

Adam Rydbeck

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January 2021

EXPERIENCE

- | | |
|-----------------------|---|
| May 2018 – Present | Oceanographer, Naval Research Laboratory, Ocean Sciences Division |
| Jan. 2016 – May 2018 | Postdoctoral Research Fellow, American Society for Engineering Education |
| Aug. 2010 – Dec. 2010 | Instructor, Colorado State University, Introduction to Climate and Weather Laboratory (ATS 351) |
| Aug. 2009 – Dec. 2015 | Research Assistant, Colorado State University, Department of Atmospheric Science |
| Aug. 2008 – May 2009 | Supplemental Instructor, University of South Alabama, Atmospheric Dynamics I & II (MET 353 & 354) |
| Jan. 2007 – May 2009 | Undergraduate Research Assistant, University of South Alabama, Department of Earth Sciences, Center for Hurricane Intensity and Landfall Investigation (CHILLI) |

EDUCATION

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|------|-------|---|
| 2015 | Ph.D. | Colorado State University, Department of Atmospheric Science
Fort Collins, Colorado (Adviser: Eric Maloney) |
| 2012 | M.S. | Colorado State University, Department of Atmospheric Science
Fort Collins, Colorado (Adviser: Eric Maloney) |
| 2009 | B.S. | University of South Alabama, Department of Earth Sciences
Mobile, Alabama (Summa Cum Laude)
Major: Meteorology, Minors: Mathematics & Statistics, Spanish |

PUBLICATIONS

- | | |
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| 2020 | Nyadjro, E. S., A. V. Rydbeck, T. G. Jensen, J. G. Richman, J. F. Shriver, <i>On the Generation and Salinity Impacts of Intraseasonal Westward Jets in the Equatorial Indian Ocean</i> , Journal of Geophysical Research: Oceans, 125. |
| 2019 | Rydbeck, A.V, T. G. Jensen, T. A. Smith, M. K. Flatua, C. A. Reynolds, M. A. Jania, J. A. Ridout, <i>Ocean Heat Content and the Intraseasonal Oscillation</i> , Geophysical Research Letters, 46, 14558– 14566. |
| 2019 | Subramanian, A., M. A. Balmaseda, R. Chattopadhyay, L. R. Centurioni, B. D. Cornuelle, C. DeMott, T. Hamill, H. Hendon, I. Hoteit, M. Flatau, Y. Fujii, S. T. Gille, A. Kumar, J.-H. Lee, D. |

- Lucas, M. Matsueda, A. Mahadevan, S.H. Nam, S.Paturi, S. G. Penny, A. V. Rydbeck, R. Sun, A. Tandon, Y. Takaya, R. E. Todd, F. Vitart, D. Yuan and C. Zhang. *Ocean observations to improve our understanding, modeling, and forecasting of subseasonal-to-seasonal variability*. *Frontiers in Marine Science*, 6.
- 2019 Rydbeck, Adam V., Tommy G. Jensen, and Matt Igel, *Idealized Modeling of the Atmospheric Boundary Layer Response to SST Forcing in the Western Indian Ocean*, *Journal of the Atmospheric Sciences*, 75, 2023 – 2042.
- 2019 Melzer, Bryce A., Tommy G. Jensen, Adam V. Rydbeck, *The life cycle and interannual variability of the Great Whirl from altimetry-based eddy tracking*, *Geophysical Research Letters*, 46, 4378 – 4385.
- 2019 Rydbeck, Adam V., Tommy G. Jensen, and Maria Flatau, *Characterization of Intraseasonal Kelvin Waves in the Equatorial Pacific Ocean*, *Journal of Geophysical Research: Oceans*, 124, 2028– 2053.
- 2017 Rydbeck, Adam V., Tommy G. Jensen, and Ebenezer Nyadjro, *Intraseasonal Sea Surface Warming in the Western Indian Ocean by Equatorial Rossby Waves*, *Geophysical Research Letters*, 44, 4224 – 4232.
- 2017 Rydbeck, Adam V. and Tommy G. Jensen, *Oceanic Impetus for Convective Onset of the Madden-Julian Oscillation in the Western Indian Ocean*, *Journal of Climate*, 30, 4299 – 4316.
- 2017 Rydbeck, Adam V., Eric D. Maloney, and Ghassan J. Alaka Jr., *In-situ Initiation of East Pacific Easterly Waves in a Regional Model*, *Journal of the Atmospheric Sciences*, 74, 333 – 351.
- 2015 Rydbeck, Adam V. and Eric D. Maloney, *On the Convective Coupling and Moisture Organization of East Pacific Easterly Waves*, *Journal of the Atmospheric Sciences*, 72, 3850 – 3870.
- 2015 Rydbeck, Adam. V., *Initiation and Intensification of East Pacific Easterly Waves*, Ph.D. Dissertation, Colorado State University, 162 pp. (Available at <http://hdl.handle.net/10217/170364>)
- 2014 Rydbeck, Adam V. and Eric D. Maloney, *Energetics of East Pacific Easterly Waves during Intraseasonal Events*, *Journal of Climate*, 27, 7603 – 7621.
- 2013 Rydbeck, Adam V., Eric D. Maloney, Shang-Ping Xie, Jan Hafner, and Jeffrey Shaman, *Remote Forcing Versus Local Feedback of East Pacific Intraseasonal Variability during Boreal Summer*, *Journal of Climate*, 26, 3575 – 3596.
- 2012 Rydbeck, Adam V., *Remote Versus Local Controls of East Pacific Intraseasonal Variability*, M.S. Thesis, Colorado State University, 111 pp. (Available at <http://hdl.handle.net/10217/66677>)

AWARDS AND HONORS

- 2020 Naval Research Laboratory Alan Berman Publication Award
- 2018 Naval Research Laboratory Jerome and Isabella Karle Distinguished Scholar Fellowship Recipient
- 2018 Nominated for Alan Berman Postdoctoral Research Publication Award
- 2016 American Society for Engineering Education (ASEE) Postdoctoral Fellowship Recipient
- 2013 National Science Foundation Fellowship Recipient, East Asia and Pacific Summer Institute
- 2009 Summa Cum Laude Honors, University of South Alabama
- 2009 University of South Alabama President’s Academic List (7x)
- 2008 Dr. Bill Williams Endowed Scholarship in Meteorology
- 2005 University of South Alabama Presidential Scholarship
- 2005 Big Brother, Big Sister Program Scholarship

PRESENTATIONS & SEMINARS

- 2021 Piotr Flatau*, M. Azaneu, D. B. Barnowski, C. Beccario, M. Flatau, D. Gacek, M. Labuz, B. Latos, T. Lefort, A. Matthews, A. Rydbeck. *Spectral Weather – A New Tool to Visualize the Multispectral Nature of Tropical Weather*. American Meteorological Society Annual Meeting, Virtual (P)
- 2020 Adam Rydbeck*, Tommy G. Jensen, Travis Smith, Matthew Janiga, Carolyn A. Reynolds, James Ridout. *Ocean Heat Content and the Intraseasonal Oscillation*. Virtual. (O)
- 2020 Adam Rydbeck*, Tommy G. Jensen, and Maria K. Flatau. *Characterization of Kelvin Waves in the Equatorial Pacific*. Ocean Sciences Meeting. San Diego, CA. (P)
- 2020 Maria K. Flatau*, Sue Chen, James A Ridout, Adam Rydbeck, Hemantha W Wijesekera, Matthew Janiga, and Tommy G. Jensen. *Atmosphere-ocean interaction in the Indian monsoon*. Ocean Sciences Meeting. San Diego, CA. (P)
- 2020 Bryce A Melzer*, Tommy G Jensen, Adam Rydbeck, and Ebenezer Nyadjro. *Somali Current eddy interaction during the Indian Southwest Monsoon*. Ocean Sciences Meeting. San Diego, CA. (P)
- 2020 Tommy G Jensen*, Hemantha W Wijesekera, Adam Rydbeck, Ewa Jarosz, David W Wang, Conrad A Luecke, Maria K. Flatau, and Jerome Schmidt. *Simulation of large anti-cyclonic eddies generated by westward propagating Rossby waves in the southern Bay of Bengal during the summer Monsoon season 2019*. Ocean Sciences Meeting. San Diego, CA (P)
- 2020 Ebenezer S Nyadjro*, Adam Rydbeck, Tommy G Jensen, James G Richman, and Jay F Shriver. *Equatorial Indian Ocean Westward Jets: Intraseasonal Variability, and Impact on Salinity*. Ocean Sciences Meeting. San Diego, CA (O)
- 2020 Hemantha W Wijesekera*, Ewa Jarosz, David W Wang, Conrad A Luecke, Tommy G Jensen, Adam Rydbeck, Maria K. Flatau, Jerome Schmidt, Jaynise Perez, Iossif Lozovatsky, Harindra J.S. Fernando, Sihalage Udaya Priyantha Jinadasa, Jagath Rajapakshapa, Udeshika Wimalasari, William Teague, and Zack Hallock, *Collaborative observations of upper ocean circulation, air-sea interaction, and monsoon variability in the Bay of Bengal*. Ocean Sciences Meeting. San Diego, CA (O)
- 2019 Adam Rydbeck, Tommy G Jensen*, and Maria K. Flatau, U.S. Naval Research Laboratory, Marine Meteorology, Monterey, CA, United States Generation of Intraseasonal Oceanic Kelvin Waves in the West Pacific. American Geophysical Union Fall Meeting. San Francisco, CA. (O)
- 2019 Adam V. Rydbeck*, Tommy G. Jensen, Matthew Igel: *Forcing of Intraseasonal Convection by Oceanic Equatorial Rossby Waves in the Indian Ocean*. CLIVAR Workshop Atmospheric Convection and Air-Sea Interactions over the Tropical Oceans. Boulder, CO (P)
- 2019 Maria K. Flatau*, Sue Chen, James Ridout, Carolyn Reynolds, Neil Barton, Adam V. Rydbeck, Hemantha W. Wijesekera, Tommy G. Jensen (2019): *Atmosphere-Ocean Interaction in the Indian Monsoon*. CLIVAR Workshop Atmospheric Convection and Air-Sea Interactions over the Tropical Oceans. Boulder, CO (P)
- 2019 Adam V. Rydbeck*, Tommy G. Jensen, and Matthew Igel, *Idealized Modeling of the Atmospheric Boundary Layer Response to SST Forcing in the Western Indian Ocean*, European Geosciences Union Meeting. Vienna, Austria (O)
- 2019 Tommy G. Jensen, Hemantha Wijesekera, Adam V. Rydbeck, and Ebenezer Nyadjro*, *Modelling of air-sea interaction and water mass exchanges in the Bay of Bengal and the equatorial Indian Ocean*, European Geosciences Union Meeting. Vienna, Austria (O)

- 2019 Maria K. Flatau*, Sue Chen, James Ridout, Carolyn Reynolds, Neil Barton, Adam V. Rydbeck, Hemantha W Wijesekera, and Tommy G. Jensen, *Atmosphere-ocean interaction in the Indian monsoon*, European Geosciences Union Meeting. Vienna, Austria (O)
- 2019 Ebenezer Nyadjro*, Tommy G. Jensen, Adam V. Rydbeck, James Richman, and Jay Shriver, *Occurrence and intraseasonal variability of surface currents in the equatorial Indian Ocean*, European Geosciences Union Meeting. Vienna, Austria (P)
- 2019 Adam V. Rydbeck*, Tommy G. Jensen, Maria Flatau, and Matthew Igel, *Intraseasonal SST Forcing of Atmospheric Convection in the Western Indian Ocean Using an Idealized Model*, American Meteorological Society Annual Meeting. Phoenix, AZ (P)
- 2019 Tommy G. Jensen*, Adam V. Rydbeck, Sue Chen, Maria Flatau, Carolyn Reynolds, and Julie Pullen, *Air–Sea Interaction over the Maritime Continent during the 2018 Boreal Summer Monsoon Simulated by Coupled Air–Sea–Wave COAMPS*, American Meteorological Society Annual Meeting. Phoenix, AZ (P)
- 2019 Maria K. Flatau*, Sue Chen, Erin Regan, Adam V. Rydbeck, Hemantha Wijesekera, and Tommy G. Jensen, *Intraseasonal Monsoon Variability during PISTON and MISO-BOB Campaigns*, American Meteorological Society Annual Meeting. Phoenix, AZ (P)
- 2019 Jaynise M. Perez*, Harindra J. S. Fernando, Edward D. Creegan, Katilyn Woods, Garrett Black, Adam V. Rydbeck, Wijesekera Hemantha, Raghavendra Krishnamurthy, Judson E. Stailey, Amit Tandon, Emily Shroyer, *Air–Sea Interactions during Indian Ocean Monsoon Intraseasonal Oscillations*, American Meteorological Society Annual Meeting, Phoenix, AZ (O)
- 2019 Hemantha W. Wijesekera*, E. Jarosz, D. Wang, T. G. Jensen, A. V. Rydbeck, M. K. Flatau (2019): *Role of the Indian Ocean on Monsoon Intra-Seasonal Oscillations (RIO MISO) Observations and Modeling Study*. MISO-BoB Workshop, Seattle, WA (O)
- 2018 Tommy G. Jensen*, Adam V. Rydbeck, Hemantha Wijesekera, and Maria Flatau, *Coupled Modelling of Air-Sea Interaction over the Bay of Bengal during the 2018 Southwest Monsoon*, American Geophysical Union Fall Meeting. Washington, D.C. (P)
- 2018 Adam V. Rydbeck*, Tommy G. Jensen, and Ebenezer Nyadjro, *Pathways for Extending Predictability of the Madden-Julian Oscillation to Several Months*, University of Notre Dame (I)
- 2018 Adam V. Rydbeck*, Tommy G. Jensen, and Ebenezer Nyadjro, *Intraseasonal Sea Surface Warming in the Western Indian Ocean by Oceanic Equatorial Rossby Waves*, European Geophysical Union General Assembly Meeting 2018, Vienna, Austria (O)
- 2018 Tommy G. Jensen*, Hemantha W. Wijesekera and Adam V. Rydbeck, *Operational Modelling of Air-Sea Interaction in the Bay of Bengal and the Equatorial Indian Ocean*, 2nd International Conference on Oceanography of the Bay of Bengal, with Emphasis on Monsoon Intra-Seasonal Oscillations, January 10-11, 2018, Colombo, Sri Lanka (O,P)
- 2018 Eric D. Maloney*, Adam. V. Rydbeck, and Justin W. Whitaker, *The Origins of Easterly Waves in the East Pacific*, 2018 American Meteorological Society Annual Meeting, Austin, TX (O)
- 2018 Tommy G. Jensen*, Hemantha W. Wijesekera, and Adam Rydbeck, *Coupled Modelling of Intra-seasonal Oscillations in the Tropical Indian Ocean and the Bay of Bengal*, 2018 Ocean Sciences Meeting, Portland, OR (P)
- 2018 Adam V. Rydbeck*, Tommy G. Jensen, Ebenezer Nyadjro, *Intraseasonal Sea Surface Warming by Equatorial Rossby Waves in the Western Indian Ocean*, 2018 Ocean Sciences Meeting, Portland, OR (O)
- 2017 Adam V. Rydbeck*, Tommy G. Jensen, Maria Flatau, and Matt Igel, *Intraseasonal Forcing of the Atmospheric Boundary Layer in the Western Indian Ocean by Downwelling Equatorial Rossby Waves*, 2017 AGU Fall Meeting, New Orleans, LA (O)

- 2017 Tommy G. Jensen*, Adam V. Rydbeck, *Air Sea Interaction in the Somali Current Region*, 2017 AGU Fall Meeting, New Orleans, LA (O)
- 2016 Adam V. Rydbeck* and Tommy G. Jensen, *Oceanic Impetus for MJO Convective Onset in the Western Indian Ocean*, 2016 AGU Fall Meeting, San Francisco, CA (P)
- 2016 Tommy G. Jensen*, Sue Chen, Maria K. Flatau, Travis Smith, and Adam V. Rydbeck, *High Resolution Modeling of Local Air-Sea Interaction within the Maritime Continent Using COAMPS*, 2016 AGU Fall Meeting, San Francisco, CA (P)
- 2016 Adam V. Rydbeck* and Tommy G. Jensen, *Oceanic Impetus for Convective Onset of the Madden-Julian Oscillation*, Naval Research Laboratory, Stennis Space Center, MS (O)
- 2015 Adam V. Rydbeck*, *In Situ Initiation of East Pacific Easterly Waves*, Naval Research Laboratory, Stennis Space Center, MS (I)
- 2015 Adam V. Rydbeck*, *On the Convective Coupling and Moisture Organization of East Pacific Easterly Waves*, University of Louisiana at Monroe, LA (I)
- 2014 Eric D. Maloney*, Ghassan J. Alaka, and Adam V. Rydbeck, *Intraseasonal Variability in Easterly Wave Kinetic Energy Budgets in West Africa and the East Pacific*, AMS 31st Conference on Hurricanes and Tropical Meteorology, San Diego, CA (O)
- 2012 Adam V. Rydbeck* and Eric D. Maloney, *Local Versus Remote Forcing of East Pacific Intraseasonal Variability*, AMS 30th Conference on Hurricane and Tropical Meteorology, Ponte Vedra, FL (O)

*Presenting Author, I = Invited Seminar, O = Oral Presentation, P = Poster Presentation

Related Activities

Reviewer

Atmosphere
 Atmospheric Science Letters
 Climate Dynamics
 Deep Sea Research Part II: Topical Studies in Oceanography
 Department of Energy, Earth System Model and Development Program
 Geophysical Research Letters
 International Journal of Climatology
 Journal of the Atmospheric Sciences
 Journal of Advances in Modeling Earth Systems
 Journal of Climate
 Journal of Marine Science & Engineering

Field Work

Propagation of Intra-seasonal Tropical Oscillations, PISTON (2018, 2019)

Duties included providing forecast summary and data available from the atmosphere-ocean-wave coupled COAMPS model and analyzing intraseasonal and synoptic features of interest as well as wave height forecasts for ship operations in the west Pacific Ocean

Oceanic Control of Monsoon Intraseasonal Oscillations in the Tropical Indian Ocean and the Bay of Bengal, MISO-BoB/RIO-MISO (2018, 2019)

Lead forecaster for flight operations planning team that provided the 53rd US Air Force weather squadron (hurricane hunters) with daily briefings on the status of the boreal summer intraseasonal oscillation for research flights from Colombo, Sri Lanka

Mesoscale Predictability Experiment, MPEX (2013)

Duties included collection of field data using a mobile radiosonde weather balloon system across the Great Plains of the United States

Dynamics of the Madden-Julian Oscillation, DYNAMO (2011)

Duties included collection of field data using radiosonde fitted weather balloons, radar wind profiler, radio acoustic sounding system, and enhanced surface meteorological station on the island of Diego Garcia in the British Indian Ocean Territory.

Society Memberships

American Geophysical Union
American Meteorological Society
European Geoscientist Union

Community Outreach and Volunteering

2019, 2020	Co-Advisor for NRL SEAP Summer Student Intern, Joshua Hou
2019	Student Presentation Judge, European Geosciences Union Meeting, Vienna, Austria
2019	Student Presentation Judge, The Seventh Madden-Julian Oscillation and Sub-Seasonal Monsoon Variability Symposium, The 99 th AMS Annual Meeting, Phoenix, Arizona
2011 - 2015	Member of the “High School Severe Weather Training and Education” team that visited local schools annually to provide activities to educate freshman and sophomore level students on the processes of severe weather formation and development
2011, 2013	Co-supervisor for interns at the National Science Foundation (NSF) Center for Multiscale Modeling of Atmospheric Processes (CMMAP), Fort Collins, CO. Interns: Ernesto Findlay, Idamis del Vale, and Ariana Marrero
2012 – 2013	Member of the steering committee for the Fort Collins Atmospheric Scientist (FORTCAST) that assisted the development of a local chapter of the American Meteorological Society to service Northern Colorado
2008	Student volunteer at the National Weather Service Office Mobile, AL