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DEPARTMENT OF DEFENSE
OFFICE OF FREEDOM OF INFORMATION
1155 DEFENSE PENTAGON
WASHINGTON, DC 20301-1155

APR 1 2018
Ref: 18-F-0567

Mr. John Greenewald, Jr.
The Black Vault
27305 W. Live Oak Rd.
Suite 1203
Castaic, CA 91384-4520

Dear Mr. Greenewald:

This is our final response to your February 15, 2018, Freedom of Information Act (FOIA) request, a copy of which is enclosed for your convenience. We received your request from the Defense Technical Information Center on February 27, 2018, and assigned it case number 18-F-0567 for tracking purposes.

The enclosed document is appropriate for release in its entirety, without excision. This constitutes a full grant of your request, and closes your case file in this office. There are no assessable fees associated with this response.

I trust that this information fully satisfies your request. If you need further assistance or would like to discuss any aspect of your request, please do not hesitate to contact the Action Officer assigned to your request, Megan Farrell at megan.b.farrell2.civ@mail.mil or (571) 372-0409. Our FOIA Public Liaison is also available to assist you and may be reached at 571-372-0462.

Sincerely,

Stephanie L. Carr
Chief

Enclosures:
As stated

18-F-0567

FEB 27 2018

Crawford, Patricia A CIV DTIC EM (US)

From: John Greenewald <john@greenewald.com>
Sent: Thursday, February 15, 2018 2:10 AM
To: DTIC Ft Belvoir RM Mailbox FOIA
Subject: [Non-DoD Source] FOIA REQUEST

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

To whom it may concern,

This is a non-commercial request made under the provisions of the Freedom of Information Act 5 U.S.C. S 552. My FOIA requester status as a "representative of the news media." I am a freelance television producer often working on documentaries related to my FOIA requests, my work is commonly featured throughout major news organizations, and I freelance writer for news sites as well. Examples can be given, if needed.

I prefer electronic delivery of the requested material either via email to john@greenewald.com, FAX 1-818-659-7688 or via CD-ROM or DVD via postal mail. Please contact me should this FOIA request should incur a charge.

I respectfully request a copy of records, electronic or otherwise, of the following document:

Collection: Technical Reports
Title: (U) Anti-gravity ... (NAMRAD 2004) PDF Caution-url: (pdf) - 348 KB -

ADB333173

Accession Number: ADB333173
Personal Author(s): Jones, Richard L
Corporate Author: DEFENCE SCIENCE AND TECHNOLOGY LAB PORTON DOWN (UNITED KINGDOM) Report Date: Oct 2004 Descriptive Note: Briefing charts
Pages:18 Page(s)
Report Number: X5 - MIN-DEF/UK (X5MINDEFUK)
Monitor Series: MIN-DEF/UK (MINDEFUK)

Thank you so much for your time, and I am very much looking forward to your response.

Sincerely,

John Greenewald, Jr.

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Suite #1203

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FAX 1-818-659-7688

Sincerely,

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[dstl] Anti-gravity ...

Presentation to

NAMRAD PRINCIPALS

October 2004

Richard L Jones

Report Documentation Page

Form Approved
OMB No. 0704-0188

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1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
01 OCT 2004	**N/A**	-

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
NAMRAD 2004: Anti-gravity	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
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	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Distribution authorized to U.S. Gov't. agencies only; (Foreign Government Info; 16 Oct 2000). Other requests shall be referred to (Office of the Under Secretary of Defense, Acquisitions, Technology and Logistics, ATTN: OUSD (AT&L)/DDR&E/ITP, 3080 Pentagon, Washington, DC 20301-3080. TTCP MOU Amendment One.).

13. SUPPLEMENTARY NOTES

See also ADM202159. Minutes of the 39th Meeting of the Principals. Held at London, United Kingdom on October 25-29, 2004., The original document contains color images.

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**SAR**	**17**	

Presentation outline

- Background
- Flying Demonstration
- Theory
- Current work
- Observations

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Background

- Became aware of Russian work by Podkletnov of alterations in gravitational fields directly above a rapidly rotating superconducting disc
- Further work by Podkletnov on plasma discharge from superconducting magnet reported generating so called anti gravity waves. NASA are trying to replicate the claim
- On trawling the internet to try and source some of the original Russian publications was directed to so called anti gravity Lifters

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Background - Lifter Technology

- The “Lifter” is an asymmetrical capacitor which uses high voltage (> 20KV) to produce a directional thrust
  - i.e. an electromagnetic propulsion system ??
- The Lifter works without moving parts, flies silently, uses only electrical energy and is able to lift its own weight plus an additional payload
- Consists of a corona or "emitter" wire, and a "collector" foil

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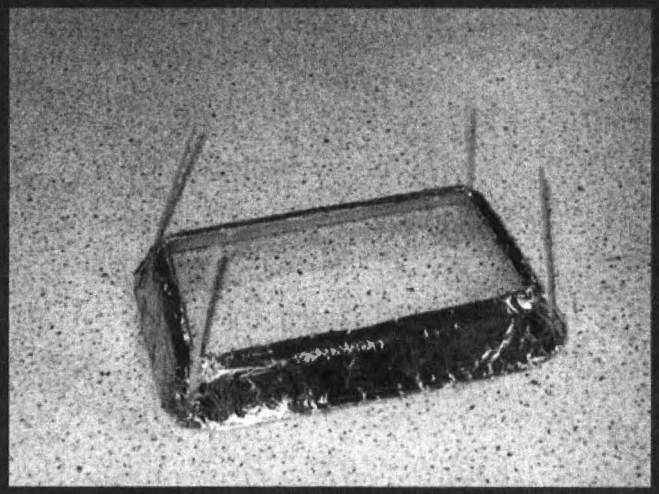
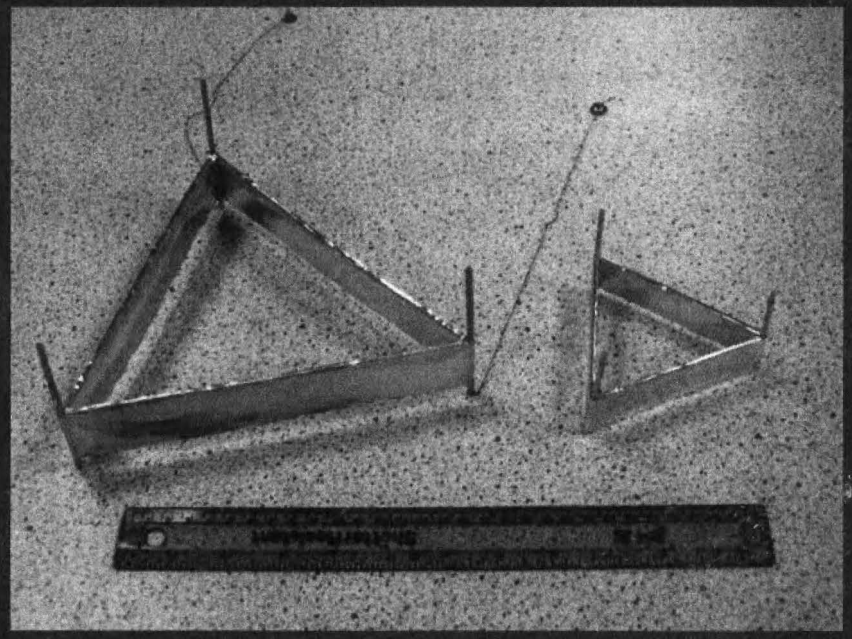
Dstl Lifters





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Background

- Originates from the Biefield-Brown effect
  - When a high voltage ~30KV is applied to electrodes of an asymmetric capacitor a net force is observed
- Brown was a lab technician and Biefield a Prof at Denison Uni Ohio
- Work dates back to 1920's when Brown was experimenting with a Coolidge tube.

- Patents issued in 1927, 1957, 1960 by Bierfield –Brown
- And more recently by NASA in Jan 2002 and June 20002

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Claims of Biefield-Brown

- The greatest force on capacitor is when small electrode is positive.
- The effect occurs in a dielectric medium (air)
  - Also reported to occur in vacuum
- The effect can be used for vehicle propulsion
- Mechanism considered in terms of ionic motion
- The details of the physics of the effect is not understood

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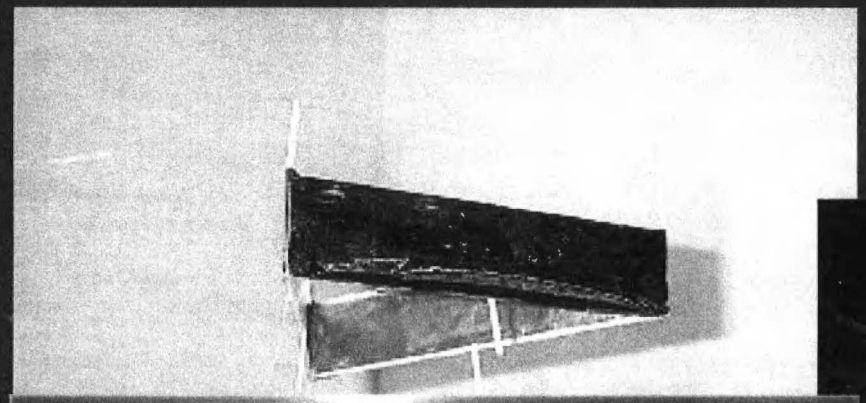
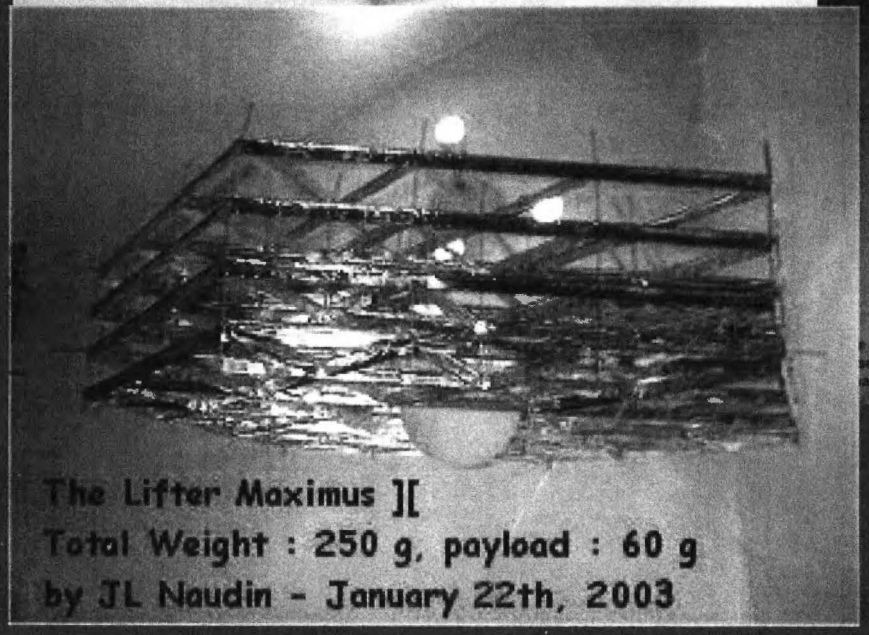
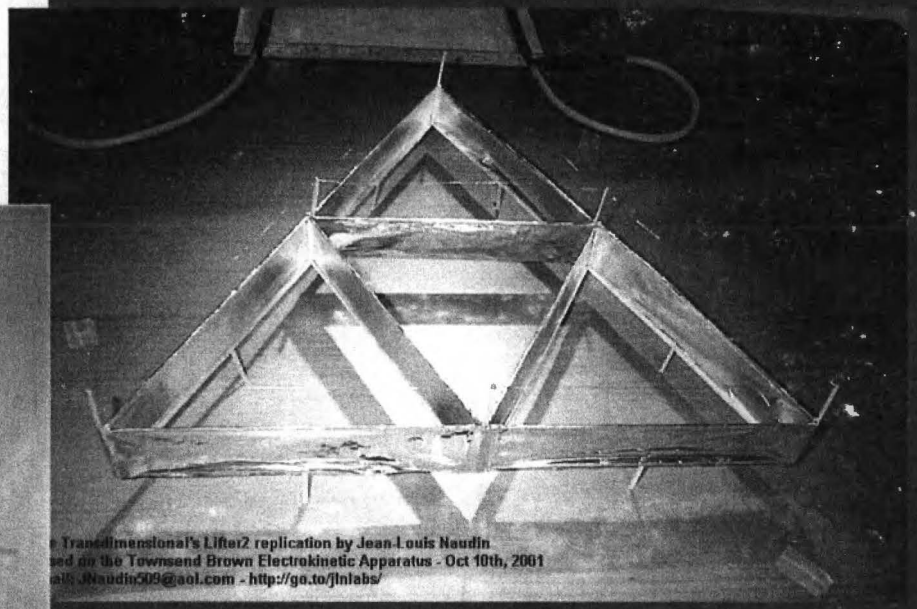
Background







Huge ...!!

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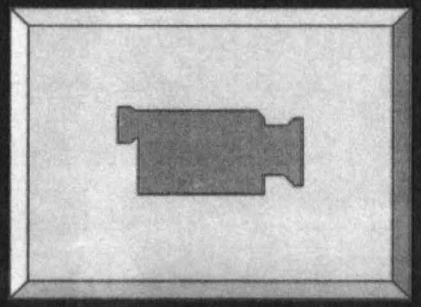
Flying Demonstration ...



- Current work at Dstl Porton Down

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Theory

- Biefeld-Brown technology versus ion-wind technology
- **Ionic wind**: ions that are accelerated by the electric-field between the wire and the foil create a movement of air producing thrust.
- **Biefeld-Brown**: Claimed to produce a thrust in vacuum

[1]Tajmar, M., "The Biefeld-Brown Effect: Missinterpretation of Corona Wind Phenomena," AIAA Journal, Vol 42, pp 315-318 (2004)

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Current Project Aims

- Attempt to fully understand the physics
- Ultimate goal to reduce power required and improve efficiency so Lifter can support it's own power supply … ambitious!
- Investigate how voltage/current & thrust are effected by:
  - Lifter size/shape
    - Scaling effects
    - electrostatic field is a function of electrode geometry …
    - geometry
      - torroidial (doughnut) … concentric rings separated by shields to prevent ionic cross-over

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Current Project Aims (2)

- Improve efficiency (cont.):
  - Peek's equation (corona onset voltage)
    - no material related constants, only geometric
    - require thinner emitter wire … maybe even very thin carbon fibre
  - Distance between emitter wire and foil is important
  - Changing dielectric media (from air) to:
    - an inert gas (e.g. helium)
    - a solid film (high K-dielectric polymer film)

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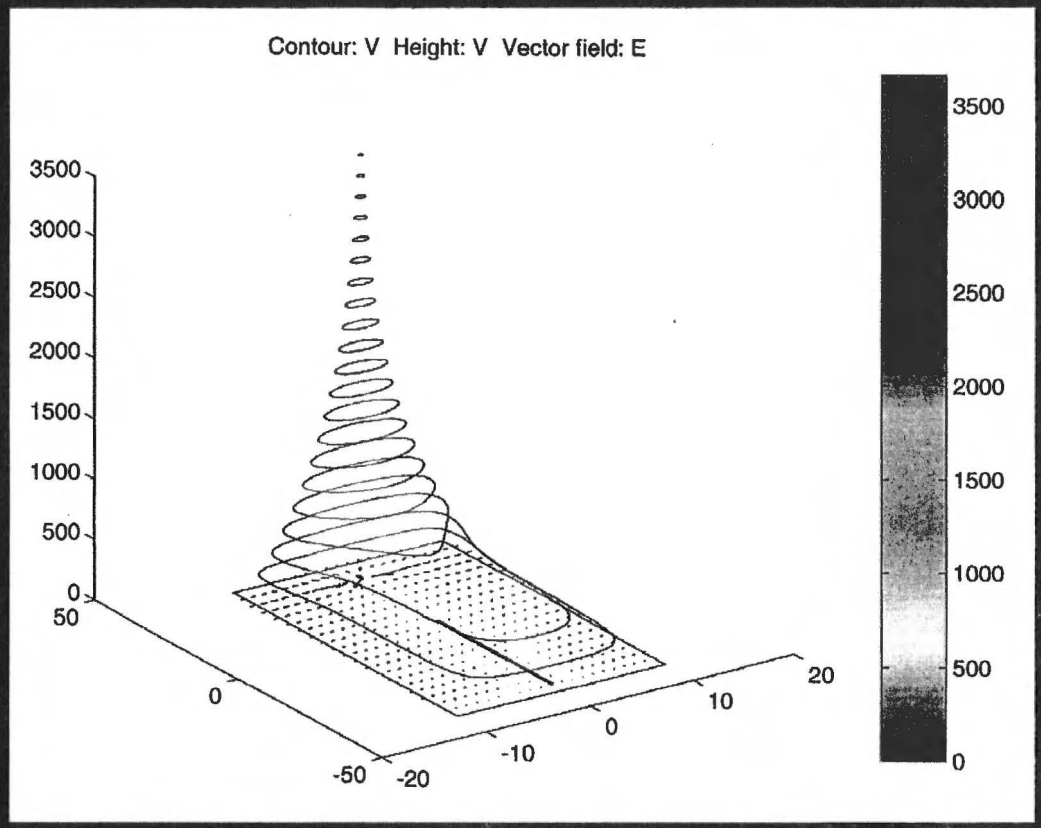
Current Project Aims (3)

- Model the discharge potential between emitter and collector
  - Initial attempts using 'Partial Differential Equation' toolbox within MatLab has shown promise
  - Can vary Lifter geometry as it uses FE
  - Also vary input voltage/current



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Observations

- The greatest force on capacitor is when small electrode is positive.
- However, has been shown that effect is independent of voltage polarity.
- The effect can be used for vehicle propulsion
- The effect occurs in a dielectric medium (air)

- The details of the physics of the effect is not understood

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Observations

- Mechanism generally considered in terms of ionic motion
  - However, has been shown that effect is independent of voltage polarity.
  - Also some reference that the effect occurs in vacuum.
  - Tests at NRL
  - University Penna Philadelphia
  - Field station trials in Ohio and Southern Carolina in the 1930-1950

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Ionic Force to Small ?

- Consider charged particles of mass m, having a charge q are accelerated to a velocity v at a voltage V. The kinetic energy is
  - $q.V = \frac{1}{2}.m.v^2$
- The force is given by
  - F=m.v.I/q where I is the current across the capacitor.
- Hence by substitution, the mass that can be lifted is
  - $M=(2.m.V/q)^{1/2}.I/g$
- This gives a maximum mass that can be lifted as 0.01 gram.
  - Assuming $m = 27*10^{-27}$ Kg mass of oxygen ion
  - And $q = 1.6*10^{-19}$ c the charge of an electron

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Scale of Effect in Comparison

- DC electric motor providing 50g thrust requires 8W
  - But weighs 30g
  - Therefore available thrust is 20g
  - Ie 400W/ Kg
- Lifter @ 30KV and .5mA = 15W lifts 6.5g
  - Weighs 6g
  - ie 3000W / Kg
  - Lifter therefore an order of magnitude less efficient than electric motor but!
  - Drag reduction ?
  - Stealth ?

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