>3</sup>iR Con)*. Phoenix, AZ. 17 Jan. 2015.



## Timothy A. Sestak

College: Aviation

**Department:** Aeronautical Science

**Research Areas:** Wingsuits.

#### 2015 Scholarly Activity:

Sestak, Timothy A. "Development of a Robust Two-component Balance for Wind Tunnel Investigation of Wingsuit Aerodynamics." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).* Phoenix, AZ. 16 Jan. 2015.

Sestak, Timothy A. "Robust balance for wingsuit aerodynamic research." *Proceedings of the Aviation/ Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 15-18 Jan. 2015.

Conference Presentation and associated Scholarly Commons paper.

Sesak, Timothy A.; Mary Fink, Brent Bowen, Juan Merkt, et al. "Conference Communiqué and Results of the Aviation/Aeronautics/Aerospace International Research Conference (A³iR Con)." Phoenix, AZ. 18 Jan. 2015.

# Sam Siewart

**College:** Engineering

**Department:** Computer, Electrical, & Software Engineering

**Research Areas:** Software-defined computational photometry.



#### 2015 Scholarly Activity:

Siewart, Sam; John Pratt. Real-Time Embedded Components and Systems using Linux and RTOS, 2nd Ed. Dulles,

VA: Mercury Learning and Information, 2015.



### Mark R. Sinclair

College: Aviation

**Department:** Applied Aviation Sciences

Research Areas: Synoptic and dynamic meteorology.

#### 2015 Scholarly Activity:

Sinclair, Mark R. "The Climatology of Jet Streak Acceleration Events." *Proceedings of the 17th Cyclone Workshop*. Pacific Grove, CA. 25-30 Oct. 2015.

Sinclair, Mark R. "Use of a Simple Graphics Viewer for Gridded Data to Improve Data Literacy." *Proceedings of the American Meteorological Society Annual Conference*. Phoenix, AZ. Jan. 2015.

Sinclair, Mark R.; Erica A. Diels, and Melanie A. Wetzel. "Turbulence Estimation from Aircraft and Sounding

Data." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).*Phoenix, AZ. 15-18 Jan. 2015.

Sinclair, Mark R.; Erica Diels, Melanie Wetzel, Curtis N. James, and Jennah Perry. "Application of Meteorological Content of Meteorological Content of Meteorological Conference (A<sup>3</sup>iR Con). Phoenix, AZ. 15-18 Jan. 2015.

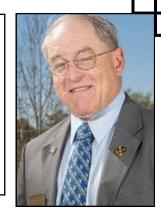
## **Bill Waldock**

**College:** Arts & Sciences

**Department:** Behavioral and Safety Science

Research Areas: Aircraft Accident Investigation; Crashworthiness;

Survivability Investigation.



### 2015 Scholarly Activity:

Waldock, William; Erin Bowen, and W. Alsumiri. "Human factors issues in UAV accidents: Considerations in UAS development." 18<sup>th</sup> International Symposium on Aviation Psychology. Dayton, OH. 4-7 May 2015.



### **Patricia Watkins**

**Department:** Hazy Library & Learning Center

**Research Areas:** Competitive intelligence; International and industrial research; Library information resources.

#### 2015 Scholarly Activity:

Watkins, Patricia. "The Case of the Missing Voting Box: or How I Learned to Love Engineers Week by Creating an Activity Students Truly Love: LEGOS." American Society of Engineering Educators / Engineering Librarian Division. Seattle, WA. 15-17 June 2015.

### **Melanie Wetzel**

College: Aviation

**Department:** Applied Aviation Sciences

**Research Areas:** Atmospheric instrumentation; Cloud physics; Remote sensing.



#### 2015 Scholarly Activity:

Wetzel, Melanie. "Aviation Security Impacts of Meteorological and Climatic Disruptions." *Proceedings of Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con).* Phoenix, AZ. 15-18 Jan. 2015.

Wetzel, Melanie; Erica Diels, Mark R. Sinclair, Curtis N. James, and Jennah Perry. "Application of Meteorological Observations from Technologically Advanced Aircraft (TAA) to Support Flight Training Operations and Regional Forecasting." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A³iR Con)*. Phoenix, AZ. 15-18 Jan. 2015.

Wetzel, Melanie; Dorothea Ivanova, J. R. French, L. D. Oolman, and T. D. Drew. "Deployment of a Research

Aircraft for Interdisciplinary Education." 24<sup>th</sup> Symposium on Education. American Meteorological Society,

Annual Meeting. Phoenix, AZ. 3-8 Jan. 2015.

Wetzel, Melanie; Mark R. Sinclair, and Erica A. Diels. "Turbulence Estimation from Aircraft and Sounding Data." *Proceedings of the Aviation/Aeronautics/ Aerospace International Research Conference (A<sup>3</sup>iR Con)*. Phoenix, AZ. 15-18 Jan. 2015.

Wetzel, Melanie; Travis Swaggerty, and Dorothea Ivanova. "Prediction and Analysis of a Convective Frontal Passage in the Southwest." *NASA Space Grant Symposium*. Phoenix, AZ. 17-18 Apr. 2015.



## **Hong Zhan**

College: Arts & Sciences

**Department:** Humanities & Communications

Research Areas: Integrating technology in language; Language teaching and

Learning in virtual environments.

#### 2015 Scholarly Activity:

Zhan, Hong. "Opening remarks in online teaching Chinese as a foreign language." 3rd International School

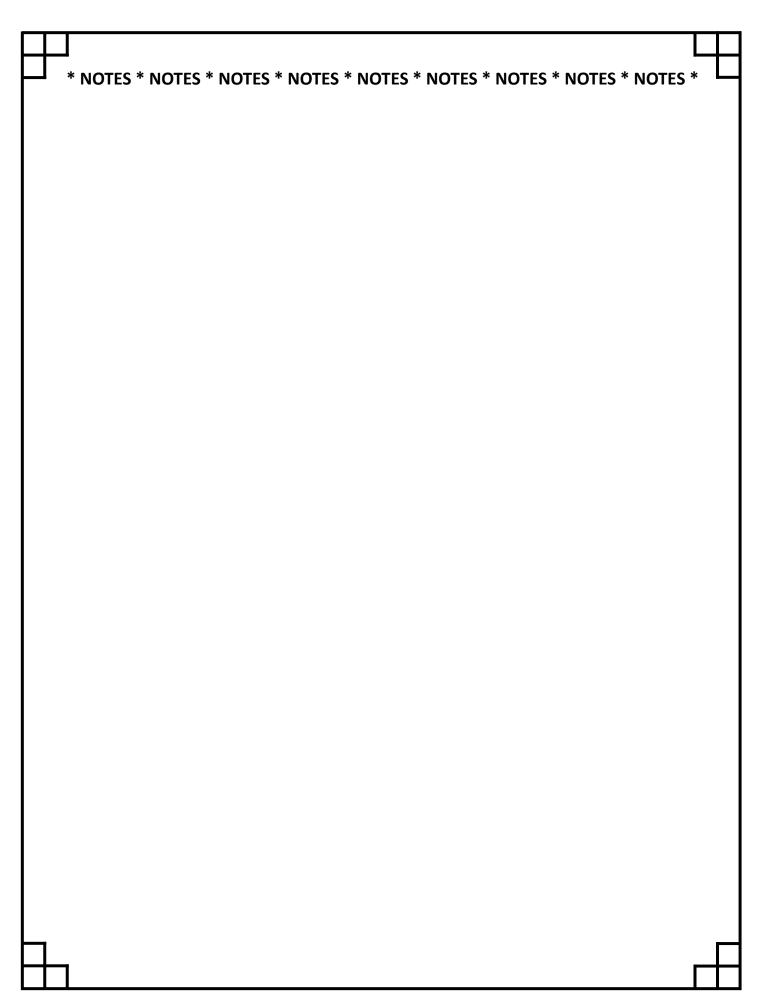
Chinese Pedagogy Workshop. Hong Kong University, Hong Kong. 3-5 Dec. 2015.

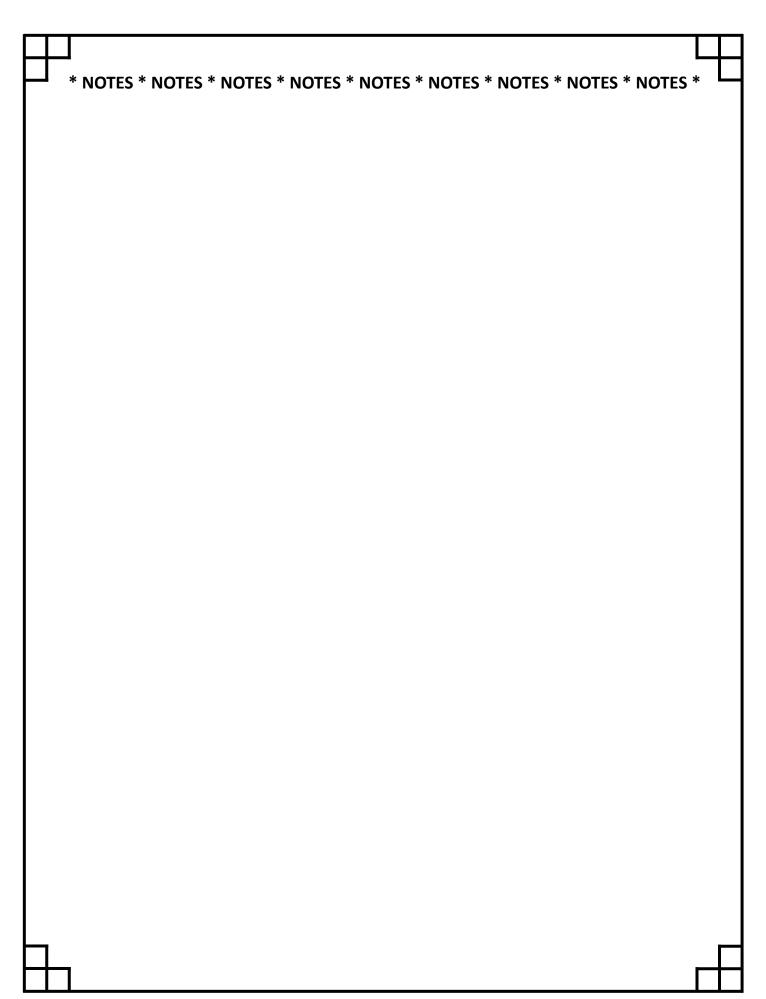
Zhan, Hong. "The study of CSL Pre-service Teachers' Competencies of Integrating Multimedia into Online

Speaking Lessons." 2015 International Conference on Chinese Language Education and Heritage

Language Education. Chung Yuan Christian University, Taiwan. 8 May 2015. Invited Presentation.

Zhan, Hong; Hsiu-Jen Cheng. "The study of CSL Pre-service Teachers' Competencies of Integrating Multimedia into Online Speaking Lessons." *Chung Yuan Journal of Teaching Chinese as a Second Language*. Volume 16. 2015.





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