### Dan/UAlbany faculty and **Graduate Students circa 2001**



Dan with UAlbany faculty : Lance Bosart, Andrea Dan with students at the 2012 Lang, Ryan Torn. 2018 (Photo by Brian Busher) Northeastern Storms Conference



### Collaborative Science, Technology, and Applied Research (CSTAR) Program

- FY00 NOAA initiated a grant program to fund collaborative research activities between the
- academic institutions and operational offices in the National Weather Service • The goal of CSTAR was to create a cost-effective framework to conduct basic and applied
- research and transfer results into operations (research to operations (R2O))
- Grants were awarded up to 3 years (CSTAR I with UAlbany was 2001-2004; CSTAR II
- (2004-2007)) for awarded projects that address NOAA and NWS priorities • 10 Academic institutions were awarded grants in the first 5 years (2000-2005): NCSU, UAlbany,
- FSU, OU, Utah, UWashington, Texas A&M, SLU, URI and DRI (NV)
- Collaborative research allowed NOAA priorities to be achieved over the past 2 decades • 7 CSTAR grants with UAlbany (2001-2024) with Dr. Keyser involved in CSTARs I-V (2001-2017)

# **CSTAR supported Research**

CSTAR T	Graduate Student	Year
Cool-sease inc	David Groenert	2002
Banded p	David R. Novak	2002
Upper cu	Brandon A. Smith	2003
Tropical c precipitation	David P. DeLuca	2004
Cool-season precip	Anthony R. Fracasso	2004
Warm-sea cut-off pr	Jessica S. Najuch	2004
Cool-seas tran	Heather M. Archambault	2005
Cool-seaso precipitat	Keith R. Wagner	2006
Mesoscale Northeast v	Matthew D. Greenstein	2006
TC predece	Matthew R. Cote	2007
TC me precipitati	Jared R. Klein	2007
Hudson conve	Michael E. Augustyniak	2008
Lake/Sea b wea	Patrick H. Wilson	2008
Warm-sea cut-off pr	Matthew A. Scalora	2009
Cool-seaso	Jonas V. Asuma	2010
TC predece	Benjamin J. Moore	2010
Cool-season precip	Melissa D. Payer	2010
Inland TC je	Matthew S. Potter	2012
Appalachia and seve	Daniel B. Thompson	2012
lce s	Christopher M . Castellano	2012
Motion of s winter	Jaymes S. Kenyon	2014
Thund	Kyle J. Meier	2014
Transitio Northeast	Rebecca B. Steeves	2017

## **P3 DANIEL KEYSER'S 30 YEARS OF CONTRIBUTIONS TO OPERATIONAL RESEARCH: IMPACTS IN THE OPERATIONAL FORECASTING COMMUNITY AND BEYOND**

37th Annual Northeastern Storm Conference



### hesis Topic

on anomaly dices precipitation ut-off lows yclone (TC)

n distributions upper cut-off pitation

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son regime nsition on moderate tion events structure of winter storms

essor events esoscale ion structure

-Mohawk ergence reeze severe

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snow bands in storms dersnow on season snowstorms



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### Asuma 2010



## **Castellano 2012** 3.5: Average number of freezing rain events per seas Kenyon 2013 **Pivoting Band** 1000-500-hPa thickness isople 850-700-hPa streamline 850-700-hPa frontogenesis WAA 850-700-hPa warm advection maxi CAA 850-700-hPa cold advection maximu 850-700-hPa Q, vector 850-700-hPa Q, vector ULJ upper-level jet core

**CSTAR Winter Weather Studies** 







## **Refereed Publications**



(NROW) 1999-2023 – Albany, NY

Thomas A. Wasula and Neil A. Stuart NOAA/NWS, Albany, NY



UAIbany Honorary Lance Bosart Ceremony 2016









**CSTAR Severe Weather Studies** 

Northeast Regional Operational Workshop Dan with NWS collaborators, UAlbany colleagues and students at the Northeastern Storms Conferences (2017-2020)





## **Thesis Advised Students in National** Weather Service/NOAA (non-CSTAR)

Year	Project	Student
1991	Satellite classification scheme rapid maritime	Michael S. Evans (retired WFO ALY SOO)
	cyclogenesis	
1997	Jet streaks/tropopause disturbances	Matthew E. Pyle (NWS/NCEP EMC)
2001	CO-OP station and verification study	Joseph P. Villani (WFO ALY Lead Meteorologist)
2007	Worldwide strong Anticyclones	Matt E. Doody (NWS ER ROC Meteorologist)
2010	Predecessor rain events before tropical cyclones	Benjamin J. Moore* (NWS/NOAA OAR)
014 Upper-tropospheric precursors associated with sub-tropical cyclone		Alicia M. Bentley* (NWS/NCEP EMC)
	tormation * M.	S. and Ph.D. Advisement









pink-shaded region indicates the location of CI values of ≤22.5°C The "AWB" label denotes a region where anticyclonic wave

breaking is occurring.





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