

ADVANCES ON THE IMPLEMENTATION OF THE SIMPLE RAINGAUGE NETWORK IN SUPPORT FOR NAME

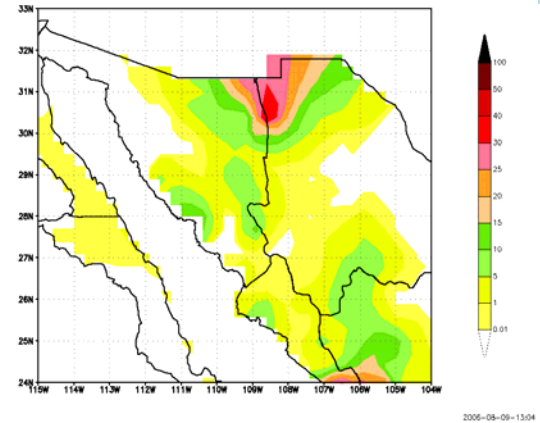
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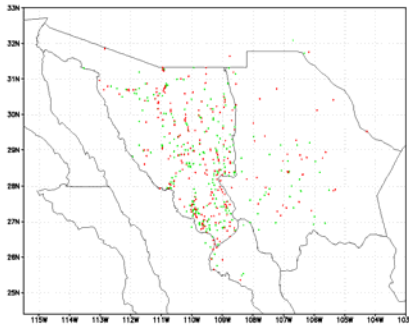
Abstract: A rainfall network's implementation with the aim to improve climate records in NW México is being constructed. Budget restrictions oblige to make cuts in personnel for both data taking and maintenance, therefore the number of climate stations has dramatically decreased during the last decade. Since this region in México is the less dense in terms of the number of climate stations, it was proposed under the NAME project to conform a rainfall climate network mainly for the tier 1 domain.

NOAA/OGP provided the funding to install 1,100 raingauges mainly on locations where no climate stations were installed and trying to cover those regions in which, according to other sources, most of the rainfall occurs.

Data is collected by a number of volunteers over the region: local government offices, farmers and ranchers associations, schools, civil protection offices and general public. Most of them report via a Web data base <http://galileo.imta.mx/DBNAME/pagina.php>



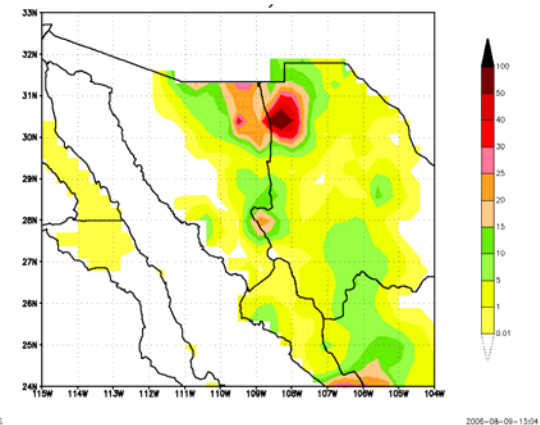
Recorded rainfall using SMN's Mexican Climate Network for July 26, 2006



Number of raingauges reporting daily through the Web data base, colors were used in order to avoid visual overlapping



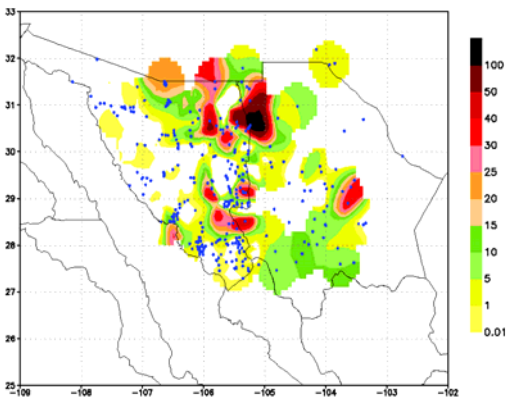
Participation of farmers associations and officials is strongly encouraged



Using available communications infrastructure, rainfall data is reported via radio frequency or directly through the Web page. Sonora and Chihuahua are using the network for daily monitoring and forecasting.

As a climate network, that initially was proposed that data would be collected every three months. Now is being used for regular operational monitoring and forecasting. Nonetheless, for some rain gauge stations data is collected every few months.

| Estate | No. of raingauges | No. of raingauges geographically located | No. of raingauges operative | Start | Days | Effcy. (%) |
|-----------|-------------------|--|-----------------------------|-------|------|------------|
| Sonora | 450 | 430 | 330 | 2004 | 937 | 60% |
| Chihuahua | 230 | 81 | 67 | 2006 | 63 | 58% |
| Sinaloa | 115 | 27 | Pending | 2006 | 30 | Pending |



Recorded one day accumulated rainfall for July 26, 2006



Local population participate in the data collection

Summary:

1. The rain gauge network is working and for some specific sectors it became operational.
2. As shown in the example, data from the NAME rain gauge network improves substantially the estimation of rainfall.
3. As shown, most thunderstorms in NW Mexico hardly can be depicted using CNA's climate network. This is one of the scientific issues due to the complexity of these storm formations.
4. Data will be used for research purposes in order to explain these storm formations.
5. The rain gauge network's implementation will continue until central Sinaloa and will be completed this fall.