

4. RESEARCH PROFESSOR, 1958-1966

In 1957 Gunn decided that he had accomplished much of what he had planned when he came to the Bureau. He wanted more time for his work in certain problems in atmospheric physics and he also wanted time to develop the aircraft approach and landing system which he had visualized. He looked ahead eagerly to many more years of research and invention. In 1958 he became Research Professor in physics at American University, Washington, D.C., and continued in that position until his death October 15, 1966. Sponsored first by the Atomic Energy Commission and later by the National Science Foundation among others, he worked primarily on refinements and extensions of his earlier studies in atmospheric electricity, cloud physics, air pollution, and related geophysical subjects, especially isostasy. He also accepted occasional consultant opportunities. His environment at the University was to his liking. He was free to work on problems of his own choice.

Ross Gunn's life in science was interwoven with his home life and his family. At the office and in the laboratory he worked hard. He praised his associates and strongly supported them for promotion when merited. He was careful to give due credit to his co-workers. His family was close to him. Its vital part in his life, its active, congenial, and successful aspects, are only briefly mentioned here. All four sons are college graduates, three from the University of Michigan, one from Oberlin. Two earned Masters degrees, one completed work in the Yale School of Divinity, and the fourth son, an M.D., Harvard. Their mother, Gladys, was the family complement to Ross in many ways. He represented science; she gave more time than he could to cultural and church affairs. Evenings, weekends, and even during summer vacations at their Torch Lake home in Michigan—the periods he called his “re-creation”—Ross' mind was busy most of the time on scientific matters. He worked long hours on laboratory things at home. But he also gave generous support to the church and civic activities sponsored by Gladys.

Notwithstanding his absorption with science, Gunn enjoyed vigorous exercise—carpentering, ditch-digging, wood chopping, etc., at the Lake cottage, swimming and walking. The spacious lake front site in Michigan was

called The Arsenal, the place where the Gunns were kept. The 38-ft. cruiser during the earlier years at NRL was the *GUNNBOAT*. He took great pleasure in weekend cruises on the Potomac during those NRL years. Brisk walks with a son or two through neighboring woodlands were frequent. Even during the most difficult days of the ACN and atomic propulsion for submarines projects Gunn's characteristic dry sense of humor sounded the pitch for good family relationships. He always liked the down-to-earth stories and anecdotes of his long-time friend Boss Kettering, and he often “indoctrinated” the boys in similar fashion.

Gunn lived a full and useful life. Many times he could have made it easier for himself if he had been less steadfast in his beliefs and more inclined to “exploit” the facts instead of expecting them to speak for themselves. He conducted himself unusually well in social and political events but he rarely sought them, and he held it to be beneath a true scientist to seek unmerited favor. Probably Ross Gunn would deem it the highest compliment to be regarded as a man of science—“good science”—a disciple of truth, justice, and high principle whose contributions are fundamental and enduring. These things he has achieved!

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U.S. PATENTS ISSUED TO ROSS GUNN

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|-----------|---|-----------|---|
| 1,568,065 | Constant Frequency Source | 2,134,716 | Speed and Distance by Radiant Energy |
| 1,701,975 | Device for Indicating Small Changes of Capacity | 2,155,419 | Detection of Displacements (Reissue #21,361) |
| 1,730,071 | Directive Transmission of Energy | 2,155,420 | Detection of Displacements (Reissue #21,372) |
| 1,821,181 | Method and Apparatus for Transferring Electrical Energy | 2,162,710 | Detection of Defects in Metallic Objects |
| 1,860,285 | Control Apparatus | 2,210,932 | Electrostatic Navigation |
| 1,862,931 | Temperature Responsive Condensers | 2,255,053 | Location of Defects in Metallic Objects—Rotating Magnet |
| 1,886,336 | Induction Compass | 2,282,354 | Expansion Compensation in Pipe |
| 1,887,713 | Electromechanical Coupling Device | 2,287,794 | Apparatus for Measurement of Mechanical Power |
| 1,919,215 | Thunderstorm or Electric Field and Potential Indicator | 2,342,660 | Electrical Calculator |
| 1,936,597 | Amplifier for Low Frequencies | 2,384,463 | Fuel Cell |
| 1,939,690 | Synchronous Alternating Current Inductor Compass | 2,449,068 | Electric Field Meter with Null Arrangements |
| 1,942,421 | Capacity Element—Electrical Altimeter | 2,461,543 | Method for Studying Wave Propagation |
| 1,947,469 | Field Localizer | 2,519,367 | Method and Apparatus for Detecting Defects in Metals |
| 1,954,811 | Constant Speed Motor | 2,578,697 | Method and Apparatus for Discharging Static Electricity |
| 1,966,065 | Modulation System | 2,586,815 | Insulation Breakdown Indicators and Recorders |
| 1,976,723 | A.C. Current Inductor Compass | 2,671,334 | Dew or Frost Point Indicator |
| 1,991,387 | Thermionic Control Devices | 2,820,947 | Electric Field Meter |
| 2,020,310 | Ultra High Frequency Communication System | 2,855,598 | Device for Antennas to Overcome Precipitation Static Interference |
| 1,963,551 | Inductor Compass | 3,079,586 | Locating and Guidance Systems for Vehicles for Air, Sea, and Land |
| 2,028,153 | Radiation Detector | 3,116,473 | Aircraft Guidance—Yaw Detection and Metering |
| 2,054,318 | Compass with Compensator | | |
| 2,087,252 | Ultra High Frequency Tube | | |
| 2,114,298 | Amplifier for Thermo EMF's | | |