

Orig Ltr
Housman/52270/ss
t/13 Oct 59

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#669

TNS

15 OCT 1959

C. F. Stillman
Radiation Research Company
114 1st Avenue
New York, New York

Dear Admiral Stillman:

Here's a copy of a news release we worked up from your proposed draft. If you like it, we'll forward it to Washington for clearance and release to our list of technical magazines.

We'll be glad to incorporate any changes you might want to make in the text if they meet with our engineers' approval. If possible, please send us copies of the pictures you mentioned, with negatives. These will be returned after release of the story.

Very truly yours,

EDWARD M. HOUSMAN
Special Assignments Branch
Technical Information Division

1 Incl:
Proposed news release
in dupes

LEONARD ROKAW
Chief
Technical Information Division

Incl on file at TNS- ss

*Dep. Teflon Tech
release
1 sheet*

*Shirley
Litt
13 Oct 59*

COPY
FOR — Technical Information Division
Headquarters, USASRD

Industry Liaison

File
EH
Tech release

TECHNICAL INFORMATION DIVISION
U. S. ARMY SIGNAL RESEARCH AND DEVELOPMENT LABORATORY
FORT MONMOUTH, NEW JERSEY

FORT MONMOUTH, N. J. -- The development of a tiny, thin-film, low voltage capacitor that occupies a fraction of the volume of present conventional film capacitors and operates up to 125°C was announced today by the U. S. Army Signal Corps.

Known as the "Deposited Teflon" type, the capacitor was developed jointly by the U. S. Army Signal Research and Development Laboratory, Fort Monmouth, N. J. and the Radiation Research Corp., New York City.

In the course research into insulation for nuclear batteries, Radiation Research Corp. discovered a technique for depositing a micron-thick film of dielectric on aluminized foil. The process lends itself to many dielectric compositions and provides a uniform, pinhole-free film.

Teflon was chosen as the capacitor dielectric because of its high-quality, high-temperature characteristics. Use of this novel thin-film technique reduces the amount of teflon needed to approximately one-tenth the amount ordinarily required. Volume reductions of at least 75% over conventional foil-paper designs have already been realized.

These new capacitor designs can be tailored to low voltage transistor circuit requirements, and, for the first time, provide high capacitance, high quality performance in sizes compatible with those of transistors. The capacitor will not be available for general use until production facilities are established to produce and evaluate the teflon-sandwich. The new capacitor is expected to be competitive in price with styles currently in use.

Look over and call me please.

Housman 852270



Radiation Research Corporation

1114 FIRST AVENUE • NEW YORK 21, NEW YORK
TEMPLETON 8-2513

October 21, 1959

Commanding General
U.S. Army Signal R & D Laboratory
Fort Monmouth, New Jersey

Reference: SIGFM/EL-TNS

Attention: Mr. Leonard Rokaw, Chief
Technical Information Division

Dear Sir:

Thank you for your letter as referenced above enclosing the proposed news release regarding our capacitor.

We had one or two second thoughts which we have incorporated in the enclosed redraft of the release. This has primarily to do with use of the (du Pont) trade name of Teflon. Heretofore our process has been referred to as the "Deposited Teflon" method. Since other dielectrics can be deposited it would be better to use a more generic term as well as one not tied to du Pont. We have accordingly suggested that the process be called "Glow Discharge". The other changes we have proposed follow from the above.

I believe the most effective news picture would be that of a one microfarad capacitor alongside a paper clip. We do not have professional photographic services in the company, so in order to expedite matters I am enclosing a (dummy) 1 mfd capacitor, hoping that you will be able to do justice by it with your own photographic set up.

Trusting that the above changes and the picture-taking procedure will be satisfactory to you and the engineering staff.

Very truly yours,

RADIATION RESEARCH CORPORATION

C. F. Stillman
C. F. Stillman, Manager
Government Contracts

CFS:LL

Enclosures: Proposed news release
1 mfd capacitor

Orig
FINAL Reply *no 278*
Housman/52270/ss
t/7 Dec 59

TNS

Lt. Colonel Kenneth E. Shiflet
Chief, Office of Technical Liaison
Office of the Chief Signal Officer
Department of the Army
The Pentagon, Rm BD1024
Washington 25, D. C.

10 DEC 1959

Dear Col. Shiflet:

Attached is a proposed news release with picture describing a new capacitor developed at USASRD. The story is intended for technical and trade publications only.

Very truly yours,

2 Incls:

1. Release (12 cys)
2. Photos w/captions (40 cys)

LEONARD ROKAW
Chief
Technical Information Division

Incls on file at TNS - ss

*Copy furnished
Capt E. Minkel
R&D Div, OCSigO
Attn: SIGRD-7e*

*Hilder
7 Dec 59*

COPY FOR Technical Information Division
Headquarters, USASRD

TECHNICAL INFORMATION DIVISION
.. U. S. ARMY SIGNAL RESEARCH AND DEVELOPMENT LABORATORY
FORT MONMOUTH, NEW JERSEY

MINIATURIZED CAPACITOR -- New "glow discharge film" type capacitor, developed by the U. S. Army Signal Research and Development Laboratory, Fort Monmouth, N. J., and the Radiation Research Corp., New York, is compared in size with paperclip.

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In the course of research into insulation for nuclear batteries, Radiation Research Corp. discovered a technique for depositing a micron-thick film of dielectric on an aluminized surface. The process lends itself to many dielectric compositions such as Teflon and polystyrene and provides a uniform, pinhole-free film.

Teflon was chosen as the capacitor dielectric because of its high-quality, high-temperature characteristics. Use of this novel thin-film technique reduces the amount of dielectric needed to approximately one-tenth the amount ordinarily required. Volume reductions of at least 75% over conventional foil-paper designs have already been realized.

These new capacitor designs can be tailored to low voltage transistor circuit requirements, and, for the first time, provide high capacitance, high quality performance in sizes compatible with those of transistors. The capacitor will not be available for general use until production facilities are established. The new capacitor is expected to be competitive in price with styles currently in use.

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Radiation Research Corporation

114 FIRST AVENUE • NEW YORK 21, NEW YORK
TEMPLETON 8-2513

TNS
FILE:
STILLMAN, etz

March 30, 1960

Chief
Technical Information Division
U. S. Army Signal Res. & Dev. Laboratory
Fort Monmouth, New Jersey

Reference: SIGFM/EL-TNS

Attention: Mr. Edward M. Housman

Dear Sir:

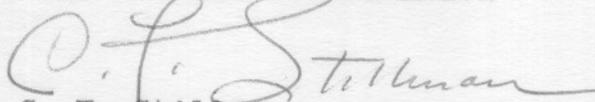
Thank you for your letter of 28 March 1960 with the copies of the release on the thin film capacitor.

I am enclosing a Verifax copy of the only press clipping we have seen. On our own hook we will distribute copies of the release to people and publications we feel should have it. I imagine that the Washington release was placed on "the board" for pick up by interested parties, and many publications specializing in military electronics would probably not receive it under such circumstances.

Again, thank you for your assistance in getting out the word.

Yours sincerely,

RADIATION RESEARCH CORPORATION


C. F. Stillman
Manager, Gov't Contracts

CFS:LL
Enclosure

Published 22 February 1960
Electronic News (A Fairchild Publication)

Thin-Film Low Voltage Capacitor Is Developed

Special to Electronic News

WASHINGTON.— The Signal Corps has disclosed the development of a thin-film low voltage capacitor that allows for large volume reductions over conventional capacitors.

Called the "glow discharge film" type, the capacitor was developed jointly by the Signal Research & Development Laboratory, Fort Monmouth, N. J., and the Radiation Research Corp., New York.

The new capacitor is said to operate at temperatures up to 125° C.

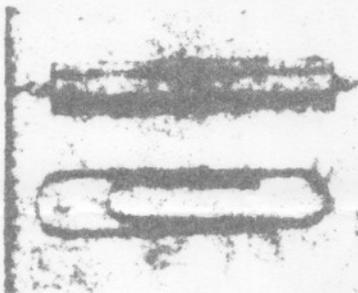
The company, during research into insulation for nuclear batteries discovered a technique for depositing a micron-thick film of dielectric on an aluminumized surface. The process lends itself to many dielectric compositions such as teflon and polystyrene and provides a uniform, pinhole-free film, the Signal Corps said.

Teflon was chosen as the ca-

pacitor dielectric because of its high-quality, high-temperature characteristics. Officials said that this thin-film technique reduces the amount of dielectric needed to approximately one-tenth the amount ordinarily required. Volume reductions of at least 75 percent over conventional foil-paper designs have already been re-aligned officials said.

The new capacitor designs can be tailored to low voltage transistor circuit requirements, and, for the first time, provide high capacitance, high quality performance in sizes compatible with those of transistors, officials claimed.

The capacitor will not be available for general use until production facilities are established, but it is expected to be competitive in price with styles currently in use, the Signal Corps said.



NEW "GLOW DISCHARGE FILM" type capacitor developed jointly by Signal Corps and Radiation Research Corp., compared in size with paper clip.