

Establishing Reliability Goals

Fred Schenkelberg



Measures, metrics, value, cost...

HOW DO YOUR CUSTOMERS TALK ABOUT RELIABILITY?

Definitions





Dictionary

**WHAT
IMAGE
WOULD
YOU USE?**





Measures, metrics, value, cost...

HOW DO YOU TALK ABOUT RELIABILITY?

Reliability

- **Function**
- **Environment**
- **Probability**
- **Duration**





Function



Primary
Function

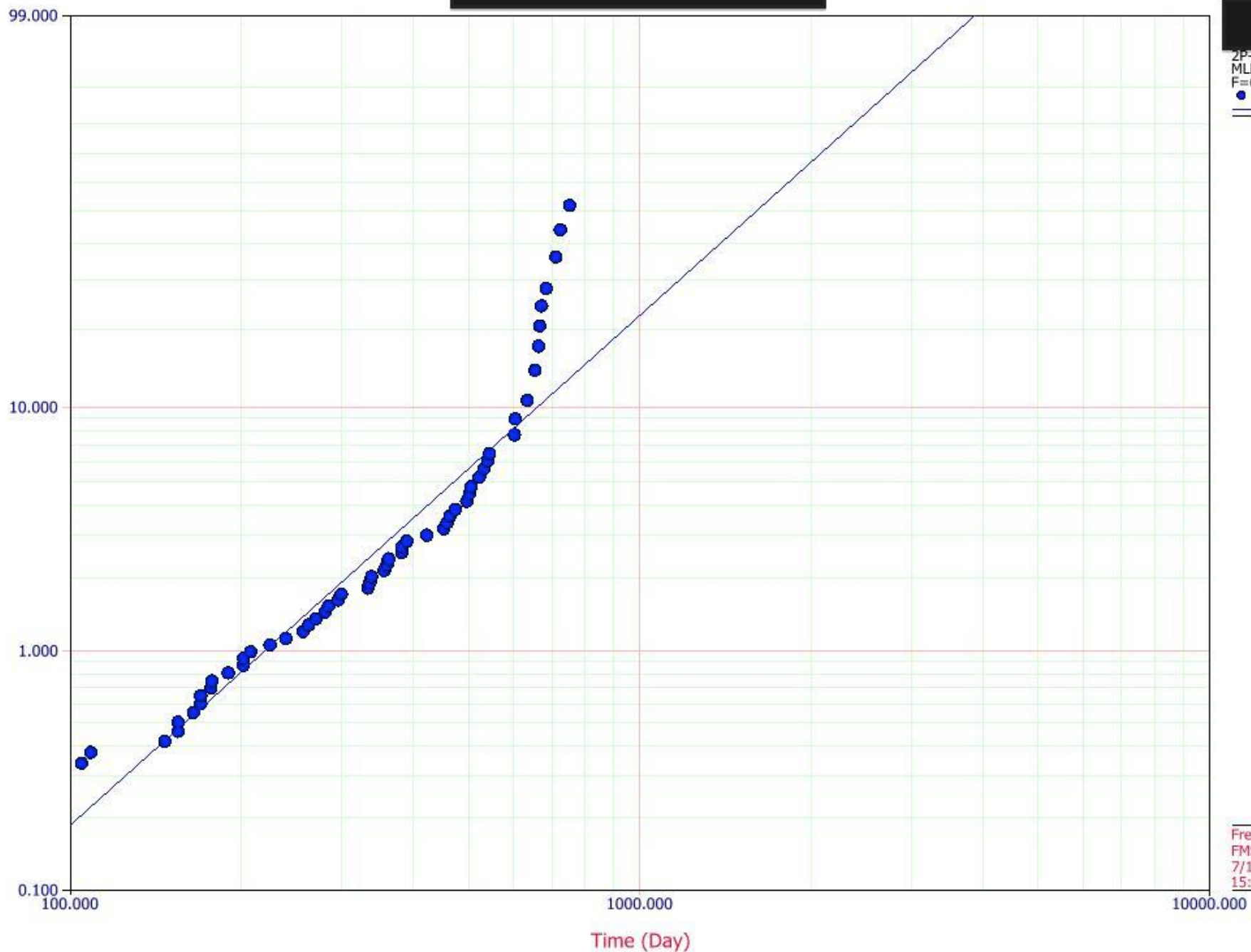
A photograph of a red suspension bridge, likely the Golden Gate Bridge, viewed from a low angle on the bridge deck. The bridge's steel truss structure and red-painted railings are prominent in the foreground. Several tall, red, curved light poles with yellow-tinted lamps are spaced along the bridge. The bridge extends into a thick, white fog that fills the upper two-thirds of the image, obscuring the sky and distant structures. The water below the bridge is a dark, choppy grey-green. The word "Environment" is printed in a black, serif font on the right side of the image, partially overlapping the fog.

Environment



Where and how put into use

**ANY UNEXPECTED USES OR
ENVIRONMENTS?**

Unreliability, $F(t) = 1 - R(t)$ 



Duration

Early

Useful
Life

End of




**Connect to:
Business &
Customer
Expectations**



A Motorola DynaTAC 8000X from 1984.

WRITE A RELIABILITY GOAL





What are your Questions?

Thanks for participating.