

## MPEX Media Release Coverage Report

News Date	News Headline	Contact Name	Outlet Name
5/22/2013	Boulder storm researchers were near as tornado hit Moore, Oklahoma	Colleen O'Connor	Denver Post - Online, The
5/21/2013	NCAR Scientists In Boulder Study Rash Of Tornadoes In High-Tech Jet		CBS Denver - Online
5/20/2013	Major field campaign targets improvement in thunderstorm prediction <a href="http://t.co/bBXj8iNwbG">http://t.co/bBXj8iNwbG</a>	znmeb (M. Edward Borasky)	Twitter
5/20/2013	New Thunderstorm Research Begins in Colorado: The National Center for Atmospheric Research (NCAR) began a mon... <a href="http://t.co/xma4epVsUP">http://t.co/xma4epVsUP</a>	AINonline (AINonline)	Twitter
5/20/2013	RT @jimmyc42: @ounwcm from the CSU MPEX team: 17:15z <a href="http://t.co/ACcQQoQP1P7">http://t.co/ACcQQoQP1P7</a>	ntxweathersoonr (ntxweathersooner)	Twitter
5/20/2013	RT @jimmyc42: @ounwcm from the CSU MPEX team: 17:15z <a href="http://t.co/ACcQQoQP1P7">http://t.co/ACcQQoQP1P7</a>	cschultzwx (Chris Schultz)	Twitter
5/20/2013	@ounwcm from the CSU MPEX team: 17:15z <a href="http://t.co/ACcQQoQP1P7">http://t.co/ACcQQoQP1P7</a>	jimmyc42 (james correia jr)	Twitter
5/20/2013	New Thunderstorm Research Begins in Colorado	Mark, Robert	Aviation International News - Online
5/20/2013	RT @jimmyc42: Edmond supercell proximity sounding from NSSL with 50 kt near surface southeasterly flow in the cold pool? #MPEX - <a href="http://t.co/...">http://t.co/...</a>	cschultzwx (Chris Schultz)	Twitter
5/19/2013	Purdue researchers aim to pin-point severe weather forecasts		Journal & Courier - Online, The
5/18/2013	Purdue part of national weather project		Journal & Courier - Online, The
5/18/2013	#MPEX CSU sounding for 18z : <a href="http://t.co/eyk1ODiEfl">http://t.co/eyk1ODiEfl</a>	jimmyc42 (james correia jr)	Twitter
5/18/2013	RT @jimmyc42: NSSL #MPEX sounding southwest of garden city. <a href="http://t.co/Ym17ILWpPO">http://t.co/Ym17ILWpPO</a>	Derrick_Snyder (Derrick Snyder)	Twitter
5/18/2013	RT @jimmyc42: NSSL #MPEX sounding southwest of garden city. <a href="http://t.co/qzir8iWQk7">http://t.co/qzir8iWQk7</a> #kswx	ounwcm (Rick Smith)	Twitter
5/18/2013	RT @jimmyc42: NSSL #MPEX sounding southwest of garden city. <a href="http://t.co/Ym17ILWpPO">http://t.co/Ym17ILWpPO</a>	svrwxtweets (Rob White)	Twitter
5/18/2013	NSSL #MPEX sounding southwest of garden city. <a href="http://t.co/Ym17ILWpPO">http://t.co/Ym17ILWpPO</a>	jimmyc42 (james correia jr)	Twitter
5/18/2013	RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/ #MPEX gets to know the storms/ T-storm prediction <a href="http://t.co/wmfayxv90T">http://t.co/wmfayxv90T</a> @...	morganabigail (morganabigail)	Twitter

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News Date	News Headline	Contact Name	Outlet Name
5/18/2013	Major field campaign targets improvement in thunderstorm prediction		Supercomputing Online
5/18/2013	RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/ #MPEX gets to know the storms/ T-storm prediction <a href="http://t.co/wmfayxv90T">@...</a>	NSSL (NSSL)	Twitter
5/18/2013	#MPEX morning dropsonde data available today, should be some afternoon upsondes too: <a href="http://t.co/mfxtbETZRT">http://t.co/mfxtbETZRT</a>	jimmyc42 (james correa jr)	Twitter
5/17/2013	RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/ #MPEX gets to know the storms/ T-storm prediction <a href="http://t.co/wmfayxv90T">@...</a>	SeaGrant (NOAA Sea Grant)	Twitter
5/17/2013	Field Study Aims to Better Severe Weather Forecasting		Laboratory Equipment - Online
5/16/2013	High-Altitude Flights Conducted For Weather Forecasting Research		Aero-News Network
5/15/2013	PURDUE PART OF FIELD STUDY TO IMPROVE SEVERE WEATHER FORECASTING		Federal News Service
5/15/2013	NCAR Scientists Get High-Flyin... <a href="http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb">#BOULDER #NCAR</a>	NCarolinaRecord (NorthCarolinaRecord)	Twitter
5/15/2013	NCAR Scientists Get High-Flyin... <a href="http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb">#BOULDER</a>	MissouriSent (Missouri Sentinel)	Twitter
5/15/2013	NCAR Scientists Get High-Flyin... <a href="http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb">#BOULDER #LINK</a>	WVirginiaSent (W Virginia Sentinel)	Twitter
5/15/2013	#BOULDER #LINK NCAR Scientists Get High-Flyin... <a href="http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb">http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb</a>	WVaSentinal (W Virginia Sentinel)	Twitter
5/15/2013	Major Field Campaign Targets Improved Thunderstorm Prediction	Daniel L. Schiller	Nebraska Ag Connection
5/15/2013	Major Field Campaign Targets Improved Thunderstorm Prediction	Daniel L. Schiller	South Dakota Ag Connection
5/14/2013	Colorado weathermen take to skies for forecasts		KOAA-TV - Online
5/14/2013	NCAR Scientists Get High-Flyin... <a href="http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb">#BOULDER #days</a>	AlabamaSentinel (Alabama Sentinel)	Twitter
5/14/2013	NCAR Scientists Get High-Flying New Tool To Help With Forecasts: BOULDER, Colo. (CBS4) – Scientists at the... <a href="http://t.co/BmWc5cFxiH">http://t.co/BmWc5cFxiH</a>	DenverCP (Denver CP)	Twitter
5/14/2013	NCAR Scientists Get High-Flying New Tool To Help With Forecasts		CBS Denver - Online

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5/14/2013	NCAR experiment aims to find information to aid in avoiding big weather forecasting errors: <a href="http://t.co/Squ3EXRpZ4">http://t.co/Squ3EXRpZ4</a>	CUCleantech (CU Cleantech)	Twitter
5/14/2013	Colorado weathermen take to skies for forecasts		Northern Colorado 5 - Online
5/14/2013	Where, when will thunderstorms strike Colorado's Front Range, adjacent Great Plains?		Phys.org
5/14/2013	Where, when will thunderstorms strike Colorado's Front Range, adjacent Great Plains?		EurekAlert!
5/14/2013	Colorado forecasters take flight to spot storms	Associated Press	Fort Collins Coloradoan - Online, The
5/14/2013	RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <a href="http://t.co/l7C9Z1HhCB">http://t.co/l7C9Z1HhCB</a>	g1159bw (Chuck Wilson)	Twitter
5/14/2013	RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <a href="http://t.co/l7C9Z1HhCB">http://t.co/l7C9Z1HhCB</a>	JonDopplerWX (Jon Haverfield )	Twitter
5/14/2013	RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <a href="http://t.co/l7C9Z1HhCB">http://t.co/l7C9Z1HhCB</a>	NEskyentist (Judson )	Twitter
5/14/2013	Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <a href="http://t.co/l7C9Z1HhCB">http://t.co/l7C9Z1HhCB</a>	NSSL (NSSL)	Twitter
5/14/2013	SUNRISE: Paraglider dies after crash		Gazette - Online, The
5/14/2013	Colorado research center to use airplane to improve weather forecasts and give more warning		Daily Journal - Online
5/14/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR	John Aguilar	Loveland Reporter-Herald - Online
5/14/2013	High-flying experiments could help weather forecasting		Burlington Record
5/14/2013	Colorado research center to use airplane to improve weather forecasts and give more warning		Republic - Online, The
5/14/2013	Colorado weathermen take to skies for forecasts	Daily Camera	KGWN-TV - Online
5/14/2013	High-flying experiments could help weather forecasting	Monte Whaley	Brush News-Tribune - Online
5/14/2013	Colorado weathermen take to skies for forecasts		KNEB-AM - Online
5/13/2013	Predicting thunderstorms in Colorado getting help from above	Jon Bowman	KWGN-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR		Broomfield Enterprise
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WOIO-TV - Online
5/13/2013	Colorado weathermen take to skies for forecasts		Associated Press (AP) - Denver Bureau

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News Date	News Headline	Contact Name	Outlet Name
5/13/2013	Scientists fly high to gauge storms	Whaley, Monte	Denver Post, The
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KIII-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WDSI-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction - FOX21- Entertaining Delmarva One Click at a Time		WBOC- TV (DT2 - FOX) - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WBOC-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and las... <a href="http://t.co/ZfPYS6C4DG">http://t.co/ZfPYS6C4DG</a> #fb	bfd_enterprise (BroomfieldEnterprise)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KFMB-AM (760 AM Talk Radio) - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WNEM-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WTVG-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KPHO-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WGCL-TV - Online
5/13/2013	CBS4 News at 6		CBS4 News at 6 PM - KCNC-TV
5/13/2013	9News at 6pm		9 News 6 PM - KUSA-TV
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		Hawaii News Now
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KVVU-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <a href="http://t.co/rNitaryttL">http://t.co/rNitaryttL</a>	BoulderCONews (Boulder CO News)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KRHD-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WAND-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KHGI-TV - Online
5/13/2013	Predicting thunderstorms in Colorado getting help from above   KDVR.com		KDVR-TV - Online
5/13/2013	7 News		KMGH-TV

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<u>News Date</u>	<u>News Headline</u>	<u>Contact Name</u>	<u>Outlet Name</u>
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WOWK-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KSLA-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KUSI-TV - Online
5/13/2013	RT @bfld_enterprise: Better forecasting of severe weather on Boulder's NCAR agenda. Scientific aircraft to operate from #Broomfield -- htt...	MeganQuinn2 (MeganQuinn)	Twitter
5/13/2013	Better forecasting of severe weather on Boulder's NCAR agenda. Scientific aircraft to operate from #Broomfield -- http://t.co/wzgzYJ5eEb	bfld_enterprise (BroomfieldEnterprise)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WFXS-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... http://t.co/TaUQQCtMD5	ThorntonCONews (Thornton CO News)	Twitter
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR http://t.co/mgJq4w9drW	TheBoulderLife (Boulder Colorado)	Twitter
5/13/2013	RT @dailycamera: Better forecasting of severe weather on high-altitude agenda of #Boulder's NCAR http://t.co/rdErIK24IC via @abuvthefold #...	abuvthefold (John Aguilar)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WSET-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... http://t.co/kndvE1NfMX	NorthDenverNews (North Denver News)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WMBB-TV - Online
5/13/2013	High-flying experiments could help weather forecasting	Monte Whaley	Denver Post - Online, The
5/13/2013	Better forecasting of severe weather on high-altitude agenda of #Boulder's NCAR http://t.co/rdErIK24IC via @abuvthefold #cowx	dailycamera (Daily Camera)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KFMB-FM (Jack FM) - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KOTV-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WRIC-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR	John Aguilar	Broomfield Enterprise - Online

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5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WICU/WSEE - TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WMC-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		PRWeb - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KPTV-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WDAM-TV - Online
5/13/2013	Major field campaign targets improvement in thunderstorm prediction	Tyler O'Neal	Supercomputing Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR	John Aguilar	Colorado Daily - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KAZT-TV - Online
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR	John Aguilar	Daily Camera - Online, The
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WMDT-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KWTV-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WLAX-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WRCB-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KWES-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KFJX-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WXIX-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WUPV-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WFSB-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KUAM-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction - KSTC-TV, Channel 45 Lifestyle-		KSTC-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KLFY-TV - Online

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News Date	News Headline	Contact Name	Outlet Name
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KTEN-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WLTZ-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WWTW-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KPTM-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WAFB-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		KLJB-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WDRB-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WSHM-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		PRWeb - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		Times Union - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WJRT-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WTOL-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WFXR-TV/WWCT-TV - Online
5/13/2013	RT @abuvthefold: This Gulfstream in #broomfield will take to the air soon to collect more accurate severe storm data #ncar #boulder <a href="http://t.co/LXeqWE82Va">http://...</a>	MeganQuinn2 (MeganQuinn)	Twitter
5/13/2013	This Gulfstream in #broomfield will take to the air soon to collect more accurate severe storm data #ncar #boulder <a href="http://t.co/LXeqWE82Va">http://t.co/LXeqWE82Va</a>	abuvthefold (John Aguilar)	Twitter
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		WOLF-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction - WBCB: The Valley's CW		WBCB-TV - Online
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction		Newswise
5/13/2013	I'm at Research Aviation Facility - NCAR (Broomfield, CO) w/ 2 others [pic]: <a href="http://t.co/o5fV1yBLzh">http://t.co/o5fV1yBLzh</a>	wcadkins (Bill Adkins)	Twitter
5/13/2013	Press conf about to start at #NCAR Aviation Facility.. #NSF funded thunderstorm research project launching May 15 <a href="http://t.co/viCm8Q0qPZ">http://t.co/viCm8Q0qPZ</a>	MaureenMcCann 7 (Maureen McCann)	Twitter

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News Date	News Headline	Contact Name	Outlet Name
5/13/2013	I'm at Research Aviation Facility - NCAR (Broomfield, CO) <a href="http://t.co/sOSmmHDiIB">http://t.co/sOSmmHDiIB</a>	wcadkins (Bill Adkins)	Twitter
5/13/2013	I'm at Research Aviation Facility - NCAR (Broomfield, CO) <a href="http://t.co/OhirLEBTrx">http://t.co/OhirLEBTrx</a>	MaureenMcCann 7 (Maureen McCann)	Twitter
5/13/2013	Major field campaign targets improvement in thunderstorm prediction: Multiagency study combines research fligh... <a href="http://t.co/VGgOBR7rve">http://t.co/VGgOBR7rve</a>	ClimateData (Weather Research )	Twitter
5/13/2013	MPEX will include early-morning flights with the NSF/NCAR Gulfstream V aircraft.		National Science Foundation
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR	John Aguilar	Daily Camera - Online, The
5/13/2013	Tricked out Gulfstream jet to test new storm forecast model		KUSA-TV - Online
5/13/2013	High-flying experiments could help weather forecasting	Monte WhaleyThe Denver Post	Denver Post - Online (press release), The
5/13/2013	Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR		Broomfield Enterprise Online
5/13/2013	9News at 8am		9 News at 7 AM - KTVD-TV
5/13/2013	Major Field Campaign Targets Improvement in Thunderstorm Prediction	National Center for Atmospheric Research	Newswise
5/13/2013	9News at 5:30am		9 News 5 AM - KUSA-TV
5/13/2013	9News First at 4:30AM		9 News 4:30 AM - KUSA-TV
5/12/2013	WHERE, WHEN WILL THUNDERSTORMS STRIKE COLORADO'S FRONT RANGE, ADJACENT GREAT PLAINS?		Federal News Service

Headline: Boulder storm researchers were near as tornado hit Moore, Oklahoma  
Date: 5/22/2013 1:07:33 AM  
Media Contact: Colleen O'Connor  
Media Outlet: Denver Post - Online, The  
Attachment Link: [http://www.denverpost.com/news/ci\\_23295392/boulder-storm-researchers-were-near-tornado-hit-moore?source=rss](http://www.denverpost.com/news/ci_23295392/boulder-storm-researchers-were-near-tornado-hit-moore?source=rss)

Russ Schumacher was about 45 miles from Moore, Okla., working on the science of predicting extreme weather, when the tornado hit Monday afternoon. "It was definitely a mixed feeling," said Schumacher, assistant professor in the Department of Atmospheric Science at Colorado State University. "We feel like the research we're doing, and..."

Headline: NCAR Scientists In Boulder Study Rash Of Tornadoes In High-Tech Jet  
Date: 5/21/2013 9:05:53 PM  
Media Contact:  
Media Outlet: CBS Denver - Online  
Attachment Link: <http://denver.cbslocal.com/2013/05/21/ncar-scientists-in-boulder-study-rash-of-tornadoes-in-high-tech-jet/>

BOULDER, Colo. (CBS4) – The data being collected from a plane can't stop a tornado, but scientists hope it will better prepare people for what's coming their way and give them more reaction time.

The technology inside the G5 jet at the National Center for Atmospheric Research (NCAR) in Boulder has already gathered valuable data from three recent tornadoes, including the one that devastated Moore, Okla. Scientists hope the information will soon help provide better warnings for severe storms and tornadoes

"So that the people who really have to be aware of the possibilities of a dangerous, deadly tornado in the afternoon are the ones who really get the word," NCAR scientist Morris Wiseman said.

Scientists use the jet to measure the atmosphere early in the morning and put the data into forecast models. It's called M-Pex, or "Mesoscale Predictability Experiment." The goal is to better pinpoint storms so people know how to react to them.

"To determine how possible is it to predict say six to 24 hours ahead of time, that this part of a state, or these couple of counties might be affected by tornadoes," NCAR scientist Robert Henson said.

That would also affect tornado warnings, potentially giving people an hour's notice rather than the current 15 to 20 minutes of lead time.

"We would argue that it's still not enough, but that's a huge improvement over what it was 20 years ago," Wiseman said.

The plane's mission will last a month, but the data could last a lifetime, so people can get ahead of deadly storms. The data will take scientists about a year or two to analyze and authenticate before they know if it will affect the advance warnings systems.

Headline: Major field campaign targets improvement in thunderstorm prediction  
<http://t.co/bBXj8iNwbG>

Date: 5/20/2013 5:47:08 PM

Media Contact: znmeb (M. Edward Borasky)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/znmeb/statuses/336598994690121728>

Major field campaign targets improvement in thunderstorm prediction <http://t.co/bBXj8iNwbG>

Headline: New Thunderstorm Research Begins in Colorado: The National Center for Atmospheric Research (NCAR) began a mon... <http://t.co/xma4epVsUP>

Date: 5/20/2013 3:49:15 PM

Media Contact: AINonline (AINonline)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/AINonline/statuses/336569329099350017>

New Thunderstorm Research Begins in Colorado: The National Center for Atmospheric Research (NCAR) began a mon... <http://t.co/xma4epVsUP>

Headline: RT @jimmyc42: @ounwcm from the CSU MPEX team: 17:15z  
<http://t.co/ACcQOqP1P7>

Date: 5/20/2013 2:40:45 PM

Media Contact: ntxweathersoonr (ntxweathersooner)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/ntxweathersoonr/statuses/336552088228212736>

RT @jimmyc42: @ounwcm from the CSU MPEX team: 17:15z <http://t.co/ACcQOqP1P7>

Headline: RT @jimmyc42: @ounwcm from the CSU MPEX team: 17:15z  
<http://t.co/ACcQOqP1P7>

Date: 5/20/2013 2:36:10 PM

Media Contact: cshultzwx (Chris Schultz)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/cshultzwx/statuses/336550937114058752>

RT @jimmyc42: @ounwcm from the CSU MPEX team: 17:15z <http://t.co/ACcQOqP1P7>

Headline: @ounwcm from the CSU MPEX team: 17:15z <http://t.co/ACcQOqP1P7>

Date: 5/20/2013 2:35:47 PM

Media Contact: jimmyc42 (james correia jr)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/jimmyc42/statuses/336550838073958400>

@ounwcm from the CSU MPEX team: 17:15z <http://t.co/ACcQOqP1P7>

Headline: New Thunderstorm Research Begins in Colorado  
Date: 5/20/2013 2:14:42 PM  
Media Contact: Mark, Robert  
Media Outlet: Aviation International News - Online  
Attachment Link: <http://www.ainonline.com/aviation-news/ainsafety/2013-05-20/new-thunderstorm-research-begins-colorado>

The National Center for Atmospheric Research (NCAR) began a month-long test last week aimed at better predicting when and where thunderstorms might tear their way across Colorado's Front Range and adjacent Great Plains...

Headline: RT @jimmyc42: Edmond supercell proximity sounding from NSSL with 50 kt near surface southeasterly flow in the cold pool? #MPEX - http://t...

Date: 5/20/2013 7:58:17 AM

Media Contact: cshultzwx (Chris Schultz)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/cshultzwx/statuses/336450802975653888>

RT @jimmyc42: Edmond supercell proximity sounding from NSSL with 50 kt near surface southeasterly flow in the cold pool? #MPEX - http://t...

Headline: Purdue researchers aim to pin-point severe weather forecasts

Date: 5/19/2013 9:23:04 PM

Media Contact:

Media Outlet: Journal & Courier - Online, The

Attachment Link: [http://www.jconline.com/article/20130518/NEWS0501/305180044/Purdue-researchers-aim-pin-point-severe-weather-forecasts?nclick\\_check=1](http://www.jconline.com/article/20130518/NEWS0501/305180044/Purdue-researchers-aim-pin-point-severe-weather-forecasts?nclick_check=1)

...which severe weather will strike. Same-day forecasts detail the probability of severe weather, but researchers thus far have been unable to pinpoint when and where that severe weather will hit within a given area. Also involved in the project are the National Center for Atmospheric Research, Colorado State University, the University at Albany, the State University of New York, the University of Wisconsin-Milwaukee and NOAA's National Severe Storms Laboratory. The Purdue...

Headline: Purdue part of national weather project  
Date: 5/18/2013 11:32:58 PM  
Media Contact:  
Media Outlet: Journal & Courier - Online, The  
Attachment Link: [http://www.jconline.com/article/20130518/NEWS0501/305180044/Purdue-part-national-weather-project?nclick\\_check=1](http://www.jconline.com/article/20130518/NEWS0501/305180044/Purdue-part-national-weather-project?nclick_check=1)

...which severe weather will strike. Same-day forecasts detail the probability of severe weather, but researchers thus far have been unable to pinpoint when and where that severe weather will hit within a given area. Also involved in the project are the National Center for Atmospheric Research, Colorado State University, the University at Albany, the State University of New York, the University of Wisconsin-Milwaukee and NOAA's National Severe Storms Laboratory. The Purdue...

Headline: #MPEX CSU sounding for 18z : <http://t.co/eyk1ODiEfl>  
Date: 5/18/2013 3:38:55 PM  
Media Contact: jimmyc42 (james correia jr)  
Media Outlet: Twitter  
Attachment Link: <http://twitter.com/jimmyc42/statuses/335841953356861440>

#MPEX CSU sounding for 18z : <http://t.co/eyk1ODiEfl>

Headline: RT @jimmyc42: NSSL #MPEX sounding southwest of garden city.  
<http://t.co/Ym17ILWpPO>

Date: 5/18/2013 2:00:03 PM

Media Contact: Derrick\_Snyder (Derrick Snyder)

Media Outlet: Twitter

Attachment Link: [http://twitter.com/Derrick\\_Snyder/statuses/335817072217030657](http://twitter.com/Derrick_Snyder/statuses/335817072217030657)

RT @jimmyc42: NSSL #MPEX sounding southwest of garden city. <http://t.co/Ym17ILWpPO>

Headline: RT @jimmyc42: NSSL #MPEX sounding southwest of garden city.  
<http://t.co/qzir8iWQk7> #kswx

Date: 5/18/2013 1:57:46 PM

Media Contact: ounwcm (Rick Smith)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/ounwcm/statuses/335816497870024704>

RT @jimmyc42: NSSL #MPEX sounding southwest of garden city. <http://t.co/qzir8iWQk7> #kswx

Headline: RT @jimmyc42: NSSL #MPEX sounding southwest of garden city.  
<http://t.co/Ym17ILWpPO>

Date: 5/18/2013 1:57:40 PM

Media Contact: svrwxtweets (Rob White)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/svrwxtweets/statuses/335816472150556673>

RT @jimmyc42: NSSL #MPEX sounding southwest of garden city. <http://t.co/Ym17ILWpPO>

Headline: NSSL #MPEX sounding southwest of garden city. <http://t.co/Ym17ILWpPO>  
Date: 5/18/2013 1:54:45 PM  
Media Contact: jimmyc42 (james correia jr)  
Media Outlet: Twitter  
Attachment Link: <http://twitter.com/jimmyc42/statuses/335815735244881922>

NSSL #MPEX sounding southwest of garden city. <http://t.co/Ym17ILWpPO>

Headline: RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/  
#MPEX gets to know the storms/ T-storm prediction [@...](http://t.co/wmfayxv90T)

Date: 5/18/2013 1:30:13 PM

Media Contact: morganabigail (morganabigail)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/morganabigail/statuses/335809562219266048>

RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/ #MPEX gets to know the  
storms/ T-storm prediction [@...](http://t.co/wmfayxv90T)

Headline: Major field campaign targets improvement in thunderstorm prediction

Date: 5/18/2013 1:04:40 PM

Media Contact:

Media Outlet: Supercomputing Online

Attachment Link: <http://news.vocus.com/ct?haid=8e396017521b141e136891829158495754f26d4e34cf7&co=f000000012320s-1112359307>

The Gulfstream V ready to take off on a mission to study Tropical Storm Gaston. During the PREDICT field project NCAR researchers convened in St. Croix, U.S. Virgin Islands, to investigate tropical cyclogenesis (how tropical cyclones develop and strengthen), one of the most challenging aspects of atmospheric science. The scientists used the Gulfstream V research...

Headline: RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/  
#MPEX gets to know the storms/ T-storm prediction <http://t.co/wmfayxv90T> @...

Date: 5/18/2013 1:03:53 PM

Media Contact: NSSL (NSSL)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/NSSL/statuses/335802937219612672>

RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/ #MPEX gets to know the  
storms/ T-storm prediction <http://t.co/wmfayxv90T> @...

Headline: #MPEX morning dropsonde data available today, should be some afternoon  
upsondes too: <http://t.co/mfxtbETZRT>

Date: 5/18/2013 9:58:41 AM

Media Contact: jimmyc42 (james correia jr)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/jimmyc42/statuses/335756328087724032>

#MPEX morning dropsonde data available today, should be some afternoon upsondes too:  
<http://t.co/mfxtbETZRT>

Headline: RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/  
#MPEX gets to know the storms/ T-storm prediction [@...](http://t.co/wmfayxv90T)

Date: 5/17/2013 3:46:52 PM

Media Contact: SeaGrant (NOAA Sea Grant)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/SeaGrant/statuses/335481564890791938>

RT @NOAAResearch: Friday @NOAA Research #Haiku: Gathering data/ #MPEX gets to know the  
storms/ T-storm prediction [@...](http://t.co/wmfayxv90T)

Headline: Field Study Aims to Better Severe Weather Forecasting  
Date: 5/17/2013 11:34:48 AM  
Media Contact:  
Media Outlet: Laboratory Equipment - Online  
Attachment Link: [http://news.vocus.com/ct?  
haid=a69699b46b9aee411368826507737bd7465331ba445aa&co=  
f000000012320s-1112359307](http://news.vocus.com/ct?haid=a69699b46b9aee411368826507737bd7465331ba445aa&co=f000000012320s-1112359307)

...cruise at 40,000 feet for up to six hours to sample the prestorm atmosphere and canvass for triggers of severe weather across Colorado and nearby states. On each day of operations, MPEX will produce an ensemble of up to 30 forecasts using the NCAR-based research version of the multiagency Weather Research and Forecasting model, WRF-ARW. The MPEX team will also evaluate how much the data from research flights improves forecasts in two other modeling systems, both of...

Headline: High-Altitude Flights Conducted For Weather Forecasting Research  
Date: 5/16/2013 4:18:55 AM  
Media Contact:  
Media Outlet: Aero-News Network  
Attachment Link: <http://www.aero-news.net/index.cfm?do=main.textpost&id=c23bcf2d-a0e7-4dbf-b04f-bc537a682a43>

National Science Foundation Gulfstream V To Fly In Support Of MPEX Program To better predict where and when spring thunderstorms rip across Colorado's Front Range and the adjacent Great Plains, researchers have launched a major field project this week with high-flying aircraft and fine-grained computer simulations. The month-long study could point the way to major improvements in lead times...

Headline: PURDUE PART OF FIELD STUDY TO IMPROVE SEVERE WEATHER FORECASTING

Date: 5/15/2013 10:00:00 PM

Media Contact:

Media Outlet: Federal News Service

WEST LAFAYETTE, Ind., May 16 -- Purdue University issued the following news release:

Purdue University professors and students will intercept storms as part of a major field project to improve predictions of severe weather and offer earlier warnings to those in its path.

Purdue professors of earth, atmospheric and planetary sciences Jeff Trapp and Michael Baldwin, and graduate students Joe Woznicki and Logan Dawson are part of the National Science Foundation-funded Mesoscale Predictability Experiment, or MPEX. The project runs from May 15 to June 15 across the Great Plains.

Currently, same-day forecasts note the likelihood of severe storms, but are uncertain where and when the storms will develop. The MPEX study will help determine whether additional detailed observations can lead to more specific forecasts of storm location and behavior as much as a day in advance.

The Purdue team is leading a portion of the project that will release weather balloons around active thunderstorms. The balloons will carry small instrument packages called radiosondes to continuously measure temperature, humidity, pressure and winds as the balloon rises. This information will be combined with earlier atmospheric measurements using similar instrument packages dropped from an aircraft at high altitudes.

These measurements will reveal how much the storms have changed or disturbed the surrounding atmosphere, said Trapp, who is one of four lead investigators for the MPEX project.

"The project has its roots in chaos theory and the related idea about how the 'flapping of a butterfly's wings could cause the formation of a tornado in Texas,'" he said. "We are trying to see if thunderstorms create an identifiable ripple effect, and, if they do, how we can use that information to better predict the weather."

The team is particularly interested in "supercell" thunderstorms, the intense and long-lasting storms most likely to produce tornadoes. These thunderstorms have strong vertical air currents that move warm air up and cool air down, as well as strong rotations that mix the atmosphere horizontally.

"We know that even isolated, short-lived thunderstorms influence their environment," he said. "Through this field study we will quantify the magnitude and extent of these warming and mixing effects on the atmosphere."

A project goal is to help improve forecasts in the 6- to 24-hour period. Currently severe weather warnings from the National Weather Service provide up to an hour's notice of tornadoes and other threats on a county-by-county basis. Tornado and severe thunderstorm watches are issued up to eight hours in advance and cover state-sized areas; while convective outlooks highlight the risk of severe weather up to

eight days in advance across large parts of the country.

In addition to Purdue University, institutions involved in the project include the National Center for Atmospheric Research (NCAR); Colorado State University; the University at Albany, State University of New York; the University of Wisconsin-Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL).

Advanced forecast models can now simulate the weather at points packed as closely as about a half-mile from each other, which allows showers and thunderstorms to be explicitly depicted. However, these experimental models and those used for operational weather prediction still struggle at times to map out storm behavior, especially beyond about six hours in advance.

Scientists believe this may largely be because the models need more detail on upper-level features, such as pockets of strong wind or dry air, located several miles above ground level. As these features move into the Plains, they can be critical for triggering or suppressing severe storms. Weather satellites may not see these features, and they often go undetected by limited surface and upper-air networks across the Rocky Mountain states.

"The structure of the atmosphere two to six miles above sea level is incredibly important," said NCAR scientist Morris Weisman, another of the project's four principal investigators. "This appears to be where the biggest forecast errors develop, so we need to collect more data at these heights."

MPEX includes flights of the specially instrumented NSF/NCAR Gulfstream V aircraft, also known as the High-performance Instrumented Airborne Platform for Environmental Research. The aircraft will cruise at 40,000 feet for up to six hours to sample the prestorm atmosphere and canvass for triggers of severe weather across Colorado and nearby states.

On each day of operations, MPEX will produce an ensemble of up to 30 forecasts using the NCAR-based research version of the multiagency Weather Research and Forecasting model, WRF-ARW. The MPEX team will also evaluate how much the data from research flights improves forecasts in two other modeling systems, both of which are updated each hour. For any query with respect to this article or any other content requirement, please contact Editor at [htsyndication@hindustantimes.com](mailto:htsyndication@hindustantimes.com)

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Headline: NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER #NCAR

Date: 5/15/2013 2:02:05 PM

Media Contact: NCarolinaRecord (NorthCarolinaRecord)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/NCarolinaRecord/statuses/334730416902782977>

NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER #NCAR

Headline: NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER

Date: 5/15/2013 9:51:16 AM

Media Contact: MissouriSent (Missouri Sentinel)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/MissouriSent/statuses/334667296897380352>

NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER

Headline: NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER #LINK

Date: 5/15/2013 9:51:07 AM

Media Contact: WVirginiaSent (W Virginia Sentinel)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/WVirginiaSent/statuses/334667259672948738>

NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER #LINK

Headline: #BOULDER #LINK NCAR Scientists Get High-Flyin... <http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb>

Date: 5/15/2013 8:31:54 AM

Media Contact: WVaSentinal (W Virginia Sentinal)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/WVaSentinal/statuses/334647325496594432>

#BOULDER #LINK NCAR Scientists Get High-Flyin... <http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb>

Headline: Major Field Campaign Targets Improved Thunderstorm Prediction  
Date: 5/15/2013 7:31:16 AM  
Media Contact: Daniel L. Schiller  
Media Outlet: Nebraska Ag Connection  
Attachment Link: <http://www.nebraskaagconnection.com/story-state.php?id=394&yr=2013>

To help better predict where and when spring thunderstorms will rip across Colorado's Front Range and the adjacent High Plains, researchers are launching a major field project this week with high-flying aircraft and fine-grained computer simulations. The month-long study could point the way toward major improvements in weather...

Headline: Major Field Campaign Targets Improved Thunderstorm Prediction  
Date: 5/15/2013 7:20:20 AM  
Media Contact: Daniel L. Schiller  
Media Outlet: South Dakota Ag Connection  
Attachment Link: <http://www.southdakotaagconnection.com/story-state.php?id=434&yr=2013>

...Albany, State University of New York; Purdue University; the University of Wisconsin--Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Colorado weathermen take to skies for forecasts

Date: 5/14/2013 10:48:53 PM

Media Contact:

Media Outlet: KOAA-TV - Online

Attachment Link: <http://www.koaa.com/news/colorado-weathermen-take-to-skies-for-forecasts/>

BOULDER, Colo. (AP) - The National Center for Atmospheric Research in Boulder is taking to the skies in airplane to see whether it can collect enough information over the Colorado Rockies to provide additional warning time to people who may be in the way...

Headline: NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER #days

Date: 5/14/2013 10:45:15 PM

Media Contact: AlabamaSentinel (Alabama Sentinel)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/AlabamaSentinel/statuses/334499690924105728>

NCAR Scientists Get High-Flyin... [#http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb](http://2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/?tb) #BOULDER #days

Headline: NCAR Scientists Get High-Flying New Tool To Help With Forecasts: BOULDER, Colo. (CBS4) – Scientists at the... <http://t.co/BmWc5cFxIH>

Date: 5/14/2013 10:05:08 PM

Media Contact: DenverCP (Denver CP)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/DenverCP/statuses/334489595049811968>

NCAR Scientists Get High-Flying New Tool To Help With Forecasts: BOULDER, Colo. (CBS4) – Scientists at the... <http://t.co/BmWc5cFxIH>

Headline: NCAR Scientists Get High-Flying New Tool To Help With Forecasts  
Date: 5/14/2013 9:10:53 PM  
Media Contact:  
Media Outlet: CBS Denver - Online  
Attachment Link: <http://denver.cbslocal.com/2013/05/14/ncar-scientists-get-high-flying-new-tool-to-help-with-forecasts/>

NCAR's G-5 aircraft (credit: CBS) BOULDER, Colo. (CBS4) – Scientists at the National Center for Atmospheric Research in Boulder are heading up a project to help improve forecasts for severe weather in...

Headline: NCAR experiment aims to find information to aid in avoiding big weather forecasting errors: <http://t.co/Squ3EXRpZ4>

Date: 5/14/2013 3:10:52 PM

Media Contact: CUCleantech (CU Cleantech)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/CUCleantech/statuses/334385341446356992>

NCAR experiment aims to find information to aid in avoiding big weather forecasting errors:  
<http://t.co/Squ3EXRpZ4>

Headline: Colorado weathermen take to skies for forecasts

Date: 5/14/2013 2:47:26 PM

Media Contact:

Media Outlet: Northern Colorado 5 - Online

Attachment Link: <http://www.noco5.com/story/22244176/colorado-weathermen-take-to-skies-for-forecasts>

BOULDER, Colo. (AP) - The National Center for Atmospheric Research in Boulder is taking to the skies in airplane to see whether it can collect enough information over the Colorado Rockies to provide additional warning time to people who may be in the way...

Headline: Where, when will thunderstorms strike Colorado's Front Range, adjacent Great Plains?

Date: 5/14/2013 1:35:50 PM

Media Contact:

Media Outlet: Phys.org

Attachment Link: <http://phys.org/news/2013-05-thunderstorms-colorado-front-range-adjacent.html>

...computer simulations. The month-long study could point the way to major improvements in lead times for weather forecasts during what has been called a crucial six- to 24-hour window. "People want to know whether there will be thunderstorms and when," says National Center for Atmospheric Research (NCAR) scientist Morris Weisman, one of four principal investigators on the project. "We're hoping to find out where you need to collect observations in order to get...

Headline: Where, when will thunderstorms strike Colorado's Front Range, adjacent Great Plains?

Date: 5/14/2013 1:20:15 PM

Media Contact:

Media Outlet: EurekAlert!

Attachment Link: [http://www.eurekalert.org/pub\\_releases/2013-05/nsf-www051413.php](http://www.eurekalert.org/pub_releases/2013-05/nsf-www051413.php)

...computer simulations. The month-long study could point the way to major improvements in lead times for weather forecasts during what has been called a crucial six- to 24-hour window. "People want to know whether there will be thunderstorms and when," says National Center for Atmospheric Research (NCAR) scientist Morris Weisman, one of four principal investigators on the project. "We're hoping to find out where you need to collect observations in order to get...

Headline: Colorado forecasters take flight to spot storms  
Date: 5/14/2013 1:11:56 PM  
Media Contact: Associated Press  
Media Outlet: Fort Collins Coloradoan - Online, The  
Attachment Link: [http://www.coloradoan.com/article/G2/20130514/NEWS11/305140013/Colorado-forecasters-take-flight-spot-storms?nclick\\_check=1](http://www.coloradoan.com/article/G2/20130514/NEWS11/305140013/Colorado-forecasters-take-flight-spot-storms?nclick_check=1)

BOULDER ? The National Center for Atmospheric Research in Boulder is taking to the skies in an airplane to see whether forecasters can collect enough information over the Rockies to provide additional warning time to people who may be in the...

Headline: RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Date: 5/14/2013 12:28:21 PM

Media Contact: g1159bw (Chuck Wilson)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/g1159bw/statuses/334344441877901312>

RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Headline: RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Date: 5/14/2013 12:21:42 PM

Media Contact: JonDopplerWX (Jon Haverfield )

Media Outlet: Twitter

Attachment Link: <http://twitter.com/JonDopplerWX/statuses/334342769948631041>

RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Headline: RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Date: 5/14/2013 12:11:10 PM

Media Contact: NEskyentist (Judson )

Media Outlet: Twitter

Attachment Link: <http://twitter.com/NEskyentist/statuses/334340116711608320>

RT @NSSL: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Headline: Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Date: 5/14/2013 12:07:22 PM

Media Contact: NSSL (NSSL)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/NSSL/statuses/334339160221577217>

Thunderstorm research project #MPEX begins tomorrow. Local reporters getting briefed by NCAR scientists! <http://t.co/l7C9Z1HhCB>

Headline: SUNRISE: Paraglider dies after crash

Date: 5/14/2013 12:00:52 PM

Media Contact:

Media Outlet: Gazette - Online, The

Attachment Link: <http://gazette.com/sunrise-paraglider-dies-after-crash/article/1500710>

...factor during the sentencing phase. The move by the defense to change Holmes' plea was a significant step as the case slowly creeps toward a trial or possible plea agreement. Weathermen take to skies for forecasts BOULDER (AP) - The National Center for Atmospheric Research in Boulder is taking to the skies in airplane to see whether it can collect enough information over the Colorado Rockies to provide additional warning time to people who may be in the way of potentially deadly storms....

Headline: Colorado research center to use airplane to improve weather forecasts and give more warning

Date: 5/14/2013 11:54:10 AM

Media Contact:

Media Outlet: Daily Journal - Online

Attachment Link: <http://www.dailyjournal.net/view/story/56e83b45f56445f59ecc1a79bc765e4e/CO--Weather-Plane/>

BOULDER, Colorado — The National Center for Atmospheric Research in Boulder is taking to the skies in an airplane to see whether forecasters can collect enough information over the Rockies to provide additional warning time to people who may be in the...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR  
Date: 5/14/2013 11:16:05 AM  
Media Contact: John Aguilar  
Media Outlet: Loveland Reporter-Herald - Online  
Attachment Link: [http://www.reporterherald.com/news/loveland-local-news/ci\\_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders](http://www.reporterherald.com/news/loveland-local-news/ci_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders)

... BROOMFIELD -- Sparing your vehicle a hail-shattered windshield, or, more importantly, saving your family from the anguish and trauma of a tornado-flattened home, could come down to a matter of minutes. Starting Wednesday and lasting for a month, the National Center for Atmospheric Research in Boulder will carry out a 40,000-foot-high experiment to see whether it can collect enough data over the Colorado Rockies to provide additional warning time, and a more precise path, to...

Headline: High-flying experiments could help weather forecasting

Date: 5/14/2013 11:07:04 AM

Media Contact:

Media Outlet: Burlington Record

Attachment Link: [http://www.burlington-record.com/ci\\_23238972/high-flying-experiments-could-help-weather-forecasting](http://www.burlington-record.com/ci_23238972/high-flying-experiments-could-help-weather-forecasting)

High-flying experiments could help weather forecasting By Monte Whaley The Denver Post  
brushnewstribune.com Posted: 05/13/2013 05:41:12 PM MDT Colorado Weather  
Colo. weather warnings & watches Weather Photos + Video...

Headline: Colorado research center to use airplane to improve weather forecasts and give more warning

Date: 5/14/2013 10:38:12 AM

Media Contact:

Media Outlet: Republic - Online, The

Attachment Link: <http://www.therepublic.com/view/story/56e83b45f56445f59ecc1a79bc765e4e/CO--Weather-Plane>

BOULDER, Colorado — The National Center for Atmospheric Research in Boulder is taking to the skies in an airplane to see whether forecasters can collect enough information over the Rockies to provide additional warning time to people who may be in the...

Headline: Colorado weathermen take to skies for forecasts  
Date: 5/14/2013 10:02:06 AM  
Media Contact: Daily Camera  
Media Outlet: KGWN-TV - Online  
Attachment Link: <http://www.kgwn.tv/story/22244176/colorado-weathermen-take-to-skies-for-forecasts>

BOULDER, Colo. (AP) - The National Center for Atmospheric Research in Boulder is taking to the skies in airplane to see whether it can collect enough information over the Colorado Rockies to provide additional warning time to people who may be in the way...

Headline: High-flying experiments could help weather forecasting  
Date: 5/14/2013 9:20:53 AM  
Media Contact: Monte Whaley  
Media Outlet: Brush News-Tribune - Online  
Attachment Link: [http://www.brushnewstribune.com/brush-editorials/ci\\_23238972/high-flying-experiments-could-help-weather-forecasting](http://www.brushnewstribune.com/brush-editorials/ci_23238972/high-flying-experiments-could-help-weather-forecasting)

Scientists based out of Rocky Mountain Metropolitan Airport will fly above the clouds for the next month, hoping to produce more accurate forecasts of when and where severe weather will hit homes and businesses. It's all part of the Mesoscale Predictability Experiment, or MPEX, which runs May 15 to June 15. A crew will fly a Gulfstream V out of the airport at 3 a.m. and climb to 40,000 feet for up to six hours to sample pre-storm atmosphere across Colorado and nearby...

Headline: Colorado weathermen take to skies for forecasts

Date: 5/14/2013 8:20:49 AM

Media Contact:

Media Outlet: KNEB-AM - Online

Attachment Link: <http://kneb.com/news/index.php?more=imvrb635>

Colorado weathermen take to skies for forecasts BOULDER, Colo. (AP) The National Center for Atmospheric Research in Boulder is taking to the skies in airplane to see whether it can collect enough information over the Colorado Rockies to provide additional warning time to people who may be in the way...

Headline: Predicting thunderstorms in Colorado getting help from above  
Date: 5/13/2013 11:58:12 PM  
Media Contact: Jon Bowman  
Media Outlet: KWGN-TV - Online  
Attachment Link: <http://kwgn.com/2013/05/13/predicting-thunderstorms-in-colorado-getting-help-from-above/>

BROOMFIELD, Colo. — At the Rocky Mountain Skyport, the National Center for Atmospheric Research (NCAR) is showing off a Gulfstream V aircraft which will begin flying over and through thunderstorms building west of the Rocky Mountains for the next four weeks. This plane will...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR

Date: 5/13/2013 10:46:44 PM

Media Contact:

Media Outlet: Broomfield Enterprise

Attachment Link: [http://www.broomfieldenterprise.com/ci\\_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders](http://www.broomfieldenterprise.com/ci_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders)

Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR Scientifically equipped aircraft to operate from Broomfield airport over next 30 days By John Aguilar, Camera Staff Writer  
dailycamera.com Posted: 05/13/2013 01:29:31 PM MDT...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 10:39:30 PM  
Media Contact:  
Media Outlet: WOIO-TV - Online  
Attachment Link: <http://www.19actionnews.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Scientists fly high to gauge storms

Date: 5/13/2013 10:00:00 PM

Media Contact: Whaley, Monte

Media Outlet: Denver Post, The

Scientists based out of Rocky Mountain Metropolitan Airport will fly above the clouds for the next month, hoping to produce more accurate forecasts of when and where severe weather will strike.

It's part of the Mesoscale Predictability Experiment, or MPEX, which runs May 15 to June 15. A crew will fly a Gulfstream V out of the airport at 3 a.m. to sample pre-storm atmosphere at 40,000 feet for up to six hours .

The crews will canvass the region that constitutes "tornado alley," including parts of Colorado, Nebraska, Kansas, Oklahoma, Texas, Wyoming and New Mexico, said Morris Weisman, a lead investigator for the National Center for Atmospheric Research in Boulder.

They will look for severe-weather triggers lurking above the clouds. If they find trouble brewing, the information they gather will be relayed back to weather forecasters and agencies to issue more accurate warnings in a six- to 24-hour window.

Until now, forecasters have relied on a largely ground-based system that struggles to map storm behavior, especially more than six hours in advance, Weisman said.

Weather models need more detail on upper-level disturbances, such as pockets of strong wind or dry air miles above the ground. As those disturbances move into the Great Plains, they can trigger -- or suppress -- severe storms.

They are also hard to predict, which is where the jet and its technological payload pays off.

"We're hoping to find out where you need to collect observations in order to get the most improvements in short-term forecasts," Weisman said. "Better prediction with a few hours of lead time could make a difference in helping people prepare."

The aircraft will use a microwave-based temperature sensor to profile horizontal temperature contrasts miles above the region. It will also deploy parachute-borne minisondes -- compact instrument packages -- to gather extra detail between flight level and ground level. The minisondes will provide information on temperature, moisture and winds four times each second.

NCAR is the lead agency on the project, funded with nearly \$1 million from the National Science Foundation.

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Headline: Colorado weathermen take to skies for forecasts

Date: 5/13/2013 10:00:00 PM

Media Contact:

Media Outlet: Associated Press (AP) - Denver Bureau

BOULDER, Colo.\_The National Center for Atmospheric Research in Boulder is taking to the skies in airplane to see whether it can collect enough information over the Colorado Rockies to provide additional warning time to people who may be in the way of potentially deadly storms.

Researchers are heading to the airport Wednesday to board an instrument-packed Gulfstream V for a six-hour mission to sample jet-stream winds, upper-level temperatures and other features across Colorado and nearby states.

According to the Boulder Daily Camera ( <http://tinyurl.com/c2ow9sk>), senior scientist Morris Weisman says meteorologists currently rely on information collected at widely scattered sounding stations in Colorado, Nebraska, Kansas, Oklahoma, Texas, Wyoming and New Mexico to compile their weather forecasts.

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Information from: Daily Camera, <http://www.dailycamera.com/>

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Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 9:40:53 PM  
Media Contact:  
Media Outlet: KIII-TV - Online  
Attachment Link: <http://www.kiiitv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 8:46:15 PM  
Media Contact:  
Media Outlet: WDSI-TV - Online  
Attachment Link: <http://www.myfoxchattanooga.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction -  
FOX21- Entertaining Delmarva One Click at a Time

Date: 5/13/2013 8:36:20 PM

Media Contact:

Media Outlet: WBOC- TV (DT2 - FOX) - Online

Attachment Link: <http://www.fox21delmarva.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

Major Field Campaign Targets Improvement in Thunderstorm Prediction SOURCE: NCAR/UCAR  
Media Office NCAR is launching a major field campaign this week with collaborators to better predict  
where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research  
aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 8:26:12 PM

Media Contact:

Media Outlet: WBOC-TV - Online

Attachment Link: <http://www.wboc.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

This article was originally distributed via PRWeb. PRWeb, WorldNow and this Site make no warranties or representations in connection therewith. SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and las... <http://t.co/ZfPYS6C4DG> #fb

Date: 5/13/2013 8:04:28 PM

Media Contact: bfld\_enterprise (BroomfieldEnterprise)

Media Outlet: Twitter

Attachment Link: [http://twitter.com/bfld\\_enterprise/statuses/334096839324336130](http://twitter.com/bfld_enterprise/statuses/334096839324336130)

Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and las... <http://t.co/ZfPYS6C4DG> #fb

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 8:00:56 PM

Media Contact:

Media Outlet: KFMB-AM (760 AM Talk Radio) - Online

Attachment Link: <http://www.760kfmb.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 7:56:37 PM

Media Contact:

Media Outlet: WNEM-TV - Online

Attachment Link: <http://www.wnem.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 7:39:10 PM

Media Contact:

Media Outlet: WTVG-TV - Online

Attachment Link: <http://www.13abc.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 7:04:01 PM

Media Contact:

Media Outlet: KPHO-TV - Online

Attachment Link: <http://www.kpho.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 6:16:32 PM

Media Contact:

Media Outlet: WGCL-TV - Online

Attachment Link: <http://www.cbsatlanta.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: CBS4 News at 6  
Date: 5/13/2013 6:12:25 PM  
Media Contact:  
Media Outlet: CBS4 News at 6 PM - KCNC-TV

>>> Early warnings are of course critical to keeping us all safe during storms and now scientists in boulder have a high flying new tool to help build their forecasting. Scientists from the national center for atmospheric research showed off a plane filled with computers to scan the atmosphere. This is part of a month long experiment. The plane will collect data in the early morning hours to help pinpoint when and where storms will develop later. >> But this really addresses the 6-24 hour forecast, getting information early enough to maybe make a difference in the preparations for storms and that hasn't been done. >> See how they do it. The experiment is funded by the national science foundation. >> We love all that weather information. >> Pretty cool. >>> Former rockies reliever credits his success from interesting food choice. >>> Also ahead tiger hasn't won a major but he is back on track to having perhaps the best year of his great career. >>> And up next to let us know how close we could get to breaking a , , , , , , , , , ,

Headline: 9News at 6pm  
Date: 5/13/2013 6:09:25 PM  
Media Contact:  
Media Outlet: 9 News 6 PM - KUSA-TV

>>> The return of the popular 9 news shred-a-thon is this weekend. This Saturday including our studios at Speer and Logan. Bring up to three garbage bags or boxes of old documents with sensitive material. All we ask is for a donation to Crimestoppers. We entered severe weather season when spring and summer storms blow up quickly and cause damage along the front range and the plains. A month long study that starts this week is designed to better predict those storms. >> The problem is, we don't know exactly where or when the thunderstorms are going to be. So this kind of program hopefully will improve our ability to forecast where and when. It is going to be. >> The study is funded by the National Science Foundation with some of the work being done by the National Center for Atmospheric Research and CSU. They will use data from weather balloons and planes that collect it and they are tracking storms and conditions that trigger them. >>> Allow me to be the first to wish you a happy craft beer week. Born in our own backyard with the Boulder Base Brewers Association in 2006 it is a nationwide celebration of all things craft beer. Perhaps you noticed it seems like we have a new brewery opening every few weeks up and down the front range as well as other parts of our state. Events at breweries and bars clear across Colorado throughout this week. Last year the Brewers Association estimated that craft brewing has a \$446 million economic impact in Colorado. >> Kyle Speller is a pastor by day, voice of the Denver Nuggets by night. And he stopped by to show us how he has earned his latest title. Rescuers of Geese. Speller and his family noticed a mother goose and her young ones waddles into traffic on Hampton Avenue. He played traffic cop to keep the cars off of the geese. Helped them on a gear by golf course. Even earned him street cred with his own family. >> The main thing is my daughter, you know, she loves animals and so I got to be a hero in my daughter's eyes. So, that was -- that was one of the, you know, the best part of that. [laughter] >> He says most of the drivers he flagged down understood what he was up to as soon as they saw the geese. >> James Early Jones is what comes to mind. >> Yes. When you hear the voice. >> Fantastic tonism the best chances for storms next week in Kathy's forecast.

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 5:51:01 PM  
Media Contact:  
Media Outlet: Hawaii News Now  
Attachment Link: <http://www.hawaiinewsnow.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 5:46:26 PM

Media Contact:

Media Outlet: KVVU-TV - Online

Attachment Link: <http://www.fox5vegas.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <http://t.co/rNitartytL>

Date: 5/13/2013 5:37:04 PM

Media Contact: BoulderCONews (Boulder CO News)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/BoulderCONews/statuses/334059743746330625>

Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <http://t.co/rNitartytL>

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 5:34:30 PM

Media Contact:

Media Outlet: KRHD-TV - Online

Attachment Link: <http://www.abc40.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 5:33:42 PM

Media Contact:

Media Outlet: WAND-TV - Online

Attachment Link: <http://www.wandtv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 5:23:25 PM

Media Contact:

Media Outlet: KHGI-TV - Online

Attachment Link: <http://www.nebraska.tv/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Predicting thunderstorms in Colorado getting help from above | KDVR.com  
Date: 5/13/2013 5:17:48 PM  
Media Contact:  
Media Outlet: KDVR-TV - Online  
Attachment Link: <http://kdvr.com/2013/05/13/predicting-thunderstorms-in-colorado-getting-help-from-above/>

Sign in or register with your favorite social identity Predicting thunderstorms in Colorado getting help from above Posted on: 5:03 pm, May 13, 2013, by Jon Bowman BROOMFIELD, Colo. - At the Rocky Mountain Skyport, the National Center for Atmospheric Research (NCAR) is showing off a Gulfstream5...

Headline: 7 News  
Date: 5/13/2013 5:15:10 PM  
Media Contact:  
Media Outlet: KMGH-TV

> >tonight ... A story you will see only on 7news. He's a doctor with a decade of problems ... Including medical board probation ... Lawsuits ... And patient deaths. > >i had looked into this doctor and was appalled at how many complaints there have been against him, how many malpractice suits, the fact that he was on probation and we were unaware. > >call7 investigator john ferrugia asks.. Why is the state medical board allowing him to practice.. That story tonight on 7news at ten.. > >a new way to predict thunderstorms in colorado.. Scientists from the national center for atmospheric research unveiling a new project today.. - new aircraft and weather balloons.. With cutting-edge technology.. Will fly in the morning to collect new data.. Scientists will then put that data into a new numerical models.. To better predict a severity.. > >these numerical models can also tell us the difference between ordinary thunderstorms that might produce heavy rain and hail and what we call supercell thunderstorms that can really have a chance to produce big tornadoes > >right now - meteorologists get data about the atmosphere in grand junction and denver. This new project will allow them to get information over the mountains as well. > >new video of an ice tsunami.. Look at this! In minnesota.. Wind so strong.. It's pushing ice off a lake onto people's lawns.. This homeowner capturing the ice invasion on cell phone video.. Right now - about ten miles of in ice.. Some of it.. About 30 feet tall! > > Fair weather in colorado. . Tomorrow, we may go for a record high temperatures in some areas. Scattered showers in some areas.. Currently, downtown, at 83 degrees. There is a cold front to the north of us, moving in, tomorrow. Tonight, scattered showers in the mountains. By 3:00 a.m., showers diminishing, partly cloudy skies. Tomorrow, starting out sunny, then theunny, then the clouds r. Scattered showers. The cold front will come into our night. Tomorrow night, then quickly moved out to the east. Highs tomorrow, 60's and 70's to the west. Nine days in some areas, east. Tomorrow, 88 will be a new record. This s your 7 day

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 5:02:25 PM

Media Contact:

Media Outlet: WOWK-TV - Online

Attachment Link: <http://www.wowktv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 5:00:59 PM  
Media Contact:  
Media Outlet: KSLA-TV - Online  
Attachment Link: <http://www.ksla.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 4:57:41 PM  
Media Contact:  
Media Outlet: KUSI-TV - Online  
Attachment Link: <http://www.kusi.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: RT @bfl\_d\_enterprise: Better forecasting of severe weather on Boulder's NCAR agenda. Scientific aircraft to operate from #Broomfield -- htt...

Date: 5/13/2013 4:54:39 PM

Media Contact: MeganQuinn2 (MeganQuinn)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/MeganQuinn2/statuses/334049071222370304>

RT @bfl\_d\_enterprise: Better forecasting of severe weather on Boulder's NCAR agenda. Scientific aircraft to operate from #Broomfield -- htt...

Headline: Better forecasting of severe weather on Boulder's NCAR agenda. Scientific aircraft to operate from #Broomfield -- <http://t.co/wzgzYJ5eEb>

Date: 5/13/2013 4:47:49 PM

Media Contact: bfld\_enterprise (BroomfieldEnterprise)

Media Outlet: Twitter

Attachment Link: [http://twitter.com/bfld\\_enterprise/statuses/334047349791916033](http://twitter.com/bfld_enterprise/statuses/334047349791916033)

Better forecasting of severe weather on Boulder's NCAR agenda. Scientific aircraft to operate from #Broomfield -- <http://t.co/wzgzYJ5eEb>

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 4:43:29 PM  
Media Contact:  
Media Outlet: WFXS-TV - Online  
Attachment Link: <http://www.myfoxwausau.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <http://t.co/TaUQQCtMD5>

Date: 5/13/2013 4:38:18 PM

Media Contact: ThorntonCONews (Thornton CO News)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/ThorntonCONews/statuses/334044955200847872>

Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <http://t.co/TaUQQCtMD5>

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR  
<http://t.co/mgJq4w9drW>

Date: 5/13/2013 4:31:30 PM

Media Contact: TheBoulderLife (Boulder Colorado)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/TheBoulderLife/statuses/334043243719299072>

Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR <http://t.co/mgJq4w9drW>

Headline: RT @dailycamera: Better forecasting of severe weather on high-altitude agenda of #Boulder's NCAR <http://t.co/rdErIK24IC> via @abuvthefold #...

Date: 5/13/2013 4:30:52 PM

Media Contact: abuvthefold (John Aguilar)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/abuvthefold/statuses/334043086684565504>

RT @dailycamera: Better forecasting of severe weather on high-altitude agenda of #Boulder's NCAR <http://t.co/rdErIK24IC> via @abuvthefold #...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 4:30:34 PM  
Media Contact:  
Media Outlet: WSET-TV - Online  
Attachment Link: <http://www.wset.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <http://t.co/kndvE1NfMX>

Date: 5/13/2013 4:28:34 PM

Media Contact: NorthDenverNews (North Denver News)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/NorthDenverNews/statuses/334042506192891904>

Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR: Starting Wednesday and lasting... <http://t.co/kndvE1NfMX>

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 4:24:43 PM

Media Contact:

Media Outlet: WMBB-TV - Online

Attachment Link: <http://www.wmbb.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: High-flying experiments could help weather forecasting  
Date: 5/13/2013 4:21:42 PM  
Media Contact: Monte Whaley  
Media Outlet: Denver Post - Online, The  
Attachment Link: [http://www.denverpost.com/breakingnews/ci\\_23233291/high-flying-experiments-could-help-weather-forecasting?source=rss](http://www.denverpost.com/breakingnews/ci_23233291/high-flying-experiments-could-help-weather-forecasting?source=rss)

...Predictability Experiment — or MPEX — it calls for the Gulfstream to take off at 3 a.m. on most morning from its base at Rocky Mountain Metropolitan Airport in Broomfield to sample pre-storm atmosphere across Colorado and nearby states. The aircraft — also known as HIAPER, the High-Performance Platform for Environmental Research — will cruise at 40,000 feet for up to six hours, which will enable researchers to thoroughly canvass a region where triggers for severe weather might be lurking. That area includes parts...

Headline: Better forecasting of severe weather on high-altitude agenda of #Boulder's NCAR <http://t.co/rdErIK24IC> via @abuvthefold #cowx

Date: 5/13/2013 4:19:06 PM

Media Contact: dailycamera (Daily Camera)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/dailycamera/statuses/334040123991810049>

Better forecasting of severe weather on high-altitude agenda of #Boulder's NCAR <http://t.co/rdErIK24IC> via @abuvthefold #cowx

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 4:11:14 PM  
Media Contact:  
Media Outlet: KFMB-FM (Jack FM) - Online  
Attachment Link: <http://www.sandiegojack.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 4:01:43 PM

Media Contact:

Media Outlet: KOTV-TV - Online

Attachment Link: <http://www.newson6.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 3:44:36 PM  
Media Contact:  
Media Outlet: WRIC-TV - Online  
Attachment Link: <http://www.wric.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR  
Date: 5/13/2013 3:40:21 PM  
Media Contact: John Aguilar  
Media Outlet: Broomfield Enterprise - Online  
Attachment Link: [http://www.broomfieldenterprise.com/broomfield-news/ci\\_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders](http://www.broomfieldenterprise.com/broomfield-news/ci_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders)

Scientifically equipped aircraft to operate from Broomfield airport over next 30 days This Gulfstream V, seen in a hanger at the Rocky Mountain Metropolitan Airport in Broomfield, will take to the air soon to collect more accurate severe storm data for Boulder's NCAR. (John Aguilar / Daily Camera)  
BROOMFIELD – Sparing your vehicle a hail-shattered windshield, or, more importantly, saving your family from the anguish and trauma of a tornado-flattened home, could come down to a matter of minutes. Starting...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 3:40:20 PM  
Media Contact:  
Media Outlet: WICU/WSEE - TV - Online  
Attachment Link: <http://www.erietvnews.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:40:08 PM

Media Contact:

Media Outlet: WMC-TV - Online

Attachment Link: <http://www.wmctv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:37:16 PM

Media Contact:

Media Outlet: PRWeb - Online

Attachment Link: <http://www.prweb.com/releases/2013/5/prweb10719189.htm>

...featuring research aircraft and cutting-edge computer simulations, will point the way toward major improvements in 6- to 24-hour forecasts of severe weather. MPEX will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research). (Photo © UCAR.) People want to know whether there will be thunderstorms, and when. BOULDER, CO (PRWEB) May 13, 2013 To help better predict where and when...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 3:22:48 PM  
Media Contact:  
Media Outlet: KPTV-TV - Online  
Attachment Link: <http://www.kptv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:22:28 PM

Media Contact:

Media Outlet: WDAM-TV - Online

Attachment Link: <http://www.wdam.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major field campaign targets improvement in thunderstorm prediction  
Date: 5/13/2013 3:15:17 PM  
Media Contact: Tyler O'Neal  
Media Outlet: Supercomputing Online  
Attachment Link: <http://www.supercomputingonline.com/news/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

The Gulfstream V ready to take off on a mission to study Tropical Storm Gaston. During the PREDICT field project NCAR researchers convened in St. Croix, U.S. Virgin Islands, to investigate tropical cyclogenesis (how tropical cyclones develop and strengthen), one of the most challenging aspects of atmospheric science. The scientists used the Gulfstream V research...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR  
Date: 5/13/2013 3:13:44 PM  
Media Contact: John Aguilar  
Media Outlet: Colorado Daily - Online  
Attachment Link: [http://www.coloradodaily.com/ci\\_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders](http://www.coloradodaily.com/ci_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders)

... BROOMFIELD – Sparing your vehicle a hail-shattered windshield, or, more importantly, saving your family from the anguish and trauma of a tornado-flattened home, could come down to a matter of minutes. Starting Wednesday and lasting for a month, the National Center for Atmospheric Research in Boulder will carry out a 40,000-foot-high experiment to see whether it can collect enough data over the Colorado Rockies to provide additional warning time, and a more precise...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 3:13:32 PM  
Media Contact:  
Media Outlet: KAZT-TV - Online  
Attachment Link: <http://www.aztv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR  
Date: 5/13/2013 3:13:29 PM  
Media Contact: John Aguilar  
Media Outlet: Daily Camera - Online, The  
Attachment Link: [http://www.dailycamera.com/news/boulder/ci\\_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders](http://www.dailycamera.com/news/boulder/ci_23231344/better-forecasting-severe-weather-high-altitude-agenda-boulders)

Scientifically equipped aircraft to operate from Broomfield airport over next 30 days This Gulfstream V, seen in a hanger at the Rocky Mountain Metropolitan Airport in Broomfield, will take to the air soon to collect more accurate severe storm data for Boulder's NCAR. (John Aguilar / Daily Camera)  
BROOMFIELD – Sparing your vehicle a hail-shattered windshield, or, more importantly, saving your family from the anguish and trauma of a tornado-flattened home, could come down to a matter of minutes....

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:12:16 PM

Media Contact:

Media Outlet: WMDT-TV - Online

Attachment Link: <http://www.wmdt.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:10:42 PM

Media Contact:

Media Outlet: KWTV-TV - Online

Attachment Link: <http://www.news9.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:05:17 PM

Media Contact:

Media Outlet: WLAX-TV - Online

Attachment Link: <http://www.fox2548.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 3:02:53 PM

Media Contact:

Media Outlet: WRCB-TV - Online

Attachment Link: <http://www.wrcbtv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 3:01:30 PM  
Media Contact:  
Media Outlet: KWES-TV - Online  
Attachment Link: <http://www.newswest9.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:59:55 PM

Media Contact:

Media Outlet: KFJX-TV - Online

Attachment Link: <http://www.fox14tv.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:56:39 PM

Media Contact:

Media Outlet: WXIX-TV - Online

Attachment Link: <http://www.fox19.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:56:09 PM  
Media Contact:  
Media Outlet: WUPV-TV - Online  
Attachment Link: <http://www.cwrichmond.tv/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:52:49 PM  
Media Contact:  
Media Outlet: WFSB-TV - Online  
Attachment Link: <http://www.wfsb.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

05/13/2013 SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:46:14 PM

Media Contact:

Media Outlet: KUAM-TV - Online

Attachment Link: <http://www.kuam.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction - KSTC-TV, Channel 45 Lifestyle-

Date: 5/13/2013 2:41:01 PM

Media Contact:

Media Outlet: KSTC-TV - Online

Attachment Link: <http://lifestyle.kstc45.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

Major Field Campaign Targets Improvement in Thunderstorm Prediction SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:29:52 PM  
Media Contact:  
Media Outlet: KLFY-TV - Online  
Attachment Link: <http://www.klfy.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:29:08 PM  
Media Contact:  
Media Outlet: KTEN-TV - Online  
Attachment Link: <http://www.kten.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:29:08 PM

Media Contact:

Media Outlet: WLTZ-TV - Online

Attachment Link: <http://www.cw-gabama.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:24:40 PM  
Media Contact:  
Media Outlet: WWTV-TV - Online  
Attachment Link: <http://www.9and10news.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:17:25 PM

Media Contact:

Media Outlet: KPTM-TV - Online

Attachment Link: <http://www.kptm.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:16:07 PM

Media Contact:

Media Outlet: WAFB-TV - Online

Attachment Link: <http://www.wafb.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:09:30 PM  
Media Contact:  
Media Outlet: KLJB-TV - Online  
Attachment Link: <http://www.kljb.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:09:22 PM

Media Contact:

Media Outlet: WDRB-TV - Online

Attachment Link: <http://www.wdrb.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:08:43 PM  
Media Contact:  
Media Outlet: WSHM-TV - Online  
Attachment Link: <http://www.cbs3springfield.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:07:26 PM

Media Contact:

Media Outlet: PRWeb - Online

Attachment Link: <http://www.prweb.com/releases/prweb2013/5/prweb10719189.htm>

...featuring research aircraft and cutting-edge computer simulations, will point the way toward major improvements in 6- to 24-hour forecasts of severe weather. MPEX will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research). (Photo © UCAR.) People want to know whether there will be thunderstorms, and when. To help better predict where and when spring thunderstorms will rip across...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:03:56 PM

Media Contact:

Media Outlet: Times Union - Online

Attachment Link: <http://news.vocus.com/ct?haid=9dc6b08b6dfd1bbf1368490041095e130ddf020b14910&co=f000000012320s-1112359307>

...(MPEX), which runs from May 15 to June 15, is funded by the . It includes participants from the (NCAR); ; the University at Albany, ; Purdue University; the ; and NOAA's (NSSL). The project will include early morning flights with the aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 2:01:55 PM

Media Contact:

Media Outlet: WJRT-TV - Online

Attachment Link: <http://www.abc12.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 2:01:23 PM  
Media Contact:  
Media Outlet: WTOL-TV - Online  
Attachment Link: <http://www.toledonewsnow.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

...at Albany, State University of New York; Purdue University; the University of Wisconsin–Milwaukee; and NOAA's National Severe Storms Laboratory (NSSL). The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft (also known as HIAPER, the High-performance Instrumented Airborne Platform for Environmental Research) to sample the pre-storm atmosphere across Colorado and nearby states. In MPEX, the aircraft will cruise at 40,000 feet for up to six hours, which will enable researchers...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 1:58:59 PM

Media Contact:

Media Outlet: WFXR-TV/WWCT-TV - Online

Attachment Link: <http://www.fox2127.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: RT @abuvthefold: This Gulfstream in #broomfield will take to the air soon to collect more accurate severe storm data #ncar #boulder http://...

Date: 5/13/2013 1:56:25 PM

Media Contact: MeganQuinn2 (MeganQuinn)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/MeganQuinn2/statuses/334004219034083328>

RT @abuvthefold: This Gulfstream in #broomfield will take to the air soon to collect more accurate severe storm data #ncar #boulder http://...

Headline: This Gulfstream in #broomfield will take to the air soon to collect more accurate severe storm data #ncar #boulder <http://t.co/LXeqWE82Va>

Date: 5/13/2013 1:37:56 PM

Media Contact: abuvthefold (John Aguilar)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/abuvthefold/statuses/333999563339886593>

This Gulfstream in #broomfield will take to the air soon to collect more accurate severe storm data #ncar #boulder <http://t.co/LXeqWE82Va>

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 1:37:54 PM  
Media Contact:  
Media Outlet: WOLF-TV - Online  
Attachment Link: <http://www.myfoxnepa.com/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

SOURCE: NCAR/UCAR Media Office NCAR is launching a major field campaign this week with collaborators to better predict where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction -  
WBCB: The Valley's CW |

Date: 5/13/2013 1:19:42 PM

Media Contact:

Media Outlet: WBCB-TV - Online

Attachment Link: <http://www.wccb.tv/story/22237056/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

Major Field Campaign Targets Improvement in Thunderstorm Prediction SOURCE: NCAR/UCAR  
Media Office NCAR is launching a major field campaign this week with collaborators to better predict  
where and when spring thunderstorms will hit the Rockies and Plains. The project, featuring research  
aircraft and cutting-edge computer...

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction  
Date: 5/13/2013 12:47:39 PM  
Media Contact:  
Media Outlet: Newswise  
Attachment Link: <http://www.newswise.com/articles/major-field-campaign-targets-improvement-in-thunderstorm-prediction>

Released: 5/13/2013 12:30 PM EDT Source Newsroom: National Center for Atmospheric Research (NCAR) Newswise — BOULDER—To help better predict where and when spring thunderstorms will rip across Colorado's Front Range and the adjacent High Plains, researchers are launching...

Headline: I'm at Research Aviation Facility - NCAR (Broomfield, CO) w/ 2 others [pic]:  
<http://t.co/o5fV1yBLzh>

Date: 5/13/2013 12:37:32 PM

Media Contact: wcadkins (Bill Adkins)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/wcadkins/statuses/333984364440465408>

I'm at Research Aviation Facility - NCAR (Broomfield, CO) w/ 2 others [pic]: <http://t.co/o5fV1yBLzh>

Headline: Press conf about to start at #NCAR Aviation Facility.. #NSF funded thunderstorm research project launching May 15 <http://t.co/viCm8Q0qPZ>

Date: 5/13/2013 12:33:58 PM

Media Contact: MaureenMcCann7 (Maureen McCann)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/MaureenMcCann7/statuses/333983465139740672>

Press conf about to start at #NCAR Aviation Facility.. #NSF funded thunderstorm research project launching May 15 <http://t.co/viCm8Q0qPZ>

Headline: I'm at Research Aviation Facility - NCAR (Broomfield, CO)  
<http://t.co/sOSmmHDiIB>

Date: 5/13/2013 12:31:42 PM

Media Contact: wcadkins (Bill Adkins)

Media Outlet: Twitter

Attachment Link: <http://twitter.com/wcadkins/statuses/333982898187272192>

I'm at Research Aviation Facility - NCAR (Broomfield, CO) <http://t.co/sOSmmHDiIB>

Headline: I'm at Research Aviation Facility - NCAR (Broomfield, CO) <http://t.co/OhirLEBTrx>  
Date: 5/13/2013 12:24:53 PM  
Media Contact: MaureenMcCann7 (Maureen McCann)  
Media Outlet: Twitter  
Attachment Link: <http://twitter.com/MaureenMcCann7/statuses/333981180884041728>

I'm at Research Aviation Facility - NCAR (Broomfield, CO) <http://t.co/OhirLEBTrx>

Headline: Major field campaign targets improvement in thunderstorm prediction:  
Multiagency study combines research fligh... <http://t.co/VGgOBR7rve>

Date: 5/13/2013 12:21:55 PM

Media Contact: ClimateData (Weather Research )

Media Outlet: Twitter

Attachment Link: <http://twitter.com/ClimateData/statuses/333980434788663296>

Major field campaign targets improvement in thunderstorm prediction: Multiagency study combines  
research fligh... <http://t.co/VGgOBR7rve>

Headline: MPEX will include early-morning flights with the NSF/NCAR Gulfstream V aircraft.

Date: 5/13/2013 10:59:43 AM

Media Contact:

Media Outlet: National Science Foundation

Attachment Link: <http://news.vocus.com/ct?haid=a771771fd80f60421368478796091675f49df920740c8&co=f000000012320s-1112359307>

MPEX will include early-morning flights with the NSF/NCAR Gulfstream V aircraft. Credit: UCAR General Restrictions: Images and other media in the section of the NSF Multimedia Gallery are for use by the news media only. All other users must obtain...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR  
Date: 5/13/2013 10:28:51 AM  
Media Contact: John Aguilar  
Media Outlet: Daily Camera - Online, The  
Attachment Link: <http://news.vocus.com/ct?haid=9f678b9ff47fe68a1368476969208fd167fb84a1b485a&co=f000000012320s-1112359307>

...days BROOMFIELD Sparing your vehicle a hail-shattered windshield, or, more importantly, saving your family from the anguish and trauma of a tornado-flattened home, could come down to a matter of minutes. Starting Wednesday and lasting for a month, the National Center for Atmospheric Research in Boulder will carry out a 40,000-foot-high experiment to see whether it can collect enough data over the Colorado Rockies to provide additional warning time, and a more precise...

Headline: Tricked out Gulfstream jet to test new storm forecast model  
Date: 5/13/2013 10:25:04 AM  
Media Contact:  
Media Outlet: KUSA-TV - Online  
Attachment Link: <http://www.9news.com/news/article/335857/188/Tricked-out-Gulfstream-jet-to-test-new-storm-forecast-model>

KUSA - Researchers at the National Center For Atmospheric Research (NCAR) are announcing a new project to help forecasters do a better job predicting severe thunderstorms. They'll be using a specially outfitted Gulfstream V research jet based...

Headline: High-flying experiments could help weather forecasting  
Date: 5/13/2013 10:13:49 AM  
Media Contact: Monte WhaleyThe Denver Post  
Media Outlet: Denver Post - Online (press release), The  
Attachment Link: <http://news.vocus.com/ct?haid=bc7ff2127139d30b136847670850365d4bbab8a8424a&co=f000000012320s-1112359307>

...Predictability Experiment or MPEX it calls for the Gulfstream to take off at 3 a.m. on most morning from its base at Rocky Mountain Metropolitan Airport in Broomfield to sample pre-storm atmosphere across Colorado and nearby states. The aircraft also known as HIAPER, the High-Performance Platform for Environmental Research will cruise at 40,000 feet for up to six hours, which will enable researchers to thoroughly canvass a region where triggers for severe weather might be lurking. That area includes parts...

Headline: Better forecasting of severe weather on high-altitude agenda of Boulder's NCAR

Date: 5/13/2013 10:11:29 AM

Media Contact:

Media Outlet: Broomfield Enterprise Online

Attachment Link: [http://news.vocus.com/ct?  
haid=9f0d26b219956e1813684780911218a5e4ee7d46742c4&co=  
f000000012320s-1112359307](http://news.vocus.com/ct?haid=9f0d26b219956e1813684780911218a5e4ee7d46742c4&co=f000000012320s-1112359307)

Starting Wednesday and lasting for a month, the National Center for Atmospheric Research in Boulder will carry out a 40,000-foot-high experiment to see whether it can collect enough data over the Colorado Rockies to provide additional warning time, and a more precise...

Headline: 9News at 8am  
Date: 5/13/2013 8:33:47 AM  
Media Contact:  
Media Outlet: 9 News at 7 AM - KTVD-TV

>>>today we are expecting to get a better picture of wildfire danger with all the rain you would think it is helping. U.S. ag secretary and interior secretary will release projections for the west. Experts say we can still ex% above normal fire potential for arizona, new mexico, california and oregon. Colorado, utah, montana, idaho and washington are looking at a greater risk of five. Nevada expected to be normal. That's because the lingering drought conditions and moisture stunted the growth of fuels there. Moisture has stunted growth for fuels. Following up for you on >>>following up on the waldo canyon fire near colorado springs there is good news. After all that rain last week the area did manage to avoid flash flooding in the burn scar. Meteorologist report eight inches of snow fell on the burn scar. 1.2-inches of rain. To start drilling a new geothermal "test well". The drilling project near herron park ... Is part of a city initiative launched in 2008 , to ene >>> Aspen city leaders said contractors will drill a test well. It was part of a city initiative launched in 2008. To tap geo thermal imaging to cool and heat buildings. Park on the street in downtown . Machines are going up along manitou, canon , and ruxton avenues. It's a dollar for three hours and two dollars for an additional two hours. We're getting into severe thunderstorm season..and later today, the people at the national center for atmospheric research...ncar...are going to announce a new project to help forecasters do a better job of predicting thund >>> Later today people at ncar in boulder will announce a new project to help forecasters do a better job of predicting thunderstorms in colorado. They'll use a specifically outfitted five research jet based at rocky mountain metropolitan airport. It will take high altitude measurements during thunderstorms including sensors dropped in the heart of the cells. Readings will be combined with weather balloon data and simulations of upper atsmospheric disturbances on their computer models. They hope this will improve the weather forecast lead times during what is typically a crucial six to 24-hour window for predicting thunderstorms. Scientist will detail the project at 10:30 this morning.

Headline: Major Field Campaign Targets Improvement in Thunderstorm Prediction

Date: 5/13/2013 7:30:00 AM

Media Contact: National Center for Atmospheric Research

Media Outlet: Newswise

Attachment Link: [http://news.vocus.com/ct?  
haid=bb0a03a9d04317c7136846725152874d0155c888e4352&co=  
f000000012320s-1112359307](http://news.vocus.com/ct?haid=bb0a03a9d04317c7136846725152874d0155c888e4352&co=f000000012320s-1112359307)

MPEX, Mesoscale Predictability Experiment, NCAR, National Center For Atmospheric Research, Hiaper, High-Performance Instrumented Airborne Platform for Environmental Research, Thunderstorms, Computer Simulation, Weather Forecast, NSF, National Science Foundation, Severe Weather, weather balloons, radiosondes, dropsondes, Weather Prediction,...

Headline: 9News at 5:30am  
Date: 5/13/2013 5:46:32 AM  
Media Contact:  
Media Outlet: 9 News 5 AM - KUSA-TV

of the huge ice sheets being pushed ashore by 40 mile per hour winds in northern minnesota. You can see just how fast it's moving too. W-c-c-o-t-v - reported ice from lake mille lacs mill lax reaching the doorsteps and windows at the... I zatys eye-zeh't-ees resort ..the wind speed lightened up eventually - but was strong enough to cover 10 miles of the shoreline in ice. Some ice piled as high as 30 feet. The ice didn't stop there.it went as far as to put a beach in canada into a state of emergency.the wind forced sheets of ice on the canadian province of manitoba - ice crystals covered trees and houses. The damage to some of these homes is pretty extensive. We're getting into severe thunderstorm season..and later today, the people at the national center for atmospheric research...ncar...are going to announce a new project to help forecasters do a better job of predicting thunderstorms.. They'll be using a specially outfitted gulfstream five research jet that will take high-altitude measurements of thunderstorm cells..including sensors that will be dropped into the heart of storms.. Those readings will be combined with weather balloon data..and simulations of upper atmospheric disturbances.. Ncar hopes all of this will improve the weather forecast lead times during what's typically a crucial six to 24 hour window for thunderstorms... Scientists will detail the project at a news briefing set for 10:30 this morning.. The price of sending mail may be going up -- again as the postal service looks for ways to stop its losses. The postal service board is looking into hiking prices on first-class mail as well as bulk mail. Raising prices may be a last resort as agency managers look at renegotiating labor agreements and other ways to reduce costs. They've got to do something -- the postal service lost nearly 2-billion dollars in its latest quarter people aren't mailing as many letters as they used to -- package delivery, however, is up. Don't be surprised if you don't see as many millennials dining the next time you eat out. A new study finds that over the last five years, restaurant visits by boomers and older americans have grown steadily, while those by people under 30 have declined. The reason, boomers are retiring later in life, giving them more disposable income and younger people were hit finically harder in the recent economic downturn and typically make less money. This is going to be a good week for shorts, shades, and lots of sunscreen. Spring like weather is finally here in a big way.

Headline: 9News First at 4:30AM  
Date: 5/13/2013 4:57:55 AM  
Media Contact:  
Media Outlet: 9 News 4:30 AM - KUSA-TV

the national center for atmospheric research are announcing a new way to improve forecasts of thunderstorms in our state. We'll tell you about it coming up. That's all for 9news at 4:30... 9news at 5 a.m...is just minutes away.

Headline: WHERE, WHEN WILL THUNDERSTORMS STRIKE COLORADO'S FRONT RANGE, ADJACENT GREAT PLAINS?  
Date: 5/12/2013 10:00:00 PM  
Media Contact:  
Media Outlet: Federal News Service

ARLINGTON, Va., May 13 -- The National Science Foundation issued the following press release:

To better predict where and when spring thunderstorms rip across Colorado's Front Range and the adjacent Great Plains, researchers are launching a major field project this week with high-flying aircraft and fine-grained computer simulations.

The month-long study could point the way to major improvements in lead times for weather forecasts during what has been called a crucial six- to 24-hour window.

"People want to know whether there will be thunderstorms and when," says National Center for Atmospheric Research (NCAR) scientist Morris Weisman, one of four principal investigators on the project.

"We're hoping to find out where you need to collect observations in order to get the most improvement in short-term forecasts. Better prediction with a few hours of lead time could make a big difference in helping people prepare."

MPEX (pronounced "em-pex"), the Mesoscale Predictability Experiment, runs from May 15 to June 15 and is funded by the National Science Foundation (NSF).

The project includes participants from NCAR; Colorado State University; the University at Albany, State University of New York; Purdue University; the University of Wisconsin-Milwaukee; and the National Oceanic and Atmospheric Administration's National Severe Storms Laboratory.

"MPEX will lead to a better understanding of the initiation and development of severe storms in an area of the country that's particularly affected by them," says Chungu Lu, program director in NSF's Division of Atmospheric and Geospace Sciences.

"If we can move 'early warnings' even sooner through the results of MPEX, it will lead to safer skies for air travelers and safer situations on the ground as well."

The project will include early morning flights with the NSF/NCAR Gulfstream V aircraft to sample the pre-storm atmosphere across Colorado and nearby states.

The Gulfstream V can cruise at 40,000 feet for up to six hours, which will enable researchers to thoroughly canvass the entire region where triggers for severe weather might be lurking.

MPEX will also include afternoon launches of weather balloons carrying instrument packages called radiosondes, which will profile conditions around thunderstorms as they develop and move east across the Great Plains.

## Filling the same-day gap

Severe weather warnings from the National Weather Service give people up to an hour's notice for tornadoes and other threats on a county-by-county basis. A key goal of MPEX is to help improve the forecasts that fall between two types of longer-range alerts:

- \* convective outlooks, which highlight the risk of severe weather up to eight days in advance across large parts of the country;

- \* tornado and severe thunderstorm watches, which are issued up to eight hours in advance for state-sized areas.

Same-day forecasts often note the likelihood of severe storms, but they do not usually specify where and when the storms will develop.

MPEX will help determine whether more detailed observations and simulations could lead to more specific forecasts of storm location and behavior as much as a day in advance.

Advanced forecast models can now simulate the weather using data at points packed as closely as about a half-mile from each other. This allows showers and thunderstorms (known as "convection") to be explicitly depicted. But the newer models still struggle to reliably map out storm behavior beyond about six hours in advance.

Scientists believe this may be largely because the models need more detail on upper-level features, such as pockets of strong wind or dry air, located several miles above ground level.

As these features move into the Great Plains, they can be critical for triggering or suppressing severe storms. However, weather satellites may not see these features, and they often go undetected by limited surface and upper-air networks across the Rocky Mountain states.

"The structure of the atmosphere two to six miles above sea level is incredibly important," Weisman says. "This appears to be where the biggest forecast errors develop, so we need to collect more data at these heights."

## In the sky and on the ground

To get around the data roadblock, MPEX will send the Gulfstream V from its base at the Rocky Mountain Metropolitan Airport in Broomfield on missions that will start as early as 3 a.m.

The Gulfstream V will sample jet-stream winds, upper-level temperatures, and other features across Colorado and nearby states.

The aircraft will use a microwave-based temperature sensor to profile horizontal temperature contrasts miles above the region.

At pre-specified locations, the Gulfstream V will also use parachute-borne minisondes- compact instrument packages, similar to the 200-plus radiosondes used every day across the nation- to gather

extra detail between flight level and ground level.

The minisondes will provide information on temperature, moisture, and winds four times each second.

"The Gulfstream V is perfect for this kind of study," says NCAR project manager Pavel Romashkin, who will oversee MPEX aircraft operations. "The G-V is one of very few aircraft in weather research that can sample the atmosphere near the top of important features for a number of hours."

MPEX will also gather data with three radiosonde launch units operated by Purdue and NSSL in vehicles that will maneuver around late-day thunderstorms.

The goal is to find out how well the extra data can help predict local and regional weather conditions into the next day, as well as to assess how the thunderstorms interact with the atmosphere that surrounds and supports them.

"We know that even isolated, short-lived thunderstorms influence their environment," says Robert "Jeff" Trapp of Purdue, an MPEX principal investigator.

"The MPEX data will allow us to quantify these influences and examine how well they are represented in computer forecast models. This information can then be used to help improve weather forecasts."

Testing the value of enhanced observations

With the help of improvements in computing power and scientific understanding, forecast models can depict weather in far more detail than just a few years ago.

On each day of operations (about 15 in all during the project), MPEX will produce an ensemble of up to 30 forecasts using the NCAR-based research version of the multiagency Weather Research and Forecasting model (WRF-ARW).

Along with data from the Gulfstream V flights, each WRF-ARW ensemble member will use a slightly different characterization of early-morning weather conditions in order to allow for the uncertainty inherent in those measurements.

Forecasters can then issue forecasts with greater or lesser confidence based on how the ensemble forecasts agree or disagree.

The MPEX team will also evaluate how much the Gulfstream V data improve forecasts in two other modeling systems, both of which are updated each hour.

The complex process of incorporating observed data into the MPEX simulations will be handled by NCAR's Data Assimilation Research Testbed.

Studies have shown that major forecast improvements are possible when the right kinds of data are collected and assimilated into forecast models.

Scientists hope the results from MPEX will help advance this process, which could improve predictions of severe thunderstorms as well as other types of high-impact weather where better forecasts in the six- to

24-hour period could help people and communities better prepare. For any query with respect to this article or any other content requirement, please contact Editor at [htsyndication@hindustantimes.com](mailto:htsyndication@hindustantimes.com)

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