February 14, 2018 Meeting

The February 14, 2018 Waterloo Technical Society (WTS) meeting was called to order by President Dorhout at 7:15 pm. President Dorhout welcomed visitors and noted that this was the fifth meeting of the 104th year of the Society.

A total of 38 members and guests attended.

Treasurer's Report. Ken Friend reported a beginning balance of $895.17. Income of $70.00 from 7 memberships with expenses of $20.00 for the January speaker's meal leaves a new balance of $945.17. Treasurer Friend's report stated a total of 9 honorary and 47 paid members yielding a membership roster of 56 members.

Current Officers. The 2017-2018 officers for the 104th WTS year:

Officers for the 2017-2018 year (year 104) are:

| | |
|---|---|
| President: | Gary Dorhout |
| Co-Vice Presidents: | Jerry Mohling and James Stevenson |
| Treasurer: | Kenneth Friend & Paul Anderson |
| Dinner Reservations: | Derek Eagles & Steve Lang |
| Secretary: | James Stevenson |
| Publicity/Recognition: | Todd Whiting |
| Auditing: | Bill Mitchell & Jim Garrett |
| Nominating Committee: | Open |
| Web Site: | Tim Schoenfelder |

Old Business. President Dorhout reviewed the topics presented in the past year. The dates, speaker and topics for the 104th WTS were:

Speakers for the 2017-2018 Meeting Year (Year 104)

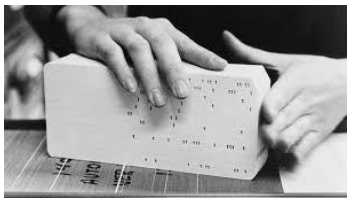
13 Sep 2017 – William Close—Mega Sculptures
11 Oct 2017 – Dr. Bert Schou– Not Your Grandfather's Farm
8 Nov 2017 – Cody Wilkinson – Large Seeding and Tillage Equipment
13 Dec 2017 – No Meeting
10 Jan 2018 – Susan Card—Jerald Sulky Company
13 Feb 2018 – Barbara and Dale Hatinger – A Career in Technology

New Business. No new business was discussed.

Guest Speakers. Dale Hatinger graduated from Texas A&M University with a B.S. in Industrial Engineering. He had a 37 year career in Operations and Project Management, Computer Systems Manufacturing and Financial Software Development and Implementation and Sales/Marketing of Enterprise Systems. He worked for Collins Radio Co. (Dallas, TX), Texas Instruments, Docutel Corp., and NCA Corporation. As a consultant he worked with E-Systems, Computer Metrics and Ross Systems.

He is married to Barbara Fischer Hatinger and has two grown children and three grandchildren.

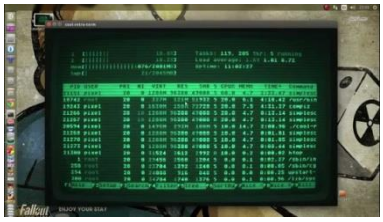
Barbara Hatinger began the presentation with a reflection of her experiences in the days of early technology development, primarily with Xero Corporation in Minneapolis, MN.



Early computer programming required instructions to be punched one line at a time on Hollerith cards and submitted to an operator to be read and executed by a computer that was housed in a large environmentally controlled room.



The computer that read and executed the instructions punched on the cards occupied a special room that was secured from the programmer. Specialists operated the computer.



A big advancement was a terminal that could display instructions to the computer and have the computer display the resulting "output".



More progress as the first What You See Is What You Get (WYSIWYG). The display was taller than wide, just like a paper page. The background was white with black letters to appear like a typed page.



Although the computer could show the document on a display, printing had to be done on a dot-matrix printer. Paper was perforated at the edges so that the guide holes could be removed. Perforations at the end of the page allowed mechanical separation of pages. These printers were often enclosed in sound proof hoods or separate rooms due to the loud hammering of the pins on the paper.



The first mouse was invented by a Xerox engineer. Barbara witnessed the prototype being used with an early word processor. The idea was abandoned by Xerox, but Apple picked up the idea for its MAC computers.

WATERLOO TECHNICAL SOCIETY 2-14-2018
DALE HATINGER

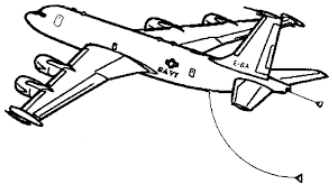


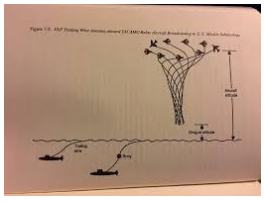
At Ramsey Kantz ( 1959-1962 college summers)

- Minuteman Silo/NIKE and ' Honest John' missile engine carriers

At Collins Radio Co. ( 1963-1971)

- Man-to-the-Moon (S-Band System)
- Minuteman Silo structural members Communications Silo
- T.A.C.A.M.O. Communications System





- TSC-60 Communications System
- Air Force One Retrofits (at Addison Airfield)
- Voice of America Upgrade
- FD-109 Upgrade (at Addison Airfield)
- F-16 Communications System/Heads-up Display
- First Automated 'CAT-III' ('Hands-Off') Airliner Landing
- Helicopter/Man-PAC Communications System
- Collins C-System (Became 'guts' of the American Airlines S.A.B.R.E. Reservation System)





At Texas Instruments (1971-1979)

- Mariner-Venus-Mars Space Probes
- Smart Bomb Development
- First Hand-held Calculator
- Robots (mail delivery)
- First GPS Commercial Application (Fishing/pleasure boats in the Gulf of Mexico)
- Distributed Computing (25K desktop devices to service 112K T.I. employees worldwide)
- Speech Synthesis ('Speak-and-Spell')
- 14 Story Unmanned Warehouse
- A.W.A.C.S. Radar Systems ("EAGLE EYE")





Other Associations (in the Dallas/Ft. Worth area)

- LTV: B-2 Bomber Chassis parts fabrication
- Recognition Equipment: Optical Character Reader
- (Garland Texas Company): Night Vision Development ('STARLIGHT' scope)
- General Dynamics: F-16 'Heads-up' Display
- Bell Helicopter: Huey Helicopter
- D.A.T.R.A.N.: Early 1970's nationwide Internet attempt

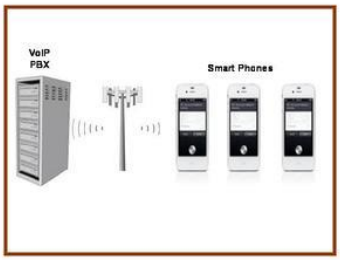


At Docutel Corporation ( 1979-1982)

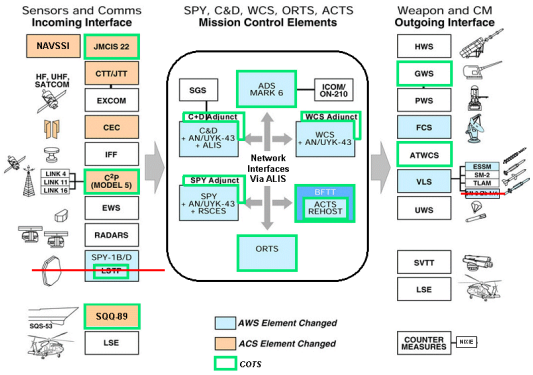
- Creation and patent holder of the Automated Teller Machine (ATM)

At NCA Corporation ( 1982-1987)

(The following is a sample of consulting clients:)




- DEC (Digital Equipment Company)
- VAX Super Mini Computer MRP-11and partnerships with such companies as:
  - Apple Computer
  - Caterpillar Corporation (Conek-Monterey, Mexico)
  - DuPont
  - Levi Strauss
  - Coming Glass
  - Convex Computer (Supercomputers)
  - Logan Manufacturing Company (John DeLorean)
  - SRX (Holder - Laser cutting system patent)




At E-Systems ( 1989) (A 'Black-Budget' developer and suppliercompany for the C.I.A.)

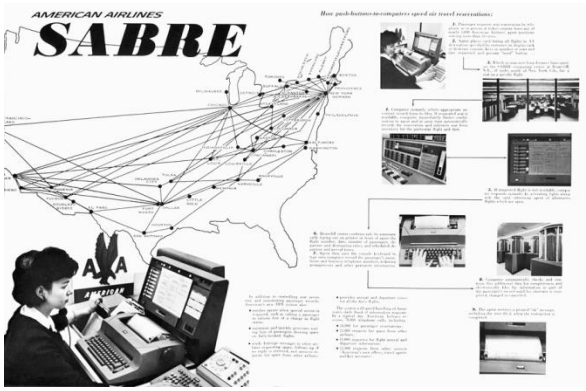
- Top secret software and device development
- Battlefield Command/control Systems
- Mass storage systems

At Computer Metrics *(* 1992-1993)

- VAX computer performance enhancements
- American Airlines S.A.B.R.E. System in hardened silo in Tulsa, OK(Protected by machine gun nests during the Gulf War due to the use ofS.A.B.R.E. by the Armed Forces worldwide supply chain requirements.)

At Ross Systems ( 1997-1998)

- Process industry **MRP-II** systems developer and implementer




PERSONALITIES

At Collins Radio Co.

- Iowa·s own Arthur A. Collins
- William B. Shockley (Transistor inventor at Bell Labs)
- (S-Band Project Head) ·Man-to-the-Moon'
- Ross Perot (Founder. E.D.S.) who attempted to buy out Collins Radio before Collins merged with Rockwell International
- Folks from Iowa founding Collins Dallas in 50's [Paul Keyes, Warren Bruene, Phillip Ruth, Fred Zimmer. Robert Van Han (Project Lead-TACAMO Program), Dan McCabe]

At Texas Instruments

- Earnest Deadwyler -- Member, as an Army Lieutenant (ceramics specialist) of Wernher von Braun's American rocket development staff (Redstone rocket project)
- Jack Kilby - Inventor (Co-,with Noyce of Intel) of the integrated circuit
- Glen Hansel - My partner in crime when we managed to crash T.I. 's worldwide network of (25) giant IBM computers.

- Mike Crawford and Ramsey Melugin - A&M ('62) worked with T.I. as engineers for Jet Propulsion Laboratories (J.P.L.) and Lawrence Livermore on the Mariner program.

At Docutel

- Jack Meredith-(Yes. the older brother of ' Dandy' Don Meredith of the Dallas Cowboys and an original Monday Night Football announcer with Howard Cossell. Keith Jackson. and Frank Gifford in 1970) (Chairman and CEO of Docutel/running mate with Ross Perot at IBM before each started their own companies)
- Donald Wetzel - U.S. recognized him as the inventor of the ATM machine (1973 U.S. Patent)

At NCA

- Chinese Owner - Chairman of Dallas office's first customer. He and his wife were close confidants of General and Madam Chiang Kai-shek.
- Steve Jobs - He used NCA's MRP-II manufacturing and financial control system to control all of Apple's manufacturing plants including the unique MAC factory.
- John DeLorean - NCA customer, Logan Manufacturing Co.

At E Systems

- Dr. Thad Sandford - (V.P. Boeing) accepted Program Manager position for the Space Plane Progran1 in lieu of work at E Systems.
- Various executives from (CIA?) reviewing implementation program for MRP-II

Next Meeting. The next meeting will be March 14, 2018, speaker to be announced.

Meeting adjourned at 8:45 pm.

Respectfully submitted,

James R. Stevenson, Vice President and Secretary