HOMOPOLAR "FREE-ENERGY" GENERATOR TEST

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ABSTRACT

Known for over 150 years, the Faraday homopolar generator has been claimed to provide a basis for so-called "free-energy" generation, in that under certain conditions the extraction of electrical output energy is not reflected as a corresponding mechanical load to the driving source.

During 1985 I was invited to test such a machine. While it did not perform as claimed, repeatable data showed anomalous results that did not seem to conform to traditional theory.

In particular, under certain assumptions about internally generated output voltage, the increase in input power when power was extracted from the generator over that measured due to frictional losses with the generator unexcited seemed to be either about 13% or 20% of the maximum computed generated power, depending on interpretation.

The paper briefly reviews the homopolar generator, describes the tests on this particular machine, summarizes and presents tentative conclusions from the resulting data.

THE SUNBURST HOMOPOLAR GENERATOR

In July, 1985, I became aware of and was invited to examine and test a so-called free-energy generator known as the Sunburst N Machine.

This device, shown in Figs 1a and 1b, was proposed by Bruce DePalma and constructed by Charya Bernard of the Sunburst Community in Santa

Barbara, CA, about 1979.

The term "free-energy" refers to the claim by DePalma [1] (and others [2]) that it was capable of producing electrical output power that was not reflected as a mechanical load to the driving mechanism but derived from presumed latent spatial energy.

Apart from mechanical frictional and electrical losses inherent in the particular construction, the technique employed was claimed to provide a basis for constructing a generator which could supply the energy to provide not only its own motive power but also additional energy for external use. From August 1985 to April 1986 I made a series of measurements on this particular machine to test these claims.

GENERATOR DESCRIPTION

Details of the generator construction are shown in Figs. 2 and 3.

It consists essentially of an electromagnet formed by a coil of 3605 turns of #10 copper wire around a soft iron core which can be rotated with the magnetic field parallel to and symmetrical around the axis of rotation.

At each end of the magnet are conducting bronze cylindrical plates, on one of which are arranged (as shown in Fig. 3) one set of graphite brushes for extracting output current between the shaft and

the outer circumference and a second set of metering brushes for independently measuring the induced voltage between these locations.

A third pair of brushes and slip rings supply the current for the electromagnet. A thick sheath of epoxy-impregnated fiberglass windings allow the magnet to be rotated at high speed.

The generator may be recognized as a so-called homopolar, or acyclic machine, a device first investigated and described by Michael Faraday [3] in 1831 (Figs. 4,5) and shown schematically in Fig. 6.

It consists of a cylindrical conducting disk immersed in an axial magnetic field, and can be operated as a generator with sliding brushes extracting current from the voltage induced between the inner and outer regions of the disk when the rotational energy is supplied by an external driving source.

The magnitude of the incremental radial generated voltage is proportional to both the strength of the magnetic field and the

tangential velocity, so that in a uniform magnetic field the total voltage is proportional to the product of speed times the difference between the squares of the inner and outer brush radii.

The device may also be used as a motor when an external voltage produces an radial current between the sliding brushes.

There have been a number of commercial applications of homopolar motors and generators, particularly early in this century [4], and their operating principles are described in a number of texts [5].

The usual technique is to use a stationary magnet to produce the magnetic field in which the conducting disk (or cylinder) is rotated.

Faraday found, however, (Fig 7) that it does not matter whether the magnet itself is stationary or rotating with the disk as long as the conductor is moving in the field, but that rotating the magnet with the conducting disk stationary did not produce an induced voltage.

He concluded that a magnetic field is a property of space itself, not attached to the magnet which serves to induce the field [6].

DePalma stated [7] that when the conducting disk is attached to a rotating magnet, the interaction of the primary magnetic field with that produced by the radial output current results in torque between the disk and the magnet structure which is not reflected back to the mechanical driving source.

Lenz's law therefore does not apply, and the extraction of output energy does not require additional driving power. This is the claimed basis for extracting "free" energy.

Discussions of the torque experienced by a rotating magnet are also discussed in the literature [8].

Because the simple form shown in Fig. 6 has essentially one conducting path, such a homopolar device is characterized by low voltage and high current requiring a large magnetic field for useful operation.

Various homopolar devices have been used for specialized applications [9] (such as generators for developing large currents for welding, ship degaussing, liquid metal magnetohydrodynamic pumps for nuclear reactor cooling, torquemotors for propulsion, etc.), some involving quite high power.

These have been extensively discussed in the literature, dealing with such problems as developing the high magnetic fields required (sometimes using superconducting magnets in air to avoid iron saturation effects), the development of brushes that can handle the very high currents and have low voltage drop because of the low output voltage generated, and with counteracting armature reaction which otherwise would reduce the output voltage because of the magnetic field distortion resulting from the high currents.

From the standpoint of prior art, the design of the Sunburst generator is inefficient and not suitable for power generation:

1. The magnetic field is concentrated near the axis where the tangential velocity is low, reducing the generated voltage.

2. Approximately 4 kilowatts of power are required to energize the magnet, developing enough heat so that the device can only be operated for limited periods of time.

3. The graphite brushes used have a voltage drop almost equal to the total induced voltage, so that almost all of the generated power is consumed in heating the brushes.

4. The large contacting area (over 30 square inches) of the brushes needed for the high output current creates considerable friction loss.

Since this machine was not intended as a practical generator but as a means for testing the free energy principle, however, from this point of view efficiency in producing external power was not required or relevant.

DEPALMA'S RESULTS WITH THE SUNBURST HOMOPOLAR GENERATOR

In 1980 DePalma conducted tests with the Sunburst generator, describing his measurement technique and results in an unpublished report [10].

The generator was driven by a 3 phase a-c 40 horsepower motor by a belt coupling sufficiently long that magnetic fields of the motor and generator would not interact. A table from this report giving his data and results is shown in Fig. 8.

For a rotational speed of 6000 rpm an output power of 7560 watts was claimed to require an increase of 268 watts of drive power over that required to supply losses due to friction, windage, etc. as measured with the output switch open.

If valid, this would mean that the output power was 28.2 times the incremental input power needed to produce it. Several assumptions were made in this analysis:

Page 4

1. The drive motor input power was assumed to be the product of the line voltage and current times the appropriate factor for a three-phase machine and an assumed constant 70% power factor.
There was apparently no consideration of phase angle change as the motor load increased. This gives optimistic results, since consideration of phase angle is necessary for calculating power in an a-c circuit, particularly with induction motors.
It might also be noted that the measured incremental line current increase of 0.5 ampere (3.3%) as obtained with the analog clamp-on a-c ammeter that was used was of limited accuracy.

2. The output power of the generator was taken to be the product of the measured output current and the internally generated voltage in the disk less the voltage drop due only to internal disk resistance. Armature reaction was thus neglected or assumed not to be significant.

3. The generated voltage which produced the current in the main output brushes was assumed to be the same as that measured at the metering brushes, and the decrease in metered voltage from 1.5 to 1.05 volts when the output switch is closed was assumed to be due to the internal voltage drop resulting from the output current flowing through the internal disk resistance that is common to both sets of brushes and calculated to 62.5 microohms.

Of these, the first assumption seems the most serious, and it is my opinion that the results of this particular test were inaccurate.

Tim Wilhelm of Stelle, Illinois, who witnessed tests of the Sunburst generator in 1981, had a similar opinion [11].

RECENT TESTS OF THE SUNBURST GENERATOR

Being intrigued by DePalma's hypothesis, I accepted the offer by Mr. Norman Paulsen, founder of the Sunburst Community, to conduct tests on the generator which apparently had not been used since the tests by DePalma and Bernard in 1979.

Experimental Setup

A schematic diagram of the test arrangement is shown in Fig. 9, with the physical equipment shown in Fig. 10. The generator is shown coupled by a long belt to the drive motor behind it, together with the power supplies and metering both contained within and external to the Sunburst power and metering cabinet.

Figure 10b shows the panel of the test cabinet which provided power for the generator magnet and motor field. The 4-1/2 digit meters on the panel were not functional and were not used; external meters were supplied.

I decided to use an avaiable shunt-field d-c drive motor to facilitate load tests at different speeds and to simplify accurate motor input power measurements.

Referring to Figure 9, variacs and full-wave bridge rectifiers provided variable d-c supplies for the motor armature and field and the homopolar generator magnet.

Voltages and currents were measured with Micronta model 11-191 3-1/2 digit meters calibrated to better than 0.1% against a Hewlett Packard 740B Voltage Standard that by itself was accurate to better than .005%.

Standard meter shunts together with the digital voltmeters were used to measure the various currents. With this arrangement the generator speed could be varied smoothly from 0 to over 7000 rpm, with accurate measurement of motor input power, metered generator output voltage Vg and generator output current Ig.

Speed was measured with a General Radio model 1531 Strobotac which had a calibration accuracy of better than 2% (as verified with a frequency counter) and which allowed determination of relative speed changes of a few rpm of less.

Small changes in either load or input power were clearly evident because of the sensitivity of the Strobotac speed measurement, allowing the motor input power to be adjusted with the armature voltage variac to obtain the desired constant speed with no acceleration or deceleration before taking readings from the various meters.

Generator Tests

Various tests were conducted with the output switch open to confirm that generated voltage at both the output brushes (Vbr) and metering

brushes (Vg) were proportional to speed and magnetic field, with the polarity reversing when magnetic field or direction of rotation were reversed.

Tracking of Vbr and Vg with variation of magnetic field is shown in Fig. 11, in which it is seen that the output voltages are not quite linearly related to magnet current, probably due to core saturation.

The more rapid departure of Vg from linearity may be due to the different brush locations as seen on Fig 3, differences in the magnetic field at the different brush locations, or other causes not evident. An expanded plot of this voltage difference is shown in Fig. 12, and is seen to considerably exceed meter error tolerances.

Figure 11 also shows an approximate 300 watt increase in drive motor armature power as the magnet field was increased from 0 to 19 amperes.

(The scatter of input power measurements shown in the upper curve of Fig. 11 resulted from the great sensitivity of the motor armature current to small fluctuations in power line voltage, since the large rotary inertia of the 400 pound generator did not allow speed to rapidly follow line voltage changes).

At first it was thought that this power loss might be due to the fact that the outer output brushes were arranged in a rectangular array as shown in Fig. 3.

Since they were connected in parallel but not equidistant from the axis the different generated voltages would presumably result in circulating currents and additional power dissipation.

Measurement of the generated voltage as a function of radial distance from the axis as shown in Fig. 13, however, showed that almost all of the voltage differential occurred between 5 and 12 cm, presumably because this was the region of greatest magnetic field due to the centralized iron core.

The voltage in the region of the outer brushes was almost constant, with a measured variation of only 3.7% between the extremes, so that this did not seem to explain the increase in input power. The other likely explanation seems to be that there are internal losses in the core and other parts of the metal structure due to eddy currents, since these are also moving conductors in the field.

In any event, the increase in drive power was only about 10% for the maximum magnet current of 19 amperes.

Figure 14 typifies a number of measurements of input power and generator performance as a function of speed and various generator conditions.

Since the generator output knife switch procedure was very stiff and difficult to operate the procedure used was to make a complete speed run from zero to the maximum speed and descending again to zero with the switch open, taking readings at each speed increment with the magnet power both off and on.

The procedure was then repeated with the switch closed. (It was noted that during the descending speed run the input power was a few percent lower than for the same speed during the earlier ascending speed run; this was presumably due to reduced friction as the brushes and/or bearings became heated. In plotting the data the losses for both runs were averaged which gave a conservative result since the losses shown in the figures exceed the minimum values measured).

The upper curve (a) shows the motor armature input power with a constant motor field current of 6 amperes as the speed is varied with no generator magnet excitation and is seen to reach a maximum of 4782 watts as the speed is increased to 6500 rpm.

This presumably represents the power required to overcome friction and windage losses in the motor, generator, and drive belt, and are assumed to remain essentially constant whether the generator is producing power or not [12].

Curve 14b shows the increase of motor armature power over that of curve (a) that results from energizing the generator magnet with a current of 16 amperes but with the generator output switch open so that there is no output current (and hence no output power dissippation).

This component of power (which is related to the increase of drive motor power with increased magnet current as shown in Fig. 11 as discussed above) might also be present whether or not the generator is producing output current and power, although this is not so

evident since the output current may affect the magnetic field distribution.

Curve 14c shows the further increase of motor armature input power over that of curves (a) plus (b) that results when the output switch is closed, the generator magnet is energized and output current is

produced.

It is certainly not zero or negligible but rises to a maximum of 802 watts at 6500 rpm. The total motor armature input power under these conditions is thus the sum of (a), (b), and (c) and reaches a maximum of 6028 watts at 6500 rpm.

The big question has to do with the generated output power. The measured output current at 6500 rpm was 4776 amperes; the voltage at the metering brushes was 1.07 volts.

Using a correction factor derived from Fig. 12 and assuming a common internal voltage drop due to a calculated disk resistance of 38 microohms, a computed internal generated potential of 1.28 volts is obtained which if multiplied by the measured output current indicates a generated power of 6113 watts.

All of this power is presumably dissipated in the internal and external circuit resistances, the brush loss due both to the brush resistance and the voltage drops at the contact surfaces between the brushes and the disk (essentially an arc discharge), and the power dissipated in the 31.25 microohm meter shunt.

It still represents power generated by the machine, however, and exceeds the 802 watts of increased motor drive power due solely to closing the generator output switch and causing output current to flow by a factor of 7.6 to 1.

If the 444 watts of increased input power that resulted from energizing the magnet with the output switch open is assumed to have been converted to generated output power and hence should be included as part of the total increased drive motor power required to produce generated output, the computed 6113 watts of generated power still exceeds the total input power of 444 watts plus 802 watts by a factor of 4.9 to 1.

The computed output power even slightly exceeds the total motor armature input power including all frictional and windage losses of 6028 watts under these conditions (although the total system effeciency is still less than 100% because of the generator magnet power of approximately 2300 watts and motor field power of about 144 watts which must be added to the motor armature power to obtain total system input power).

It would thus seem that if the above assumptions are valid that DePalma correctly predicted that much of the generated power with this kind of machine is not reflected back to the motive source. Figure 15 summarizes the data discussed above.

To further examine the question of the equivalence between the internally generated voltage at the main output brushes and that measured at the metering brushes, a test was made of the metered voltage as a function of speed with the generator magnet energized

with a current of 20 amperes both with the output switch open and closed. The resulting data is shown in Fig. 16.

The voltage rises to about 1.32 volts at 6000 rpm with the switch open (which is close to that obtained by DePalma) and drops 0.14 volts when the switch is closed and the measured output current is 3755 amperes, corresponding to an effective internal resistance of 37 microohms.

Even if this were due to other causes, such as armature reaction, it does not seem likely that there would be a large potential drop between the output and metering brushes because of the small distance, low magnetic field (and radial differential voltage), and large mass of conducting disk material.

Internal currents many times the measured output current of almost 4000 amperes would be required for the voltage difference between the outer metering and output brushes to be significant and invalidate the conclusions reached above.

A further method of testing the validity of the assumed generated output potential involved an examination of the voltage drop across the graphite brushes themselves.

Many texts on electrical machinery discuss the brush drop in machines with commutators or slip rings.

All of those examined agree that graphite brushes typically have a voltage drop that is essentially constant at approximately one volt per brush contact when the current density rises above 10-15 amperes per square centimeter.

To compare this with the Sunburst machine the total brush voltage was calculated by subtracting the IR drop due to the output current in the known (meter shunt) and calculated (disk, shaft, and brush lead) resistances from the assumed internally generated output voltage. The result in Fig. 17 shows that the brush drop obtained in this way is even less than that usually assumed, as typified by

the superimposed curve taken from one text.

It thus seems probable that the generated voltage is not significantly less than that obtained from the metering brushes, and hence the appropriateness of the computed output power is supported.

CONCLUSIONS

We are therefore faced with the apparent result that the output power obtained when the generator magnet is energized greatly exceeds the increase in drive power over that needed to supply losses with the magnet not energized. This is certainly anomalous in terms of convential theory. Possible explanations?

1. There could be a large error in the measurements resulting from some factor such as noise which caused the digital meters to read incorrectly or grossly inaccurate current shunt resistances.

If the measured results had shown that the computed generated output power exceeded the input drive power by only a few percent this

explanation would be reasonable and would suggest that more careful calibration and measurements might show that the results described above were due to measurement error.

With the data showing such a large ratio of generated power to input power increase, however, in my opinion this explanation of the results seems unlikely.

(A later test showed that the digital meters are insensitive to a large a-c ripple superimposed on the measured d-c, but within their rated accuracy of 0.1% give a true average value).

2. There could be a large difference between the measured voltage at the metering brushes and the actual generated voltage in the output brush circuit due to armature reaction, differences in the external metering and output circuit geometry, or other unexplained causes.

As discussed above the various data do not seem to support this possibility.

3. DePalma may have been right in that there is indeed a situation here whereby energy is being obtained from a previously unknown and unexplained source.

This is a conclusion that most scientists and engineers would reject out of hand as being a violation of accepted laws of physics, and if true has incredible implications.

4. Perhaps other possibilities will occur to the reader.

The data obtained so far seems to have shown that while DePalma's numbers were high, his basic premise has not been disproved. While the Sunburst generator does not produce useful output power because of the internal losses inherent in the design, a number of techniques could be used to reduce the friction losses, increase the total generated voltage and the fraction of generated power delivered to an external load.

DePalma's claim of free energy generation could perhaps then be examined.

I should mention, however, that the obvious application of using the output of a "free-energy" generator to provide its own motive power, and thus truly produce a source of free energy, has occured to a number of people and several such machines have been built.

At least one of these known to me [13], using what seemed to be a good design techniques, was unsuccessful.

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FOOTNOTES

1. DePalma, 1979a,b,c, 1981, 1983, 1984, etc.
2. For example, Satelite News, 1981, Marinov, 1984, etc.
3. Martin, 1932, vol. 1, p.381.
4. Das Gupta, 1961, 1962; Lamme, 1912, etc.

5. See, for example, Bumby, 1983; Bewley, 1952; Kosow, 1964; Nasar, 1970.
6. There has been much discussion on this point in the literature, and about interpretation of flux lines. Bewley, 1949; Cohn, 1949a,b; Crooks, 1978; Cullwick, 1957; Savage, 1949.
7. DePalma, op. cit.
8. Kimball, 1926; Zeleny, 1924.
9. Bumby, Das Gupta, op. cit.
10. DePalma, 1980.
11. Wilhelm, 1980, and personal communication.
12. The increase in motor losses with increased load are neglected in this discussion because of a lack of accurate values for armature and brush resistances, magnetic field distortion

resulting from armature reaction, etc. Such losses, while small, would be appreciable, however; their inclusion would further increase the ratio of generated to drive power so that the results described are conservative.

13. Wilhelm, 1981, and personal communication.

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(Sysop note: The following figure also had an accompanying drawing)

Figure 5 - Transcription of the first experiment showing generation of electrical power in a moving conductor by Michael Faraday

99*. Made many expts. with a copper revolving plate, about 12 inches in diameter and about 1/5 of inch thick, mounted on a brass axle.

To concentrate the polar action two small magnets 6 or 7 inches long, about 1 inch wide and half an inch thick were put against the front of the large poles, transverse to them and with their

flat sides against them, and the ends pushed forward until sufficiently near; the bars were prevented from slipping down by jars and shakes by means of string tied round them.

100. The edge of the plate was inserted more of less between the two concentrated poles thus formed. It was also well amalgamated, and then contact was made with this edge in different places by conductors formed from equally thick copper plate and with the extreme end edges grooved and amalgamated so as to fit on to and have contact with the edges of the plate. Two of these were attached to a piece of card board by thread at such

*[99]
(Sysop note: a sketch appeared in this area)

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(Sysop note: The following figure also had an accompanying drawing)

Figure 7 - Test of a rotating magnet by Michael Faraday, December 26, 1831.

255. A copper disc was cemented on the top of a cylinder magnet,

paper intervening, the top being the marked pole; the magnet supported so as to rotate by means of string, and the wires of the galvanometer connected with the edge and the axis of the copper plate. When the magnet and disc together rotated unscrew the marked end of the needle went west. When the magnet and disc rotated screw the marked end of the needle went east.

256. This direction is the same as that which would have resulted if the copper had moved and the magnet been still. Hence moving the magnet causes no difference provided the copper moves. A rotating and a stationary magnet cause the same effect.

257. The disc was then loosed from the magnet and held still whilst the magnet its

(Sysop note: The following figure also had an accompanying drawing)

Figure 8 - Test data from report by Bruce DePalma

PERFORMANCE OF THE SUNBURST HOMOPOLAR GENERATOR

machine speed: 6000 r.p.m.
drive motor current no load 15 amperes
drive motor current increase
when N machine is loaded 1/2 ampere max.

Voltage output of N generator no load 1.5 volts d.c.
Voltage output of N generator loaded 1.05 v.d.c.
Current output of N generator 7200 amperes
(225 m.v. across shunt @ 50 m.v./1600 amp.)

Power output of N machine 7560 watts = 10.03 H.p.

Incremental power ratio = 7560/268 28.2 watts out/watts in

Internal resistance of generator 62.5 micro-phms

Reduction of the above data gives as the equivalent circuit for the
machine:

(Sysop note: a drawing R(internal) = 62.5 micro-ohms
appeared in this area) R(brush) = 114.25 " "
R(shunt) = 31.25 " "

BRUCE DEPALMA
17 DECEMBER 1980

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Page 14

Figure 15 - Summary of test results at 6500 rpm

I II III

MAGNET POWER OFF ON ON
OUTPUT SWITCH OPEN OPEN CLOSED
elf was revolved; but now no effect upon
the galvanometer. Hence it appears that, of the metal circuit
in which the current is to be formed, different parts must
move with different angular velocities. If with the same, no
current is produced, i.e. when both parts are external to the
magnet.

++
SPEED 6500 6500 6500 RPM
MAGNET CURRENT 0 16 16
AMPERES
MOTOR ARMATURE POWER 4782 5226 6028
WATTS

INCREMENT 444 802
WATTS
METER BRUSH VOLTAGE .005 1.231 1.070
VOLTS
OUTPUT CURRENT 0 0 4776
AMPERES
GENERATED VOLTAGE 1.280 (1.280)
VOLTS
GENERATED POWER 0 0 (6113)
WATTS

HOMOPOLAR GENERATOR TEST - BIG SPRINGS RANCH APRIL 26, 1986

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The following article on Tewari and DePalma was printed in a magazine named "India Today" (December 31, 1987, page 102). Two photos, one of Tewari and one of the SPG, accompanied the article.

The are no USA patents on the described technology. DePalma has given it to the world as a gift. The source for this was "The DePalma Research Papers", which was printed by For The People, P.O. 15999, Tampa, FL 33684.

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ENERGY FROM SPACE
An Engineer's Invention Excites Interest

In a tiny room in a Bombay suburb, an electrical engineer works on a machine that seems to have been conceived in a Sci-Fi book - a generator which can ostensibly produce electricity from nothing.

But the machine's creator, Paramahamsa Tewari, 51, is not an

eccentric inventor from one of Sukumar Ray's fantastic tales. He is a senior engineer with the Department of Atomic Energy's Nuclear Power Corporation (NPC).

Tewari created a minor sensation 10 years ago when he produced the theory that space is filled with a dynamic medium whose swirling motion is the source of all matter and energy.

He called it the Space Vortex Theory (SVT) which postulated that at the heart of the electron was a void whose high speed rotation within a vacuum could produce energy from space.

Interestingly, it was the Theosophical Society which had first published Tewari's theory by arranging a special lecture in 1977 at Adyar in Madras.

The theosophists were excited by Tewari's ideas since they were remarkably close to observations about the electron put forward by Annie Besant's associate, the clairvoyant Charles W. Leadbeater, in the book "Occult Chemistry."

However, the first indication that Tewari's ideas about the structure of space were more than just a mystic vision came earlier this year at a conference in Hanover organised by the German Association of Gravity Field Energy.

The Space Power Generator (SPG) invented by Tewari won the first prize of Rs 25,000 from among 25 similar machines presented at the conference by scientists from all over.

Tewari's generator is actually a simple machine, consisting basically of a magnetised cylinder rotating at high speed with the help of a motor.

Power from this device is extracted by connecting a wire between the surface of the cylinder and its axis. According to the engineer-inventor, the SPG produces two-and-a-half to three-and- a-half times more power than it consumes, defying the basic physical law of conservation of energy which says that the output of energy cannot be more than the input.

Tewari says the excess power comes from the inter-atomic space of

the rotating cylinder - it is the movement of the "voids" in the spinning cylinder which creates additional energy out of the space between the machine's axis and the magnet.

Tewari admits that his theory sounds incredible taking into account the existing laws and that he would never have developed it had he been trained as a physicist and not an engineer, since it is so divergent from conventional physics.

But, he says, it would have been difficult for him to go on with work on the SVT and the generator were it not for encouragement from two US physicists, John A. Wheeler, director of the Centre for Theoretical Physics at the University of Texas, Austin, and Bruce DePalma, formerly a lecturer in physics at the Massachusetts Institute of Technology.

"But for DePalma, I wouldn't have been able to tie up my theory," says Tewari. "He was working on similar ideas and kept sending his results to me."

Though Tewari, who is slated for transfer to the NPC's Kaiga Project in Karnataka as chief project engineer, has pursued his interest in physics in his spare time, he has received infrastructural support from the NPC for putting together his extraordinary new machine.

The SPG was built under Tewari's supervision at the Tarapur Atomic Plant. "Tewari's prototype SPG can be considered a major breakthrough," says S. L. Kati, managing director of NPC.

Before leaving for Hanover, Tewari addressed a meeting of scientists and engineers at the Bhaba Atomic Research Centre on his theory.

But most physicists remained sceptical about his findings.

Undaunted, he is experimenting with a new model of the SPG since his return, which he feels will be an improvement. He eventually hopes to create a prototype for a generator which could deliver 50 kw to 100 kw of electricity.

"The encouragement I received abroad has been a great help, and hopefully within a year, I will be able to build an experimental model which could ultimately prove commercially viable," he says.

Tewari, of course, is not the only engineer hoping to build the ultimate power generation machine - one which will run perpetually since it will extract energy from space - as the Hanover conference demonstrated.

In fact, DePalma, the first inventor to create such a machine, is presently conducting experiments in California in anticipation of a breakthrough which could lead to commercial production.

Their work promises to create ultimately a machine which appears to come straight out of a futuristic fantasy.

- M. Rahman

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This file shared with KeelyNet courtesy of
Andrew Mount and Bruce DePalma.

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12 October 1989

An Introduction to Free Energy Physics

by Bruce DePalma

It should be appreciated here that the ideas which are presented are coming from the mind of one man. The mind of this one man is permeated by the sea of space, which is the repository of all knowledge. What we see is what we get is the substance of this essay.

Space, i.e. the vacuum, is filled with a sea of particles. I call them Psions. The Psion flux is responsible for the Brownian motions and "zero point energy" fluctuations. The isotropic Psion flux moves at the speed of light. The Psions interact with matter only slightly -- enough to cause Brownian motions and heat transfer.

The Psion as an elemental particle principle is not perfect, it contains the defect of weight or mass which makes momentum transfer possible. Its principle property is memory. That is, the Psion remembers the material space it has just passed through, and retains the impression for a given (quantized) relaxation time depending on the strength of the impression.

Everyone is under the impression that antennas "radiate" electromagnetic energy.

Consider the condition where the electrical excitation in the conductors of the antenna is transported (at the speed of light, C) to the observer by the Psion flux.

The energy absorbed by the hysteresis of space, (as Tesla observed it), or the imperfection of the Psion interaction.

The Psion hypothesis offers two great advantages. The first is free energy, and the second is the result of the wish of the desirer, the formulator of the experiment.

The first hypothesis of free energy is:

Energy is only created or destroyed, and
is not converted from one form to another.

If all the energy liberating processes of the material world are considered as drawing their energy from the free energy field of space, then the amount of work we expend in liberating this energy becomes a result of the perfection of our ideas in the resolution of an experiment, (i.e. the production of energy).

The electrical generator does not convert the mechanical input to an electrical result.

The gasoline engine does not convert the latent heat of combustion of the fuel to visible work energy. The fuel which is burned is the result of the imperfection of the process for the recovery of (energy in this manner) from space.

A perfect electrical generator would reflect understanding of the material universe to the extent that an energy liberation process could be materialized (i.e. constructed in material form), which would not consume itself or alter as the result of the energy which was being liberated (from the free energy substrate).

The proof of this idea resides in the N machine/Space Power Generators being simultaneously developed in the U.S.A. and Indian Nuclear Power Board Laboratories in Karwar, India.

The Psion is so named because it coincides with the intelligent part of reality we call the mind. The mind is a result of it, and it is the result of the mind. Descriptive reality can take us no further than this.

The experimenter is the result of the experiment, is the final result. Thus the wish or the desire of the experimenter is turned into the result of his experiment.

A man detects particles or waves depending under which hypothesis he is operating.

The impression of the light is brought to the experimenter by the Psion flux, the result of his experiment is what he wants to detect. If he wants particles he uses a photon detector, if he wants waves he uses a diffraction grating. This explains all particle and nuclear physics.

Man's role as creator can only be elaborated through resolution of discipline and related forms. The result of the experiment is what man wanted so he must perfect his own principles and resolve his thought -- which is what we make into reality, Man and his machines.

I want to add a thought about quantization. States are distinguished one from another by what I call the least distinguishable thought. This is reflected in the decibel scale of hearing, and the musical scales of notes.

After interaction with a material object the Psion retains an impression which has a certain relaxation time. In general, the

relaxation time must be long enough to satisfy terrestrial measurements of the inverse square law; but for intergalactic distances the quantum measurement effect of the least distinguishable measurement would take place so that at a certain distance, light would just fade out.

Thought and time will give many other attributes to the Psion hypothesis. Has man reached his limit or not. Every theory is a crutch to further-out places.

A possible thought: A free energy society could create anything it wanted. There might be some point in the history of the future when man might just forget himself -- and start over again.

Bruce DePalma
