

Gross, Al, Papers

Al Gross Papers
1909-2000



Title Statement

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Descriptive Summary

Unit ID

Ms.2001.011

Unit Date

1909-2000

Language

The materials in the collection are in English.

Abstract

The Al Gross papers are comprised of the following series: Employment, Publications, Inventions and Patents, Awards and Achievements, Personal Material, Technical Data, Radio Material, Government, Subject Files, and Oversize Materials. The collection also includes Gross' book collection and electronic parts. This collection contains materials relating to the significant contributions Al Gross made in the advancement of wireless technology. The collection provides a detailed look at the evolution of the walkie-talkie from a weapon against the Axis Powers in World War II to its functional and convenient purposes today. Throughout the progression of wireless technology, Al Gross remained an integral part of designing and updating wireless devices such as cellular phones and pagers to its now diminutive form using microminiaturization and other scientific methods.

Creator

Gross, Al, d.2000

Extent

10 Cubic Feet 21 boxes

Repository

Special Collections and University Archives, Virginia Tech

Administrative Information

Conditions Governing Access

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Preferred Citation

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Biographical Note

Al Gross was born in Toronto, Ontario, but was raised in Cleveland, Ohio. Known as the father of wireless communications, Gross invented the walkie-talkie in 1938 at age 20 and by 1941 the Office of Strategic Services (now known as the CIA) was eager to develop a lightweight, portable communications system for air-to-ground contact. The OSS recruited Gross and he devised the "Joan-Eleanor System" using Hertzian radio waves which were virtually impossible to intercept even from behind enemy lines. Gross' invention was a huge success and was praised by the US Joint Chiefs of Staff as being one of the most successful wireless intelligence gathering methods ever employed.

After the war, Gross formed the Citizens Radio Corporation and sold his units to the public, mostly to farmers and the US Coast Guard. In 1949 Gross had another breakthrough invention, the telephone pager. That same year Gross attended a medical conference in Philadelphia to introduce the pager system to doctors. Unfortunately, many of the doctors were apprehensive of the device stating it would interfere with their leisure time or upset their patients. The pager never caught on for Gross, proving he was decades ahead of his time.

Gross continued to invent for his entire lifespan, compiling 12 patents. But Gross' patents expired long before the world was ready for pagers, cell phones, and CB radio. Instead of reaping the monetary benefits of his inventions, Gross is rich in awards and recognitions. Most recently, Gross became the sixth person to be awarded the Lemelson-MIT Lifetime Achievement Award in 2000. Eight months later on December 28, 2000, Gross died at his Arizona home.

Scope and Content

The Al Gross papers are comprised of the following series: Employment, Publications, Inventions and Patents, Awards and Achievements, Personal Material, Technical Data, Radio Material, Government, Subject Files, and Oversize Materials. The collection also includes Gross' book collection and electronic parts. This collection contains materials relating to the significant contributions Al Gross made in the advancement of wireless technology. The collection provides a detailed look at the evolution of the walkie-talkie from a weapon against the Axis Powers in World War II to its functional and convenient purposes today. Throughout the progression of wireless technology, Al Gross remained an integral part of designing and updating wireless devices such as cellular phones and pagers to its now diminutive form using microminiaturization and other scientific methods.

The Employment series (1944-81, n.d.) contains detailed materials from his first companies such as the Citizens Radio Corporation, Gross Communications, and Royalcall - the first telephone pager company ever. With his contributions in the wireless field, Al Gross became well known worldwide in the wireless front and

companies such as True Temper and GTE Sylvania hired Gross not only for his engineering skill but for public relations as well. One example is Gross appearing on the popular television show "To Tell the Truth" while he worked for True Temper. Photographs of Gross on "To Tell the Truth" are located in the Personal Material series (1918-2000, n.d.) which also includes material spanning from Gross' Junior High School to notes on retirement. Also included are correspondence letters, resumes, and personal certificates.

The Publications series (1945-2000, n.d.) contains a comprehensive list of articles written about Gross and his work as well as articles written by Gross himself. Other publications used primarily for reference are found in the Technical Data series (1943-99, n.d.). Highlighting the series are technical diagrams, charts, and manuals. More information on the work of Al Gross can be found in the Inventions and Patents series (1909-2000, n.d.). Included in the series is a comprehensive photo collection and early drawings of inventions such as the Antenna, Citizens Transceiver, and the wrist-watch walkie-talkie. Complementing the material are photocopied patents with descriptions.

The Government series (1937-90, n.d.) includes materials from the Office of Strategic Services (OSS), which recruited Gross and his walkie-talkies in World War II. Also included are five folders from the Federal Communications Committee (FCC) which gave Gross the rights to the first "Citizens Radio Service" after World War II. The FCC also served as the distributor of radio licenses. Original and photocopied licenses of Gross can be found in the Radio Material series (1934-86, n.d.) which also includes material from his amateur radio station W8PAL such as a station log and data book.

Complementing his lifetime of work in the wireless field is a vast collection of recognitions found in the Awards, Achievements series (1959-2000, n.d.). The series includes eighteen different awards and recognitions Al Gross received including awards from the Institute of Electrical and Electronics Engineers (IEEE) of which he was a Fellow member. Other awards of Gross are found in boxes 16, 17, and 21. More information on the IEEE can be found in the Subject Files series (1947-96, n.d.) which includes theses, stock certificates, and material highlighting Gross' visit to Virginia Tech.

The Oversize Materials series consists of items such as his awards, blueprints, and original documents which were pulled from the other series as they were too large for inclusion with other items in the series. Key items highlighting the inventor's career are on permanent exhibit in Torgerson Hall.

Keywords

Science and Technology

Rights Statement for Archival Description

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Arrangement

This collection is arranged according to subject matter.

Description of Subordinate Components

Employment

Unit Date 1944-81, n.d.

Stewart-Warner

Unit Date 1944-56, nd

box-folder 1 (box)

Container 1 (folder)

Royalcall

Unit Date 1944-76

box-folder 1 (box)

Container 2 (folder)

Gross Communications

Unit Date 1946-48

box-folder 1 (box)

Container 3 (folder)

Citizens Radio Corporation (2 folders)

Unit Date 1946-57, n.d.

box-folder 1 (box)

Container 4-5 (folder)

Gould Ocean Systems

Unit Date 1971-73

box-folder 1 (box)

Container 6 (folder)

True Temper

Unit Date 1976-81

box-folder 1 (box)

Container 7 (folder)

Sylvania

Unit Date 1977-78, n.d.

box-folder 1 (box)

Container 8 (folder)

Publications

Unit Date 1945-2000, n.d.

European Publications on AI Gross

Unit Date 1980-1993

box-folder 2 (box)

Container 1 (folder)

Scope and Content

Publications list

- CB Illustrierte (March-April 1980) Germany
- Weekly Hibernia (March 3, 1980) Ireland
- Break-Break (July-August, 1980) The Netherlands
- NEI Bruce Peebles Newsletter (September, 1980) United Kingdom
- The Standard (November 2, 1981) London, England
- Daily Express (November 3, 1981) London, England
- The Daily Telegraph (November 3, 1981) London, England
- Sunday Independent (October 25, 1981) Dublin, Ireland
- Correo C.B. (1993) Spain

Publications on AI Gross and his Inventions

Unit Date 1945-91

box-folder 2 (box)

Container 2 (folder)

Scope and Content

Publications list

- The Saturday Evening Post (July 28, 1945)
- The "10-2" Copy (March 1977)
- The "10-2" Copy (April, 1977)

- Link/Gross - draft (July 13, 1978)
- Electronic Distributing Magazine (August, 1978)
- CB Magazine (October, 1978)
- CB Times (November, 1978)
- CB Magazine (June, 1979)
- Quarterly Journal - Radio Club of America (May, 1980)
- The Cannon Report (September, 1984)
- ITT Courier Dataline (February 8, 1985)
- Sperry Star (September, 1985)
- Western & Eastern Treasures (September, 1985)
- IEEE Spectrum (September, 1987)
- Mobile Radio Technology (November, 1991)

Newspaper Articles (2 folders)

Unit Date 1946-2000, n.d.

box-folder 2 (box)

Container 3-4 (folder)

Publications written by Al Gross

Unit Date 1944-84, n.d.

box-folder 2 (box)

Container 5 (folder)

Scope and Content

Publications list

- Basic Elements for High Efficiency VHF Oscillator (September 15, 1944)
- "Hints and Kinks of Relic Restoration," North South Trader (March-April, 1979)
- CB Radio and its First Cousins (original draft) (February 22, 1984)
- "Not Quite Flying Machines" (n.d.)
- "Earth Batteries" (n.d.)

Collected Publications

Unit Date 1946-2000

General Magazines and Newsletters (3 folders)

Unit Date 1946-2000

box-folder 2 (box)

Container 6-8 (folder)

Scope and Content

Publications list

- "Strange but True Football Stories" (1967)
- Electronics (April, 1946)
- Radio News Magazine (February, 1948)
- Civil War Times Illustrated (October, 1973)
- Civil War Times Illustrated (February, 1975)
- CB Views Newsletter (January, 1977)
- Consumer Electronics Show Daily (January 14, 1977)
- CB Scene (Popular Electronics, May 1977)
- CB Radio (July, 1977)
- Electronic Distributing (April, 1978)
- Electronic Distributing (April, 1979)
- Radio Electronics (October, 1979)
- FIR CB (Italy) (1984)
- Personal Communications (September, 1985)
- Western & Eastern Treasures (September, 1985)
- Popular Communications (June, 1991)
- Mobile Radio Technology (November 1991)
- Communications for Wireless Communications Professionals (September 1995)
- QCWA Journal (Fall 2000)

Electronic Publications (2 folders)

Unit Date 1944-87, n.d.

box-folder 2 (box)

Container 8-9 (folder)

Scope and Content

Publications list

- "Equivalent Circuits and Discontinuities in Transmission Lines" (February, 1944)
- "Coaxial-Line Discontinuities" (November, 1944)
- "A Wide-Band Wattmeter for Wave Guide" Proceedings of the IRE and Wave and Electrons (October, 1946)
- "Printed Inductors and Capacitors" Tele-Tech & Electronic Industries (December, 1955)
- "Some Broad-Band Transformers" Proceedings of the IRE (August, 1959)
- "Let's standardize linear ICs" The Electronic Engineer (January, 1968)
- "A Practical Expanded Scale Milliohmometer" Popular Electronics (October, 1970)
- "Ferromagnetic Loop Aerials" Wireless Engineer (April 27, 1971)
- "The Operational Amplifier" Popular Electronics (August, 1971)
- "Bill Orr on Antennas" (August, 1976)
- "How to Predict CB Radio Range" Popular Electronics (December 1976)
- "Build Three Low Cost CB Test Meters" Radio-Electronics (October, 1977)
- "Cellular System Design Using the Expansion Cell Layout Method" IEEE Transactions on Vehicular Technology (May, 1984)
- "Small, High Efficiency Loop Antennas" (June, 1986)
- "Modular Design of Passive Components Improves System Performance" MSN & CT (February, 1986)
- "A Coordinate Conversion and SWR Nomogram" RF Design (April, 1986)
- "A High Performance VHF Crystal Oscillator Circuit" RF Design (March, 1987)
- "A Printed Circuit Stub Tuner for Microwave Integrated Circuits" IEEE Transactions on Microwave Theory and Techniques (March, 1987)
- "Stable LC Oscillators" RF Design (March, 1987)
- "Analyzer Improvements Make Real-Time Antenna Tests Practical" MSN & CT (May 1987)
- "Gunn Sweepers for U and E Bands" MSN & CT (May, 1987)
- "Microstrip Low Pass Filter Design" (June, 1987)
- Electronic Tube Engineering Bulletin, General Electric (n.d.)
- Inductive and Reactive Effects in Straight Wires *Includes notes (n.d.)
- RC Timing Circuit Considerations (n.d.)
- "The Fusible Link - A Method of Protecting Primary Wiring Under Short Circuit Conditions" (n.d.)
- "Radiation Characteristics of a Triangular Microstrip Antenna" by Inder J. Bahl (n.d.)
- Military Standard - Connectors, Electromagnetic Interference (EMI) Filter Pin Contact - Department of Defense (n.d.)

Aerovox Newsletters

Unit Date 1942-63

box-folder 3 (box)

Container 1 (folder)

Scope and Content

51 total.

Alternatives for Future Personal Radio Services, Vols. 1-2

Unit Date May 1978

box-folder 3 (box)

Container 2-3 (folder)

Surveillant

Unit Date 1990-91

box-folder 3 (box)

Container 4 (folder)

Scope and Content

July-August, 1990

January-February, 1991 *Includes note.

Inventions, Patents

Unit Date 1909-90, n.d.

Citizens Transceiver

Unit Date 1946-54, n.d.

box-folder 3 (box)

Container 5 (folder)

Photos of the Citizens Transceiver

Unit Date 1948, n.d.

box-folder 3 (box)

Container 6 (folder)

Ultraphone

Unit Date 1946, n.d.

box-folder 3 (box)

Container 7 (folder)

Radiopager

Unit Date 1952-53

box-folder 3 (box)

Container 8 (folder)

Wrist-Watch Walkie-Talkie

Unit Date 1949-90, n.d.

box-folder 3 (box)

Container 9 (folder)

Antennas

Unit Date 1948-82, n.d.

box-folder 3 (box)

Container 10 (folder)

Patent Specifications

Unit Date 1909-65, n.d.

box-folder 3 (box)

Container 11 (folder)

Photos of Al Gross' Inventions

Unit Date 1938-85, n.d.

box-folder 4 (box)

Container 1 (folder)

Scope and Content

Contents

- World War II Joan/Eleanor OSS Walkie-Talkie (1965-81)
- Proximity Fuse (1968-69)
- Battery Operated Walkie-Talkie (1938)
- Al Gross with his Inventions (1984)
- Group Photos of Walkie-Talkies, Pagers, and Proximity Fuses (n.d.)

Patents with Descriptions (copies)

Unit Date 1956-59

box-folder 4 (box)

Container 2 (folder)

Scope and Content

Contents

- Radio Tuning Apparatus (August 21, 1956)
- Radio Frequency Oscillator Mounting (August 21, 1956)
- Bracket Means for Joining Printed Circuit Panels - description only (February 24, 1959)

Awards, Achievements

Unit Date 1959-2000, n.d.

Personal Awards, Achievements (2 folders)

Unit Date 1971-2000, n.d.

box-folder 4 (box)

Container 3-4 (folder)

Scope and Content

Achievements list

- FOPA member, Fraternal Order of Police Associates of Ohio (May 1, 1971)
- Member, Citizens Radio Federation of Virginia, Inc. (November 14, 1978)
- Certificate, Drexel University and IEEE (1979)
- Honorary Chairman, International Convention of CB'ers, Inc. (1979)
- Fellow Award, Institute of Electrical and Electronics Engineers, 2 pictures (1981)
- Member, Who's Who in Technology Today, 4th edition (May 18, 1984)
- Nomination, National Inventor's Hall of Fame (1984)
- Member, Who's Who in America, 44th edition (1985)
- Member, Who's Who in Frontiers of Science and Technology, 2nd edition (1985)
- Recipient, Fred M. Link Award, Radio Club of America, 3 pictures (November 20, 1992)
- Member, Quarter Century Wireless Association, Inc. (April 13, 1995)
- Permanent Honorary Membership, International Telecommunications Union (ITU), 2 pictures only (May 21, 1995)
- Recipient, Vladimir Karapetoff Eminent Members' Award (1998)
- Lifetime Achievement Award, Lemelson-MIT Program (April 27, 2000)
- Recipient, Edwin Howard Armstrong Achievement Award, IEEE (June 19, 2000)
- Certificate, Federal Communications Commission (n.d.) Citation of Merit, Cuyahoga County Council for Civilian Defense (n.d.)
- Recipient, Avante Garde award, IEEE Vehicular Technology Society, article only (n.d.)
- Professional Leadership Award, IEEE United States Activities Board, note only (n.d.)

General Award Material

Unit Date 1959-2000

box-folder 4 (box)

Container 5 (folder)

Scope and Content

Awards list

- Program, National Convention on Military Electronics (1959)
- Privileged Information, Nomination for National Technology Medal (1984)
- Program, IEEE Honors Ceremony (June 28, 1997)
- Program, IEEE Awards Presentation (June 19, 2000)

Personal Material

Unit Date 1918-2000, n.d.

Childhood

Unit Date 1918-34

box-folder 4 (box)

Container 6 (folder)

Scope and Content

Contents

- Permit to leave Canada - Nathan Gross (original) (1918)
- Alexander Hamilton Junior High School (certificate, pictures) (1932-33)
- John Adams High School Track Photo (1934)
- Cleveland pictures (1918-1931)

Miscellaneous pictures of Al Gross

Unit Date 1939-2000, n.d.

box-folder 4 (box)

Container 7 (folder)

Correspondence Letters

Unit Date 1940-2000, n.d.

box-folder 4 (box)

Container 8 (folder)

Certificates (marriage, death, religious, naturalization)

Unit Date 1942-82

box-folder 4 (box)

Container 9 (folder)

University of Idaho: Al Gross Chronology

Unit Date 1955-64, n.d.

box-folder 4 (box)

Container 10 (folder)

Photos of Al Gross and his findings with his metal detector

Unit Date 1970, n.d.

box-folder 5 (box)

Container 1 (folder)

Letters and forms concerning owning a handgun

Unit Date 1974-81, n.d.

box-folder 5 (box)

Container 2 (folder)

George Sterling letter and picture

Unit Date July 27, 1977

box-folder 5 (box)

Container 3 (folder)

Pictures from the show "To Tell the Truth"

Unit Date 1977

box-folder 5 (box)

Container 4 (folder)

AI Gross in Europe

Unit Date 1980-81

box-folder 5 (box)

Container 5 (folder)

Resume

Unit Date n.d.

box-folder 5 (box)

Container 6 (folder)

Cartoons

Unit Date n.d.

box-folder 5 (box)

Container 7 (folder)

Retirement Plans, Notes

Unit Date n.d.

box-folder 5 (box)

Container 8 (folder)

Technical Data

Unit Date 1943-99, n.d.

Technical Diagrams, Drawings, Charts

Unit Date 1943-87, n.d.

box-folder 5 (box)

Container 9 (folder)

Wideband Technical Data

Unit Date 1944-85, n.d.

box-folder 5 (box)

Container 10 (folder)

Printed Circuits, US Department of Commerce

Unit Date 1947

box-folder 5 (box)

Container 11 (folder)

Proceedings of Symposium

Unit Date May 9-11, 1950

box-folder 6 (box)

Container 1 (folder)

Microwaves

Unit Date 1952-85

box-folder 6 (box)

Container 2 (folder)

Manuals (2 folders)

Unit Date 1953-79, n.d.

box-folder 6 (box)

Container 3-4 (folder)

Scope and Content

Publications list

- UHF Antennas, Converters, & Tuners (March, 1953)
- Radio Receiver R390-A/URR (January 16, 1961)
- CB Radio Handbook (1977)
- CB Citizens Band Radio Service Rules (1978)
- Lloyd's Accumatic 999 Microelectronic Slide Rule Calculator (n.d.)
- Fisher M-Scope VLF 440 Series (n.d.)
- RHO-Tector VSWR Detector (n.d.)
- Ultrascan Scanning Electron Microscope (n.d.)

Microminaturization

Unit Date 1959-99

box-folder 6 (box)

Container 5 (folder)

Reference and Equivalent Charts

Unit Date 1956-67, n.d.

box-folder 6 (box)

Container 6 (folder)

MMIC Capacitors and Inductors

Unit Date 1956-85

box-folder 6 (box)

Container 7 (folder)

Diamond Fuse Ordnance Laboratories (DOFL)

Unit Date 1959-64

box-folder 6 (box)

Container 8 (folder)

Clippings and Manuals for Transistors and Converters

Unit Date 1959-78, n.d.

box-folder 6 (box)

Container 9 (folder)

Measurement of Electromagnetic Field Strength

Unit Date October, 1963

box-folder 7 (box)

Container 1 (folder)

Reference Material, Fact Sheets

Unit Date 1965-86

box-folder 7 (box)

Container 2 (folder)

Electric Field Meter Data

Unit Date July 21, 1967

box-folder 7 (box)

Container 3 (folder)

Starfish High Altitude Nuclear Explosion on the F2 region

Unit Date 1967

box-folder 7 (box)

Container 4 (folder)

Solar Energy

Unit Date 1974, n.d.

box-folder 7 (box)

Container 5 (folder)

Scope and Content

"Why has Nation Lagged in Field of Solar Energy?" (May 5, 1974)

The Sun Motor (nd)

Flying Machines

Unit Date 1975, n.d.

box-folder 7 (box)

Container 6 (folder)

Nuclear Power Material

Unit Date 1976-82, n.d.

box-folder 7 (box)

Container 7 (folder)

Proceedings of the IEEE

Unit Date March, 1979

box-folder 7 (box)

Container 8 (folder)

Harry Diamond Laboratories Fiscal Year Review

Unit Date 1980

box-folder 7 (box)

Container 9 (folder)

Metal Detectors

Unit Date n.d.

box-folder 7 (box)

Container 10 (folder)

Panaramic Adapters

Unit Date n.d.

box-folder 7 (box)

Container 11 (folder)

Radio Material

Unit Date 1934-86, n.d.

W8PAL

Unit Date 1934-39, n.d.

box-folder 7 (box)

Container 12 (folder)

Radio Amateur Station Log and Data Book for W8PAL

Unit Date 1947-49

box-folder 7 (box)

Container 13 (folder)

Radio licenses (original and photocopied)

Unit Date 1935-65

box-folder 7 (box)

Container 14 (folder)

Creation of Additional Personal Radio Service (FCC)

Unit Date June, 1979

box-folder 7 (box)

Container 15 (folder)

Radio Club of America (RCA)

Unit Date 1980-86

box-folder 8 (box)

Container 1 (folder)

Government

Unit Date 1937-90, n.d.

Security Clearance - Department of Defense

Unit Date 1942-86, n.d.

box-folder 8 (box)

Container 2 (folder)

Gross vs. Goddard (2 folders)

Unit Date 1944-55, n.d.

box-folder 8 (box)

Container 3-4 (folder)

US Senate and House Hearings

Unit Date 1954, 1973

box-folder 8 (box)

Container 5 (folder)

Marconi vs. United States Supreme Court

Unit Date October, 1942

box-folder 8 (box)

Container 6 (folder)

CIA Documents

Unit Date 1944-79, n.d.

box-folder 8 (box)

Container 7 (folder)

World War II

Unit Date 1943-46

box-folder 8 (box)

Container 8 (folder)

Titan II rocket (2 folders)

Unit Date 1969

box-folder 8 (box)

Container 9 (folder)

box-folder 9 (box)

Container 1 (folder)

FCC Papers (4 folders)

Unit Date 1937-83, n.d.

box-folder 9 (box)

Container 2-5 (folder)

FCC Letters

Unit Date 1947-49

box-folder 9 (box)

Container 6 (folder)

Office of Strategic Services (OSS) (3 folders)

Unit Date 1945-92, n.d.

box-folder 9 (box)

Container 7-9 (folder)

United States Coast Guard

Unit Date 1949, n.d.

box-folder 10 (box)

Container 1 (folder)

Characteristics of the German V2 Rocket

Unit Date n.d.

box-folder 10 (box)

Container 2 (folder)

B17s, pictures

Unit Date n.d.

box-folder 10 (box)

Container 3 (folder)

Subject Files

Unit Date 1947-96, n.d.

John Mulligan

Unit Date 1947-78
box-folder 10 (box)
Container 4 (folder)

Wayne Coy Speech

Unit Date March 23, 1948
box-folder 10 (box)
Container 5 (folder)

Miscellaneous

Unit Date 1948-91, n.d.
box-folder 10 (box)
Container 6 (folder)

Scope and Content

Contents

- National Archives - 1994-95 Publications
- Souvenir Program - Illinois State Amateur Roller Skating Championships (1950)
- Cleveland Electronics Conference Manual (1961)
- Sun City 79'ers Lions Club Newsletter (1982)
- Identification Cards and Membership Cards (1983-87)

Gun Catalogs

Unit Date 1954-85, n.d.
box-folder 10 (box)
Container 7 (folder)

Business cards, notes

Unit Date 1959-78, n.d.
box-folder 10 (box)
Container 8 (folder)

Photos of the first landing on the moon

Unit Date July 20, 1969
box-folder 10 (box)
Container 9 (folder)

"Regulation and Growth of the Citizens Band Radio Service" thesis by Nicholas Retson (includes correspondence letters)

Unit Date 1976-78
box-folder 10 (box)
Container 10 (folder)

American Steel Export Company

Unit Date April 11, 1979, n.d.
box-folder 10 (box)
Container 11 (folder)

Stock Certificates

Unit Date 1980
box-folder 10 (box)
Container 12 (folder)

IEEE Material (2 folders)

Unit Date 1980-93

box-folder 11 (box)

Container 1-2 (folder)

IEEE Membership Listing

Unit Date 1980, 1982

box-folder 11 (box)

Container 3 (folder)

Revised presentation to the Society for the History of Technology, by Jeanne Allen, Temple University

Unit Date 1984-85

box-folder 11 (box)

Container 4 (folder)

Scope and Content

Includes correspondence letters between Jeanne Allen and Al Gross.

Taurus Space Launch Vehicle

Unit Date August 25, 1992

box-folder 11 (box)

Container 5 (folder)

Al Gross visit to Virginia Tech

Unit Date 1992-93

box-folder 11 (box)

Container 6 (folder)

Veteran Wireless Operators Association

Unit Date 1995-96

box-folder 11 (box)

Container 7 (folder)

Cleveland Metal Specialties Progress Report

Unit Date n.d.

box-folder 11 (box)

Container 8 (folder)

Book Collection

Unit Date 1938-97

box 12, 13

Scope and Content

Publications list

- Sterling, George E. The Radio Manual: For Radio Engineers, Inspectors, Students, Operators, and Radio Fans. 3rd ed. New York: Van Nostrand, 1938.
- Henney, Keith. Radio Engineers' Handbook. 3rd ed. New York: McGraw-Hill, 1941.
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- Marconi, Degna. My Father, Marconi. New York: McGraw-Hill, 1962.
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- Nebeker, Frederik. Sparks of Genius: Portraits of Electrical Engineering Excellence. New York: IEEE, 1993.
- Roosevelt, Kermit. The Overseas Targets: War Report of the OSS. Vol. II. New York: Walker, 1976.
- Moyer, Albert E. Joseph Henry: The Rise of an American Scientist. Washington: Smithsonian Institution Press, 1997.

Electronical Parts

Unit Date 1978, n.d.

Electronic Material and Parts

Unit Date 1978, n.d.

box 14, 15

Scope and Content

Contents

- True Temper Fiberglass CB Antenna advertising and sales notebook (1978)
- Metal Detector, blue
- Motorola HT 220 Handie-Talkie FM Radio
- Samsung CDMA Phone
- Motorola Bravo Pager
- Pickett slide rule in leather case
- International Rectifier in small leather case
- Slide Rule in brown plastic case
- Compass (4) in black leather pouch
- Motorola Micro TAC Prototype Cell Phone
- Ledger, I.A. Gross Electronics, Inc.
- Negatives (11 small boxes)
- Tapes - 3 cassette tapes and 2 microcassette tapes
- Videocassettes (5)
- White plastic ruler, labeled "983.5 MHZ .000000001SEC"
- Mile-O-Graph mileage measurer in red box
- Nametag - Al Gross W8PAL
- Cases for walkie-talkies (4). Three green leather cases and one blue felt soft case
- Frequency Spectrum Chart (2)
- Small picture frame, gray
- Antenna, white
- Funnel attached by chain to small scoop, brass
- Box 15
- Several unidentified electronical parts in small black suitcase (n.d.)

Awards (2)

Unit Date 1996, n.d.

"Personal Communications Industry Association 1996 Industry Award"

Unit Date September 18, 1996

box 16

General Physical Description note Engraved glass and wood frame.

Plaque "Office of Strategic Services Veterans"

Unit Date n.d.

box 17

Oversize Materials

Unit Date 1935-96, n.d.

Bullets (duds)

Unit Date n.d.

box 18

Scope and Content

2-40 millimeter and 2-20 millimeter bullets.

Awards

Unit Date 1952-92, n.d.

box 19

box 20

Scope and Content

Awards list

- Election to the Senior Member of the IEEE, framed certificate (November 1952)
- Election to Life Fellow of the IEEE, framed certificate (n.d.)
- IEEE Third Millenium Medal, paper certificate (n.d.)
- "To Al from his good buddies in London" handwritten note in wooden frame (February 11, 1982)
- Commission as Captain in the Navy of the Confederate States of America, framed certificate (November 25, 1964)
- Oversize Box 20
- "Presented In Appreciation to Al Gross on the Occasion of His Centennial Seminar..." commemorative plaque (October 1992)
- Election as a Fellow of the IEEE, laminated paper on wood (January 1, 1982)
- Election to the Board of Directors and a Fellow of the Radio Club of America, certificate on laminated wood (November 1980)

Awards, Originals, Articles

Unit Date 1935-96, n.d.

box 21

Scope and Content

Contents

- Blueprints (1949-78, n.d.)
- Publications, Awards (1952-80)
- Article "Phone Me by Air" The Saturday Evening Post, original (July 28, 1945)
- Al Gross Patents (4) - original copies (1952-56)
- Montgomery Ward Blanket Order Form - Citizens Radio Corporation (original)(June 9, 1948)
- Amateur Radio Operator License (original) (November 26, 1935)
- Photocopied images from the Virginia Tech Imagebase (n.d.)
- Photo, Symposium Internacional de Electronica (March 1996)
- Cloth sign, "Presented to Mr. A. Gross by Dundalk C.B. Club" (1980)
- Cloth sign, "Europa Burger Band" (n.d.) Drexel University and IEEE, framed certificate (Fall 1979)
- Letter confirming Al Gross as an IEEE Fellow (December 7, 1981)
- The Cleveland Press Victory Edition (WWII) (August 15, 1945)