AGRICULTURE DEFENSE COALITION PRESS RELEASE

U.S. DEPARTMENT OF ENERGY ARM CAMPAIGN BEGINS JUNE 2, 2010 IN CALIFORNIA

Carbonaceous Aerosols and Radiative Effects Study (CARES) CALIFORNIA EPA CalNex CA ARB AIR RESOUCRES CAMPAIGN MAY – JUNE 2010

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The major concerns about the U.S. Department of Energy, ARM CARES campaign which will take place in California during the month of June are outlined below. It should be noted that when the NASA ARTCAS campaign and the California ARB joined forces for any air quality investigation in June 2008, one major area of focus was on forest fire pollution. Many California residents alleged that the highly unusual lightning in Northern California on June 19-20, 2008, was part of a man-made lightning experiment.

The Agriculture Defense Coalition alleges that this new ARM Campaign is being conducted at a time of year when California is rarely subject to forest fires. Thus, there are concerns that government, university, military or private companies will conduct lightning experiments in California to satisfy the second of the two objectives of the costly ARM campaign:

The second objective during ARM CARES campaign will be to take advantage of natural wildfires in the vicinity to study the evolution and properties of biomass burning aerosols. Occurrence of natural wildfires is very likely all over the Central Valley during June/July. Thus, the location and timing of the CARES 2010 campaign will allow ARM researchers to target such an opportunity when it arises.

The Agriculture Defense Coalition and its members are requesting an investigation into these U.S. Department of Energy and California ARB Campaigns at this time. Our members will be contacting the press, these participating agencies, and our elected officials with regard to these issues.

We encourage the public to also request and investigation in order to protect California residents from toxic tracer gases, other types of atmospheric campaign releases, and any lightning or other types of experiments that would cause forest fires or other public and environmental hazards. Also investigations should be conducted into other chemicals being found in drinking water supplies throughout the State.

BACKGROUND: On June 2, 2010, the U.S. Department of Energy ARM (Atmospheric Radiation Measurement) Campaign and CARES Study will begin, in conjunction with the California Air Resources Campaign that is already underway in California. The ARM month long campaign involves many different government agencies like NASA and NOAA, universities, and also U.S. Department of Defense Pacific Northwest National Laboratory (PNNL). The sampling strategy during

CARES will be coordinated, to the extent possible, with <u>CalNex 2010</u>, a major field campaign that is now ongoing in California by the California Air Resources Board (CARB), the National Oceanic and Atmospheric Administration (NOAA), and the California Energy Commission (CEC). ARM will collaborate with the California Energy Commission and investigators from the California Air Resources Board.

The primary objective of the ARM CARES campaign is to investigate and study the ways in which carbonaceous atmospheric aerosols evolve, move and affect climate. A primary objective of the program is improved scientific understanding of the fundamental physics related to interactions between clouds and radiative feedback processes in the atmosphere.

The second objective during CARES will be to take advantage of natural wildfires in the vicinity to study the evolution and properties of biomass burning aerosols. Occurrence of natural wildfires is very likely all over the Central Valley during June/July. Thus, the location and timing of the CARES 2010 campaign will allow ARM researchers to target such an opportunity when it arises.

The reasons for the California CalNex and the ARM campaigns are interesting for the following reasons:

- 1) On June 19, 2008, at the beginning of the CA ARB and NASA ARCTAS campaigns, lightning induced massive forest fires were started in California, and were intensely studied during the time frame.
- 2) Many allege that the lighting was part of a lightning experiment that was conducted over Northern California between June 19-20, 2008.
- 3) The worst time to study pollutants in California is during the month of May and June when air quality is very good.
- 4) Agriculture, backyard, and fireplace burning in the month of June is rare as most of this type of activity takes place in November March each year. Inversions are more likely to occur in Sacramento, Mendocino and other California Counties between November and February.
- 5) Forest fires are rare anywhere in California in during the months of May and June/July. Thus, the CARES study should be conducted during the heavy fire season months in California which are in late August though the first rains in November or December.

This leads to the following questions and conclusions:

- A) Will any government, university, or military lighting experiments be conducted over California in order to be able to justify the second fire objective of the ARM CARES study?
- B) Studying air quality and the way carbonaceous atmospheric aerosols evolve, move and affect climate when the air quality is good but why conduct them when there are no winter atmospheric inversions taking place and massive pollution from agriculture burning?
- C) Any study regarding air quality should involve testing for a wide range of particulates and sizes which are found in California all year around not just during the months when air pollution is at its lowest levels and windy conditions prevail on most afternoons.

- D) CalNex and ARM research and studies should include aluminum coated fiberglass (Chaff), Aluminum particulates, aluminum oxide from the U.S. Navy CARE Experiment, and other types of chemicals which are also found in California air and water tests (Strontium, calcium, barium, aluminum, boron, salts, and chemicals from experimental Weather Modification programs in California (NOAA records) and other upper atmospheric releases. It should be noted that there is aluminum, other particles and toxics in rocket fuel along with the pollution from jet fuel emissions-both commercial and military.
- E) The ARM and CalNex studies should also closely examine the NASA Studies regarding man-made clouds that cause climate change and their relationship to the many different types and sizes of particulates and chemical air pollution in California, since climate data is one of the major CalNex and ARM objectives:

Note: NASA research studies show that increasingly persistent jet contrails may turn into man-made clouds (or white haze), that are "...trapping warmth in the atmosphere and exacerbating global warming..." NASA (2005), goes on to state that "...Any change in global cloud cover may contribute to long-term changes in the Earth's climate. Contrails, especially persistent contrails, represent a human-caused increase in the Earth's cloudiness, and are likely to be affecting climate and ultimately our natural resources..."

Note: According to ARM CARES documents the 72-hour weather "... forecasts are generated nightly using WRF-Chem with tracers (how toxic and which tracers will be used), emitted from 20 sub-regions within California that represent important emission regions that could impact flight planning for the campaign. The 20 regions...are based on a threshold carbon monoxide emission rate within each region of interest. The diurnal cycle and emission rates for the tracers are determined from the carbon monoxide emissions in a California Air Resources Board emissions dataset that was developed for the NASA ARCTAS campaign during the summer of 2008..." (Please note that the carbon monoxide emissions in the dataset from CA ARB and the ARCTAS Campaign in California may show abnormal results due to the lightning induced forest fires that raged in California during the summer of 2008, along with particulates, aerosols, normal air pollution, and smoke from the fires.)

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We encourage the public to also request and investigation in order to protect California residents from toxic tracer gases, other types of atmospheric campaign releases, and any lightning or other types of experiments that would cause forest fires or other hazards.

In addition, we encourage the California Air Resources Board to conduct extensive chemical and air quality monitoring throughout California at all times of the year in every county due to the amount of air pollution, man-made clouds, and white haze that is found almost everywhere in California. It is time to address air quality issues from all sources in California and their impact on climate, public health, and the environment. The California Air Resources Board should also study the impact of weather modification programs on clouds and rainfall within California considering the number, scope of experiments, and type of chemicals that are used in these programs.