Abstract. Trends in precipitation and streamflow at the annual, monthly and daily time scales for the last 50 years are analyzed for the semiarid.....

1. Introduction
An important element of current research in climate change and variability is the analysis of trends in hydroclimatic variables from instrumental records....

2. Methods
The trend test statistic $S$ is defined as (Hirsch et al. 1993):

$$ S = \sum_{k=1}^{n-1} \sum_{j=k+1}^{n} \text{sgn}(x_j - x_k) $$ (1)

where $\text{sgn}(.)$ is the sign function.

Figure 1. Time series of mean annual streamflow $Q$. 

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4. Data Analysis at Annual Time Scale

Analyses at the daily time scale are most interesting for understanding the.

4.1. Distribution and trends in dry days

Streamflow analyses in ephemeral streams on a daily time scale are com ignored here) we have a series of length \( n \) (record length in years) of independent observations of daily streamflow, \( x_{jd}, d=1, 365 \) and \( j=1, n \). The probability of zero flow was estimated for every day \( d \) as:

\[
p_{o}^{d} = \frac{s^{d}}{n}
\]

(2)

4.1.2 Trends in precipitation and streamflow characteristics. Analyses of recent trends in precipitation and streamflow in the Rio Puerco in this paper reveal several interesting features of this semiarid basin. At...

| Table 1. Rio Puerco USGS streamflow gaging station basic information. |
| --- | --- | --- | --- |
| Station name | Station number’ | Gage datum [m] | Area” [km\(^2\)] |
| Rio Puerco | 08 3340 00 | 1813.3 | 1088 |
| Arroyo Chico | 08 3405 00 | 1804.7 | 3600 |
| Rio San Jose | 08 3435 00 | 1910.9 | 3030 |

* Only numbers in bold are used in this study for station identification
** From USGS Water Resources Data and USGS NWIS database

![Figure 2. Time series of mean annual streamflow \( Q \).](image)

Appendix: Title.
The general equations for....

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References