

# CURRICULUM VITA

## W. Linwood Jones

University of Central Florida  
School of Electrical Engineering and Computer Science  
Box 162450  
Orlando, FL 32816-2450  
Tel: (407) 823-6603  
Fax: (407) 823-5835  
E-Mail: [ljones@pegasus.cc.ucf.edu](mailto:ljones@pegasus.cc.ucf.edu),  
Web Site: <http://pegasus.cc.ucf.edu/~ljones/>

### EDUCATIONAL QUALIFICATIONS

1971 Ph.D., Electrical Engineering, VA Polytechnic Institute & State Univ., Blacksburg, VA  
1965 M.EE., Electrical Engineering, University of Virginia, Charlottesville, VA  
1962 B.Sc., Electrical Engineering, VA Polytechnic Institute, Blacksburg, VA

### WORK EXPERIENCE

**Aug 1997 – Present:**

Professor, Electrical and Computer Engineering Department, University of Central Florida, Orlando, Florida

**Aug 1996 – Aug 1997:**

Visiting Professor, Electrical and Computer Engineering Department, University of Central Florida, Orlando, Florida

**May 1994 – Aug 1996:**

Associate Professor, Electrical and Computer Engineering Department, Florida Institute of Technology, Melbourne, Florida

**Nov 1992 - May 1994:**

Project Manager, Space Shuttle Program Office, NASA Kennedy Space Center, Florida

**Sept 1988 - Nov 1992:**

Satellite Program Manager, NASA Headquarters, Office of Earth Science and Applications, Washington DC

**Aug 1984 - Sept 1988:**

Senior Principal Engineer, Harris Corporation, Aerospace Systems Division, Melbourne, FL

**Feb 1983 - Aug 1984:**

RF Systems Project Manager, Satellite Television Corporation, Princeton, NJ

# CURRICULUM VITA

## W. Linwood Jones

### **Aug 1981 - Feb 1983:**

Project Manager – Communications Systems, General Electric Company, Space Division, King of Prussia, PA

### **June 1974 - Aug 1981:**

Leader, Radar Remote Sensing Group, NASA Langley Research Center, Flight Electronics Division, Hampton, VA

### **Sept 1969 - June 1974:**

Head, Microwave Techniques Research Section, NASA Langley Research Center, Hampton, VA

### **June 1962 - Sept 1969:**

Electronics Engineer, Telemeter Techniques Research Section, NASA Langley Research Center, Hampton, VA

### **June 1958 – June 1962:**

Cooperative Engineering Student, Norfolk Naval Ship Yard, Portsmouth, VA

## **PROFESSIONAL AFFILIATIONS**

Fellow/Life Member: Institute of Electrical and Electronics Engineers (IEEE)

GeoScience and Remote Sensing Society

Antennas and Propagation Society

Ocean Engineering Society

American Geophysical Union

Union of Radio Scientists International (URSI), Commission-F

## **TEACHING EXPERIENCE**

### **University of Central Florida, ECE Department**

#### **1996-Present :**

1. EEL 6590 Adv Satellite Communications
2. EEL 6489 Advanced Radar
3. EEL 6489 Advanced Microwave Remote Sensing
4. EEL 5547 Introduction to Radar Systems
5. EEL 5432 Satellite Remote Sensing
6. EEL 5937: Introduction to Wireless Communications
7. EEL 4518 Satellite Communications
8. EEL 4515 Digital Communications
9. EEL 3552 Signal Analysis and Communications
10. EEL 3122 Electrical Networks

# CURRICULUM VITA

## W. Linwood Jones

### Florida Institute of Technology, ECE Department

1994 – 1996:

1. Electrical Circuit Theory-I (junior undergraduate level).
2. Electrical Circuit Theory-I (junior undergraduate level).
3. Satellite Remote Sensing (graduate level).
4. Satellite Communications (graduate level).

### Adjunct Associate Professor Teaching

#### 1988 Florida Institute of Technology

Microwave Remote Sensing (graduate)

#### 1980 Old Dominion University

Microwave Systems (graduate)

#### 1972-79 Thomas Nelson Community College

Microwave Measurements Theory and Lab (sophomore undergraduate)

#### 1969-71 George Washington University – NASA Langley Campus

Communications Theory (graduate)

Microwave Remote Sensing (continuing education - 3-day short course)

#### 1967- 68 VA Polytechnic Institute & State University, Grad TA:

Electrical Circuit Theory

Electronics Lab

Microwave Lab

### UCF Senior Design Projects

Faculty advisor/sponsor for the following senior design projects:

**2009 PegSat Comm**

**2008 PegSat Comm & Power Subsystem**

**2007 PegSat Nano Satellite**

**2006 Doppler Radar Simulator**

**2003 Satellite Digital Communications**

**2002 Turkey Tracker**

**2002 Gun-Shot Tracker**

**2001 Satellite Earth Station Demo**

**1998 Dual Channel Satellite Transponder**

### GRADUATE STUDENTS

**Three Undergraduate Honors, Twenty-six Masters and fifteen Ph.D** students have completed their theses and dissertation requirements under my guidance as their principal advisor. Presently I am the principal advisor for **six Ph.D.** dissertations in progress.

# CURRICULUM VITA

## W. Linwood Jones

### HONORS IN THE MAJOR THESIS SUPERVISED

1. Verification of the Incidence Angle Dependence within the Satellite Microwave Radiative Transfer Model, RadTb, Christopher J. Ekberg , Spring 2004
2. Broadband Rectifying Antenna Design for Low Power Applications , James C. Ginn, Fall 2004
3. Persistent Military Satellite Communications Coverage using a CubeSat Constellation in Low Earth Orbit, Jacqueline M. Nelson, Spring 2010

### MASTER'S THESIS SUPERVISED

1. Normalization of NEXRAD Antenna Gain for Overlapping Radars, S. Boustany, Summer 1999
2. An Algorithm for Measuring Rain over Oceans using the QuikSCAT Radiometer, Maladen Susanj, Summer 2000
3. Ocean Brightness Temperature Measurements using the QuikSCAT Radiometer, Rushad Mehershahi, Fall 2000
4. Evaluation of Radar Derived Surface rainfall Estimates for Improvement of TRMM Ground Validation Products, Biswadev Roy, Fall 2000
5. Spatial Variability of Surface Rainfall and its Impact on Radar Retrieval, Saswati Datta, Spring 2001
6. Analysis of Angle Modulated Signals through a Breadboard Satellite Transponder, Seubson Soisuvann, Summer 2001
7. A Statistical Algorithm for Inferring Rain Rate from the QuikSCAT Radiometer, Yanxia Wang, Fall 2001
8. An Algorithm for Identifying Rain Contaminated Ocean Wind Vector Cells in a Hurricane Environment using the SeaWinds Scatterometer on QuikSCAT, Vinod Devan, Fall 2001
9. Evaluation of a Microwave Radiative Transfer Model using Satellite Radiometer Observations, Yan Sun Summer 2003
10. Raindrop Size Distribution Retrieval and Evaluation using an S-band Radar Profiler, Fang Fang, Summer 2004
11. Analysis of Time Synchronization Errors in High Data Rate UWB-OFDM Data Links, Lakesha D. Bates, Fall 2004
12. Evaluation of a Microwave Radiative Transfer Model for Calculating Satellite Brightness Temperature, Simonetta D. Thompson, Fall 2004
13. SeaWinds Radiometer Brightness temperature Calibration and Validation, Matank Rastogi, Summer 2005
14. Analysis of Airborne Microwave Polarimetric Radiometer Measurements in the Presence of Dynamic Platform Attitude Errors, Jean Yves Kabore, Spring 2006
15. Evaluation of the Amazon Rain Forest as a Distributed Blackbody Target for On-Orbit Radiometric Calibration, Nishant Patel, Spring 2006

# CURRICULUM VITA

## W. Linwood Jones

16. Analysis of Airborne Microwave Polarimetric Radiometer Measurements in the Presence of Dynamic Platform Attitude errors; Kabore, Jean Yves; Spring 2006
17. Hurricane Wind Speed and Rain Rate Retrieval Algorithm for the Stepped Frequency Microwave Radiometer; Amarin, Ruba; Summer 2006
18. An Improved Microwave Radiative Transfer Model for Ocean Emissivity at Hurricane Force Wind Speed; El-Nimri, Salem; Summer 2006
19. Hurricane Winds Retrieval Algorithm Developed for an Airborne Conical Scanning Scatterometer; Vasudevan, Santhosh; Fall 2006
20. Evaluation of the Amazon Rain Forest as a Distributed Target for Satellite Microwave radiometer Calibration; Patel, Nishant Spring 2007
21. Simulation of Brightness Temperatures for the Microwave Radiometer on the Aquarius/SAC-D Mission; Khan, Salman Saeed, Summer 2009
22. Validation of Wideband Ocean Emissivity Radiative Transfer Model; Sonya Crofton, Fall 2010
23. Rain Rate Retrieval Algorithm for Aquarius/SAC-D Microwave Radiometer; Rosa Ana Menzerotolo, Spring 2011
24. Engineering Evaluation of Multi-Beam Satellite Antenna Boresight Pointing using Land/Water Crossings. Catherine S. May, Spring 2012
25. A Microwave Radiometer Roughness Correction Algorithm for Sea Surface Salinity Retrieval, Yazan H. Hejazin, Spring 2012
26. Development of an Integrated Oceanic Rain Rate Product in Support of Sea Surface Salinity Measurements from Aquarius/SAC-D, Shadi Aslebagh, Spring 2012

### Ph.D. DISSERTATIONS SUPERVISED

1. A Neural Network Scatterometer Model Function for Satellite Scatterometers, S. Alhumaidi, Fall 1997
2. NASA scatterometer beam balance using homogeneous land targets, Josko Zec, Fall 1998
3. Improved Scatterometer Algorithm for Measuring Winds in Tropical Cyclones, Larry Rice, Spring 1999
4. An Ocean Surface Wind Vector Model Function for a Spaceborne Microwave Radiometer and its Application, Seubson Soisuvan Fall 2006
5. Simulation and Study of the Stokes Vector in Precipitating Atmosphere, Ian Adams, Spring 2007
6. Estimation of Oceanic Rainfall Using Passive and Active Measurements from Sea Winds Spaceborne Microwave Sensor, Khalil Ahmad, Fall 2007
7. Inter-Satellite Microwave Radiometer Calibration, Liang Hong, Spring 2008
8. A Time-Varying Radiometric Bias Correction for the TRMM Microwave Imager. Kaushik Gopalan, Fall 2008
9. An Improved Hurricane Wind Vector Retrieval Algorithm using SeaWinds Scatterometer, Laupattarakasem, Peth, Spring 2009

# CURRICULUM VITA

## W. Linwood Jones

10. Validation of QuikSCAT Radiometer (QRad) Microwave Brightness Temperature Measurements, Hanna, Rafik, Summer 2009
11. Development of an Improved Microwave Ocean Surface Emissivity Radiative Transfer Model; Salem Fawaz El-Nimri, Spring 2010
12. Hurricane Wind Speed and rain Rate Measurements using the Airborne Hurricane Imaging Radiometer; Ruba Akram Amarin, Spring 2010
13. An Improved Ocean Vector Winds Retrieval Approach using C- and Ku-band Scatterometer and Multi-frequency Microwave Radiometer Measurements, Suleiman O. AlSweiss, Spring 2011
14. Brightness Temperature Calibration of SAC-D/Aquarius Microwave Radiometer (MWR), Sayak K. Biswas, Spring 2012
15. Forecasting Volcanic Activity using an Event Tree Analysis System and Logistic Regression, William N. Junek, Spring 2012

### TEACHING AWARDS:

- College of Engineering Graduate Student Mentoring Award 2012
- IEEE Orlando Section: Outstanding Engineering Educator Award 2003
- College of Engineering: Excellence in Undergraduate Teaching Award 2004
- IEEE Florida Council: Outstanding Engineering Educator Award 2004

### RESEARCH & CREATIVE

Areas of Interest: Satellite Microwave Remote Sensing

### **FUNDED RESEARCH PROJECTS**

#### **1 (PI) On-Orbit Inter-Satellite Radiometric Calibration**

**Date:** Mar 13, 2013 – Mar 14, 2016

**3-yr Amount:** \$480,000

**Agency:** NASA Headquarters

**Description:** *This project is to provide radiometric calibration for cooperative satellites within the Global Precipitation Mission constellation.*

# CURRICULUM VITA

## W. Linwood Jones

### 2 (PI) Improved Active/Passive Ocean Vector Wind Retrievals

**Date:** Jul 22, 2010 – Jul 21, 2014

**4-yr Amount:** \$608,563

**Agency:** NASA Headquarters

**Description:** *This proposal is to develop new scatterometer wind vector retrieval algorithms that exploit the use of combined active and passive microwave remote sensing techniques to understand physical processes related to rain and the ocean surface.*

### 3 (PI) Inter-Satellite Radiometric Calibration for the GPM Constellation

**Date:** Mar 18, 2010 – Mar 17, 2013

**3-yr Amount:** \$450,385

**Agency:** NASA Headquarters

**Description:** *This project is to develop analytical cross calibration techniques for cooperative satellites.*

### 4 (PI) Improved Aquarius Salinity Retrievals using Auxillary Products from the Microwave Radiometer

**Date:** Oct 1, 2009 – Sept 30, 2013

**4-yr Amount:** \$601,643

**Agency:** NASA Headquarters

**Description:** *This proposal is to improve Aquarius retrievals of salinity using auxiliary geophysical products derived from the Argentine Space Agency (CONAE) Microwave Radiometer (MWR) sensor on the Aquarius/SAC-D observatory*

### 5 (PI) Improved Real-Time Hurricane Ocean Vector Winds from QuikSCAT

**Date:** Aug 1, 2009 – July 31, 2010

**Amount:** \$45,525

**Agency:** NOAA

**Description:** *Under this JHT project, we propose to utilize the Ocean Surface Winds Team (OSWT) at the NESDIS Center for Satellite Applications and Research (STAR) office, who has developed a unique system for transitioning satellite OVV measurements from research to operations. Our team will provide a new QuikSCAT hurricane wind product for forecast guidance. We will process, in near real-time, all QuikSCAT hurricane passes routinely captured by NOAA/NESDIS/ORA in Suitland, MD using the improved Q-Winds algorithm. It will use existing software utilities to transform the Q-Winds vector wind output to existing NRT QuikSCAT data products in the BUFR format, Merged Geophysical Data Record, the so called MGDR Lite, which is presently being used by forecasters at TPC/NHC and JTWC.*

### 6 (PI) Development of Autonomous Rainfall Drop Size Distribution Measuring Instrumentation

**Date:** Dec 1, 2008 – Nov 30, 2010

# CURRICULUM VITA

## W. Linwood Jones

**Amount:** \$31,200

**Agency:** University of Cyprus

**Description:** *To test and evaluate the first disdrometer prototype in the US and to compare the measured data with data obtained from NASA's JWD.*

**7 (PI) Collaborative R&D Initiative for the Gulf of Mexico – Development of Hurricane Forecasting Flight Instrument HIRAD**

**Date:** Sept 4, 2008 – May 15, 2011

**Amount:** \$231,977

**Agency:** Von Braun Center for Science & Innovation

**Description:** *UCF proposes four tasks to be conducted by CFRSL, in collaboration with the University of Michigan and the Marshall Space Flight Center, who has the fundamental responsibility for the array antenna fabrication and test and the development of the HIRAD flight instrument.*

**8 (PI) Central Florida Remote Sensing Laboratory (CFRSL) Adv Scat Study**

**Date:** Sept 29, 2008 – Dec 31, 2009

**Amount:** \$48,526

**Agency:** NASA Jet Propulsion Laboratory

**Description:** *The Central Florida Remote Sensing Lab (CFRSL) at the University of Central Florida will assist the Jet Propulsion Laboratory in an ocean vector winds (OVW) measurement definition study for potential future scatterometer missions that will also include passive radiometer systems.*



# CURRICULUM VITA

## W. Linwood Jones

### **9 (PI) A Hurricane Flight Experiment for Development of the HIRAD Wind Speed Model**

**Date:** Aug 15, 2007 – Aug 14, 2008

**Amount:** \$25,000

**Agency:** NASA FL Space Grant Consortium

**Description:** This project is to conduct microwave remote sensing experiments on the NOAA Hurricane Research Division P-3 aircraft during the 2007 hurricane season. The objective will be to gather radiometric observations for extending the CFRSL wind speed retrieval algorithm to large incidence angles for wide swath measurements.

### **10 (CoI) Radiometric Consistency for MultiSatellite Constellations**

**Date:** Dec 2, 2006 – Dec 1, 2010

**Amount:** \$309,209

**Agency:** NASA Headquarters

**Description:** This project is to develop microwave radiometer inter-calibration techniques for normalization of the microwave brightness temperature measurements from various microwave radiometers in the Global Precipitation Measurement Mission constellation.

### **11 (PI) Airborne Hurricane Imaging Radiometer**

**Date:** July 31, 2006 - Dec 31, 2009

**Amount:** \$367,962

**Agency:** Univ. of AL Huntsville (NASA Marshall Space Flight Center)

**Description:** This project is a phase-I development of an airborne microwave Hurricane Imaging Radiometer. Phase-I involves an antenna array design and testing and an engring model 2-channel stepped frequency receiver and digital correlator development, and geophysical algorithm developments.

### **12 (PI) An Airborne Hurricane Imaging Microwave Radiometer**

**Date:** Aug 1, 2006 - Aug 31, 2007

**Amount:** \$24,923.00

**Agency:** NASA FL Space Grant Consortium

**Description:** This project is to develop a new microwave imaging radiometer to measure surface wind speed and rain rate in a hurricane for future satellite remote sensing opportunities.

### **13 (PI) Improved Ocean Vector Retrievals in Extreme Wind Events**

**Date:** June 1, 2006 - June 27, 2010

**Amount:** \$510,769

**Agency:** NASA Jet Propulsion Lab

**Description:** To improve ocean vector wind remote sensing of extreme wind events (>20m/s) using observations from QuikSCAT and WindSat..

# CURRICULUM VITA

## W. Linwood Jones

- 14 (PI) Advanced Ocean Vector Winds Measurement Study Phase-II**  
**Date:** Oct, 2005 - Dec, 2008  
**Amount:** \$80,000.00  
**Agency:** Raytheon Company St. Petersburg  
**Description:** Phase-II, the purpose of which is to provide a state of the art computer simulation capability for microwave active (radar) and passive (radiometer) instrument design and performance assessment.
- 15 (PI) Advanced Scatterometer Simulation for Satellite Remote Sensing**  
**Date:** Aug 4, 2004 - Jan 2006  
**Amount:** \$30,000.00  
**Agency:** Raytheon Company St. Petersburg  
**Description:** A project, the purpose of which is to provide a state of the art computer simulation capability from microwave (radar) scatterometer design and performance assessment.
- 16 (PI) Advanced Scatterometer Simulation for Satellite Remote Sensing**  
**Date:** Mar 1, 2004 – June 2005  
**Amount:** \$20,000.00  
**Agency:** UCF I4 Internal Match  
**Description:** A project, the purpose of which is to provide a state-of-the-art computer simulation capability for microwave (radar) scatterometer design and performance assessment.
- 17 (PI) Inter-Satellite Microwave Radiometric Calibration Study**  
**Date:** Jan 1, 2004 – Jan 31, 2007  
**Amount:** \$180,084  
**Agency:** US Naval Research Laboratory Wash DC  
**Description:** A project, the purpose of which is to investigate techniques for cross-calibrating cooperative satellite microwave radiometers and provide absolute brightness temperature calibration.
- 18 (PI) QuickSCAT Precipitation Mission - A GPM Pathfinder**  
**Date:** Sept 15, 2003 – Sept 14, 2006  
**Amount:** \$315,000  
**Agency:** NASA Goddard Space Flight Center  
**Description:** A project, the purpose of which is to Provide precipitation measurements from QuickSCAT as a pathfinder for the proposed next generation Global Precipitation Mission - GPM.
- 19 (PI) C-Star Polarimetric Microwave Radiometer Data Analysis**  
**Date:** Feb 17, 2003 – July 31, 2005  
**Amount:** \$27,665  
**Agency:** University of Alabama (NASA Marshall Space Flight Center)  
**Description:** A project, the purpose of which is to develop engineering and geophysical (Wind Vector) algorithms for the airborne C-Star polarimetric microwave radiometer.

# CURRICULUM VITA

## W. Linwood Jones

### **20 (PI) SeaWinds on ADEOS-II**

**Date:** Nov 27, 2001 – Dec. 2005

**Amount:** \$288,663

**Agency:** Oregon State University (NASA Jet Propulsion Lab)

**Description:** A project, the purpose of which is to participate in the pre and post launch for the SeaWinds ADEOS-II Program.

### **21 (PI) Tropical Rainfall Measurement Mission (TRMM) Science**

**Date:** Jun 1, 2000 – May 31, 2004

**Amount:** \$382,981

**Agency:** NASA Goddard Space Flight Center

**Description:** A project, the purpose of which is to perform TRMM related investigations in two major areas: (1) Validation of TRMM products and improvement of physical understanding resulting from analysis of data obtained during the TEFLUN-B field Campaign and ; (2) Rain retrieval algorithm development and validation for measurements in tropical cyclones.

### **22 (CoPI) Cirrus Regional Study of Tropical Anvils and Cirrus Layers - Florida Area Cirrus Experiment (CRYSTAL-FACE)**

**Date:** July 1, 2002 – May 31, 2003

**Amount:** \$16,134

**Agency:** NASA Goddard Space Flight Center

**Description:** A project, the purpose of which is to investigate tropical cirrus cloud physical properties and formation processes.

### **23 (CoPI) SBIR Phase I: FloWatch911**

**Date:** Aug 1, 2002 – Apr 30, 2003

**Amount:** \$26,175

**Agency:** Emergency Management Telecommunications Inc.

**Description:** A project, the purpose of which is to develop pipeline radar sensor for the Flowatch product.

### **24 (PI) Worldwide Foliage Map and Propagation Attenuation Model**

**Date:** Jul 2, 2001 – Dec. 2001

**Amount:** \$30,000

**Agency:** Raytheon Company St. Petersburg

**Description:** A project, the purpose of which is to develop a realistic empirical global model (map) of the earth's forest regions and urban areas, which Raytheon will integrate into a RF link simulation.

# CURRICULUM VITA

## W. Linwood Jones

### **25 (PI) QuickSCAT Calibration and Validation**

**Date:** Apr 1, 2000 – Mar 1, 2002

**Amount:** \$112,494

**Agency:** NASA Jet Propulsion Laboratory

**Description:** A project the purpose of which is to provide calibration and validation for the QuickSCAT Satellite Instrument and to develop and evaluate a new passive microwave (ocean brightness temperature) measurement capability for SeaWinds called QuickSCAT Radiometer, QRad.

### **26 (PI) Combined Active and Passive Remote Sensing of Rain Over Ocean and Terrain Geophysical Parameters**

**Date:** May 1, 2000 – April 30, 2004

**Amount:** \$62,398

**Agency:** NASA Jet Propulsion Laboratory

**Description:** A project, the purpose of which is to develop data analysis algorithms for the QUICKSCAT Sattelite Scattrometer.

### **27 (PI) NEXRAD Rain Products**

**Date:** Jun 17, 1999 – Jan. 2001

**Amount:** \$14,983

**Agency:** State of Florida: St. Johns River Water Management Distret

**Description:** A project, the purpose of which is to provide rain-fall estimates for the St. John's River Water Management district by the Central FL Remote Sensing Lab.

### **28 (PI) QuickSCAT**

**Date:** Oct 2, 1998 – May 2000

**Amount:** \$70,117

**Agency:** NASA Jet Propulsion Laboratory

**Description:** A project, the purpose of which is to use the QuickSCAT data for passes over tropical cyclones to obtain more accurate descriptions of the winds in the boundary layer above the ocean.

### **29 (PI) TEFLUN-B Experiment/TRMM (Tropical Rainfall Measuring Mission) Field Experiment**

**Date:** Jun 30, 1998 – Feb. 2001

**Amount:** \$170,499

**Agency:** NASA Goddard Space Flight Center

**Description:** Provide rain measuring instrumentation in Central Florida for ground truth for validating satellite rain measurements.

# CURRICULUM VITA

## W. Linwood Jones

### **30 (PI) Satellite Remote Sensing of Soil Moisture**

**Date:** Jan 31, 1998 – Aug. 1999

**Amount:** \$43,064.00

**Agency:** University of Florida-FSGC

**Description:** A project, the purpose of which is to investigate the feasibility of offering a commercial satellite remote sensing derived soil moisture product for sale to government and private sector users.

### **31 (PI) Conical Microwave Imager Sounder (CMIS)**

**Date:** Oct 31, 1997 – Sept. 1998

**Amount:** \$16,544

**Agency:** Raytheon Company St. Petersburg

**Description:** A project, the purpose of which is for the University of Central Florida to provide performance analyses of RESP defined spaceborne active sensor configurations for measuring ocean wind vectors.

### **32 (PI) NSCAT Data Processing**

**Date:** Jun 30, 1997 – Sept. 1998

**Amount:** \$10,000

**Agency:** University of South Florida

**Description:** A project, the purpose of which is to provide NSCAT ocean surface winds for the Cariaco Basin. Also, collaborate on the analysis of experimental results and journal publications.

### **33 (PI) Tropical Rainfall Measuring Mission (TRMM)...**

**Date:** Jun 30, 1997 – Feb. 2001

**Amount:** \$210,029

**Agency:** NASA Goddard Space Flight Center

**Description:** A project, the purpose of which is to investigate optimal techniques for spatial and temporal combining of rain gauge and NEXRAD data in the Central and South Florida region to derive the "best estimate" of rainfall accumulation over approximately 5 deg. x 5 deg. horizontal spatial scale consistent with TRMM specifications.

### **34 (PI) E-Systems Remote Sensor Simulation**

**Date:** May 27, 1997 – Dec. 1997

**Amount:** \$9,996

**Agency:** E-Systems a Raytheon Company

**Description:** A project, the purpose of which is to develop a satellite radar sensor with a rotating conical scan.

# CURRICULUM VITA

## W. Linwood Jones

### **35 (PI) Objective Operational Utilization of Satellite Microwave Scatterometer Observations of Tropical Cyclones**

**Date:** May 1, 1997 – Dec. 1999

**Amount:** \$134,859

**Agency:** NASA Stennis Space Center

**Description:** A project, the purpose of which is to do a diagnosis of tropical cyclone PBL wind field and intensity using combination of high resolution NSCAT retrievals and PBL model. Improvement of NSCAT tropical cyclone wind retrievals.

### **36 (PI) Tropical Rainfall Measuring Mission (TRMM)-...**

**Date:** Jun 21, 1996 – Jan. 1998

**Amount:** \$90,000

**Agency:** NASA Jet Propulsion Lab

**Description:** A project, the objectives of which are to: (1) validate the "ground truth" for TRMM products, (2) develop computer models to use TRMM data to generate mesoscale geophysical products and (3) perform calibration and maintenance of the rain gauges for the NASA Kennedy Space Center (KSC) network.

### **37 (PI) NASA Scatterometer (NSCAT)**

**Date:** Jun 21, 1996 – Dec. 1998

**Amount:** \$219,027

**Agency:** NASA Jet Propulsion Lab

**Description:** A project, the purpose of which is to provide a confidence level on the NSCAT rain flags and to assess the retrieved winds' errors when precipitation is present in the NSCAT instantaneous field of view.

### **38 (CoI) HF Doppler Wind Profiler**

**Date:** July 1996 – May 1997

**Amount:** \$ 25,000

**Agency:** NASA Kennedy Space Center

**Description:** Design of Next Generation of HF Doppler Wind Profiler

## PENDING AND DECLINED PROPOSALS

1. None

## RESEARCH RELATED AWARDS & HONORS

1. **Agency:** IEEE:  
**Award:** Best Interactive Paper at *IEEE IGARSS-2012*
2. **Agency:** NASA Hdqs  
**Award:** 2010 NASA Group Achievement Award for Airborne Earth Science Mission (GRIP)

# CURRICULUM VITA

## W. Linwood Jones

3. **Agency:** Naval Research Lab Wash DC  
**AWARD:** 2004 Alan Berman Research Award
4. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for the CRYSTAL Phase Project August, 2003
5. **Agency:** NASA HEADQUARTERS  
**AWARD:** 2002 Project Management Shared Experience Program Topex/Poseidon
6. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for the QuikSCAT Flight Project May16, 2001
7. **Agency:** IEEE  
**AWARD:** Fellow, for contributions to the development and application of active microwave remote sensing technology for satellite oceanography, 1999
8. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for the NSCAT Science team, 1998
9. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for the NSCAT Flight Project, 1997
10. **Agency:** CNES French National Space Agency  
**AWARD:** CNES Space Medal, En remerciement pour sa precieuse sa precieuse contribution au success de la mission franco-americaine d'oceanographie spatial – Topex-Poseidon, 1994
11. **Agency:** Aviation Week & Space Technology  
**AWARD:** Space Program Award for Topex/Poseidon, 1993
12. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for SeaSat-A Satellite Scatterometer Flight Project, 1981
13. **Agency:** NASA Langley Research Center  
**AWARD:** Special Achievement Award, 1979
14. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for the Water Quality Program, 1978
15. **Agency:** NASA Langley Research Center  
**AWARD:** Sustained Superior Performance, SASS Program Scientist, 1978
16. **Agency:** Union of Radio Scientists International, URSI  
**AWARD:** Election to Commission - F - 1972
17. **Agency:** NASA HEADQUARTERS  
**AWARD:** Group Achievement Award for the RAM Flight Project, 1969
18. **Agency:** NASA Langley Research Center  
**AWARD:** Sustained Superior Performance, Apollo LEM Program, 1966

### Honor Societies:

Eta Kappa Nu  
Tau Beta Phi  
Phi Kappa Phi  
Omicron Delta Kappa

# CURRICULUM VITA

## W. Linwood Jones

Kappa Theta Epsilon  
Sigma Mu Sigma  
American Society of Military Engineers

### SERVICE

#### UCF Committee Services

I have been a member of the following Department and College level committees:

1. **2010:** Member, Search Committee Director FSI
2. **1996-present:** Member of the Communications Committee.
3. **1996-present:** Member of the Electromagnetics Committee.
4. **2007-present** Member Undergrad Committee
5. **2003- present** Member of the SEECs Promotion and Tenure Committee
6. **1999-2006:** Member of the Graduate Affairs Committee.
7. **2001:** Member of the SEECs Grants Specialist Search Committee
8. **1996-98:** Co-Chair Wireless Technology Committee
9. **1999:** Member, Search Committee - Director Sponsored Research

#### Professional Service

1. NASA Inter-satellite Radiometric Calibration Working Group, Mar, Jun & Oct 2010
2. Session chair, IEEE International GeoScience & Remote Sensing Society Conference (IGARSS 2010), July 2010
3. Member NASA JPL DFS Mission Peer Review Board, May 2010
4. Member, NASA GSFC Peer Review Board SMAP Mission, Sept 2010
5. NASA Inter-satellite Radiometric Calibration Working Group, May & Oct 2009
6. Member NASA Senior Review Board, May 2009
7. Member NASA Hdqs ROSES09 GRIP science selection panel, Jul 2009
8. Member, NASA Hdqs Standing Review Board Aquarius Mission, Dec 2009
9. Member, NASA Hdqs Standing Review Board Aquarius Mission, Jul 2008
10. NASA Inter-satellite Radiometric Calibration Working Group, Jan & Aug 2008
11. Member, NASA Hdqs Proposal Review Board 2008 Adv. Components Technology, Oct. 2008
12. Member, NASA Hdqs Standing Review Board Aquarius Mission, 2007
13. Member, NASA Hdqs ROSES 2007 Airborne Instrument Technology Transition selection panel, Aug. 2007
14. Member, NASA Hdqs EOS 2006 Atmos. Dynamics & Precipitation science selection



# CURRICULUM VITA

## W. Linwood Jones

- panel, Jan. 2007
15. NOAA XO VW workshop Panel Member, Dec 2007
  16. NASA Inter-satellite Radiometric Calibration Working Group, Mar 2007
  17. Member, NASA Hdqs Standing Review Board Aquarius Mission, Jul 2006
  18. Session chair, IEEE International GeoScience & Remote Sensing Society Conference (IGARSS 2006), July 2006
  19. Participant, NOAA Satellite Vector Winds Reqmts Workshop June 2006
  20. Member, NASA Hdqs NAMMA06 science selection panel, Mar. 2006
  21. Member NASA LaRC Peer Review Panel for EM Research Branch, June 2005
  22. Member, NASA's TCSP CAMEX science selection panel, Oct. 2004
  23. Member, Technical Program Committee and Session Chair, International GeoScience & Remote Sensing Society Conference (IGARSS 2004), 2003 – 2004
  24. Member NASA Peer Review Panel for NASA Aqua Mission, August 2003
  25. Member NASA Peer Review Panel for NASA Precipitation Measurements Mission, March 2003
  26. Member, Technical Program Committee and Session Chair, International GeoScience & Remote Sensing Society Conference (IGARSS 2002), 2001 – 2002
  27. Member of Red Team Review Board and Chairman – Instrument Sub-panel,, NASA Goddard Space Flight Center's Earth Systems Science Pathfinder Mission – Step-2: Aquarius, 2001 - 2002
  28. Member Proposal Review Panel, NASA Headquarters Earth Systems Science Incubator Instrument Program, 2001
  29. Member, Technical Program Committee and Session Organizer & Chair: IEEE IGARSS 2000 Conference, 1999 – 2000
  30. Treasurer, Member of Organizing Committee and Session Chair, 1999 IEEE Antennas & Propagation Society International Symposium and USNC/URSI National Radio Science Meeting, 1998 - 1999
  31. Organizer and Meeting Chair, QuikSCAT International Cal/Val Workshop, 1999
  32. Organizer and Meeting Chair, QuikSCAT International Science Team Meeting, 1998
  33. Session Chair, IEEE SouthEastCon, 1998
  34. Session Chair, URSI Radio Science Meeting, 1997
  35. 1997-98 Steering Committee SouthEastCon '98, Orlando, FL
  36. Organizer and Meeting Chair, NASA Scatterometer International Cal/Val Workshop, 1997
  37. Session Chair, IEEE Oceans'96 conference, 1996

# CURRICULUM VITA

## W. Linwood Jones

### International Committees

1. Jul 2010 - present: Aquarius International Science Team Meeting, MWR working group leader
2. Oct 2009: Aquarius: 5<sup>th</sup> Science Workshop, Working Group Leader
3. Dec 2008: Aquarius: 4<sup>th</sup> Science Workshop, Working Group Leader
4. Nov 2006: 6<sup>th</sup> GPM International Planning Workshop, GPM Team Member
5. 2003 – 2005: International Global Precipitation Mission Ground Validation Measurements Committee – Team Member
6. 2002 – 2007: WindSat International Science Team, - Principal Investigator & Team Member
7. 1997- 2009: QuikSCAT International Science Team, – Principal Investigator & Team Member
8. 1997 – 2009: TRMM International Science Team – Principal Investigator & Team Member
9. 1994 – 97: NSCAT International Cal/Val Team – Team Leader
10. 1994 – 97: NSCAT International Science Team – Co-Investigator, Team Member
11. 1990 – 92: NASA/NASDA (Japan) TRMM Steering Group – CoChair
12. 1990 – 92: NASA/NASDA (Japan) ADEOS/NSCAT Program Management Group – CoChair
13. 1988 – 92: NASA/CNES (French) Topex/Poseidon Joint Steering Group – CoChair
14. 1975-78: Seasat-A Satellite Scatterometer Geophysical Validation Team, Joint United States, British, and Netherlands Science Team – Principal Investigator - Team Leader
15. 1980: Norwegian Sea Experiment, NORSEX, Joint Norwegian – United States Scientific Project – Team Member
16. 1973 – 75: Joint North Sea Wave Project, JONSWAP-73 & -75, Joint German FDR – United States Scientific Project – Team Member

### CONSULTING ACTIVITIES

1. NASA GSFC SMEX Mission Peer Review Panel member Oct 2010
2. NASA Headquarters Earth Science Division 2009 Senior Management Review Board
3. NASA Headquarters Standing Review Board 2009 – Aquarius Mission
4. NASA Headquarters 2009 Hurricane Field Experiment Review Panel
5. Member, NASA Hdqs Standing Review Board for the Aquarius Mission CDR, July. 2008
6. Member NASA GSFC Standing Review Board for the Global Precipitation Mission Microwave Imager (GMI) Prelim Design Review, Nov. 2006
7. Member, NASA Hdqs Standing Review Board for the Aquarius Non-Advocate Review, Sept. 2006

# CURRICULUM VITA

## W. Linwood Jones

8. Member, NASA Hdqs Non-Advocate Review for the Space Technology-8 (ST-8) Mission, July 2006
9. Member, NASA Hdqs Non-Advocate Review for the Ocean Surface Topography Mission (OSTM) Prelim Design Review, Feb. 2006
10. Member, NASA GSFC Standing Review Board for the Global Precipitation Mission (GPM) System Reqmts Review, Dec. 2005
11. Member, NASA Hdqs Indep Review Team for the Ocean Surface Topography Mission (OSTM) Prelim Design Review, July 2005
12. Member NASA Independent review Panel for Global Precipitation Mission, 2002 - 2004
13. Member WindSat Core Cal/Val Team, Naval Research Laboratory, 2002 - 2006
14. Member, JPL Senior Review Board, Space-borne Scatterometer Projects, Jet Propulsion Laboratory, 1996 – 2004
15. Scientific Advisor & Satellite Remote Sensing Business Development Consultant, Raytheon - St. Petersburg (E-Systems), 1995 – 2001
16. Member, Science Advisory Board, WindSat Program, Naval Research Lab, 1999 – 2002
17. Member, Proposal Review Team, NASA Headquarters, Earth Systems Sciences Pathfinder Mission, 2000 & 2001
18. Member, Science & Technology Advisory Group, Custom Manufacturing Engineering Corp, St. Petersburg, FL, 2000 – 01
19. Calibration/Validation Team Leader, Jet Propulsion Laboratory, NASA QuikSCAT Project, 1997 – 99
20. Calibration/Validation Team Leader, Jet Propulsion Laboratory, NASA Scatterometer Project, 1994 – 97
21. Science Advisor, Naval Ocean Remote Sensing Satellite Program, US Navy – SPAWARS & Naval Research Laboratory, 1994 – 98
22. Science Advisor, DMSP Block-VI and NROSS Satellite Programs, RCA Astro-Space Division, 1982 – 84
23. Technical Consultant, NASA Scatterometer Project, Jet Propulsion Laboratory, 1981 - 82

## REFEREED JOURNAL PUBLICATIONS

1. Sayak K. Biswas, Spencer Farrar, Kaushik Gopalan, Andrea Santos-Garcia, **W. Linwood Jones** and Stephen Bilanow, “Intercalibration of Microwave Radiometer Brightness Temperatures for the Global Precipitation Measurement Mission”, *IEEE Trans. Geosci. and Rem. Sens.*, Vol. 51, Issue: 3, Part: 1, pp. 1465 - 1477, March 2013.
2. William N. Junek, **W. Linwood Jones** and Mark T. Woods, “Locating Incipient Volcanic Vents using Multidisciplinary Remote Sensing Data and Source Modeling Information”, *IEEE Geosci. & Remote Sens. Letters*, Vol. 10, Issue: 1, pp. 140-144, January 2013

# CURRICULUM VITA

## W. Linwood Jones

3. William N. Junek, **W. Linwood Jones**, Mark T. Woods, "Use of Logistic Regression for Forecasting Short-Term Volcanic Activity", *Algorithms*, pp. 330-363, May 2012.
4. Weissman, D.E.; Stiles, B.W.; Hristova-Veleva, S.M.; Long, D.G.; Smith, D.K.; Hilburn, K.A. and **W.L. Jones**, "Challenges to Satellite Sensors of Ocean Winds: Addressing Precipitation Effects", *J. Atmos. Tech.* vol. 29, pp. 356-374, March 2012
5. Amarin, R.A.; **Jones, W.L.**; El Nimri, S.F.; Johnson, J.W.; Ruf, C.S.; Miller, T.L. and E. Uhlhorn; "Hurricane Wind Speed Measurements in Rainy Conditions using the Airborne Hurricane Imaging Radiometer (HIRAD)"; *Trans. GeoSci. Remote Sens.*, vol. 50, issue: 1, pp. 180-192, Jan. 2012.
6. Alsweiss, Suleiman O., Peth Laupattarakasem, and **W. Linwood Jones**, "A Novel Ku-Band Radiometer/Scatterometer Approach for Improved Ocean Wind Vector Measurements", *IEEE Trans. GeoSci. Remote Sens.*, vol. 49, issue: 9, pp. 3189-3197, Sept. 2011
7. Biswas, Sayak K., Kaushik Gopalan. W. Linwood Jones and Stephen Bilanow, "Correction of Time-Varying Radiometric Errors in TRMM Microwave Imager Calibrated Brightness Temperature Products", *IEEE Geosci. & Remote Sens. Letters*, Vol. 7, no. 4, pp. 851-855, Oct 2010
8. El-Nimri, Salem F., W. Linwood Jones, Eric Uhlhorn, Christopher Ruf, James Johnson, and Peter Black, "An Improved C-Band Ocean Surface Emissivity Model at Hurricane-Force Wind Speeds over a Wide Range of Earth Incidence Angles", *IEEE Geosci. & Remote Sens. Letters*, Vol. 7, no. 4, pp. 641-645, Oct 2010
9. Bailey, M. C., Ruba Amarin, James Johnson, Paul Nelson, Mark James, Davis Sikmons, Christopher Ruf, Linwood Jones and Xun Gong, "Multi-Frequency Synthetic Thinned Array Antenna for the Hurricane Imaging Radiometer", *IEEE Trans. Ant. & Prop.*, vol – 58, no. 8, pp. 2562-2570, Aug 2010
10. Ruba Amarin, Christopher Ruf, W. Linwood Jones, 'Impact of Spatial Resolution on Wind Field Derived Estimates of Air Pressure Depression in the Hurricane Eye', *Molecular Diversity Preservation International Journal (MDPI)*, Volume 2, Issue 3, PP 611-907, March 2010
11. Laupattarakasem, Peth, **W. Linwood Jones**, Christopher C. Hennon, John Allard, Amy R. Harless and Peter Black, "Improved Hurricane Ocean Vector Winds using SeaWinds Active/Passive Retrievals", *IEEE Trans. GeoSci. Remote Sens.*, vol. 48, no. 7, pp. 2909-2923, Oct 2009
12. Kaushik Gopalan\*, **Linwood Jones**, Sayak Biswas\*, Steve Bilanow, Thomas Wilheit and Takis Kasparis, "A Time-Varying Radiometric Bias Correction for the TRMM Microwave Imager", *IEEE Trans. GeoSci. Rem. Sens*, vol. 99, NO. 1, pp. 3722-3730, Nov 2009.

# CURRICULUM VITA

## W. Linwood Jones

13. Lane, John E., Kasparis, Takis, Metzger, Philip T. and **W. Linwood Jones**, “Spatial and Temporal Extrapolation of Disdrometer Size Distributions Based on a Lagrangian Trajectory Model of Falling Rain”, *The Open Atmospheric Science Journal*, 2009, Vol. 3, pp-172-186
14. Hong, Liang\*, **Jones, W. Linwood**, Wilheit, Thomas T. and Takis Kasparis, “ Two Approaches for Inter-satellite Radiometer Calibrations between TMI and WindSat”, *J. of Meteorological Society of Japan*, Vol. 87A, pp. 223-235, 2009.
15. Adams, I. S.\*, P. Gaiser, and **W. L. Jones**, Simulation of the Stokes vector in inhomogeneous precipitation, *Radio Sci.*, 43, RS5006, doi: 10.1029/2007RS003744, 2008
16. Soisuvarn, Seubson\*, Zorana Jelenak and **W. Linwood Jones**, “An Ocean Surface Wind Vector Model Function for a Spaceborne Microwave Radiometer”, *IEEE Trans. GeoSci. Rem. Sens*, vol. 45, no. 10, Oct 2007, pp. 3119-3130
17. **W. Linwood Jones**, Jun D. Park\*, Seubson Soisuvarn\*, Liang Hong\*, Peter Gaiser and Karen St. Germain, “Deep-Space Calibration of WindSat Radiometer”, *IEEE Trans. GeoSci. Rem. Sens.*, Vol. 44, NO. 3, Mar 2006, pp. 476-495
18. Ian S. Adams\*, Christopher C. Hennon, **W. Linwood Jones** and Khalil Ahmad\*, “Evaluation of Hurricane Ocean Vector Winds from WindSat”, *IEEE Trans. GeoSci. Rem. Sens.*, Vol. 44, NO. 3, Mar 2006, pp. 656-667
19. Khalil Ahmad\*, **W. Linwood Jones**, Takis Kasparis, Stephen Vergara\*, Ian Adams\* and Jun Park\*, “Oceanic Rain Rate Estimates from the QuikSCAT Radiometer: A Global Precipitation Mission Pathfinder”, *J. GeoPhy. Res – Atms*, VOL. 110, 2005
20. Diane Evans, Werner Alpers, Anny Cazenave, Charles Elachi, Tom Farr, David Glackin, Benjamin Holt, **Linwood Jones**, Tim Liu, Walt McCandless, Yves Menard, Richard Moore, Eni Njoku, “Seasat - A 25 Year Legacy of Success”, *Remote Sensing of Environment*, Vol. 94, Issue 3, Pages 287-428, 15 Feb 2005
21. Peter W. Gaiser, Karen St. Germain, Elizabeth M. Twarog, Gene A. Poe, William Purdy, Donald Richardson, Walter Grossman, **W. Linwood Jones**, David Spencer, Gerald Golba, Michael Mook, Jeffrey Cleveland, Larry Choy, Richard M. Bevilacqua, and Paul Chang, “The WindSat Space Borne Polarimetric Microwave Radiometer: Sensor Description and Early Orbit Performance”, *IEEE Trans GeoSci Rem Sens*, Vol. 42, NO. 11, 2347-2361, Nov 2004
22. Richard K. Moore and **W. Linwood Jones**, “Satellite Scatterometer Wind Vector Measurement – the Legacy of the Saesat Satellite Scatterometer, *IEEE GeoSci Rem Sens Newsletter*, Issue-321, 18-32, Sept. 2004
23. Datta, Saswati\*, **W. L. Jones**, B. Roy\* and A. Tokay, “Spatial Variability of Surface Rainfall as Observed from TRMM Field Campaign Data”, *J. Applied Meteorology*, Vol. 42, 2003

# CURRICULUM VITA

## W. Linwood Jones

24. J. Lane, T. Kasparis, and **L. Jones**, "A 3-D Drop Size Distribution model based on the convolution of raindrops at terminal velocity", *Internat. J. Remote Sensing*, vol. 23, no. 15, 3115-3121, 2002
25. Charalampidis, D., Kasparis, K. and **L. Jones**, "Detection of Anomalous Propagation (AP) in NEXRAD Weather Radar using Multifractals and Intensity", *IEEE Trans. GeoSci. & Rem. Sens.*, vol. 40, no. 5, 1121-1131, May 2002
26. **Jones, W. L.**, Cardone, V. J., Pierson, W. J., Zec\*, J., Rice\*, L. P., Cox, A., and W. B. Sylvester "NSCAT High Resolution Surface Winds Measurements in Typhoon Violet", *J. Geophys. Res.*, Vol. 104, No. C5, May 1999
27. Zec, J.\*, Long, D.G., and **W.L. Jones**, "NSCAT Sigma-0 Biases using Homogenous Land Targets", *J. Geophys. Res.*, Vol. 104, No. C5, May 1999
28. Tsai, W.Y., Dunbar, S., Freilich, M., Graf, J., Huddleston, J., **Jones, L.**, Long, D., Wentz, F., Winn, C. "Post-launch Sensor Verification and Calibration of the NASA Scatterometer", *IEEE Trans. GeoSci Rem Sens.*, Vol. 37, No. 3, May 1999
29. Alhumaidi, S. M., **Jones, W. L.**, Park, J. D., and Ferguson, S. "A Neural Network Algorithm for Sea Ice Edge Classification", *IEEE Trans. GeoSci Rem Sens.*, July 1997.
30. Swift, C. T., **Jones, W. L.**, and Goodman, J., "Active and Passive Microwave Measurements of the Greenland Ice Sheet anisotropy", *Radio Science*, 1983.
31. Johnson, J. W., Weissman, D. E. and **Jones, W. L.**, "Measurements of Ocean Gravity Wave Spectrum from An Aircraft Using the Two-Frequency Microwave Resonance Technique", *International Journal of Remote Sensing*, August 1982.
32. Grantham, W. L., Bracalente, E. M., Britt, C. L., Wentz, F. J., **Jones, W. L.**, and Schroeder, L. C., "Performance Evaluation of An Operational Spaceborne Scatterometer", *IEEE Trans. GeoSci Rem Sens.*, GE-20, No. 3, July 1982.
33. **Jones, W. L.**, Schroeder, L. C., Boggs, D. H., Bracalente, E. M., Brown, R. A., Dome, G., Pierson, W. J. and Wentz, F. J., "The SeaSat-A Satellite Scatterometer: The Geophysical Evaluation of Remotely Sensed Wind Vectors Over the Ocean", *J. GeoPhy. Res.*, Vol. 87, No. C5, pp 3297 - 3317, April 30, 1982.
34. Schroeder, L. C., Boggs, D. H., Dome, G., Halberstam, I. M., **Jones, W. L.**, Pierson, W. J. and Wentz, F. J., "The Relationship Between Wind Vector and Normalize Radar Cross section Used to Derive SeaSat-A Satellite Scatterometer Winds", *J. GeoPhy. Res.*, Vol. 87, No. C5, pp 3318 - 3336, April 30, 1982.
35. Weissman, D. E., Brown, W. E., Thompson, T. W, and **Jones, W. L.**, "Studies of the Dependence of L-Band Backscatter on sea Surface Winds Using the Synthetic Aperture Radar", *Oceanography From Space* (ed. J. F. R. Gower), Plenum Press Corp., pp 543 - 551, 1981.
36. Johnson, J. W., **Jones, W. L.**, and Weissman, D. E., "Two-Frequency (Delta-K) Microwave Scatterometer Measurements of Ocean Wave Spectra from an Aircraft", *Oceanography From Space* (ed. J.F.R. Gower), Plenum Pub Corp., pp 607 - 616, 1981.
37. **Jones, W. L.**, Wentz, F. J., and Schroeder, L. C., "Microwave Scatterometer Measurements of Oceanic Wind Vector", *Oceanography From Space* (ed. J.F.R., Gower), Plenum Pub. Corp, pp 553 - 562, 1981.

# CURRICULUM VITA

## W. Linwood Jones

38. Guymer, T. H., Businger, J. A., **Jones, W. L.**, and Stewart, R. H., "Anomalous Wind Estimates from the SeaSat Scatterometer", *Nature*, Vol. 294, No. 5843, pp 735 - 737, December 24, 1981.
39. **Jones, W. L.**, Boggs, D. H., Bracalente, E. M., Brown, R. A., Guymer, T. H., Shelton, D., and Schroeder, L.C., "Evaluation of the SeaSat Wind Scatterometer", *Nature*, Vol. 294, No. 5843, pp 704 - 707., December 24, 1981.
40. **Jones, W. L.**, Black, P. G., Delnore, V. E. and Swift, C. T., "Airborne Remote Sensing Measurements of Hurricane Allen", *Science*, Vol 24, No. 4518, pp 274 - 280, October 16, 1981.
41. **Jones, W. L.**, Delnore, V. E., and Bracalente, E. M., "The Study of Mesoscale Ocean Winds Using the Synthetic Aperture Radar", Spaceborne Synthetic Aperture Radar for Oceanography (ed. R. Beal, P. DeLonibus, I. Katz), Johns Hopkins Press, Baltimore, pp 87 - 94, 1981.
42. Huhnerfuss, R., Alpers, W., **Jones, W. L.**, Lange, P. A., and Richter, K., "The Damping of Ocean Surface Waves by a Monomolecular Film Measured by Wavestaffs and Microwave Radars", *J. GeoPhy. Res*, Vol. 86, No. C1, pp 429 - 438, January 20, 1981.
43. Swift, C. T., **Jones, W. L.**, and W. L. Grantham, "Microwave Remote Sensing", *IEEE Ant. & Prop Soc Newsletter*, 4-9, Oct. 1980
44. Brucks, J. T., **Jones, W. L.**, and Leming, T. D., "Comparison of Surface Wind Stress Measurements: Airborne Radar Scatterometer Versus Sonic Anemometer", *J. GeoPhy. Res*, Vol. 85, No. C9, pp 4967 - 4976, September 20, 1980.
45. Wright, J. W., Plant, W. J., Keller, W. C., and **Jones, W. L.**, "Ocean Wave Radar Modulation Transfer Functions from the West Coast Experiment", *J. GeoPhy. Res*, Vol. 85, No. C9, pp 4957-4966, September 20, 1980.
46. Swift, C. T., **Jones, W. L.**, Harrington, R. F., Fedors, J. C., and Couch, R. H., "Microwave Radar and Radiometric Remote sensing of Lake Ice", *Geophysical Research Letters*, Vol. 7, No. 4, pp 243 - 246, April 1980.
47. **Jones, W. L.**, et al, "SeaSat Scatterometer: Results of the Gulf of Alaska Workshop", *Science*, Vol. 204, No. 4400, pp 1413-1415, 29 June 1979.
48. Huhnerfuss, H., Alpers, W., and **Jones, W. L.**, "Measurements at 13.9 GHz of the Radar Backscattering Cross Section of the North Sea Covered with an Artificial Surface Film", *Radio Science*, Vol. 13, No. 6, pp 979-983, Nov - Dec 1978.
49. **Jones, W. L.**, Wentz, F. J., and Schroeder, L. C., "Algorithm for Inferring Wind Stress from SeaSat-A", *AIAA J. Spacecraft and Rockets*, Vol. 15, No. 6, pp 368 - 374, Nov - Dec 1978.
50. Ross, D. and **Jones, W. L.**, "On the Relationship of Radar Backscatter to Windspeed and Fetch", *Boundary-Layer Meteorology*, 13 (1978), pp 151 - 163.
51. **Jones, W. L.**, and Schroeder, L. C., "Radar Backscatter from the Ocean, Dependence on Surface Friction Velocity", *Boundary Layer Meteorology*, 13 (1978), pp 133 - 149.
52. Grantham, W. L., Bracalente, E. M., **Jones, W. L.**, and Johnson, J. W., "The SeaSat-A Satellite Scatterometer", *IEEE J. Oceanic Eng.*, Vol OE-2, No. 2, pp 200-206, April 1977.
53. **Jones, W. L.**, Schroeder, L. C., and Mitchell, J. L., "Aircraft Measurements of the Microwave Scattering Signature of the Ocean", *IEEE Trans. Antennas Propagation/IEEE J.*

# CURRICULUM VITA

## W. Linwood Jones

- Oceanic Eng.* (Special Issue on Radio Oceanography), Vol. AP-25, No. I, pp 52-61, January 1977.
54. **Jones, W. L.**, Grantham, W. L., Schroeder, L. C., Johnson, J. W., Swift, C. T., and Mitchell, J. L., "Microwave Scattering from the Ocean Surface", *IEEE Trans on MTT*, December 1975, pp 1053-1058.
  55. Kang, Sang-Wook, **Jones, W. L.**, and Dunn, M. G., "Theoretical and Measured Electron Density Distribution at High Altitudes", *AIAA Journal*, Vol. II, No. 2, pp 141-149, February 1973.

### REFEREED CONFERENCE PROCEEDINGS

**Over 289 refereed conference and symposium publications presented and published. The following are examples of recent publications from research assistants at the Central Florida Remote Sensing Laboratory.**

1. Yazan Hejazin, W. Linwood Jones, Marta Jacob and Salem El-Nimri, "Ocean Roughness Correction for Aquarius Sea Surface Salinity Measurements," *SMOS/AQ Internat. Workshop*, Brest, FR, Apl. 15-17, 2013.
2. W. Linwood Jones, Yazan Hejazin and Salem El Nimri, "Inter-satellite Radiometric Calibration of Ocean Brightness Temperature between SMOS and Aquarius," *SMOS/AQ Internat. Workshop*, Brest, FR, Apl. 15-17, 2013.
3. Zoubair Ghazi, Sayak Biswas, Linwood Jones, Yazan Hejazin, and Maria Marta Jacob, "On-Orbit Signal Processing Procedure for Determining Microwave Radiometer Non-Linearity," *Proc. IEEE SoEastCon2013*, Jacksonville, FL, Apl. 5-7, 2013.
4. Saleem Sahawneh, Spencer Farrar, James Johnson, and Linwood Jones, "Hurricane Wind Speed and Rain Rate Measurements using the Airborne Hurricane Imaging Radiometer (HIRAD)," *Proc. IEEE SoEastCon2013*, Jacksonville, FL, Apl. 5-7, 2013
5. Larry Schneider, William Junek, Linwood Jones, and Maxim Troshin, "CFRSL Rain Measuring Facility – Part-2 Rain Profiling Raadar," *Proc. IEEE SoEastCon2013*, Jacksonville, FL, Apl. 5-7, 2013.
6. Mansour Sirizi, William N. Junek, and W. Linwood Jones, "CFRSL Rain Measuring Facility – Part-1: Radiometer and Rain Gauges," *Proc. IEEE SoEastCon2013*, Jacksonville, FL, Apl. 5-7, 2013.
7. William Junek and W. Linwood Jones, "Burn Scar Analysis using Remotely Sensed Multispectral Imagery," *Proc. IEEE SoEastCon2013*, Jacksonville, FL, Apl. 5-7, 2013.
8. Hamideh Ebrahimi, Shadi Aslebagh, and Linwood Jones, "Use of Monte Carlo Simulation in Remote Sensing Data Analysis", *Proc. IEEE SoEastCon2013*, Jacksonville, FL, Apl. 5-7, 2013
9. Spencer Farrar, Martin Labanda, Maria Marta Jacob, Sergio Masuelli, Sayak Biswas, Hector Raimondo, **Linwood Jones**, "An Empirical Correction For The MWR Brightness Temperature Smear Effect," *Proc. IEEE IGARSS-12*, Jul., 2012, Munich, Germany.



# CURRICULUM VITA

## W. Linwood Jones

10. Sayak K. Biswas, **Linwood Jones**, Daniel Rocca and Juan-Cruz Gallio, “Aquarius/SAC-D Microwave Radiometer (MWR): Instrument Description and Brightness Temperature Calibration,” *Proc. IEEE IGARSS-12*, Jul., 2012, Munich, Germany
11. Sayak K. Biswas, **Linwood Jones**, Jason Roberts, Christopher Ruf, Eric Uhlhorn and Timothy Miller, “Retrieval of Ocean Surface Windspeed and Rainrate from the Hurricane Imaging Radiometer (HIRAD) Brightness Temperature Observations,” *Proc. IEEE IGARSS-12*, Jul., 2012, Munich, Germany.
12. William N. Junek, **W. Linwood Jones**, and Mark T. Woods, “Temporal Analysis of the Magma Supply System Beneath the Okmok Caldera by Interferometric Synthetic Aperture Radar and Statistical Seismology,” *Proc. IEEE IGARSS-10*, Jul. 6 - 11, 2010, Honolulu, HA.
13. Salem F. El-Nimri, **W. Linwood Jones**, and Sonya Ortiz, “An Improved Wideband Ocean Emissivity Radiative Transfer Model”, *Proc. IEEE IGARSS-10*, Jul. 6 - 11, 2010, Honolulu, HA.
14. Suleiman Alsweiss, Peth Laupattarakasem, Salem El-Nimri, **W. Linwood Jones**, and Svetla Hristova-Veleva, “Improved Hurricane Active/Passive Simulated Wind Vector retrievals”, *Proc. IEEE IGARSS-10*, Jul. 6 - 11, 2010, Honolulu, HA.
15. Ruba A. Amarin, **Linwood Jones**, James Johnson, Chris Ruf, Timothy L. Miller and Eric Uhlhorn, “The Hurricane Imaging Radiometer Wide Swath Simulation and Wind Speed Retrievals”, *Proc. IEEE IGARSS-10*, Jul. 6 - 11, 2010, Honolulu, HA.
16. Ruba A. Amarin, **W. Linwood Jones**, James W. Johnson, Christopher Ruf, Timothy Miller and Shuyi Chen, “Estimates of Hurricane Wind Speed Measurement Accuracy using the Airborne Hurricane Imaging Radiometer”, *Proc. AMS 29<sup>th</sup> Conf. on Hurricanes and Tropical Meteor*, 10-14 May 2010, Tucson, Az.
17. El-Nimri, Salem, **Linwood Jones**, Eric Uhlhorn, Chris Ruf and Peter Black, “Hurricane Imaging Radiometer Wind Speed and Rain Rate Retrieval: [Part-1] Development of an Improved Ocean Emissivity Mode”, *Proc. of MicroRad2010*, March 1-4, 2010, Washington DC
18. Gopalan, Kaushik, Sayak Biswas, **Linwood Jones**, Stephen Bilanow and Thomas Wilheit, “A Time-Varying Radiometric Bias Correction for the TRMM Microwave Imager and Inter-Satellite Radiometric Calibration with WindSat and SSM/I”, *Proc. of MicroRad2010*, March 1-4, 2010, Washington DC
19. Amarin, Ruba, **Linwood Jones**, James Johnson, Chris Ruf, Tim Miller and Shuyi Chen, “Hurricane Imaging Radiometer Wind Speed and Rain Rate Retrieval: Part-2. Analysis of Retrieval Accuracy”, *Proc. of MicroRad2010*, March 1-4, 2010, Washington DC
20. Biswas, Sayak, **Linwood Jones**, Salman Khan, Juan-Cruz Gallo and Daniel Rocca, “MWR and WindSat Inter-Satellite Radiometric Calibration Plan”, *Proc. of MicroRad2010*, March 1-4, 2010, Washington DC
21. Ruba A. Amarin, **W. Linwood Jones**, Salem F. El-Nimri and James W. Johnson, “A Wide-Swath Hurricane Imaging Radiometer for Imaging of Wind Speed and rain Rate in Hurricanes”, *URSI Nat. Radio Sci Meeting*, Jan 20-23, 2010, Boulder, CO.
22. **Jones, W. Linwood** and Monica Rabolli, “**Improved Aquarius Salinity Retrievals**

# CURRICULUM VITA

## W. Linwood Jones

- using Auxiliary Products from the CONAE Microwave Radiometer (MWR)**”, 5th Aquarius/SAC-D Internat Sci Meeting, 21-23 October, 2009, Buenos Aires, Argentina
23. Al-Sweis, Suleiman, **W. Linwood Jones**, Peth Laupattarakasem, Salem El-Nimri, Svetla Veleva, Bryan W. Stiles, Ernesto Rodriguez, and Robert W. Gaston, “Simulated OVW Retrievals in Tropical cyclones for the Next Generation Dual Frequency Scatterometer”, Proc. IEEE Oceans '09 MTS/IEEE, October 26-29, 2009, Biloxi, MS.
  24. **Jones, Linwood**, Timothy Miller, Robert Atlas, M. C. Bailey, Peter Black, Salem El-Nimri, Robbie Hood, Mark James, James Johnson, Christopher Ruf, and Eric Uhlhorn, “Surface Wind Vector and Rain Rate Observation Capability of the Future Airborne Hurricane Imaging Radiometer (HIRAD)”, 63<sup>rd</sup> Inter-Departmental Hurricane Conference (national), March 2-5, 2009, St. Petersburg, FL.
  25. **Jones, W. Linwood**, Pet Laupattarakasem, Suleiman Al-Sweiss, Salem El-Nimri, Svetla Veleva, Bryan W. Stiles, Ernesto Rodriguez, and Robert W. Gaston, “Simulated OVW Retrieval Performance for the Dual Frequency Scatterometer in Hurricanes”, 2009 NASA Ocean Vector Wind (international) Sci. Team Meeting, May 18-20, 2009, Boulder, CO.
  26. **Jones, W. Linwood**, Pet Laupattarakasem and Christopher C. Hennon, “Q-Winds OVW Retrievals in Extreme Wind Events”, 2009 NASA Ocean Vector Wind (international) Sci. Team Meeting, May 18-20, 2009, Boulder, CO.
  27. Farrar, Spencer, **Linwood Jones** and Takis Kasparis, “Comparisons of Ocean Precipitation Measurements between SeaWinds and TRMM 3B42 Data Product”, IEEE International Symp Ant and Propag and USNC/URSI Nat Radio Science Meeting, June 1-5, 2009, Charleston, SC.
  28. **W. Linwood Jones**, Sayak Biswas, Juan Cruz Gallo and Daniel Rocca, “Post-Launch Radiometric Calibration for the Microwave Radiometer (MWR)”, 4<sup>th</sup> Aquarius/SAC-D Internat. Sci Workshop, Dec. 3-6, 2008 Puerto Madryn, Chubut, Argentina.
  29. **W. Linwood Jones**, Khalil Ahmad and Takis Kasparis, “Ocean Precipitation Measurements using SeaWinds”, NASA OVW Internat Sci team Meeting, Nov. 19-21, 2008, Seattle, WA.
  30. Kaushik Gopalan, **W. Linwood Jones**, Takis Kasparis and Thomas T. Wilheit, “Inter-Satellite Radiometric Calibration of WindSat, TMI and SSM/I”, Proc. IEEE IGARSS-08, Jul. 6 - 11, 2008, Boston, MA.
  31. Salem El-Nimri, Suleiman AlSweiss, **W. Linwood Jones**, James Johnson and Eric Uhlhorn, “Hurricane Imaging Radiometer Wide Swath Simulation for Wind Speed and Rain Rate”, Proc. IEEE IGARSS-08, Jul. 6 - 11, 2008, Boston, MA.
  32. Ruba Amarin, James Johnson, **W. Linwood Jones** and Christopher Ruf, “Performance Simulations for a Synthetic Aperture Radiometer Measuring Peak Surface Wind Speed in Hurricanes”, Proc. IEEE IGARSS-08, Jul. 6 - 11, 2008, Boston, MA.
  33. Pet Laupattarakasem, **W. L. Jones**, C. C. Hennon, P. Black, J. Allard, and A. Harless, “Q-Winds satellite hurricane wind retrievals and H\*Wind comparisons,” AMS 28th Conference on Hurricanes and Tropical Meteorology, Apl. 28 – May 2, 2008, Orlando, FL.
  34. **W. Linwood Jones**, Kaushik Gopalan, Liang Hong and Takis Kasparis, “Radiometric

# CURRICULUM VITA

## W. Linwood Jones

- Cross-Calibration between TMI and WindSat – A GPM Case Study”, TRMM Internat Sci Conf, Feb. 4-8, 2008, Las Vegas, NV.
35. **W. Linwood Jones**, P.G. Black, S.S. Chen, R.E. Hood, J.W. Johnson, C.S. Ruf, A. Mins and C.C. Hennon, “Next Generation Airborne Hurricane Imaging Radiometer (HIRad) - Improved Forecast Skill with Wide Field Imagery,” Spec. Symp. Hurr. and Trop. Meteorology, 88<sup>th</sup> AMS annual meeting, Jan. 20-22, 2008 New Orleans, LA.
  36. **W. Linwood Jones**, Pet Laupattarakasem, Chris Hennon, John Allard, and Amy Harless, “Improved SeaWinds Active/Passive Hurricane Wind Speed Retrievals and H-Wind Comparisons”, NASA OVW Science Team Symposium, Sept. 28-29, 2007, Amsterdam, Netherlands.
  37. Rafik Hanna and **Linwood Jones**, “Brightness Temperature Validation for SeaWinds Radiometer using Advanced Microwave Scanning Radiometer on ADEOS-II”, Proc. IEEE IGARSS-07, Jul. 23 - 27, 2007, Barcelona, Spain.
  38. Liang Hong, **W. Linwood Jones** and Thomas T. Wilheit, “Inter-Satellite Radiometer Calibrations Between WindSat, TMI and AMSR”, Proc. IEEE IGARSS-07, Jul. 23 - 27, 2007, Barcelona, Spain.
  39. Khalil Ahmad, **W. Linwood Jones** and Takis Kasparis, “Oceanic Rainfall Retrievals using Passive and Active Measurements from SeaWinds”, Proc. IEEE IGARSS-07, Jul. 23 - 27, 2007, Barcelona, Spain.
  40. Salem F. El-Nimri, James W. Johnson and **W. Linwood Jones**, and Eric W. Uhlhorn, “Development of an Ocean Surface Emissivity Model for Wide Swath Imaging of Wind Speed to Hurricane Force”, Proc. IEEE IGARSS-07, Jul. 23 - 27, 2007, Barcelona, Spain.
  41. Ruba A. Amarin\*, Salem F. El-Nimri, James W. Johnson, **W. Linwood Jones**, Boon H. Lim, and Christopher S. Ruf, “Instrument Design Simulations for Synthetic Aperture Microwave Radiometric Imaging of Wind Speed and Rain Rate in Hurricanes”, Proc. IEEE IGARSS-07, Jul. 23 - 27, 2007, Barcelona, Spain.
  42. Liang Hong, **W. Linwood Jones** and Thomas T. Wilheit, “Radiometric Consistency for Multi-Satellite Constellations, TMI and AMSR”, NASA PMM International Science Team Meeting, May 5-8, 2007, Atlanta, GA.
  43. Pet Laupattarakasem, Suleiman Alsweiss, **W. Linwood Jones** and Robert Roeder, “Conical-scanning active/passive microwave remote sensor computer simulation”, Proc. SPIE 07 Defense & Security Conf, Apl. 2007, Orlando, FL