

COMMUNITY WORKSHOP ON RADAR TECHNOLOGIES					AS OF 11/20/2012
27-29 NOVEMBER 2012					
BOULDER, COLORADO					
POSTER	POSTER				RELEVANT
AUTHOR	TITLE	INSTRUMENT	HOME BASE		CHARACTERISTICS
GROUND-BASED. MOBILE RADARS					
Bluestein, Howie	RaXPol: A mobile, rapid-scanning, X-band, polarimetric Doppler radar system	RaXPol	ARRC, OU, Norman, OK	X-band, mobile, polarimetric Doppler radar that can scan as rapidly as 180 deg/s. Antenna half-power beamwidth about 1 deg.	
Bluth / Buczynski	Re-appropriation of DOD Radar Technology	Phased Array Radars	CIRPAS - Marina, CA	DoD Radars and Equipment for use in atmospheric research	
Friedrich,Katja (Bart Geerts, Joshua Wurman, Karen Kosiba)	Measuring snow characteristics with the dual-polarization Doppler on Wheels (DOW) radar during ASCI	DOW	Dept. of Atmospheric and Oceanic Sciences, U. of Colorado		
Steiger, Scott	Lake-effect Observations by the Doppler on Wheels 2010-11 & DOW Educational Deployments by SUNY Oswego 2012	Doppler on Wheels	Oswego, NY		
Toth, Mallie	DOW Radar Observations of Wind Farms	Doppler on Wheels	Boulder, CO	Ease of use, Mobility, Quickly deployable, Fast scanning, Narrow beams	
Kosiba, Karen	Analysis of the boundary layer of landfalling hurricanes using DOW data	DOWs	CSWR	Mobility, quick deployability, fast scanning, narrow beams, dual-polarization, ease	
Robinson, Paul	Analysis of tornado structure, formation and kinematics using DOW data	DOWs	CSWR	Mobility, quick deployability, fast scanning, narrow beams, dual-polarization, ease	
Humphrey, Rachel	DOW education and outreach	DOWs	CSWR	Mobility, quick deployability, fast scanning, narrow beams, dual-polarization, ease	
Wurman, Josh	The DOW network: Past, Present and Future	DOWs	CSWR	Mobility, quick deployability, fast scanning, narrow beams, dual-polarization, ease of use, collects time series and dorade data	
Cheong, Boon Leng	PX-1000: A Solid-state Polarimetric X-band Radar	PX-1000	Advanced Radar Research Center, University of Oklahoma	Radar, Solid-state, X-band, Polarimetric, Pulse Compression	
Weiss, Christopher	Applications of the Texas Tech Ka-band (TTUKa) Radars	TTUKa Radars	Texas Tech University	Mobile, Frequency = 35 GHz, Half-power beamwidth = 0.33 deg, Range resolution = 15 m, TWTA transmitter, pulse compression used	
Knupp, Kevin	Radar facilities at UAH	ARMOR C-band dual pol	UAH	fixed site	
		Mobile Alabama X-band (MAX) dual pol radar	UAH	mobile on truck	
		X-band profiling radar	UAH	part of MIPS	
		915 MHz Doppler wind profiler	UAH	part of MIPS	
		microwave profiling radiometer (12 ch)	UAH	part of MIPS	
		SWIRL: Severe Weather Institute and Radar Lab	UAH	new building facility	
Orzel, K. (V. Venkatesh, T. Hartley, S.J. Frasier)	The UMass dual-polarization phased-array weather radar	X-band dual-polarization 'phase-tilt' weather radar	University of Massachusetts, Microwave Remote Sensing Laboratory	X-band sector-scanning dual-polarization phased array	
Nai, Feng (Robert Palmer, Sebastian Torres, Jim Kurdzo, David Bodine)	The Atmospheric Imaging Radar - Ubiquitous Radar	Atmospheric Imaging Radar	Advanced Radar Research Center, University of Oklahoma	X-band mobile radar, 36 independent I/Q receive channels, Adaptive Beamforming, Simultaneous RHI data collection	

Gilmore, Matt	Snow microphysics observed in situ and with both 3cm and 5cm polarimetric radars during SNOwD UNDER	DOW 7, UND Polarimetric Doppler Radar, and Citation II Research Aircraft	Grand Forks, North Dakota	Snow characteristics inside and outside of snowbands as observed in situ with the UND Citation II Research Aircraft are compared to polarimetric fields as observed by the DOW and UND Polarimetric radar during the SNOwD-UNDER field project. The Marzano et al hydrometeor classification algorithm is also tested and the success of involving students in an OFAP-approved educational deployment of DOW facilities is also discussed.
Burgess, Don	NOXP: A Mobile, Dual-Polarization, X-Band Radar for Multiple Uses	NOAA, X-Band, Dual Polarization (NOXP) Mobile Radar	NSSL, Norman, OK	see poster
AIRBORNE RADARS				
Raymond, David J.	Vorticity budgets in tropical cyclones using the ELDORA radar and dropsondes	N/A	N/A	N/A
Wolff, Cory (Michael Bell, Wen-Chau Lee, Huaqing Cai)	Recent Progress on the Automatic Quality Control of ELDORA Data	ELDORA	EOL	The poster details the latest efforts on applying scripts for performing QC of airborne radar data. It is closely related to a poster presented by Huaqing Cai.
Cai, Huaqing (Wen-Chau Lee, Michael Bell, and Cory Wolff)	Study of Airborne Doppler Radar Navigation Correction Using a Variational Technique	ELDORA	NCAR	
Bell, Michael M.	Spline Analysis at Mesoscale Utilizing Radar and Aircraft Instrumentation (SAMURAI)	SAMURAI Software	University of Hawaii	Open source multi-Doppler and in-situ data analysis software
Haimov, Samuel	Wyoming Airborne Polarimetric Doppler Radar	Wyoming Cloud Radar	University of Wyoming Laramie, Wyoming	Multi-antenna W-band pulsed radar
Salazar, Jorge (Eric Loew, Pei Tsai, Jothiram Vivekanandan, Wen Chau Lee)	Airborne Phased Array Radar (APAR)	Phased Array Radar (APAR)	EOL-NCAR	An C-Band Dual-Polarized 2D-scanning Phased Array Radar Airborne system has been proposed as one of the instruments of the Community Airborne Platform Remote Sensing. This poster describes the features and characteristics of this Airborne radar.
Tsai, Peisang et al	NCAR HIAPER Cloud Radar Development Update	HIAPER Cloud Radar (HCR)	Earth Observing Laboratory, Boulder, CO	airborne, scanning, polarimetric, millimeter-wave cloud radar
Wang, Zhien (Jeffrey French, Gabor Vali, Perry Wechsler, Samuel Haimov, Alfred Rodi) Min Deng, Dave Leon, Jeff Snider, Liran Peng, and Andrew L. Pazmany	The Synergy of WCR and WCL for better cloud microphysical and dynamical property Measurements		Wyoming	Cloud Microphysics and dynamics
Geerts, Bart (Yang Yang, Samuel Haimov, Binod Pokharel, Qun Miao)	Airborne cloud radar observations of orographic precipitation	Wyoming Cloud Radar	University of Wyoming	
Heymsfield, Gerry	Goddard High-Altitude Airborne Radars	HIWRAP, EXRAD, CRS	Greenbelt, MD	Ku/Ka-band, X-band, W-band
FIXED-SITE RADARS AND NETWORKS				
Rutledge, S.A. (V. Chandrasekar, V.N. Bringi, A. Brunkow, J. George, P.C. Kennedy)	CSU-CHILL National Radar Facility	CSU-CHILL Radar	Greeley, CO	S and X-Band, transportable, dual polarization Doppler radar system

Hubbert, John	FRONT: Front Range Observational Network Testbed	FRONT testbed: S-PolKa, CHILL	NCAR/CSU Front Range	Radar network
Ellis, Scott	S-PolKa: S-band/Ka-band Dual-Wavelength, Dual-Polarization Transportable Research Radar	S-PolKa	NCAR/EOL/Remote Sensing Facility, Boulder CO	S-band/Ka-band Dual-Wavelength, Dual-Polarization Transportable Research Radar
Houze, Robert (Angela Rowe, Kristen Rasmussen)	SPolKa in DYNAMO: Objectives, Research, and Insights from the Field	SPolKa	NCAR	Dual-wavelength, Doppler, Polarimetric
Widener, Kevin Bharadwaj, Nitin Johnson, Karen Collis, Scott Lindenmaier, Andrei	Overview of ARM Cloud/Precipitation Radars		DOE ARM	C, X, Ka, W-band radars deployed around the world for climate research
Kelley, Redmond (Shaya Karimkashi, John Meier, Guifu Zhang, Robert Palmer, Isaac Meier, Matt McCord, Allen Zahrai)	Taking on the Dual-Pol Phased Array Challenge: Demonstration of the CPPAR Concept	Cylindrical Polarimetric Phased Array Radar (CPPAR)	Advanced Radar Research Center, University of Oklahoma	S-Band phased array, solid-state, pulse compression, 192 channels
SOFTWARE/TECHNIQUES				
Collis, Scott	Py-ART: The Python ARM Radar Toolkit	The DoE ARM Radar Network	Multiple sites	Software architecture for working with scanning radar data
Williams, John (Greg Meymaris, Jason Craig and Gary Blackburn)	The NEXRAD Turbulence Detection Algorithm (NTDA): An Aviation Weather Application	WSR-88D (NEXRAD)	The authors' home base is NCAR/RAL	Produces real-time 3-D maps of in-cloud turbulence over CONUS for aviation users.
Bharadwaj, Nitin	Calibration of ARM radars	Cloud and precipitation radar from 5.6 GHz to 95 GHz	Pacific Northwest National Laboratory	The ARM radars consists of dual polarization radars deployed around the world operating in the frequency range of C-band to W-band.