

First Successful Solar Test Came 25 Years Ago

Sunlight as a source of energy is one of the most promising future alternatives to OPEC oil. With all of the increased attention being given to solar power today, few people realize that one of the first successful applications of solar energy occurred 25 years ago this month.

T.M. Graham Southern Bell District manager said that the first successful test of solar energy for telecommunications began on October 4, 1955. Bell Laboratories, the Bell System's research and development unit, teamed with Southern Bell to use pole-mounted solar batteries to power rural telephone lines near Americus, Georgia.

Graham explained that the invention of the solar cell and the solar battery were by-products of Bell labs' pioneer research in semiconductor technology, the same type of research which led to Bell Labs' invention of the transistor.

Bell Labs scientists, Daryl Chapin, Calvin Fuller, and Gerald Pearson found that sunlight energy striking water-thin silicon material (same substance as common beach sand) releases electrons in the silicon that could then be captured in the form of electrical current. Their invention was

made public in April, 1954.

The solar cell, the solar battery, and subsequent improvements were stimulated by Bell system efforts to improve telecommunications technology. So far, the most notable success has been in the use of solar batteries to power communications satellites and other space hard-

ware.

The Bell System's policy of sharing such technical contributions with industry, government and institutions of higher learning has insured that the solar cell and the solar battery also would be available for other uses far beyond the field of telecommunications.

"We in the Bell System are justly proud of these two inventions and scores of others that not only improve basic telephone service, but also unlock new technologies in new or unrelated fields," said Graham.

"Today, similar work to improve old technology and invent

new ones is progressing towards making the telephone even more valuable in an approaching age of expanded communications and information services.

"We cannot sell all that lies ahead," said Graham, "but we are confident that great things are in store for the future. The history of our inventions is a

good indication.

"Who would have ever thought," he added, "that an experiment to improve telephone service to Georgia farmers would usher in an era of satellite and lightwave communications and be a major alternative source of energy in America's drive for energy independence."

Duo To Appear At Abbey

The flute and classical guitar duo of Irene Maddox and Doug James will present a concert at Belmont Abbey College on Monday, November 3, at 8 p.m. in the Abbey Church.

The Maddox/James duo, which has been concertizing for six years, played in August by special invitation at the annual convention of the National Flute Association. The November 3 concert will be a return to a favorite place for the duo, who claim that the acoustics of the Abbey Church are marvelous, both for the performers and audience.

Irene Maddox, who made a national concert tour earlier this year, is an experienced symphony flutist as well as concert artist. She has held principal flute positions with the symphonies of San Antonio and Odessa, Texas; Augusta, Ga.; Columbia, S.C.; Charlotte and Asheville, N.C.; and the American Wind Symphony of Pittsburgh, Pa. She has appeared as soloist in five southern states with the Charlotte Symphony, Chamber Orchestra, and in Charlotte with the Summer Pops Orchestra.

The founder of the Charlotte Flute Club, Mrs. Maddox has studied with such world leading flutists as Jean-Pierre Rampal, Frederick Wilkins, George Morey, Julius Baker, Maxence Larrieu, Andras Adorjan, Alain Marion and Marcel Moysé.

Doug James began playing the guitar at age 13, and has since studied under such artist as Oscar Ghiglia, Jesus Silva of the North Carolina School of the Arts, Gus Toole of Charlotte, and Mike Mosley of UNCC.

He currently divides his time between teaching guitar in his private studio in Charlotte, and performing, both solo and duo with Mrs. Maddox.

The Belmont Abbey College concert is open to the public, and admission is free.

Harper Attends Alumni Meeting

CHAPEL HILL — Ragan Harper, pharmacist of Kings Mountain, was recently installed as a member of the Board of Directors of the newly created School of Pharmacy Alumni Association at the University of North Carolina at Chapel Hill.

A member of the School of Pharmacy class of 1965, Harper will serve a one-year term on the Board of Directors.

The Pharmacy Alumni Association was organized in honor of the Centennial of Pharmaceutical Education on the campus of UNC-CH. More than 250 alumni attended the October organizational meeting.

SAMPLE BALLOT FOR STATE OFFICERS, UNITED STATES SENATOR and MEMBER OF CONGRESS GENERAL ELECTION

Gaston County, North Carolina
November 4, 1980

INSTRUCTIONS TO VOTER

- To vote for all candidates of one party (a straight ticket), fill in the box at the right of the party for whose candidates you wish to vote.
- To vote for candidates of more than one party (a split ticket), do not mark in any party box, but fill in the box at the right of the name of each candidate for whom you wish to vote.
- If you should fill in the box at the right of one of the parties at the top of the ballot and also fill in the box at the right of the name of any candidate of any party, your ballot will be counted as a straight ticket vote for all of the candidates of the party whose box you filled.
- If you tear or deface or wrongly mark this ballot, return it and get another.

TO VOTE, FILL IN BOX LIKE THIS

STRAIGHT PARTY TICKET (You may vote for one party)

- DEMOCRATIC (DEM)
- REPUBLICAN (REP)
- LIBERTARIAN (LIB)
- SOCIALIST WORKERS (SOC WKRS)

STATE

FOR GOVERNOR (You may vote for one)

- JAMES B. (JIM) HUNT, JR. DEM
- BEVERLY LAKE REP
- BOBBY YATES EMORY LIB
- DOUGLAS A. COOPER SOC WKRS

FOR LIEUTENANT GOVERNOR (You may vote for one)

- JAMES C. (JIMMY) GREEN DEM
- WILLIAM (BILL) COBEY, JR. REP
- GRAIG FRANKLIN LIB

FOR SECRETARY OF STATE (You may vote for one)

- THAD EURE DEM
- DAVID T. FLAHERTY REP

FOR STATE TREASURER (You may vote for one)

- HARLAN E. BOYLES DEM

FOR STATE AUDITOR (You may vote for one)

- EDWARD RENFROW DEM
- JAMES F. (JIM) MCINTYRE REP

FOR ATTORNEY GENERAL (You may vote for one)

- RUFUS EDMISTEN DEM
- KEITH S. SNYDER REP

FOR COMMISSIONER OF AGRICULTURE (You may vote for one)

- JAMES A. (JIM) GRAHAM DEM

FOR COMMISSIONER OF INSURANCE (You may vote for one)

- JOHN INGRAM DEM
- EDWIN W. TENNEY, JR. REP

FOR COMMISSIONER OF LABOR (You may vote for one)

- JOHN C. BROOKS DEM

FOR SUPT. OF PUBLIC INSTRUCTION (You may vote for one)

- CRAIG PHILLIPS DEM

NATIONAL

FOR UNITED STATES SENATOR (You may vote for one)

- ROBERT MORGAN DEM
- JOHN P. EAST REP
- F.W. (RICK) PASOTTO LIB
- REBECCA FINCH SOC WKRS

FOR MEMBER OF CONGRESS Tenth Congressional District (You may vote for one)

- JAMES T. (JIM) BROYHILL REP

VOTE BOTH SIDES

The November 4th Ballot Is Tricky MAKE SURE YOUR VOTE FOR JIM BROYHILL COUNTS



Dear Friends:

The State Board of Elections has made it difficult and confusing for you, the voters, this November 4th. The separate ballot which you are accustomed to, has been abolished. Your vote for Jim Broyhill will be ignored if your mark is in the straight Democratic box. Please study the ballot below very carefully and read the instructions on the two ways you can vote for me. I will appreciate your support on Tuesday.

Jim

TO VOTE FOR CONGRESSMAN JAMES T. (JIM) BROYHILL

FIRST, DO NOT MARK THE DEMOCRATIC PARTY BOX.

SECOND, MARK BESIDE JAMES T. (JIM) BROYHILL and the others you support

OR

MARK THE REPUBLICAN PARTY BOX.

KEEP
JIM BROYHILL
WORKING FOR US

Paid for by the Jim Broyhill Congressional Club