

## BLUESTEIN GROUP FOR VORTEX-2 (WE NEED A NAME! NOW ACCEPTING SUGGESTIONS)

UMASS W-BAND (UMASS) K. ORZEL/ROBIN TANAMACHI

UMASS X-POL (UMASS) VIJAY VENKATESH/JEFF SNYDER (COORDINATED)

MWR-05XP (NPS, PROSENSING) IVAN POPSTEFANIJA/MIKE FRENCH

TWOLF (NPS, SWA) (Y2 ONLY) DAVE EMMITT/JANA HOUSER

Y1: ALL DATA SHOULD BE ON UCAR WEBSITE

Y2: DATA ON WEBSITE AS OF 8 OCT. 2010

- UMASS W-BAND (EXCEPT FOR 21 MAY, WHICH WAS NOT AN OFFICIAL V2 MISSION)
- SOME UMASS X-POL DATA HAVE SOME 0-360° SPLICING PROBLEMS TO BE SOLVED AVAILABLE WITHIN A FEW MONTHS? A FEW DATASETS HAVE POLARIMETRIC ISSUES TO BE RESOLVED; SEE ME IF YOU NEED DATA SOONER
- MWR DATA ALL PROCESSED (~60% DATA FIRST PROCESSED HAD CONVERSION ERROR) JUST RECEIVED ALL DATA, WE THINK: AVAILABLE IN A FEW MONTHS; SEE ME IF YOU'RE INTERESTED SOONER
- HAVE JUST GOTTEN TWOLF PROCESSED DATA; NOT IN SWP FILES YET AVAILABLE?
- EXAMPLES OF DATA SHOWN IN TALK; CAN SHOW AGAIN IF YOU WISH TO DISCUSS ANY IN MORE DETAIL
- PLEASE CONTACT ME IF YOU WISH TO USE ANY OF OUR DATA

## ONGOING RESEARCH PLANS

### 1. HIGH TEMPORAL RESOLUTION OF THE DEVELOPMENT OF TORNADOES AND OTHER VORTICES IN SUPERCELLS

- MIKE FRENCH IS STUDYING VERTICAL STRUCTURE AND RAPID EVOLUTION OF 5 JUNE 2009 STORM USING MWR-05XP DATA
- MIKE FRENCH WILL BE DOING THE SAME FOR 10 MAY 2010 AND 25 MAY 2010 STORMS
- MIKE FRENCH WILL DO THE SAME FOR SOME (TBD) NON-TORNADIC CASES DURING VORTEX-2
- HIS ANALYSES INCLUDE DATA COLLECTED IN 2008 (e.g., 23 MAY)
- PROBABLY RELATIVELY SELF SUFFICIENT, BUT SHOULD COORDINATE WITH RAPID-DOW ANALYSTS TO AVOID OVERLAP OR POSSIBLY COLLABORATE; CSWR DUAL-DOPPLER CONFIRM.?

### 2. ANALYSIS OF POLARIMETRIC SIGNATURES IN SUPERCELLS

- JEFF SNYDER IS INSPECTING ALL UMASS X-POL DATA
- JEFF SNYDER IS RUNNING NUMERICAL SIMULATIONS WITH POLARIMETRIC OUTPUT
- JEFF WILL NEED VORTEX-2 SOUNDINGS FOR MODEL WORK

### 3. ANALYSIS OF TWOLF DATA: BOUNDARY LAYER STRUCTURES IN SUPERCELL ENVIRONMENTS

- JANA HOUSER IS ANALYZING DATA
- COLLABORATION MAINLY WITH MWR-05XP DATA SINCE IT WAS ON THE SAME PLATFORM
- NEED MOBILE MESONET OBS., SOUNDINGS

### 4. ANALYSIS OF W-BAND DATA ON 25 MAY 2010: TORNADOGENESIS AND STRUCTURE

- BLUESTEIN - COLLABORATION WITH MWR-05XP DATA AND POSSIBLY OTHER DATA (DOW? NOXP? TT Ka-BAND?) GBVTD? WEN-CHAU LEE PHOTOGRAMMETRY?

### 5. ANALYSIS OF W-BAND DATA ON 26 MAY 2010: GENESIS OF VORTICES

- BLUESTEIN – COLLABORATION WITH ANY OTHER AVAILABLE RADAR
- NEED MOBILE MESONET OBS., SOUNDINGS

### 6. ANALYSIS OF W-BAND DATA ON 14 JUNE 2010: GENESIS OF GUSTNADO/LANDSPOUT

- BLUESTEIN – COLLABORATION WITH ANY OTHER AVAILABLE RADAR
- NEED MOBILE MESONET OBS., SOUNDINGS

## 7. OTHER POSSIBLE COLLABORATIONS (WE ARE NOT FOCUSING ON DUAL-DOPPLER ANALYSES)

- DUAL-DOPPLER RAPID-SCAN ON 5 JUNE 2009 (WITH CSWR?)
- DUAL-DOPPLER MWR/UMASS X-POL WITH OTHERS (DOWs, NOXP)?
  
- DATA ASSIMILATION OF RAPID-SCAN DATA: PARTNER?

ESPECIALLY, BUT NOT LIMITED TO:

- 26 MAY 2009 MWR/UMASS X-POL
- 5 JUNE 2009 MWR/UMASS X-POL
- 7 JUNE 2009 MWR/UMASS X-POL
- 9 JUNE 2009 MWR/UMASS X-POL
- 11 JUNE 2009 MWR (MERGER PROCESS?)
- 10 MAY 2010 MWR/UMASS X-POL (ESPECIALLY WITH NOXP?)
- 12 MAY 2010 MWR/UMASS X-POL
- 18 MAY 2010 MWR/UMASS X-POL (RFD SURGE AND VORTEX FORMATION, WITH TTU Ka?)
- 19 MAY 2010 MWR/UMASS X-POL (ESPECIALLY FIRST TORNADO)
- 25 MAY 2010 UMASS W-BAND AND TT Ka BAND? (VERY INTERESTED IN)
- 10 JUNE 2010 MWR/UMASS X-POL (VERY INTERESTED IN)
- 11 JUNE 2010 MWR/UMASS X-POL (LIMITED)
- 13 JUNE 2010 UMASS X-POL (LIMITED DURING TORNADOGENESIS)
  
- DISDROMETER DATA AND UMASS X-POL DATA (COLLABORATORS?)