REFORMA (FRONT PAGE)

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NASA to measure pollution levels over Mexico City

World-renowned scientists prepare megaproject to observe the transport of pollutants and their impact on climatic changes.

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An aircraft from the National Aeronautics and Space Administration (NASA) will take part in a large-scale case study that will be conducted in Mexico City on the local and global impacts of pollution.

Five other airplanes and American, European, Japanese and Mexican investigators will participate in the case study, through scientific monitoring, satellite evaluations and ground-based laboratories.

Given that Mexico City ranks not only as the second most populated city in the world but also as one of the most polluted, it was selected to study and measure everyday deterioration of air quality in an urban center.

350 specialists from 60 universities and research centers, from March 1-30, will install instruments and equipment with measurement technology to examine how pollution affects the city and its surrounding regions.

The cost of the MILAGRO (Megacity Initiative: Local And Global Research Observations) campaign will be of 25 million dollars, provided by international foundations and U.S. government institutions.

The Mexican Metropolitan Environmental Commission (CAM) is participating with 6 million 640 thousand pesos, as well as 500 thousand pesos from the National Institute of Ecology.

From the sky: six aircraft from the National Center for Atmospheric Research, the U. S. Department of Energy, and NASA will fly over Mexico's Metropolitan Area and its neighboring regions.

From space: nine satellites will register the behavior of pollutants within the city.

On the ground: there will be three large ground-based laboratories (supersites) located in Mexico City, the State of Mexico and Hidalgo.

"The chemical composition of the planet's atmosphere is changing. The campaign to measure the components attempts to understand how pollution in

megacities affects and contributes to this transformation, and its influence on climatic change", explained Mario Molina, Nobel Prize in Chemistry, responsible for assembling the scientists.

The head coordinator of the project, Luisa T. Molina, indicated that pollution behaves like matter: "it is not created or destroyed, only transformed; the pollution generated in Mexico City does not disappear, it is only transported to other regions".

She added that pollution in megacities caused by cars and urban industries is a growing phenomenon, and its consequences to the atmosphere are still unknown.

Previous measurement campaigns revealed that during the month of March, pollutants emanating from the city, similar to smoke plumes from a chimney, travel toward the Golf of Mexico.

The laboratories, satellites and flight routes for the different aircraft, will conduct measurements over the region, assisted by ground vehicles and specially equipped balloons.

The information resulting from these measurements will be compiled in a mega database, only available to the participating researchers for the first few years, after which the conclusions will be published.

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Miracles do exist

MILAGRO, the most ambitious environmental scientific project worldwide, will take place in the Mexico City Metropolitan Area.

From space...

9 satellites will recollect data to determine how pollutants that are produced by vehicles and city industry, affect global climate change.

By air…

6 aircraft, one of them from NASA, will evaluate the chemical reactions registered in the atmosphere. Balloons equipped with sondes will complete the records.

And by land

3 laboratories at the supersites will measure pollutants and will evaluate how they transport to other regions locally and globally.