First Notice: Jan 24, 2012

Update___April 12, 2012 Powers, Cantrell_____

Advance Notice of Field Project Facility Deployment and Safety/Security Review

Field Project Name: **(DC3)**

Field Project Dates: **1 May – 31 June 2012**

Field Project Location(s): **Salina, KS**

Brief description of Scientific Objective(s): **The DC3 field project makes use of three instrumented aircraft platforms (NSF GV, NASA DC8, DLR Falcon) and ground based observations to characterize the impact of deep convective systems on the composition and chemistry of the mid latitude troposphere and lower stratosphere.**

Project Manager: **Vidal Salazar**

Project Manager Location: **FL1, Rm 2070** Project Manager Phone: **8380**

P.I. or Lead Scientist(s): **Drs. Mary Barth, Chris Cantrell (NCAR), Steve Rutledge (CSU) and Bill Brune (Penn State University)**

Project Safety Officer: **Jim Moore**

NCAR Division / UCAR Programs Participating: **EOL, MMM, ACD**

# of UCAR/NCAR Supported Participants: **about 60**

Ship board project: **No**

Are contracts or agreements needed for procurement or lease of facilities? **Yes**

Project Funding:
Source(s) of funds: **NSF, NASA**

Program #(s): **tbd** Use of field Deployment Fund: **Yes**

Program#(s):_____

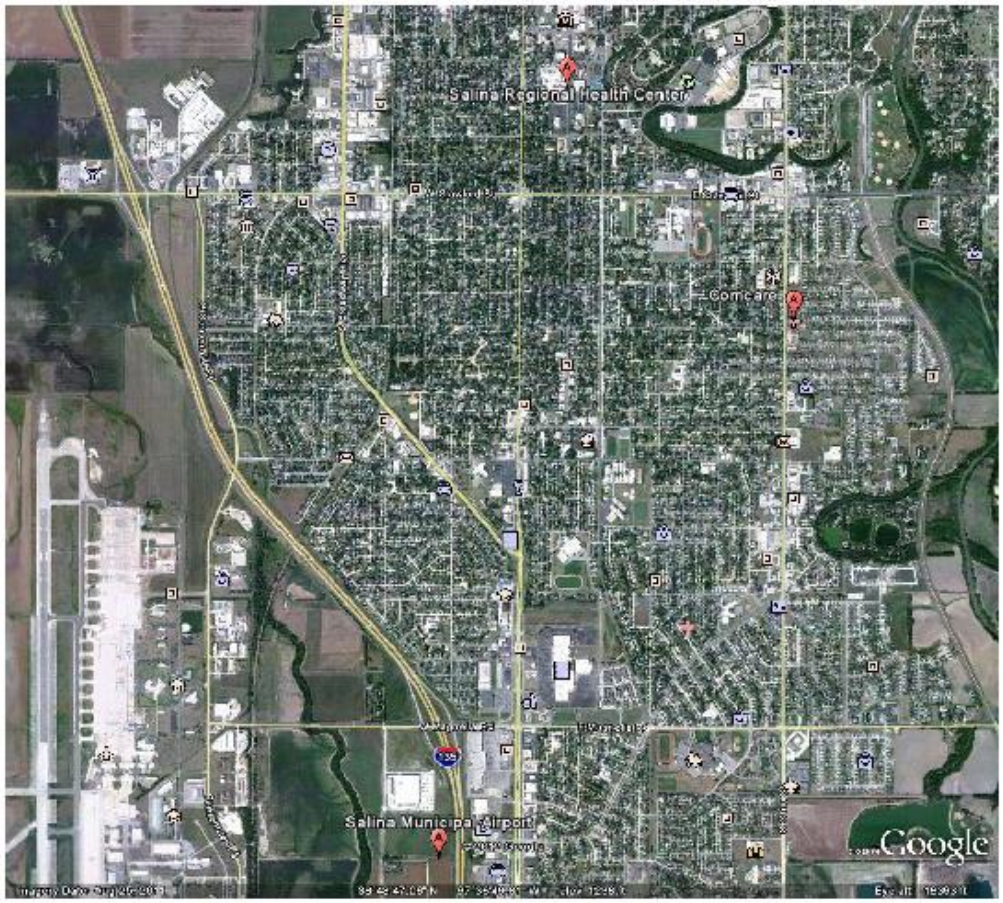
Form prepared by: **Baeuerle** Phone: **x2061** Date: **24 Jan 2012**

Advance Notice of Field Project Facility Deployment and Safety/Security Review
Field Project Risk Assessment and Mitigation

Assistance with completing this portion of the from is available from HESS, x8625

Condition	Hazard	Control
Facilities/equipment deployed or used: NSF/NCAR GV 1 MGAUS Ozone, NOx, CO, CO2/Methane Instruments; TOGA; GTCIMS; PCIMS; CAMS; HARP; VCSEL; CLH; SMPS; RAF instruments	Vacuum, high voltage, ground based laser for alignment	Adequate crew rest, real-time data tracks at Ops Center Vacuum lines contained in instrument; chambers designed to avoid implosion; no exposed conductors or contacts; follow established alignment procedures
Chemicals, compressed gasses, radioactive materials used: Helium for GAUS Various gases for chemistry on aircraft – Nitrogen, Air, Cal gases in nitrogen, helium; Liquid Nitrogen, Dry Ice; Po-210 (P2021, 2031)	Compressed gas hazards; Inerting hazard from Nitrogen and LN; Cryogen burns; General licensed radioactive materials sources	Follow UCAR safety rules; Storage in designated area of hangar; handling with protective gear. Securing cylinders, use regulators, designed piping for pressure hazards, operations controls; Notification of NRC that we'll be transporting the radioactive sources – M.Powers will initiate the notification.
Mode of Shipping Facilities/equipment/ hazardous materials: Ground transport from Boulder to KS; arrangements through commercial shipping agent	No anticipated hazards	Hazmat material done in collaboration with Kerry Slaven
Lodging: 5 Hotels in Salina, KS	No anticipated hazards	
Hours of project operation: 24 hr/7 days per week; early morning operations (5:30 - 7:30 am). 10:00 am decision deadline to fly; flights finished before 8 pm; post flight debriefing maybe until 9 pm. Non flight days 7:30 – 5 pm.	Accidents caused by fatigue	Adequate crew rest and crew rotations (EOL Crew Duty Limits) No night flights; Each chemistry team will have more than one person so that duties can be swapped. No long commutes. No access to aircraft on hard down days. Plan for adequate rest, watch out for fatigue.
Modes of transportation: Rental car to and from Salina airport at all times of the day; use of GSA/rental vehicles to go from CO to KS, MGAUS operations in Colorado	Fatigue Distracted driving	Follow UCAR safety rules to not use cell phone while driving; No concerns in Salina or CO, adequate rests during transit from CO to KS or share driving responsibilities with passengers.

Communications – at project site(s) and with UCAR: Phones, email, Skype etc	No anticipated hazards	
Weather Expected: Severe thunderstorms; potential for tornados	Severe thunderstorms, wind, lightening	Hangar to protect aircraft from severe weather; tornado shelters at hotels/Ops Center; avoid outdoors activities during storm conditions.
Security and political stability: n/a	No problems anticipated	
Local health issues: n/a	No problems anticipated	
Local customs: n/a	No problems anticipated	
Student/volunteer participation: PI's will bring students, no hire of local students for GAUS	Inexperienced decision making resulting in accident or incident.	Train students to specific requirement of their assignments, including how to complete their assigned work, what hazards to expect, how to mitigate hazards, and how to report concerns.
Medical Facilities: Available in Salina		Comcare 1101 East Republic Avenue Salina, KS 67401 (785) 820-9565 Salina Regional Health Center 400 South Santa Fe, Salina, KS 67401 | (785) 452-7000
Other Conditions: None		


Salina Regional Health Center
Comcare
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