# Bridge Report: Tacoma Narrows Bridge, Tacoma Washington

By Mr. Neat

## Bridge History/Purpose

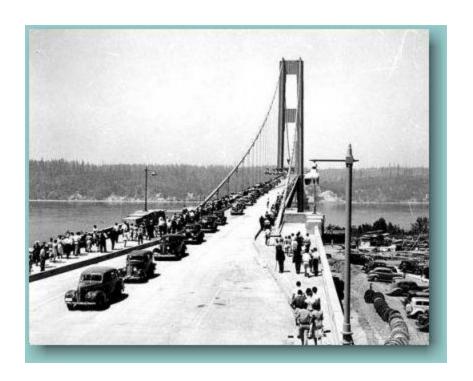
- Connected Gig Harbor to Tacoma
- Actually there were/are 3 bridges:
  - First completed 1940
  - Second completed in 1950
  - Third completed in 2007

## History/Purpose



## History/Purpose: 1st Bridge

- Started building in November 1938
- Finished July 1st 1940
- And then,....



## History/Purpose: 1st Bridge

• It fell down 4 months later...



## History/Purpose: 1st Bridge

Why did it fail?

http://www.youtube.com/watch?v=6ai2QFxStxo



# History/Purpose: 2<sup>nd</sup> Bridge



- Completed in 1950
- Took 2.5 years to build
- I ran across it in June of 1980

## History/Purpose: 3rd Bridge



- Added to meet the growing traffic demands
- 3<sup>rd</sup> has west bound cars, 2<sup>nd</sup> carries east bound
- Cost ~850 million dollars
- Completed in 2007, took 5 years to build.

### Bridge Design

- Suspension Bridge
- This approach allows for longer spans than beam bridges



### **Bridge Dimensions/Stats**

- 5979' long (2<sup>nd</sup> bridge) Note that is more than a mile!
- The bridge span is 2800'
- 5<sup>th</sup> longest suspension bridge span in the country
- 90,000 cars per day

## What is Special About the Bridge?

- I used it a lot
- Its evolution significantly influenced future bridge designs