

Education and outreach group

outreach lectures

- **Universum – UNAM science Museum**
 - Opening cocktail
 - Exposition , workshop for kids
 - Lectures
 - Friday morning (elementary, secondary students) in Spanish
 - Thursday afternoon (broader audience) in English with translation
- **UAM-I (T0)**
 - Mondays lectures (University audience)
 - English with translation
- **Tecamac University (T1)**
 - One main lecture at the beginning of the campaign
- **Veracruz**
 - One main lecture at the beginning of the campaign

lecturers

- Chris Cantrell, NCAR
- Sasha Madronich, NCAR
- Jeffrey S. Gaffney, ANL
- Charles Kolb, ARI
- Sandra I. Ramírez, UAEM
- Agustín García, UNAM
- Peter R. Buseck, ASU
- Jim Barnard, PNNL (TENTATIVE)
- Betty Cardenas, CENICA
- Gustavo Sosa, IMP
- Mireya Moya, UNAM
- Erik Velasco, CME2
- Rainer Volkamer, UCSD
- Ernesto Alvarado, UW
- Marcelo Mena, UI
- Stefania Gilardoni

outreach (2)

Web page

- link to educational program in MILAGRO web page
- MILAGRO portal on "Windows to the Universe" web site (UCAR)
 - reaches 11 million users a year (bilingual, three levels of content)
 - background content on campaign / Mexico City and other megacities / pollution / impacts (health, global climate, ecosystems)
 - biography information of scientists
 - daily reports from scientists and teachers
 - real time data and modeling results
 - streaming video (lectures / people working)
 - "ask a scientist"
 - Links to GLOBE

outreach (3)

Visiting tours

- T0, T1, T2
 - graduate students as guides
 - 2 or 3 per week for GLOBE students
 - 1 for government staff, etc.
- Veracruz
 - students participating in the campaign, government staff
 - need to coordinate with aircraft group

Documentaries

TV UNAM

Collaboration with Geoffrey Haines-Stiles Productions

Transmit in Mexico, weather channel, Univision

capacity building

- **Internships**
 - during the campaign
 - best if they are continued during the summer
- **Hands-on help during the campaign**
 - Technical level, undergraduate, graduate
 - stipend (\$500-800 for the month) and lodging
- **Technical workshops**
 - graduate students and technicians
 - during data-meetings after the campaign

Technical Workshops

Chris Cantrell, NCAR

"Instrumentation for atmospheric chemistry measurements"

Jeffrey S. Gaffney, ANL

"Aerosol Lifetimes and Use of Natural Radioactivity"

Charles Kolb, ARI

"Mobile Air Quality Measurements"

Agustín García, UNAM

"Air Quality Modeling in Mexico City"

Missing topics:

"Aerosol instrumentation"

"Instrumentation comparison"

"Aircraft instrumentation"

"Data archives and formats"

"Remote sensing"

"Science Outreach"

funding

- CAM (lectures and tours)
- UCAR - NSF ? (web page and documentary)
- NSF - CONACyT ? (technical workshops)
- Research Projects ? (students, internships)
- Other ?

needed from scientists

- Send request of students (site, level, activities)
- Commit for a lecture during the campaign
- Commit for a workshop (during first campaign meeting)
- Provide content for WebPages / Museum exposition

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