

# A cold day in Mexico's Icebox

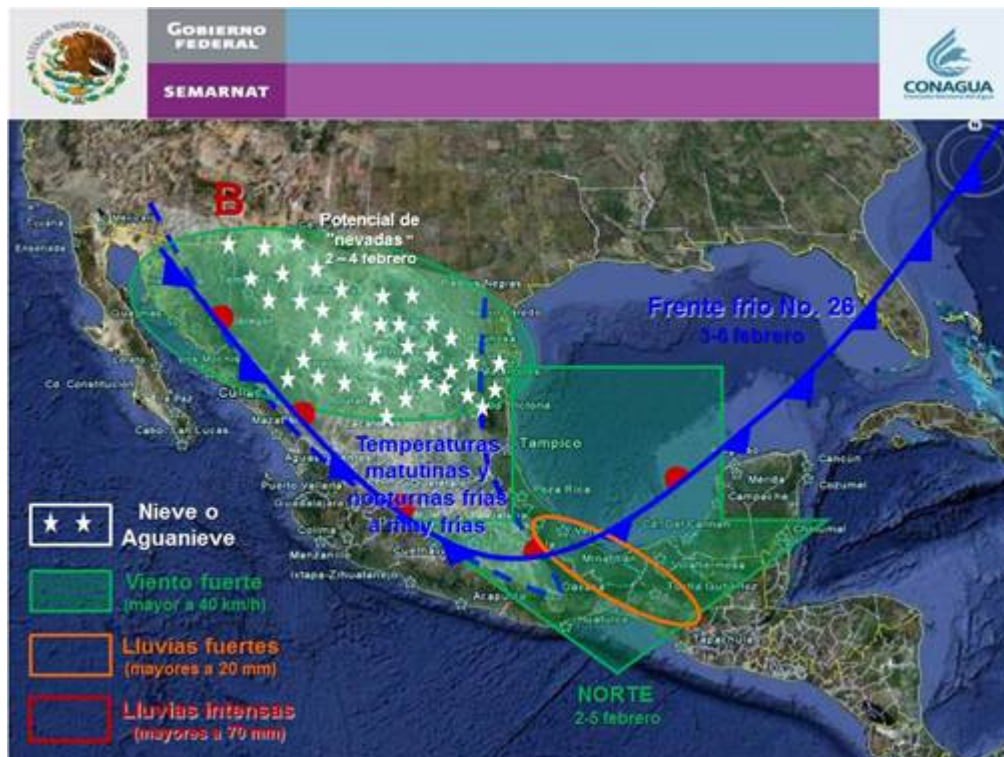
## Dr. Richard Keen

My first visit to Mexico nearly forty years ago began on an icy note. I boarded the overnight train in Juarez and headed south to warmer climes, or so I thought. The *Ferrocarril* was unheated, and in the morning I wrote a short entry in my diary: "a miserable ride - frost inside the windows". As the sun rose south of Chihuahua, the scene was quite unexpected - patches of snow lying in the shade of the Joshua trees and barrel cacti. It was New Year's Day, 1973. After returning home a few weeks later, I looked up some records of the climate of the Chihuahuan desert, and discovered that I should not have been surprised by finding freezing temperatures and snow in northern Mexico.



Chihuahua, the capital of the large Mexican state of the same name, is the coldest major city in the country - sort of the Minneapolis of Mexico. Snowfall may occur several times in a winter, and the average daily minimum temperature in January is 2C (36F). It was about 20F when I rode through on the icy train. Listed all-time record lows for different time periods include -10C (18F) on December 10, 1978 (SMN, *Servicio Meteorológico Nacional*); -11C (12F) ("Climates of the World" in the U.S. Department of Agriculture Yearbook, 1930); -12C (10F) December 29 2003 (Weather Underground daily data since 1975), -15C (5F) at

meteorologyclimate.com, and -16C (3F) on mherrera.org. Just a few months ago, on Nov. 30 and Dec. 1, 2010, Chihuahua chilled at -11C (14F).

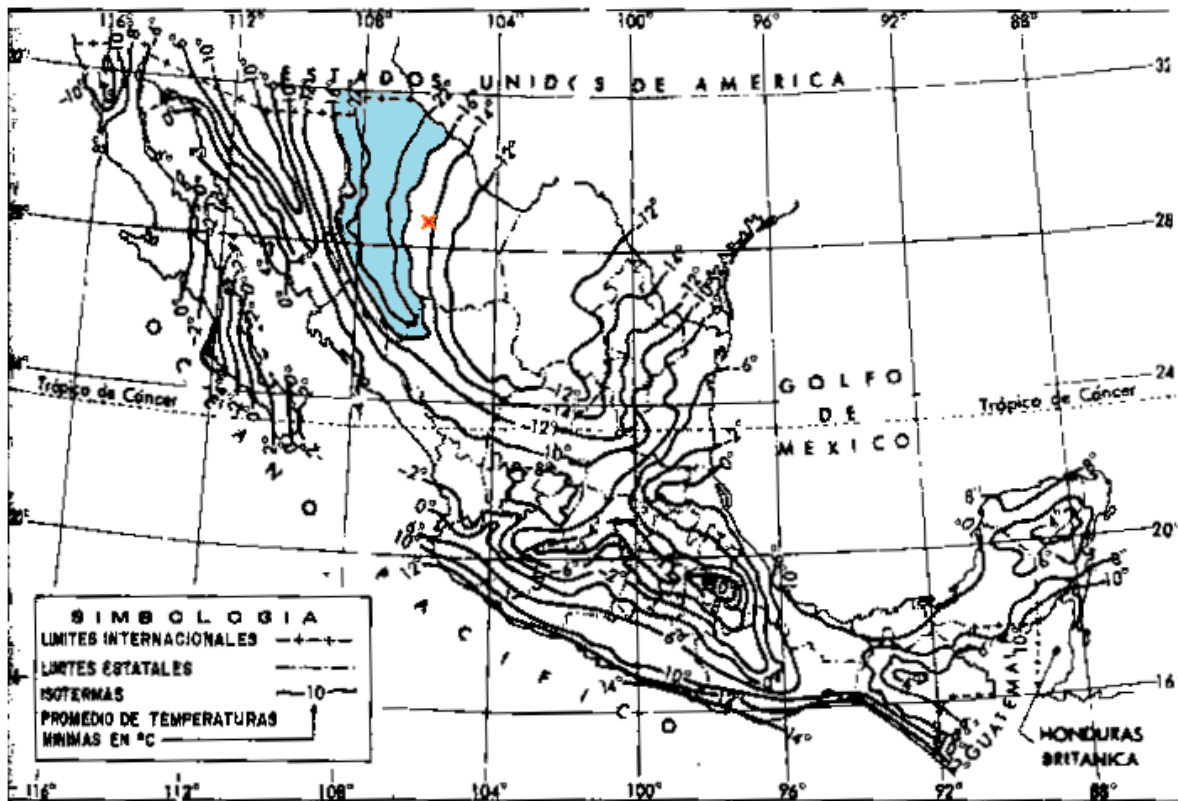


At the end of January, SMN issued a weather advisory: *Intensa masa ártica afectará el Norte de México* (you don't need to read Spanish to get the gist). Snow was predicted for the northern third of the country.

The arctic air mass arrived, and when the cold wave was over a week later, several records were gone. SMN's "Comunicado de Prensa No. 034-11" summarized the freeze:

"Cold Front Number 26 led to a sharp drop in temperatures, especially in the mountain regions of Chihuahua, where temperatures fell to  $-21^{\circ}\text{C}$ . Meanwhile in Ciudad Juarez minus  $18^{\circ}\text{C}$  was recorded, surpassing the record of February 1956, when it reached 15C degrees below zero."

Juarez, where I boarded the train 40 years earlier, recorded an even zero Fahrenheit, a full 5F colder than the previous low in 1956. Chihuahua maintained its status as Mexico's coldest major city with a low of  $-18.5\text{C}$  ( $-1\text{F}$ ), beating all previous records by at least 4 degrees F. The  $-21\text{C}$  ( $-5\text{F}$ ) was recorded at a somewhat smaller city in the hills west of Chihuahua, Temosachic. Numerous other records are listed in the SMN Comunicado.



**Temperaturas mínimas extremas absolutas (1941-1977).**

**Extreme Low Temperatures recorded in Mexico**      **x = Chihuahua**

Although the historic cold wave set cold records in many of northern Mexico's largest cities, it did not set a record for the country as whole. The listings of extremes on [www.meteorologyclimate.com](http://www.meteorologyclimate.com) and [www.mherrera.org](http://www.mherrera.org) list Mexico's coldest reading as  $-28.5\text{C}$  ( $-19\text{F}$ ) at Valerio in January 1949, but flag the record as "unofficial, suspicious, taken in a sinkhole". Runner-up record lows include Los Lamentos  $-28\text{C}$ , San Juanito  $-27\text{C}$ , and La Rosilla  $-26.2\text{C}$  ( $-15\text{F}$ ). The last location is in a high valley (2750 meters, 9000 feet) in the neighboring state of Durango. La Rosilla

reached -20C (-4F) on February 5, 2011 – cold, but not a local record. Apparently the coldest air was too shallow to reach the high valley. Lows around -18C (zero F) have occurred several times this winter in La Rosilla, and apparently the town has a reputation as the "Frostbite Falls" of Mexico.



La Rosilla, Durango: Mexico's Icebox

A final note:

From "The Chihuahua FAQ", <http://www.k9web.com/dog-fags/breeds/chihuahuas.html>



"Owners must be very sensitive to the fact that short-haired Chihuahuas, and even long-haired ones, are vulnerable to the cold. In temperatures of 35-40 degrees Fahrenheit, I would recommend dressing your Chihuahua in a special dog sweater for brief walks. Walking your Chihuahua in temperatures below 35 degrees Fahrenheit is strongly discouraged, especially when there is a wind-chill factor."

The native habitat of these dogs has been as much as 20C colder than the dogs' rated temperature of 2C. If the unusual cold persists, should Chihuahuas be deemed endangered, thus warranting international efforts to raise the global temperature for the sake of this remarkable species?

Information sources:

Servicio Meteorológico Nacional, Mexico:

<http://smn.cna.gob.mx/>

Normals, means and extremes for Chihuahua:

<http://smn.cna.gob.mx/climatologia/normales/estacion/chih/NORMAL08165.TXT>

<http://smn.cna.gob.mx/climatologia/normales/estacion/chih/NORMAL08109.TXT>

<http://smn.cna.gob.mx/climatologia/normales/estacion/chih/NORMAL08147.TXT>

Chihuahua weather for February 4, 2011:

<http://www.wunderground.com/history/airport/MMCU/2011/2/4/DailyHistory.html>

Temosachic weather for February 4, 2011:

<http://www.wunderground.com/history/station/76220/2011/2/4/DailyHistory.html>

(click on the tabs to get weather for other dates and years)

Mexican news story about the cold:

<http://www.eluniversal.com.mx/notas/742483.html>

Mexico's coldest spot, La Rosilla:

<http://www.elsiglodetorreon.com.mx/noticia/257492.la-rosilla-esta-entre-el-frio-y-el-olvido.html>

[http://es.wikipedia.org/wiki/La\\_Rosilla](http://es.wikipedia.org/wiki/La_Rosilla)

<http://www.larednoticias.com/chihuahua/noticias.cfm?n=57440>

Climate of Mexico (1930):

<http://docs.lib.noaa.gov/rescue/mwr/Suppl/no33-1930.pdf>

Mexico snow blog (MÉXICO Ciudades con nieve):

<http://www.skyscrapercity.com/archive/index.php/t-405918.html>