

Reminiscence of Bob Siemann and His Dream on 1 GeV/m



Ping J. Chou
Taiwan Light Source (NSRRC)

R.H. Siemann Symposium

7 July, 2009

— Early Encounter in My Grad Student Period



Fermi National Accelerator Laboratory
P.O. Box 500 • Batavia, Illinois • 60510

LUML-2

Fermilab EXP-155

EXP-155

August 13, 1987

To: C. Ankenbrandt, Don Edwards, Helen Edwards, Dave Finley, Mike Harrison, Gerry Jackson, Rol Johnson, Quentin Kerns, Keith Meisner, Jack McCarthy, Bill Miller, Alvin Tollestrup

From: R. Siemann

RS

Attached is a draft of a note on emittance growth in the Tevatron. I hope it will be useful in solving the problem. Corrections and or comments are welcome. I can be reached as LNS61::SIEMANN

- 1992 in US Particle Accelerator School (Stanford Univ.)
A warm and inspiring teacher
- 1995 in Particle Accelerator Conference (Dallas, TX)
The chair of that big conference presenting a poster himself !

— Being Bob's Postdoc and Joining His Dream on 1 GeV/m

Accelerator **R**esearch **D**epartment **B**

Our mission (in Bob's words):
Invent, Design
Build and Commission



a 1 GeV/m x1 m Linac

with a technology scalable to a **5 TeV e+e- COLLIDER !**

First move:

Let's get the Lab 223 cleaned and organized



ARDB Lab 223



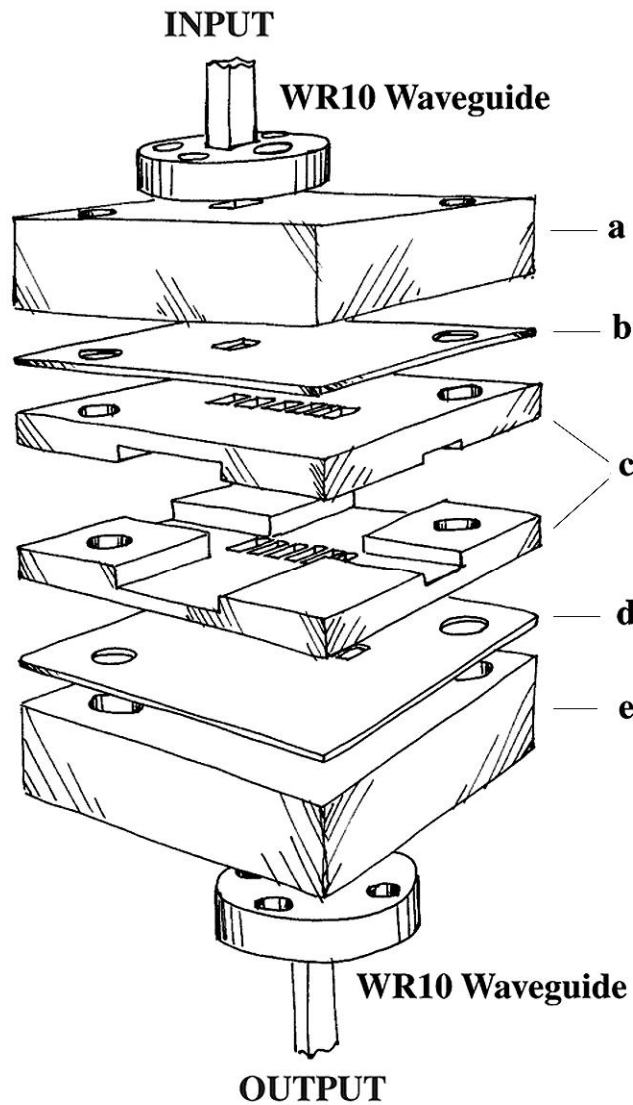
Dennis Palmer

Heino Henke
Technical University, Berlin

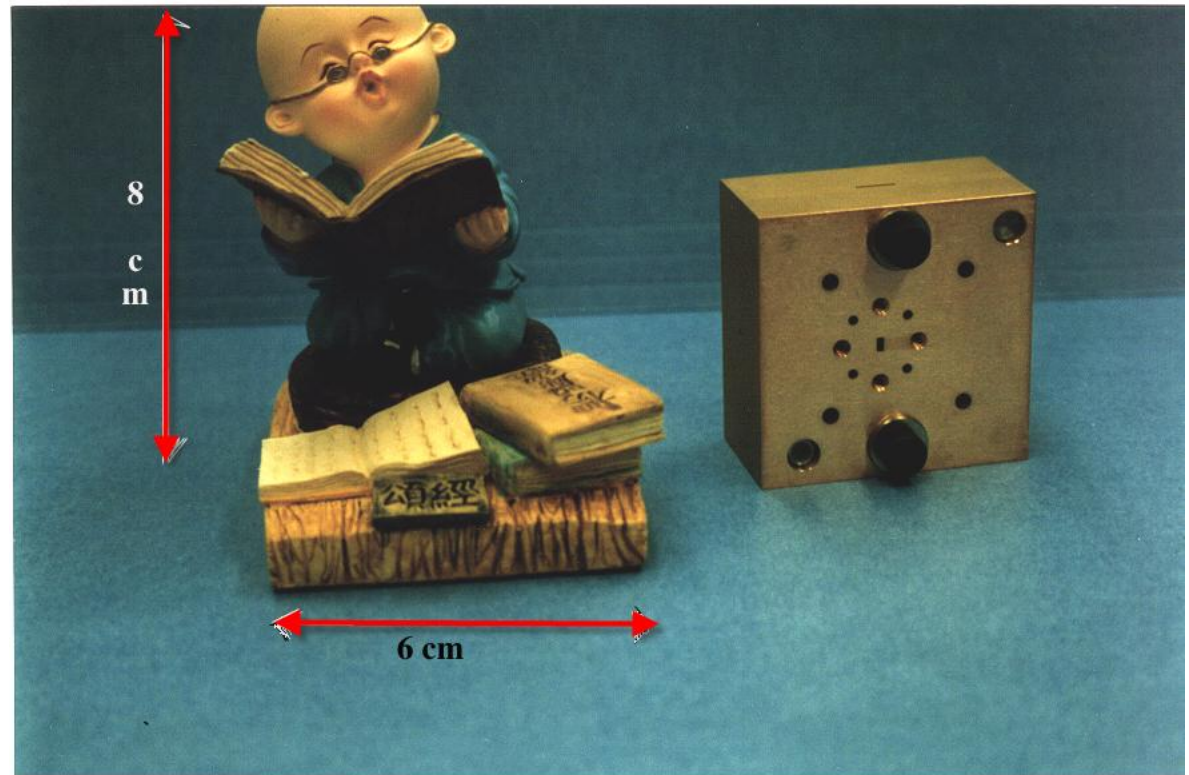
Bob

PJ

**W-band Linac Structure
— the first prototype**



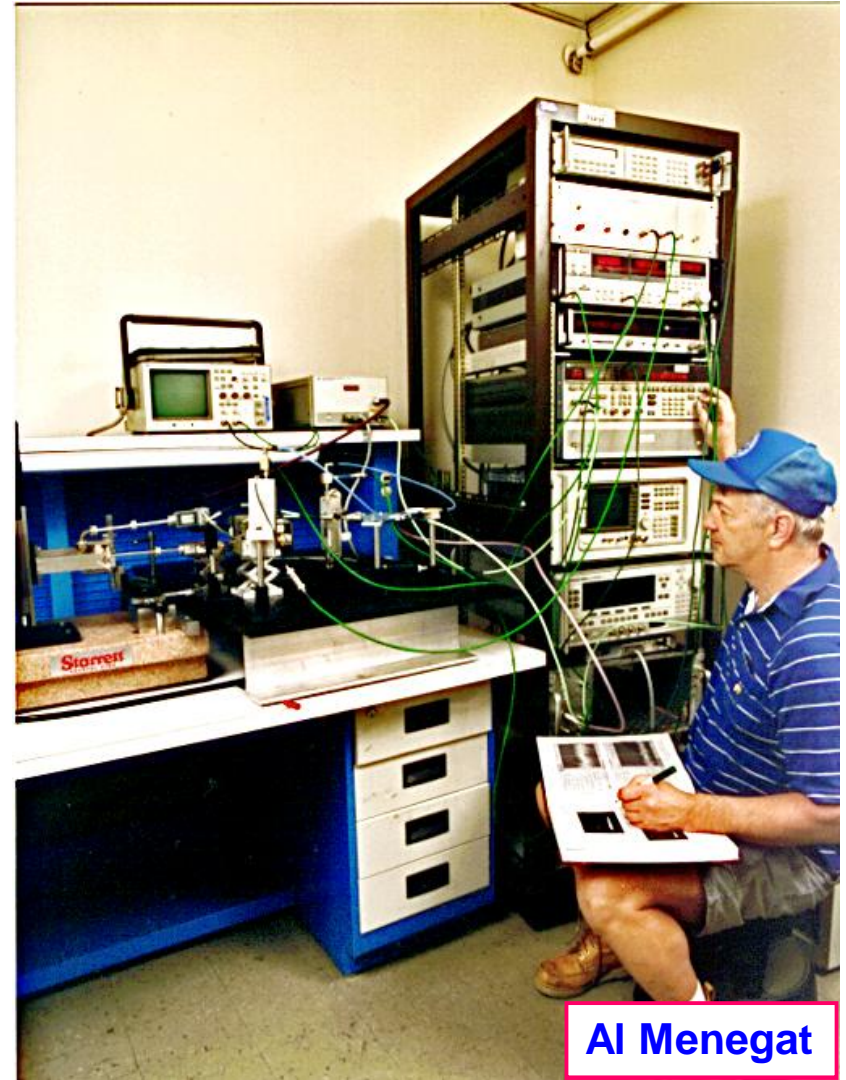
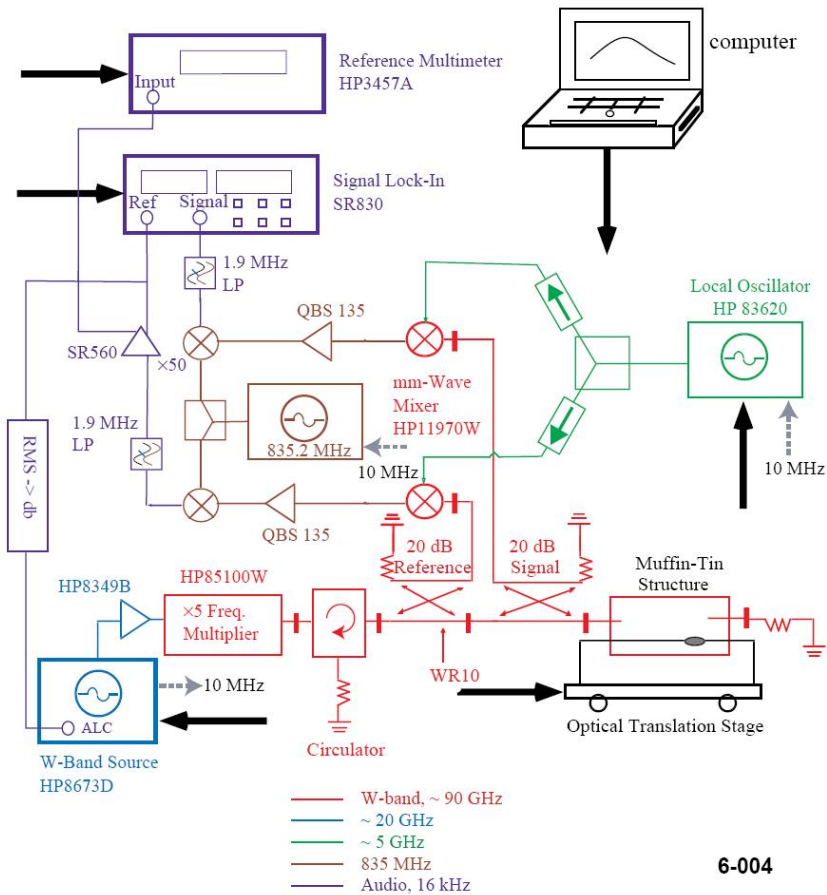
**First 90 GHz Traveling-Wave Accelerating Structure
Made by Wire Electrodischarge Machining**



Accelerator Research Department B at SLAC

Sketched by Gordon Bowden

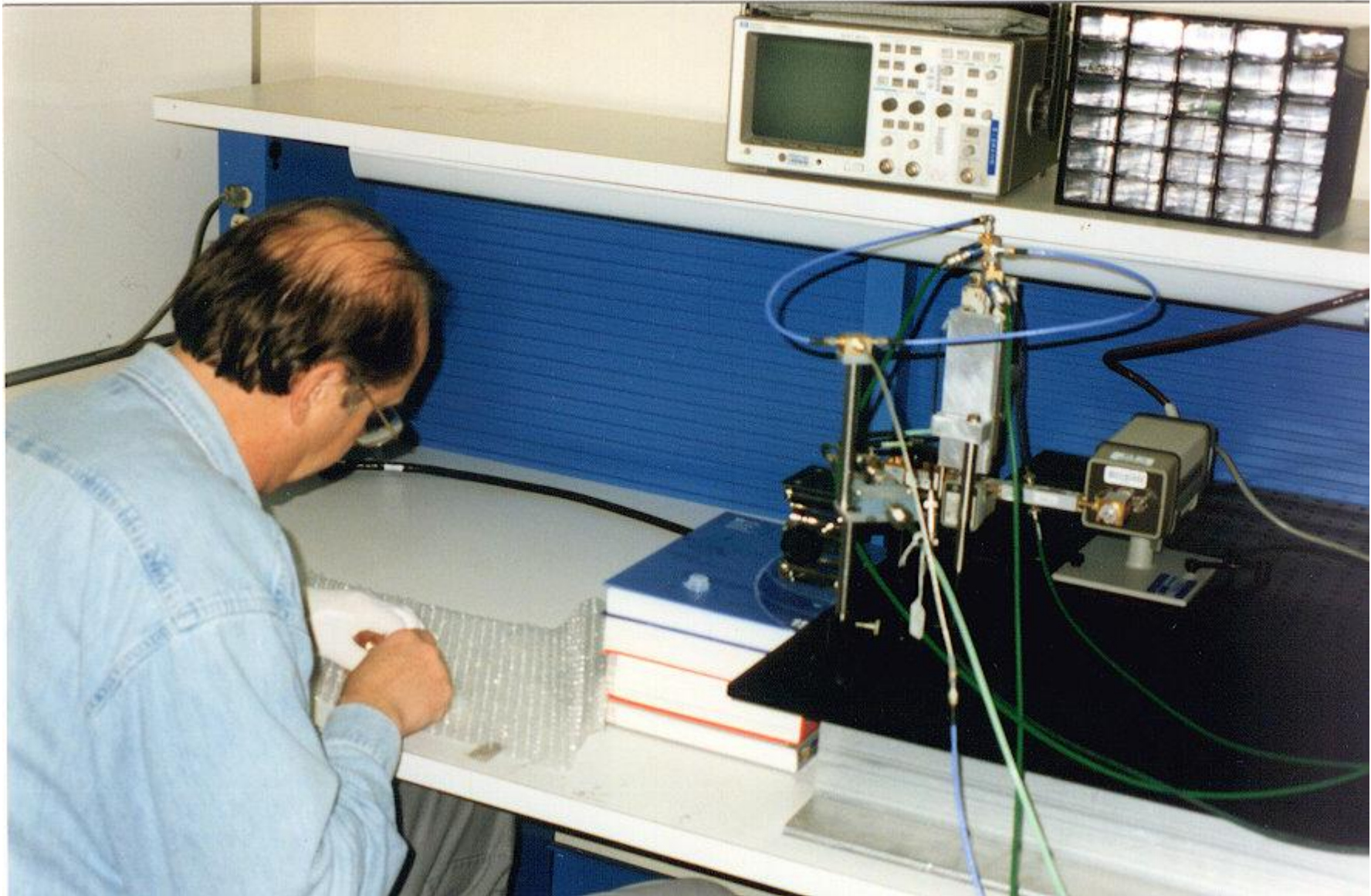
Home-made W-band Network Analyzer

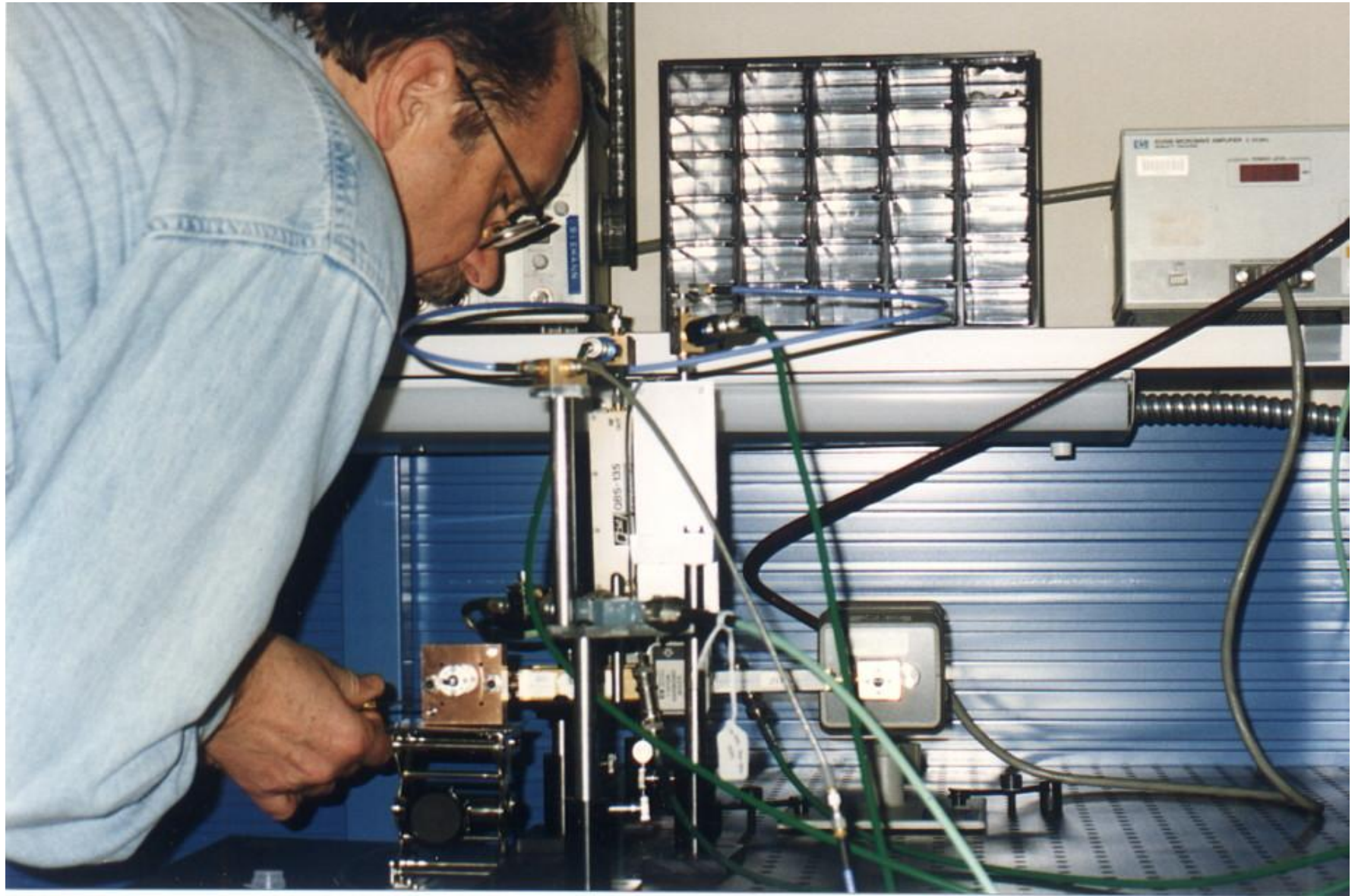


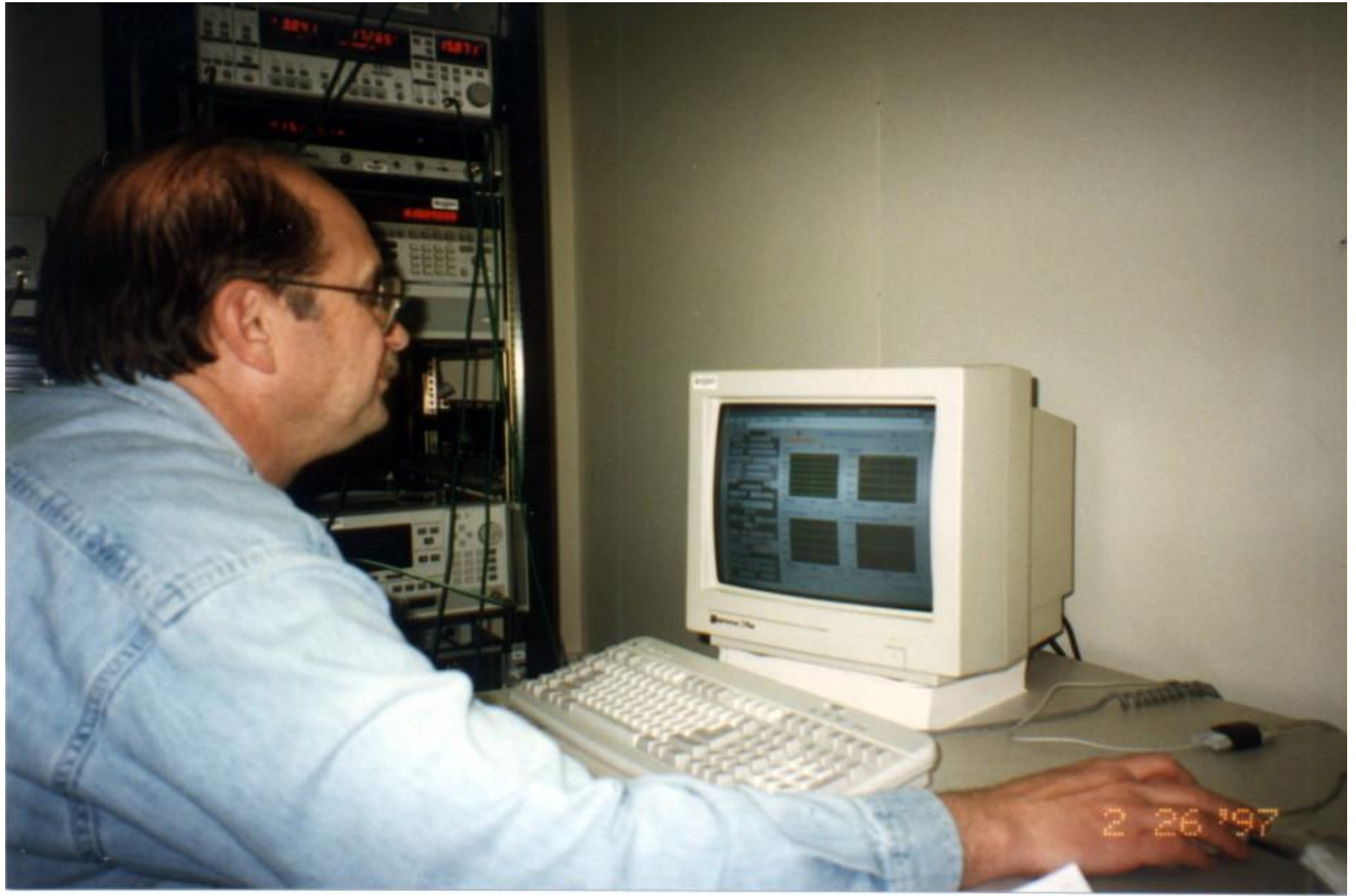
Sketched by Bob Siemann

<1/3 the price of HP w-band network analyzer

Bob Working in His Tree House

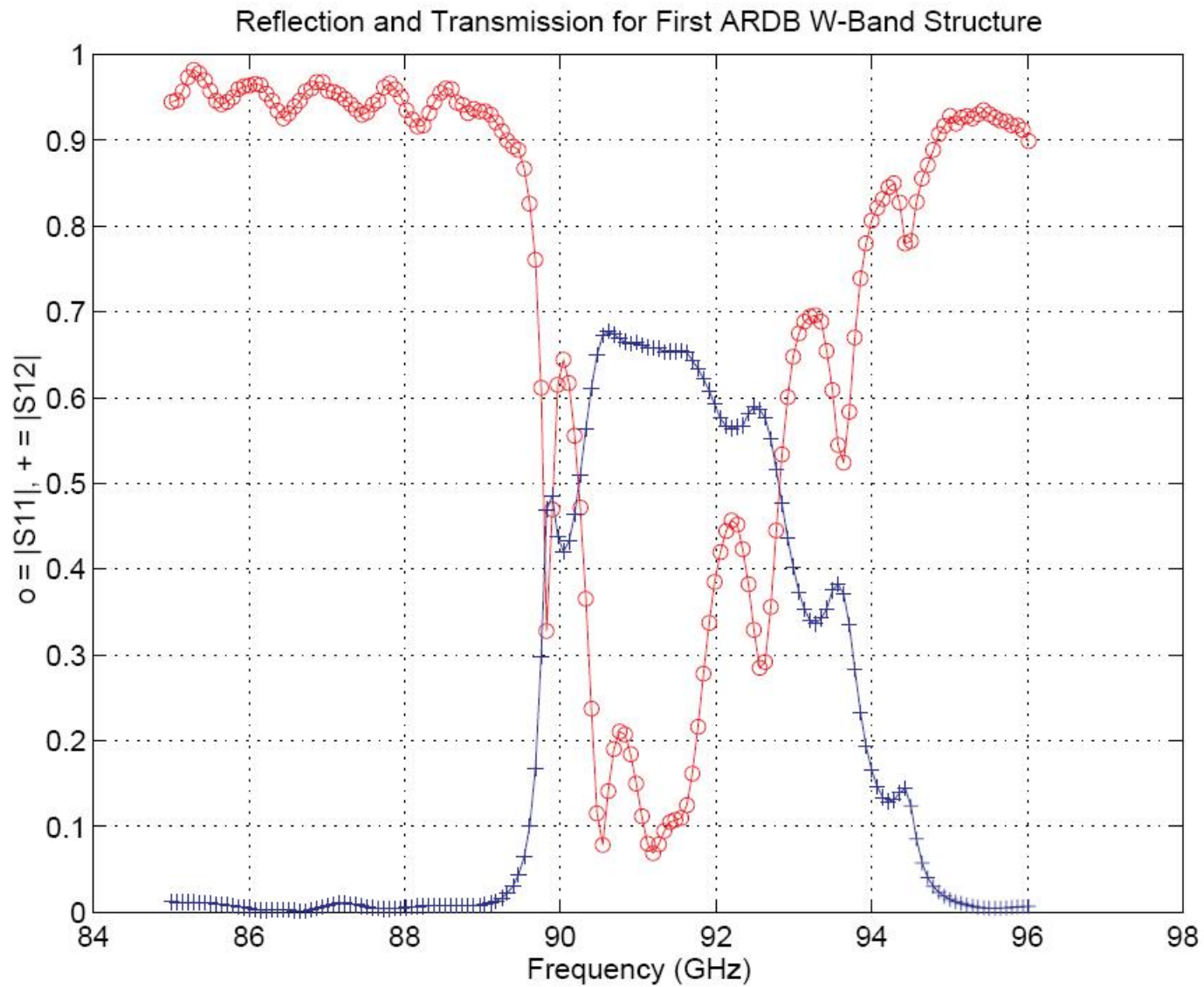








RF Measurements of the First Prototype:



The Fun Time in Group Bob



David Whittum Al Menegat Marc Hill Boris Podobedov David Pritzkau Mike Seidel



Frank Zimmermann Ping J. Chou Bob Siemann