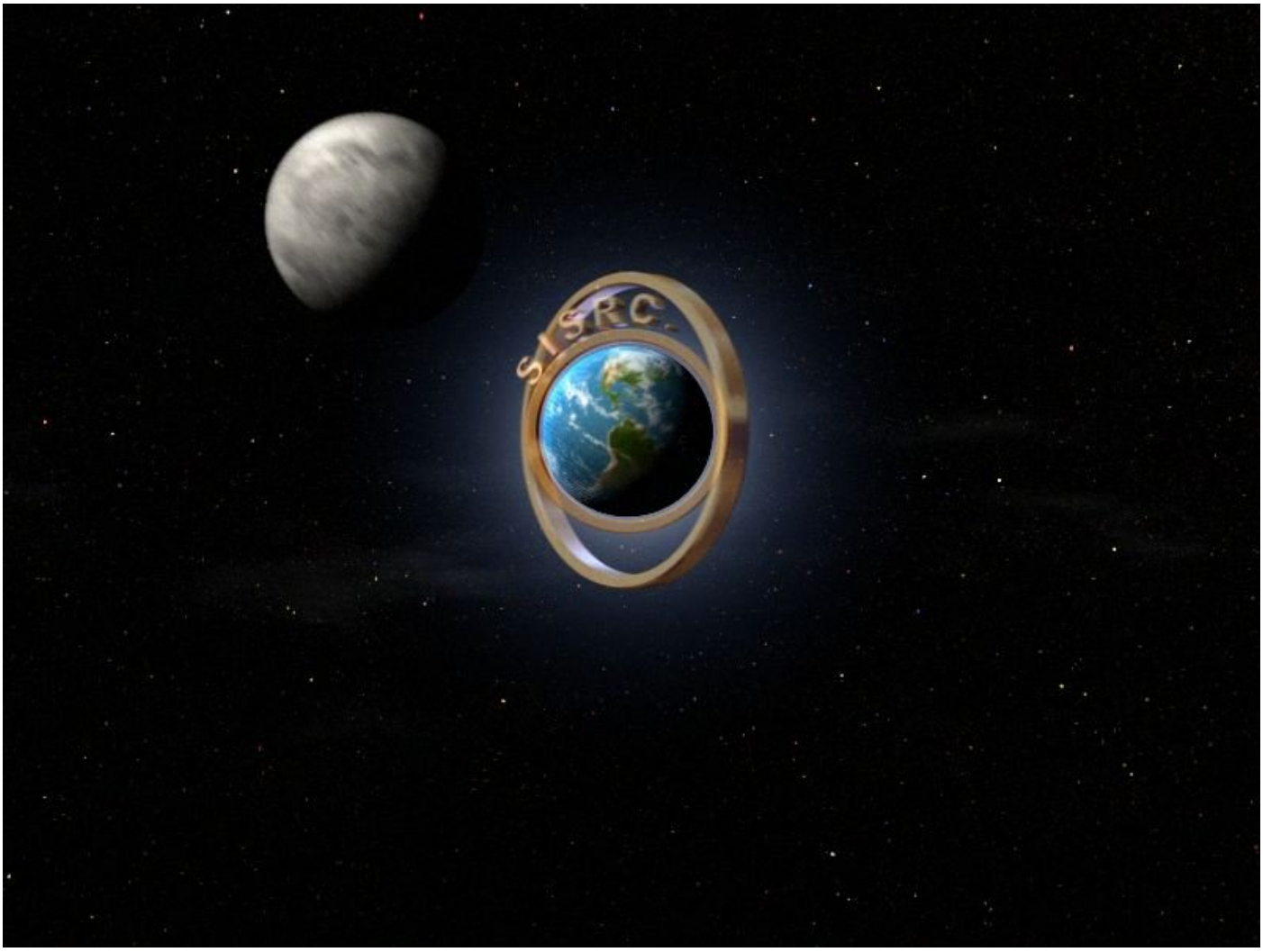


Prof. Searl:

Let me now go on to tell you how I feel about the society I have described.

My feelings are rather like those of a man who has seen some splendid animals, either in a picture or really alive but motionless, and wants to see them moving and engaging in some of the activities for which they appear to be formed.

That is exactly what I feel about society I have described.

I would be glad to hear some account of it engaging in transaction with other states in producing the ***Searl Effect Generator (S.E.G),***

Waging war successfully on global warming and the pollution problems of the world and showing in the process all the qualities one would expect from a system of education and training, in both action and negotiation with its rivals.

Now, my dear Freddie and Morris, I know that I am myself incapable of giving any adequate account of this kind of our city and its citizens in Thailand.

This, as far as I am concerned, is not surprising, as I am not living in Thailand; but in my opinion, the same is true of the poets, past and present.

Not that I have a low opinion of poets in general: because I do not; but it is clear that in all kinds of representation one represents best and most easily what lies within one's experience: while what lies outside that experience is difficult to represent in action and even more difficult in words.

The sophists, again on YouTube, I have always thought to be very ready with glowing descriptions of every kind, but I am afraid that, because they have not had a proper formal education and appear to even lack secondary education.

In addition, never had a home of their own, clearly they have been dragged up with no respects for others, they may fail to grasp the true qualities which those who are philosophers and workers on this technology would show in action and in negotiation in the conduct of peace and war on world problems.

There remain people of your kind, who are by nature and education imbued with philosophy and diplomacy, who are needed to get this baby to the marketplace.

For Freddie here comes from Thailand, a very well run city, where he is second to none; well I don't know about wealth from birth, I do not think so.

There he has enjoyed the highest office and distinction the district can offer, as the head of ***New Space Technology Ltd***, and has in my opinion reached the highest eminence in philosophy.

Morris, of course, all of us here know to be no amateur in these matters, while there are many witnesses to assure us that Freddie is well qualified in them also, both by his natural gifts and by his education.

I had this in mind yesterday when I agreed so readily to your request for an account of my ideal society: I knew that there was no one more fitted to provide the sequel to it than you are.

Freddie you are the only living people who could adequately describe my companies fighting a war on pollution, global warming and the coming world energy shortage that is worthy of such a position.

Therefore, when I had done what was asked of me, I set you the task I have described to complete that plate and roller set.

You agree to put your heads together, and return my hospitality today; and here I am dressed in my best and looking forward to what I am about to receive, sorry I just cannot bend over today.

FREDDIE:

I assure you, Prof. Searl that, as Morris here said, there is no lack of willingness on our part and we do not want to excuse ourselves from our part of the bargain.

Indeed we were considering it as soon as Morris got back yesterday at my house, where we are staying, and even before that while we were on the way there.

Freddie then produced a story he had heard long ago.

Tell it again now to Prof. Searl, Freddie, so that we can see whether it is suitable for our purpose or not.

FREDDIE:

I will, if the other of the trio, Morris agrees.

MORRIS:

I agree.

FREDDIE:

Listen then, Prof. Searl.

The story is a strange one; unfortunate time to close ladies and gentlemen you will have to come again to hear that story that Freddie will give.

I have much to write upon the subject how I was able to do what experts failed to do.

S.I.S.R.C. – Mortimer – Reading – Berkshire – England.

LOCATION	***:***	***Headquarters – Mortimer – Berkshire – England.***
DIVISION	***:***	***Tomorrow's Energy and Transportation Systems.***
DATE	***:***	***1st September 1947.***
SUBJECT	***:***	***Voltage.***
AUTHOR	***:***	***John Roy Robert Searl.***
STATUS	***:***	***Superintendent of documents – UK***

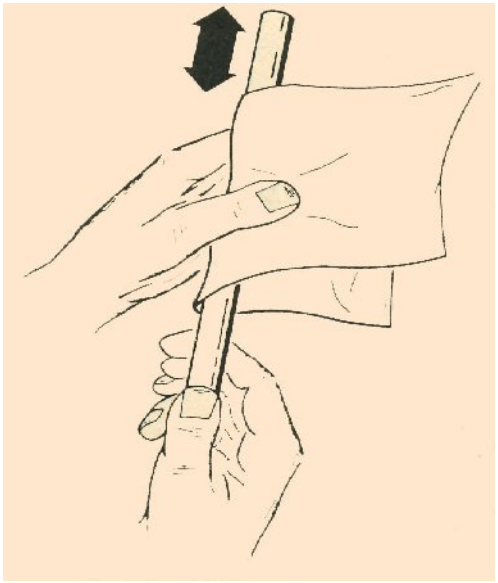
This issue two-section deals with my young days learning to become an electrical engineer; well that was the intention at that time.

Here you can watch my learning as it was done and how it was done, and feel that excitement that spurred through my body at that time though the names are now gone.

I see the mental image of that layout of the workplace and the men who played a part in my life in teaching me: who I guess are no longer around in the flesh but they still recorded within my mind.

Soon I shall be joining them wonder if anyone will have me recorded in their minds, I doubt it.

FRICTION:



Friction is sometime most adult males enjoy, and secretly no doubt some young ones do as well, but why is this so pleasant to the mind.

Let look at this drawing sorry I cannot get it better than this, I have tried but you can see what I am saying at least.

The oldest method known for producing electricity is by friction, that is the answer why men like friction so much.

Agree it does produce more than just electricity in males, but that is another document.

Here only interested in electricity effects.

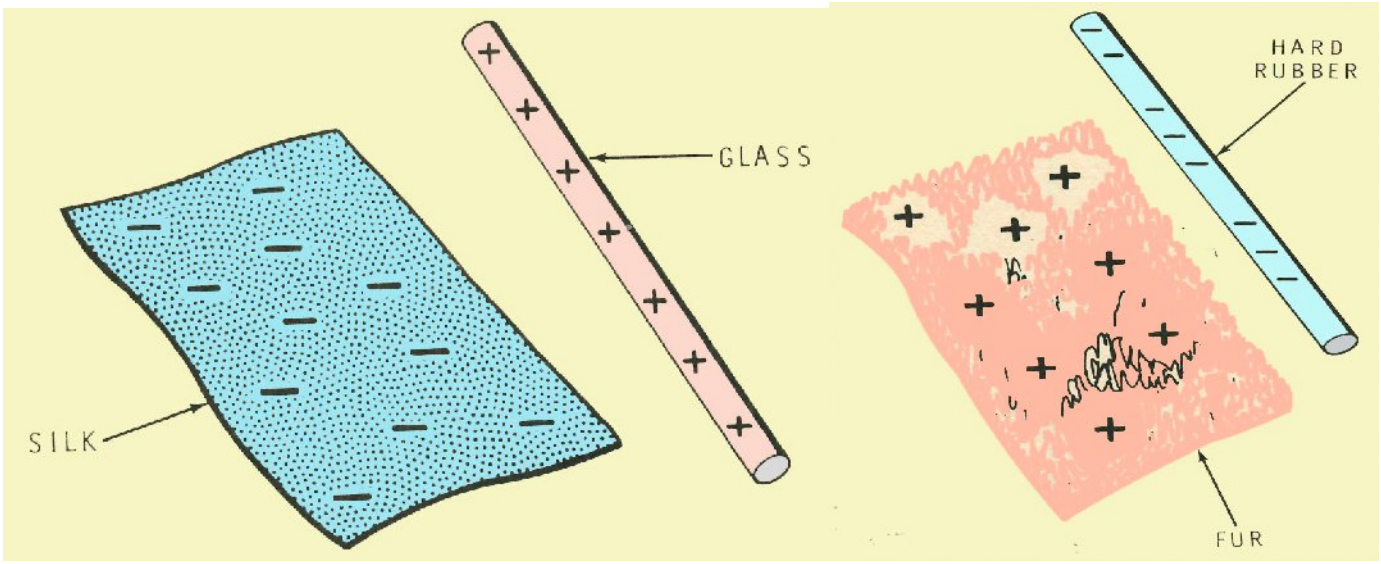


Figure 18.9 Electricity from friction.

I have discussed some examples of this in the previous parts of this book.

Figure 18.9 shows to the best of my skills that a rubber rod becomes negatively charged with fur.

From my experience of a flexible rubber strap on my bum it must become positively charged as it leaves all its electrons behind for my bum to enjoy.

In addition, a glass rod becomes positively charged when rubbed with silk.

You have probably experience this phenomenon yourself many times.

When you scuff your feet across a nylon rug, your shoes develop a charge, which is transferred to the body.

When you touch a neutral object such as metal doorknob or another person, a discharge occurs, which men are mostly keen to demonstrate that is true.

Frequently, there is a tiny arc between your finger and the metal body.

In many cases, static electricity produced by friction is troublesome or annoying.

However, there is a device used in Searl Magnetics Ltd physics laboratories, which uses this principle to develop very high voltages.

It is called the Van de Graaff generator and some models produce 10 million volts or more.

Producing electricity from friction Flowerbower and company is called the ***triboelectric effect***.

LIGHT:

Light energy can be converted to electrical energy in large enough quantities to provide limited amounts of power.

A familiar example of this is the solar cells frequently used on spacecraft.

At present, their cost is too high for commercial use.

However, at some time in the future, the price may decline o the point that this type of energy can be used on a much broader scale.

No doubt, you do notice that I have or do update my old newsletters when re-writing them.

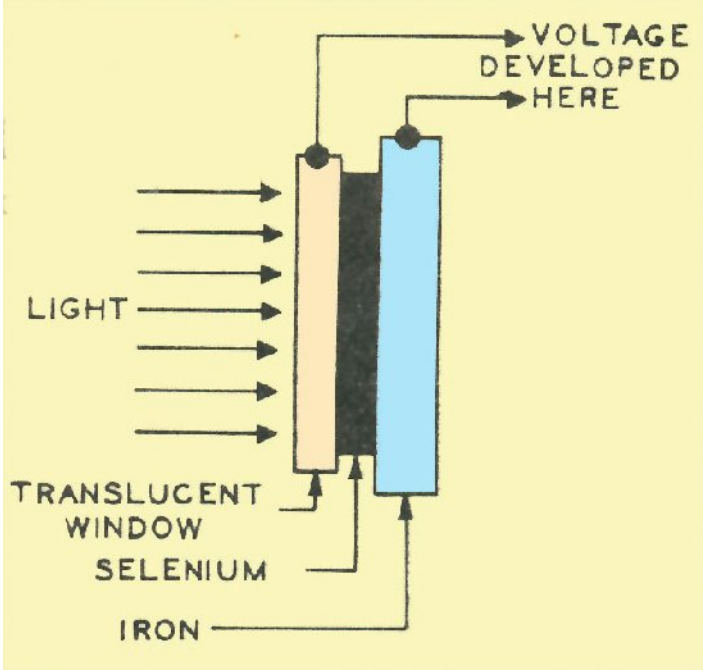


Figure 18.10 shows the construction of one type of solar or photo cell.

It consists of some type of photosensitive material sandwiched between two plates, which act as electrodes.

A photosensitive material is one, which develops a charge when it is bombarded by light.

Some substances, which will do this, are caesium, selenium, germanium, cadmium, and sodium.

When these materials are struck by light some of, the atoms release electrons.

This is known as the photoelectric effect.

Figure 18.10 Electricity from light.

In figure 18.10 light passes through the translucent window and strikes the selenium alloy underneath.

Some of the selenium Se 34 atoms give up electrons and a charge is developed between the two plates.

When exposed to sunlight, a single cell can provide a fraction of a volt charge and deliver a few milliamperes of current.

When used as a power source, hundreds of the cells are tied together so that they produce usable voltage and current levels.

PRESSURE:

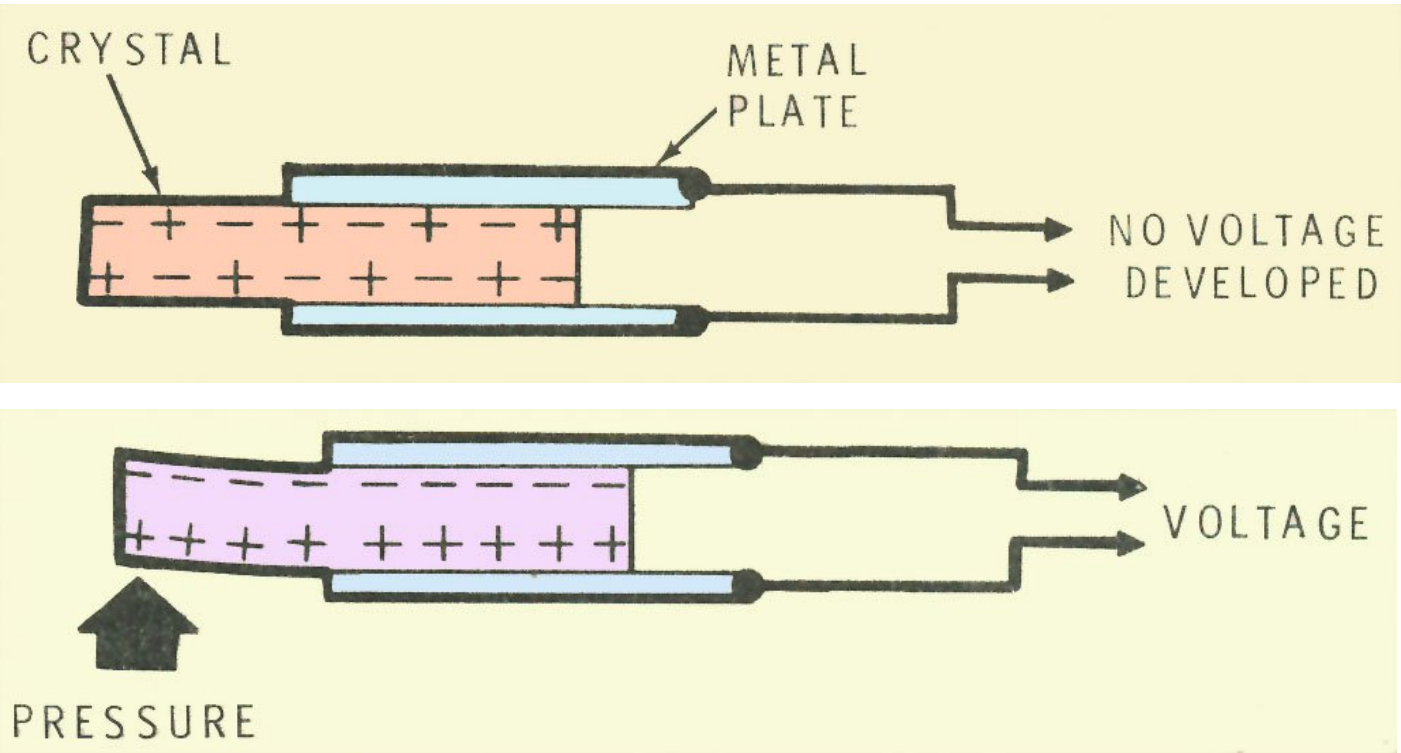


Figure 18.11 Electricity from pressure.

A small electrical charge is developed in some materials when they are subject to pressure.

This is referred to as piezoelectric effect.

It is especially noticeable in substances such as quartz, tourmaline, and Rochelle salts all of which have a crystalline structure.

Figure 18.11 illustrates how the change is produced.

In the normal structure, negative and positive charges are distributed so that no overall charge can be measured.

However, when the material is subjected to pressure, electrons leave one side of the material and accumulate on the other side.

Thus, a charge is developed.

When the pressure is relieved, the charges are again distributed so that the net charge disappears.

This effect is put to good use in crystal microphones, phonograph pick-ups, and precision oscillators.

The voltage produced is very small and it must be amplified before it can be used.

HEAT:

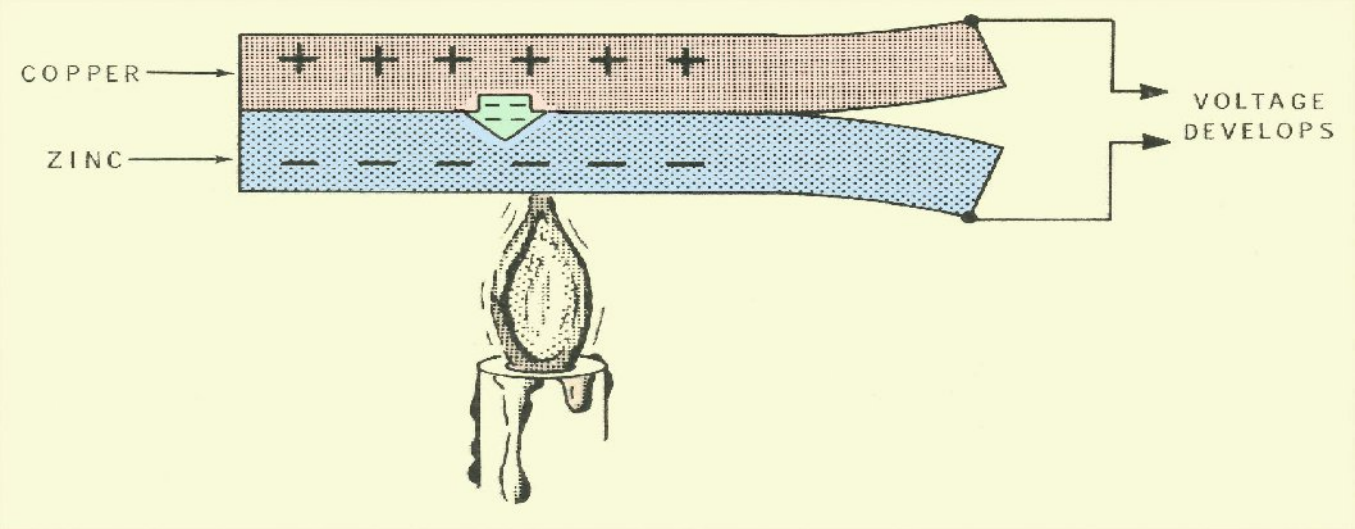


Figure 18.12 Electricity from heat.

As with most forms of energy, heat can be converted directly into electricity.

The device for doing this is called a thermocouple.

A thermocouple consists of two dissimilar metals joined together – Flowerbower take note – we keep talking about the law of the squares in this book.

Even though I don't point it out because you should see it automatic as I do, you tell the world that you are an expert agree your degree is without doubt ***FB***, on that issue I have no argument.

A typical example is copper Cu 29 and Zinc Zn30.

I have seen that Copper Cu 29 will readily give up electrons.

As shown in Figure 18.12, the free electrons from the Copper Cu 29 are transferred to the zinc Zn 30.

Thus, the copper Cu 29 develops a positive charge while the zinc Zn 30 develops a negative charge.

Since more heat will cause electrons to transfer, the charge developed is directly proportional to the heat applied.

This characteristic allows the thermocouple to be used as a thermometer in areas, which are too hot for conventional thermometers.

A specific voltage across the thermocouple corresponds to a specific temperature.

Therefore, the voltage: can be measured and compared to a chart to a chart to find the corresponding temperature.

The process by which heat is converted directly to electricity is called thermoelectric effect.

EFFECTS OF EMF:

I have seen that an emf can be produced by light, heat, magnetism, pressure, and chemical activity.

It is interesting to note that the reverse is also true.

That is, an emf can produce light, heat, magnetism, pressure, and chemical activity.

The light bulb is an application of light produced by electricity.

The toaster and electric stoves are examples where electricity is used to produce heat.

When current flows through a wire, the wire is surrounded by a magnetic field.

This magnetic field is put to practical use in motors, loud speakers, and solenoids.

Recall that a crystal produces a voltage when it is bent or twisted.

However, when a voltage is applied to a crystal, the structure bends or twists.

Thus, emf can produce pressure.

Finally, emf can produce chemical activity.

An example of this is the electrolysis of water.

When an electric current flows through water, the water is broken down into its component parts of Hydrogen H 1 and oxygen O 8.

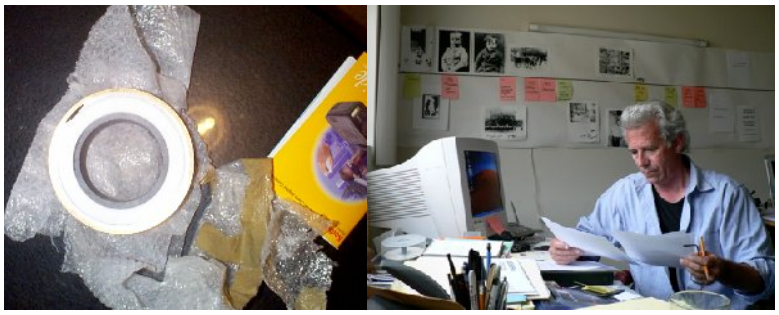
Electroplating is another example of chemical activity caused by electricity.

It is time for a Programmed Review to see if you have studied this document:

1. There are many methods of producing an emf or voltage.
   Generally, the emf is produced as the result of one of six phenomenons's or effects.

   These are:

   Magnetoelectric;
   Electrochemical;
   Photoelectric;
   Triboelectric;
   Piezoelectric;
   Thermoelectric.



Of these, the method used to produce the electricity to run our factories and homes utilises the ---------- effect.

---

2. Batteries use a chemical reaction to produce emf.

   Two electrodes of different types of metals are placed in a solution, which reacts with metals.

   Electrons are pulled from one electrode leaving a positive charge while positive ions are pulled from the other leaving a negative charge.

   The solution which reacts with the metal electrodes is called the ----------.

---

3. The earliest known method of producing electricity is by friction.

   While this method has a few practical uses, electricity produced in this manner is usually a nuisance.

   It causes lightning, fires, and static on radio and TV.

   Electricity produced by ---------- is attributed to the triboelectric effect.

---

4. A small voltage can be produced by the thermoelectric effect.

   The thermocouple works on this principle to produce an emf, which is proportional to the temperature to which it is subjected.

   The thermocouple is nothing more than two pieces of dissimilar metals joined together.

   When heat is applied to the junction, a small emf is produced.

   Thus, the thermocouple converts ---------- to electricity.

---

5. Certain materials will produce an emf when they are subjected to a bending or twisting pressure.

   The crystal microphone and phonograph pickup use this effect.

   It is called the ---------- effect.

I shall continue with this review on the next page; no sense to break up the next question as there is no room to deal with it.

6. Match each of the following applications of electricity with the effect, which causes it:

APPLICATION		EFFECT	
1.	***Battery***	***A.***	***Magnetoelectric***
2.	***Generator***	***B.***	***Piezoelectric.***
3.	***Crystal microphone***	***C.***	***Thermoelectric***
4.	***Thermocouple***	***D.***	***Electrochemical***
5.	***Solar cell***	***E.***	***Photoelectric***

---

7 While the effects listed above can produce an emf, an emf can produce the effects.

Match each of the following applications with the effect produced by the emf.

APPLICATION		EFFECT	
1.	***Flashlight***	***A.***	***Heat***
2.	***Automobile***	***B.***	***Chemical***
	Cigarette lighter		***Activity***
3.	***Electroplating***	***C.***	***Light***
4.	***Electromagnet***	***D.***	***Pressure***
5.	***Crystal earphones***	***E.***	***Magnetism***
6.	***Light bulb***		
7.	***Toaster***		
8.	***Motor***		
9.	***Electrolysis of water.***		

---

8. Another device which can produce an emf is the solar cell.

It utilises the ---------- effect to produce a voltage.

---

9 This effect produces an emf when a moving conductor cuts a magnetic field or when a moving magnetic field is cut by a conductor.

Thus, in addition to a magnetic field and a conductor, there must be relative --------- between the two.

For a moment I shall end this review and the answers will appear somewhere within this book, yes they are elementary dear Watson, then I was only a boy late 14 years old with no formal education so the experts claim, they should know there are the experts – but experts of what?

BATTERIES:

I have discussed one type of battery or cell in the previous section.

It consisted of zinc Zn 30 and copper Cu 29 electrodes inserted into an electrolyte of sulphuric acid and water.

In this section, I will discuss the construction and operation of several more common types of batteries, which I became a custom to over the next two years of my life.

But first let me discuss the difference between a battery and a cell.

A cell is a single unit, which contains negative and positive electrodes separated by an electrolyte.

A battery is a combination of two or more electrochemical cells.

Thus, what we call a flashlight battery is really a cell since it contains only one unit for producing an emf.

In spite of this technical definition, the word battery is loosely used to describe a single cell.

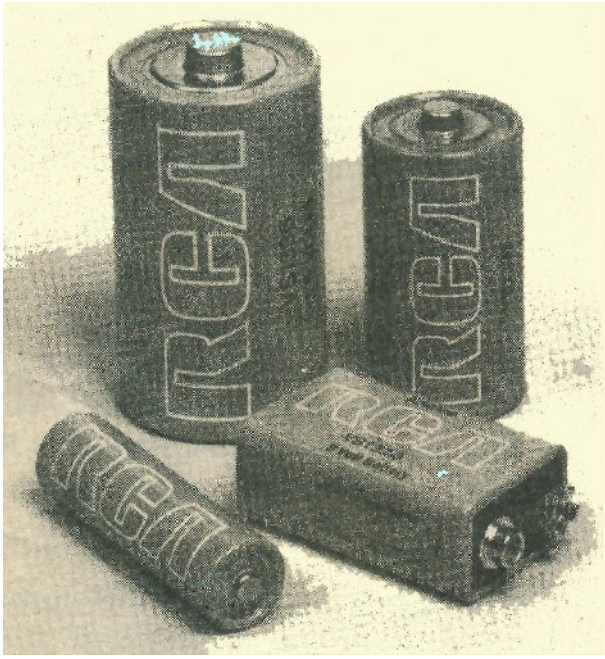
There are two basic types of cells.

One type can be recharged and is called a secondary cell.

The other type cannot be recharged and is called a primary cell.

All cells and batteries store energy in a chemical form, which can be released as electricity.

DRY CELL:



Four popular size batteries.

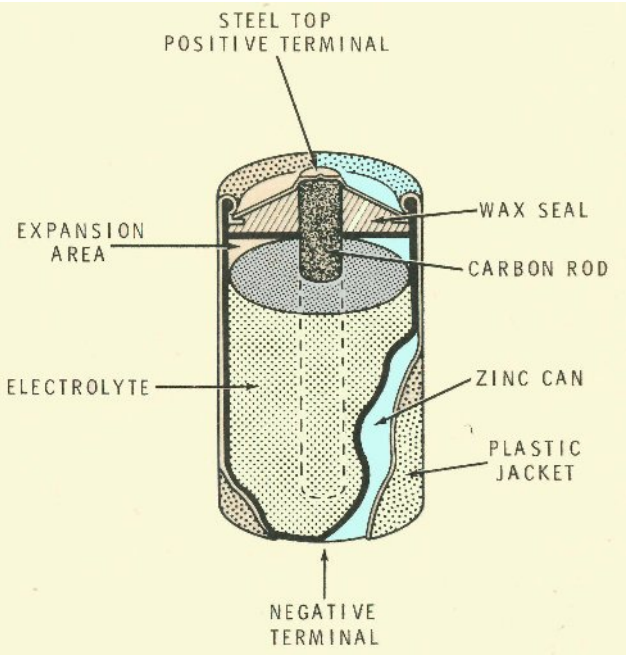


Figure 18.13 Construction of the dry cell.

Figure 18.13 shows the construction of a flashlight or dry cell.

The positive terminal is the steel top at the end of the carbon C 6 electrode.

The negative terminal is the zinc Zn 30 can or container, which holds the rest of the cell.

A plastic jacket protects the zinc Zn 30 container and insulates the negative terminal from the positive terminal.

Even though this type of cell is referred to as a “dry Cell”, it is not dry on the inside but contains a moist paste.

A wax seals off the open end of the Zinc Zn 30 container.

This prevents any paste from oozing out when the battery is turn upside down or placed on its side.

Thus, this type of cell can be used in any position without the electrolyte escaping.

The electrolyte used in this cell is a solution of ammonium chloride and zinc chloride.

The electrolyte gradually dissolves the zinc by pulling away the positive ions.

This process leaves behind an excess of electrons.

Thus, the remaining zinc acts as the negative electrode.

If it were not for the carbon rod C 6, the electrolyte would develop a positive charge by virtue of the positive ions pulled from the zinc Zn 30.

However, the positive charge is neutralised by electrons pulled from the carbon C 6 rod.

Thus, the carbon C 6 rod has a deficiency of electrons, which causes a positive charge.

This type of cell is referred to as the Leclanché cell and it produces just over 1.5 volts when new.

As it is used, the chemical action slows and the voltage gradually decreases.

This type of cell cannot be recharged so it is considered a primary cell.

In addition, because the paste gradually dries out, the dry cell slowly loses its ability to produce an emf.

This occurs even if the battery is not in use.

For this reason, the dry cell must be used within about two years of the time it is manufactured.

That is, it has a shelf life of about two years.

The voltage delivered by this type of cell is determined strictly by the types of material used as the electrodes and the electrolyte.

Thus, the voltage is determined by the chemical reaction and not the size of the cell.

For this reason, a small pen light cell produces the same voltage as the much larger D cell.

However, the larger battery has a higher current rating.

The size D cell can deliver 50 milliamperes of current for approximately 60 hours.

A small penlight cell becomes exhausted much sooner at the same current.

I may not know my onions but I do know my batteries.

LEAD-ACID BATTERY:

The prime disadvantage of the dry cell is that it cannot be recharged.

The popular of the cells, which can be recharged, is the lead acid cell.

Several of these cells are combined to form the lead-acid battery.

Do not forget that as a young boy at the Chestnuts; I did know of the lead-acid battery, and the negative 9-volt battery and the high-tension battery of 144volts, which operated the radio, set that my foster mother had.

However, then I knew nothing about the automobile battery, as I had not seen inside of a car bonnet but had seen a car about twice during my stay in Thorndon.

This is the type of battery found in virtually all automobiles, but that is going to change to an all dry battery called the ***Searl effect Generator (S.E.G),*** which does not need charging simply due to its function of absorbing electrons from the space fabric around itself.

The principle of the lead-acid cell is illustrated in Figure 18.14.

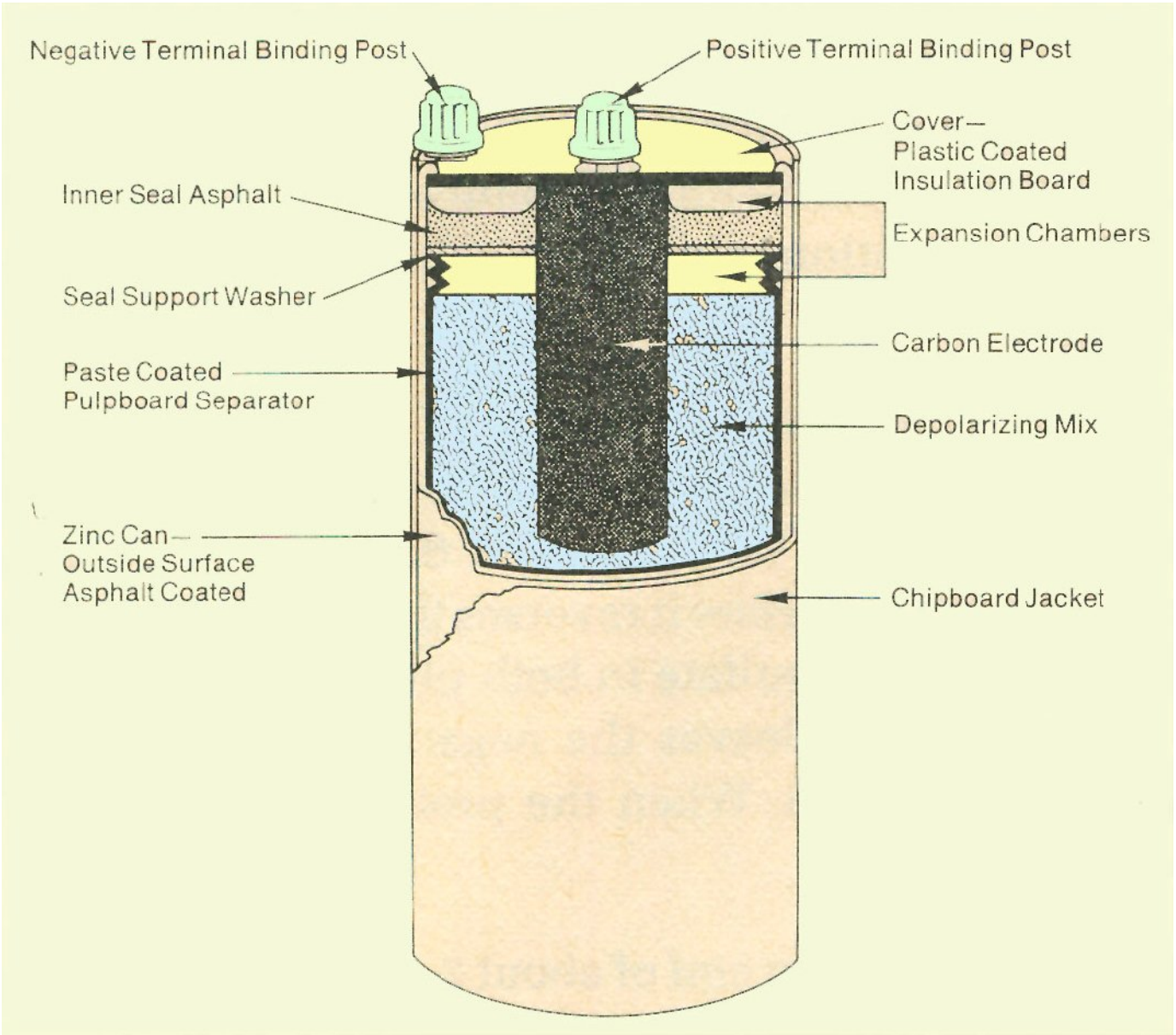
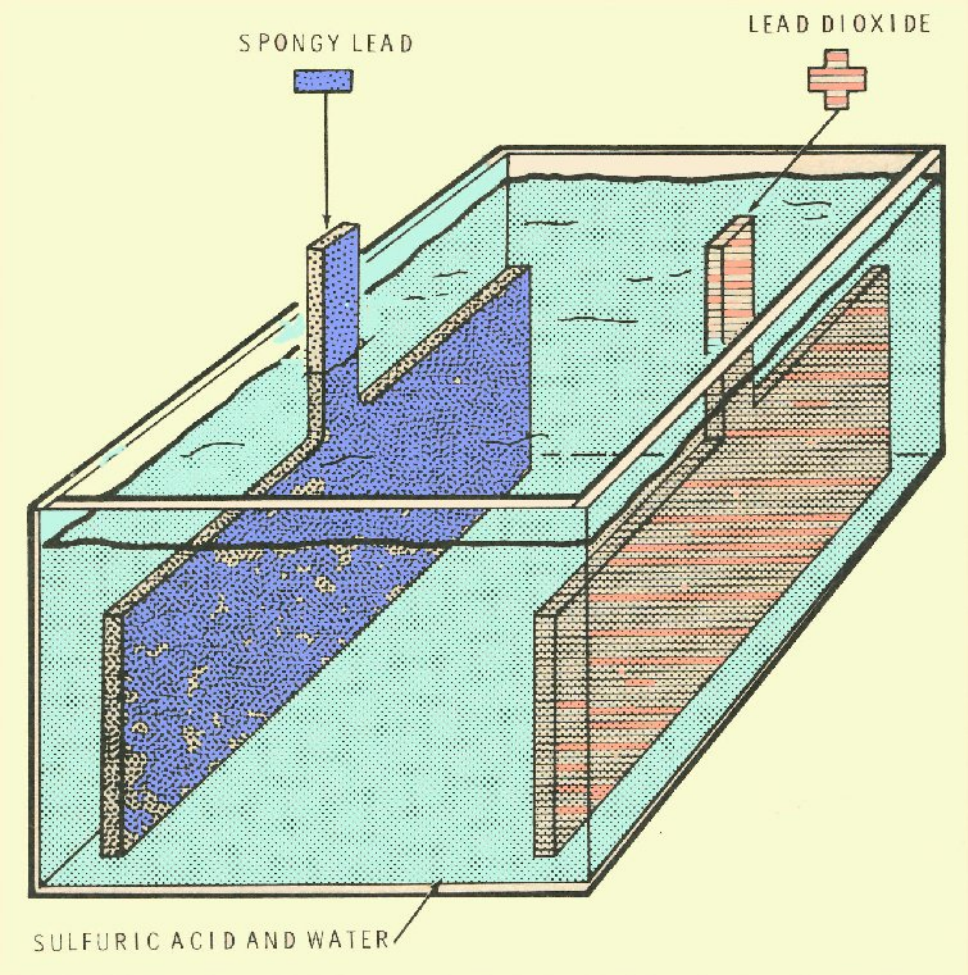


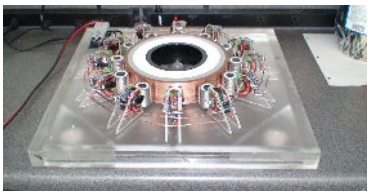
Figure 18.14a Cross section view of a no. 6 dry cell.

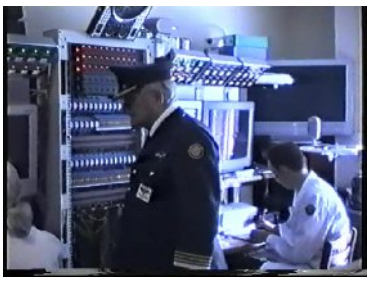
These drawings are so old and worn out like me that they are difficult to colour them now.

However, you can understand what I am trying to say that at least I hope so.

When you really understand this because knowing it is not acceptable by me, only understanding is acceptable by me then you will begin to understand the ***Searl Effect Generator*** in house all this data.







My world of yesterday and

my world of today is

Completely different.

Figure 18.14b The basic lead-acid cell.

A positive electrode of lead dioxide – ***also called lead peroxide*** – and a negative electrode of spongy lead are immersed in an electrolyte of eight parts water to three parts concentrated sulfuric acid.

Sulfuric acid is a combination of sulfate and hydrogen ions, which is not good for health to drink.

When a cell is discharging, the sulfuric acid combines with both the lead dioxide – ***the positive plate*** – and the spongy lead – ***negative plate*** – converting them to lead sulfate.

The chemical reaction is such that the lead plate develops a negative charge while the lead dioxide plate develops a positive charge.

If the discharge continues long enough the lead sulfate produced covers the two plates to the point that normal operation is impeded.

When this happens, the cell must be recharged.

Recharging the cell is simply a matter of reversing the current flow through it.

This is done by connecting a source of DC voltage greater than that produced by the cell.

I have seen that current flow can initiate certain chemical reactions.

Here it reverses the chemical action described above.

It changes the lead sulfate in both plates back to sulfuric acid.

In doing so, this once again leaves the negative plate pure lead and the positive plate lead dioxide.

When the process is complete, the cell is again fully charged, that is amazing Flowerbower, I wonder if you knew that which is based upon the crap you put on YouTube.

This type of cell produces an emf of about 2.1 volt.

Normally, either three or six of the cells are combined to form a battery.

The cells are connected so the voltages add.

Thus, a three-cell battery has an emf of about 6.3 volts while a six-cell battery has an emf of approximately 12.6 volts.

Your automobile has one or the other of these types of batteries.

Because this type of cell can be recharged, it is a secondary cell.

In addition, because the electrolyte is a liquid, the lead acid cell is a wet cell.

It must not be laid on its side nor turned upside down.

Otherwise, the electrolyte will spill out.

Before I end this document, I shall undertake a programmed review to see if you have really been studying this work.

1. A cell or battery is a device, which stores energy in chemical form.

   However, the energy is released in an ---------- form.

---

2. There are two types of cells.

   A primary cell is one that cannot be recharged.

   A secondary cell is one that can be ----------

---

3. When new, the dry cell produces an emf of about ---------- volts.

---

4. To recharge the cell, a voltage of about 2.5 volts is placed across the cell to force current through it in the opposite direction.

   This reverses the chemical reaction and converts the lead sulphate back to ---------- acid.

---

5. In the same way, a 12.6 volt battery must consist of ---------- cells connected so that the voltage add.

---

6. The main parts of a cell are its two electrodes and an ---------- which separates them.

As I do not wish to split a question up, I will continue on the next page.

Continue review:

7. The lead acid cell is called a wet cell because the electrolyte is a liquid.

   For this reason, it should not be turned on its side or upside down.

   This contrasts with the ---------- cell, which can be used in any position.

---

8. Technically, there is a difference between a battery and a cell.

   A cell is a single unit consisting of two electrodes separated by an electrolyte.

   A battery is composed of two or more ---------- connected together for a specific current and voltage rating.

---

9. The battery used in most automobiles consists of a number of lead acid cells connected together so that the voltage from the individual cells adds together.

   Since the output voltage of a single cell is about 2.1 volts, a battery having an emf of 6.3 volts must consist of ---------- cells.

---

10. The dry cell is a primary cell.

    It has a carbon rod for a positive electrode and a zinc container acts as the negative electrode.

    An acid solution of ammonium chloride and zinc chloride is used as the ----------.

---

11. The electrolyte converts the lead-to-lead sulphate and in the process creates negative and positive charges.

    This type of cell produces an emf of approximately ---------- volts.

---

12. The lead acid cell is a secondary cell because it can be recharged again and again.

    The electrolyte is a mixture of sulphuric acid and water.

    The positive plate is lead dioxide while the negative plate is pure ----------.

The answers to these reviews will appear somewhere in the future in this book Flowerbower so keep watching son.

Well, I guess that is it for now; it has been for me exciting to recap again my young days learning to become an electrical engineer, then little did I know what the future had in store for me.

Neither did I know that the landlady and I would soon be parting unfortunate by an unexpected success event, which improved the ventilation that originally was in place, to a much greater improvement, which was in some respect like instant coffee.

Therefore, at a tender age of 14 years I was already in the instant market business of ventilation.

You may find it strange that I should be writing about how I learnt what I know when I should be telling how to make the ***Searl Effect Generator (S.E.G);*** but that is precisely what I am telling you but you do not understand.

Let me put it this way: when I was a boy, I knew that this thing hanging down that water like stuff called number one came out of it.

Was some dirty thing that no one should see or feel, and that there was a hole between the two checks of what you sat on; where number two came out of and strange sounds that were evil noises that should not be heard.

I hope you got the message, yes, indeed, we may know things but alas, we do not understand the reality of what we know that takes time to learn, to experiment to discover the facts

In the world of reality number one is not good enough, unacceptable when there is a term accepted through arbitration called urinating and the water like content is urine why call it number one this silly kids talk from adults.

And this dirty nasty thing has a name by arbitration called a penis, and the thing you sit on has a name through arbitration called buttocks section of the posterior, yes you know that, unfortunate you do not understand these parts unless you have trained as a doctor or nurse you would have acquired some understanding upon the subject,

However, rest assure that understanding may not be good enough for ***Swallow Command*** operations my books will expose problems and why we must step up our knowledge base upon the body years away from base you better know more than is at this time known.

My study of the Earthling has shock me, not their structure but their knowledge base is almost none existing.

To worry just about, if they can read or write is not the only problem I have found; basic knowledge of our solar system and simple things like what are stars, they do not have the slightest clue.

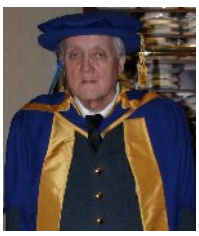
I cannot for love of me understand what on earth they think stars are; agree as a child I was told they were lanterns and angels were watching over us to tell her if I have been naughty so she could spank me to get the devil out.

This devil thing, confuse me how on earth did he get in there, I can appreciate that such evil thing should be got out of there fast.

And if that rubber strap was the only means to get it out then I should appreciate it and the effort and time put to that task by the operator who was duty bound by religion to remove it.

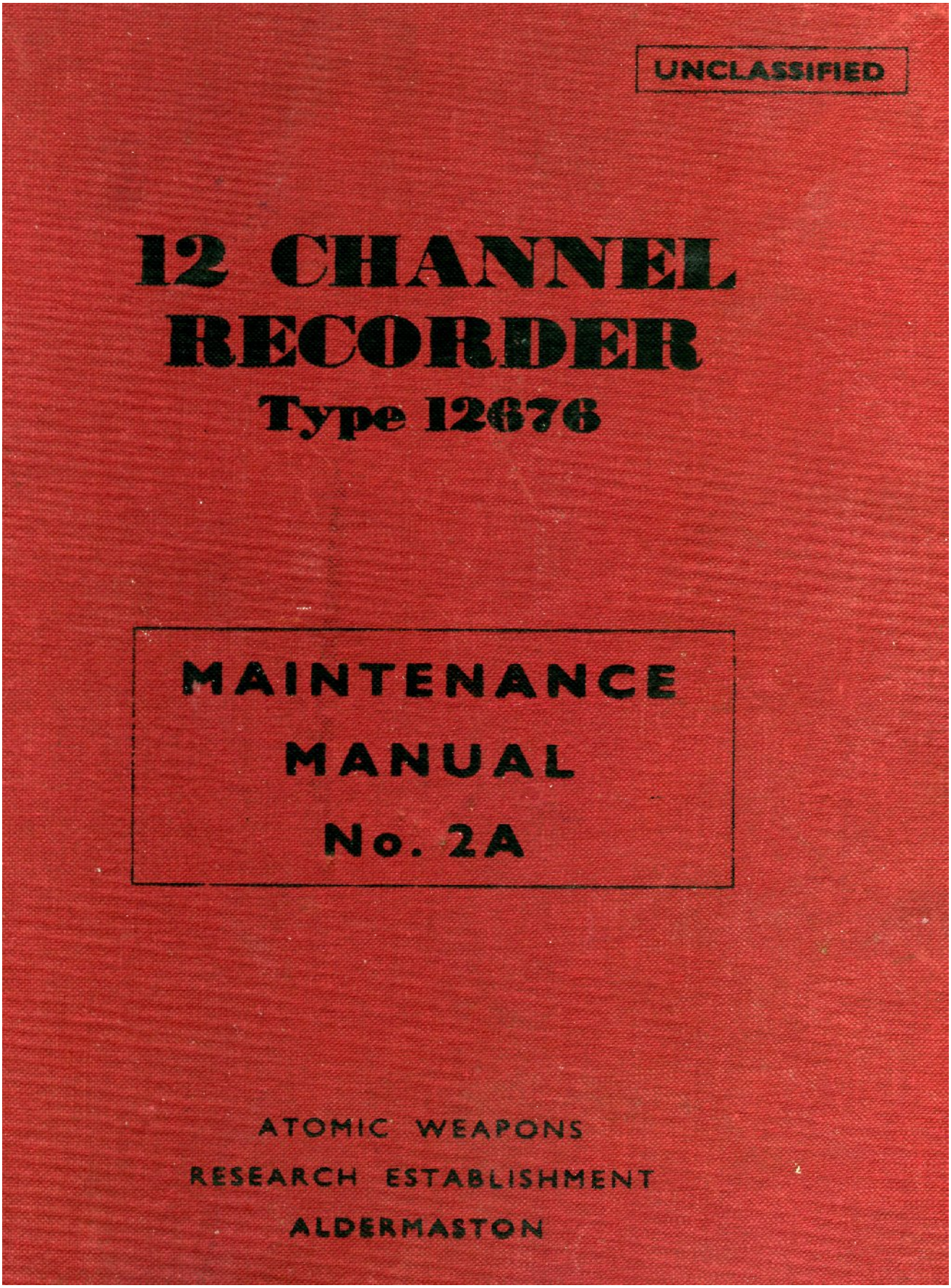
I guess she never used her hand in case she squashed the devil as it came out, did not want to get her hands messy, a good point notes have been taken.

This document released by the authority of:

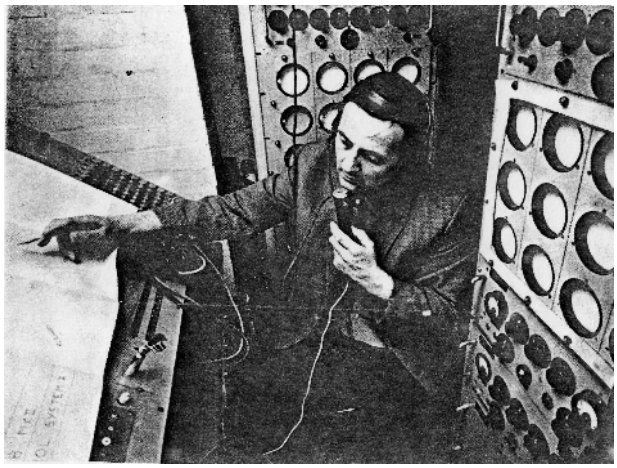


Prof. John Roy Robert Searl Head of R&D human studies.

Manned Flight Division.



I HAD NOTHING SO CLAIM THE EXPERTS – REALLY – THIS BOOK IS ABOUT MY LIFE. The evidnce looks you in the eyes, recorded by media and television alike worldwide only idiots would state otherwise.



MORTIMER – READING – BERKSHIRE – ENGLAND.

LOCATION	***:***	***Headquarters – Mortimer.***
DIVISION	***:***	***Manned Flight.***
SUBJECT	***:***	***12 Channel Recorder MK II.***
AUTHOR	***:***	***John Roy Robert Searl.***
STATUS	***:***	***Head of Research and Development.***

This document continues:

TIMING UNIT POWER SUPPLY – CIRCUIT DESCRIPTION:

This unit provides ***H.T.*** positive, stabilized negative bias, and heater current to the ***TIMING UNIT***.

Switches ***S2*** and ***S1*** allow the ***HEATERS*** and ***H.T***. to be switched on separately to let the heaters reach working temperature before ***S1 (H.T.)*** is applied.

This is very important issue within ***SWALLOW COMMAND*** where high tension power is used where valves are employed in the system that heaters are switched on first to warm up before the load is applied.

By connecting an ammeter to ***SKT1*** and breaking ***S3*** mains, current is passed through the meter as a ***MAINS CURRENT CHECK***.

Two separate mains transformers are employed, ***T2*** for negative bias and heaters, and ***T1*** for ***H.T***.

Low-tension heater supplies are provided by four secondaries of ***T2***, a further secondary lights ***LP2*** the heater lamp.

Negative bias at ***150V –ve*** with respect to the chassis is developed by a double diode ***V2; C4, C5*** and ***L2*** proving a filter while ***R4*** acts as a bleeder resistor to discharge the capacitors after the unit is switched off.

The stabilizer ***V3*** and current limiter ***R2*** stabilise the output voltage.

Two rectifiers ***V1*** and ***V1A*** develop some ***550 volts*** off-load; this output is smoothed by ***L1*** and ***C1, C2, C3***, three ***8µF*** capacitors in parallel; ***R3*** discharges these capacitors after the unit is switched off.
NOTE: Owing to the size of these capacitors, the energy stored is DANGEROUS.

A low tension secondary winding of T1 lights a warning H,T. lamp (LP2).

TIMING UNIT POWER SUPPLY - Test Specification

Test Equipment Required:-

Multi-range meter with a resistance of 20 kilohms/volt e.g. Avometer Model 8.
Variable Transformer: e.g. Variac with an output from 226 to 254 volts.
Insulation Tester.
Load to draw 100mA at 150V.

Check that the wiring satisfies the requirements of the relevant specifications and drawings.

Check the transformer tappings to ensure they are correctly set for the supply to be used.

Check the ratings of the fuses.

Make an insulation test of all high voltage points to earth.

W A R N I N G

The voltage developed by this Unit is DANGEROUS.

VOLTAGE CHECKS

V1 heaters	5 to 5.2V a.c.
V2 heater	6.2 to 6.4V a.c.
V3/R2 to E	150V -ve to chassis
SKT2 pin 1 to E	550V (off load)
SKT2 pin 5 to E	150V -ve

CHECK STABILISING OF BIAS VOLTAGE

Connect the load between SKT2 pins 5 and 3.

Apply mains through Variac and set the input to 240V: note output voltage.

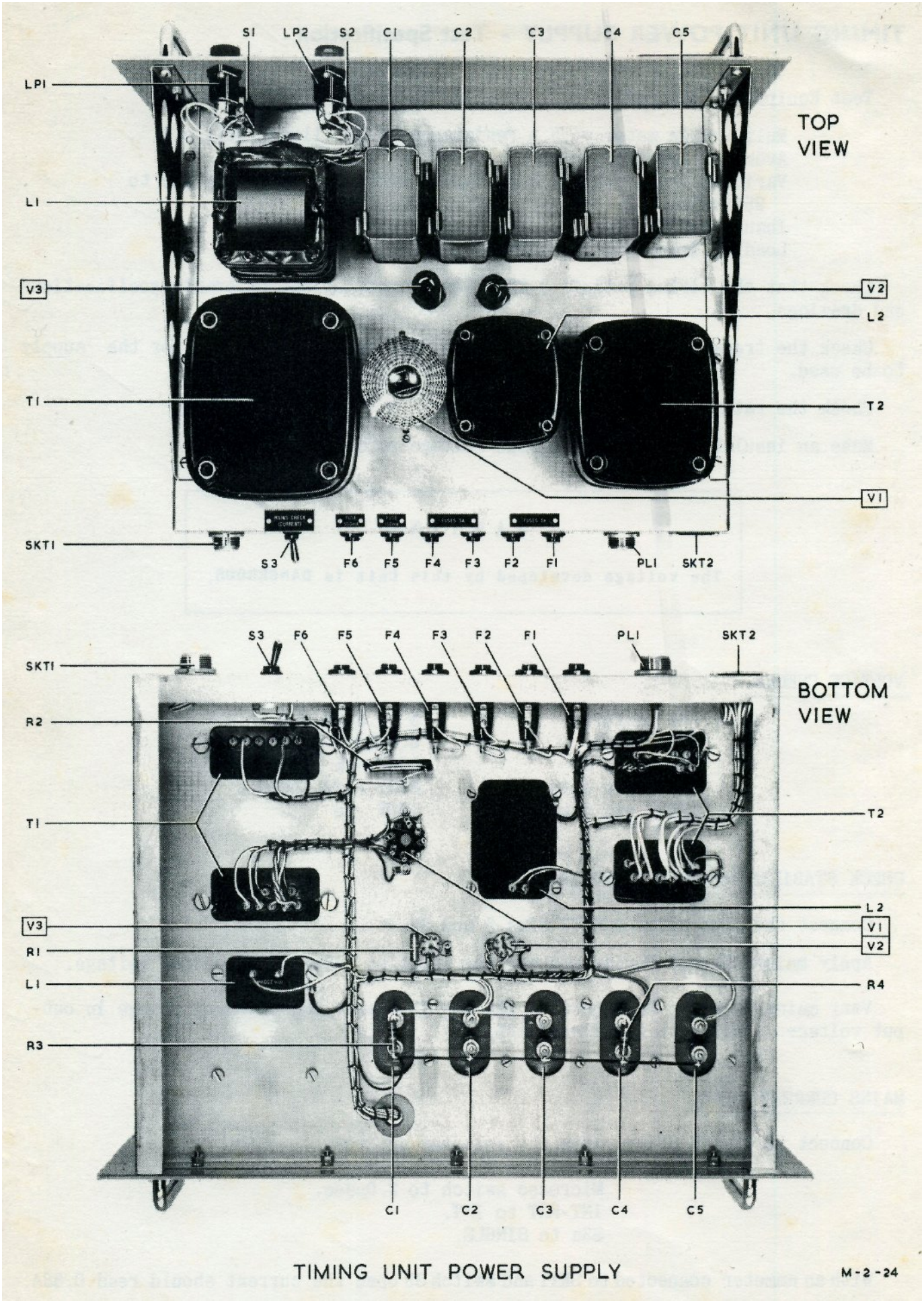
Vary mains input to Unit between 226 and 254 volts and note any change in output voltage: this must not exceed ±2%.

MAINS CURRENT CHECK

Connect to TIMING UNIT: with the switches set to:-

Microsec switch to 2.0μsec.
INT-EXT to INT.
S3a to SINGLE.

With an ammeter connected to SKT1 and switch S3 open the current should read 0.88A.



Behold Searl Reality he is not kidding here this is reality Flowerbower.

TIMING UNIT POWER SUPPLY — COMPONENTS LIST

Circuit Ref.	Value	±% Tolerance	Style	J.S. Cat. No. or Manufacturer
		- RESISTORS FIXED -		
R1	Not Used			
R2	4.7kΩ	10	- RWV4-L	5905-99-024-4066
R3	1MΩ	10	- RC7-J	5905-99-022-3164
R4	1MΩ	10	- RC7-J	5905-99-022-3164
		- CAPACITORS -		
C1	8μF	20	- CP10-N	5910-99-011-2825
C2	8μF	20	- CP10-N	5910-99-011-2825
C3	8μF	20	- CP10-N	5910-99-011-2825
C4	8μF	20	- CP10-N	5910-99-011-2825
C5	8μF	20	- CP10-N	5910-99-011-2825
		- INDUCTORS -		
L1	10H	-	250mA -	3-7/9691
L2	40H	-	75mA 30/20/2	Drg. HR/B 101329
		- TRANSFORMERS -		
T1	-	-	- PT 70/32/16	Drg. HR/B 67987
T2	-	-	- -	B 12099
		- VALVES -		
V1	-	-	- - Special. Type	CV 4044 M8091
V1A	-	-	- -	CV 4044 "
V2	-	-	- -	CV 4005
V3	-	-	- - Special Version	CV 2225 = 150B2. 6354
		- SWITCHES -		
S1	-	-	- Painton D.P. On/Off	500705 PAINTON
S2	-	-	- Painton D.P. On/Off	500705 PAINTON
S3	-	-	- S.P. On/Off Biased Off Toggle	5930-99-051-0503

Hello Flowerbower this is Searl's world of reality 1968, what was yours toilet cleaning?

Circuit Ref.	Value	±% Tolerance		Style	J.S. Cat. No. or Manufacturer
			- PLUGS -		
PL1	-	-	-	Plessey Mk.IV 3 way	5935-99-056-0060
			- SOCKETS -		
SKT1	-	-	-	Plessey Mk.IV 2 way	5935-99-056-0230
SKT2	-	-	-	Belling Lee 12 way Unitor L655/S	5935-99-056-2508
			- FUSES -		
F1	-	-	3A	Cartridge	5920-99-059-0111
F2	-	-	3A	Cartridge	5920-99-059-0111
F3	-	-	3A	Cartridge	5920-99-059-0111
F4	-	-	3A	Cartridge	5920-99-059-0111
F5	-	-	150mA	Cartridge	10H/95
F6	-	-	500mA	Cartridge	5920-99-059-0108
			- LAMPS -		
LP1	6V	-	0.3A	-	6240-99-995-1238
LP2	6V	-	0.3A	-	6240-99-995-1238

The problem now is that the circuit drawing is not on A4 paper its much larger so again shall have to split it up to show you that part of the circuit.

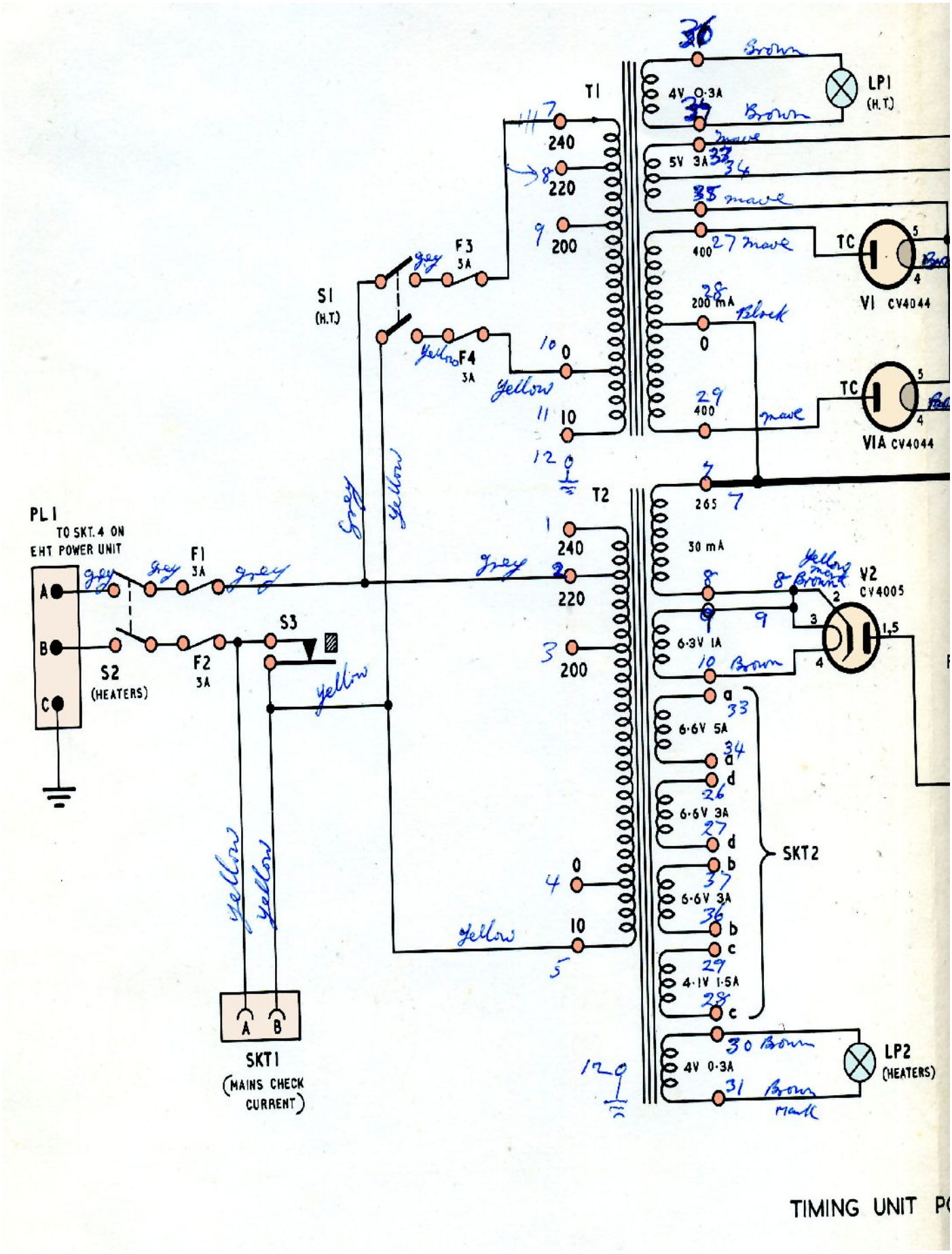
Nevertheless, Flowerbower it will be all there as it is here only in more parts.

By the way Flowerbower: in the world of reality man is a naked ape, and when you talk about going to Mars and beyond you talk about this naked ape not the illusion of man as in your world all dress up in the world of fantasy.

Therefore, if you are bent of searching my sites you have to respect reality because the world of reality is my world, not your world – your world is evil – poison pen writer – sick in mind.

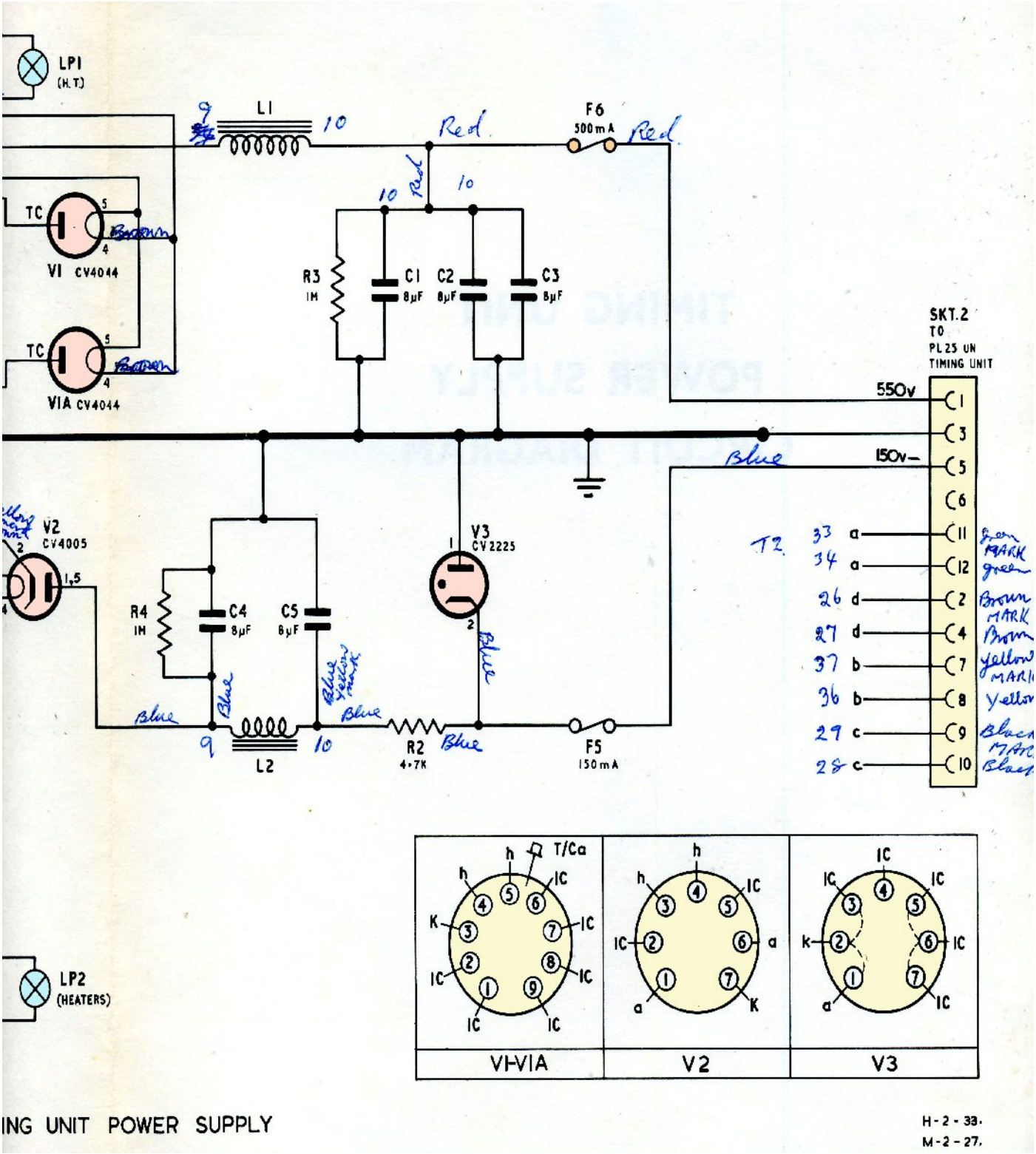
I have no respect for such people – the world has far too many of them – Flowerbower the sooner you stop your poison pen writing the sooner I can stop showing the world what you are.

In the end, I shall name you and your address and hopefully with photos of where you live so keep watching anytime I will be around filming you to join my library of imbeciles.



Flowerbower you see the work I did on this equipment to meet my research needs, can you do that?

Sorry I had to do it in two halves so you can see what I actually had before I was robbed on the first big robbery at Mortimer.



Hi Flowerbower what do you think of that after all these years and can still show what I had against four major robberies that stole my equipment to stop me but failed.

Now you god forsaken imbecile tried also to stop it but the truth can never be stop for good it will triumph over evil in the end regardless who the evil ones are.

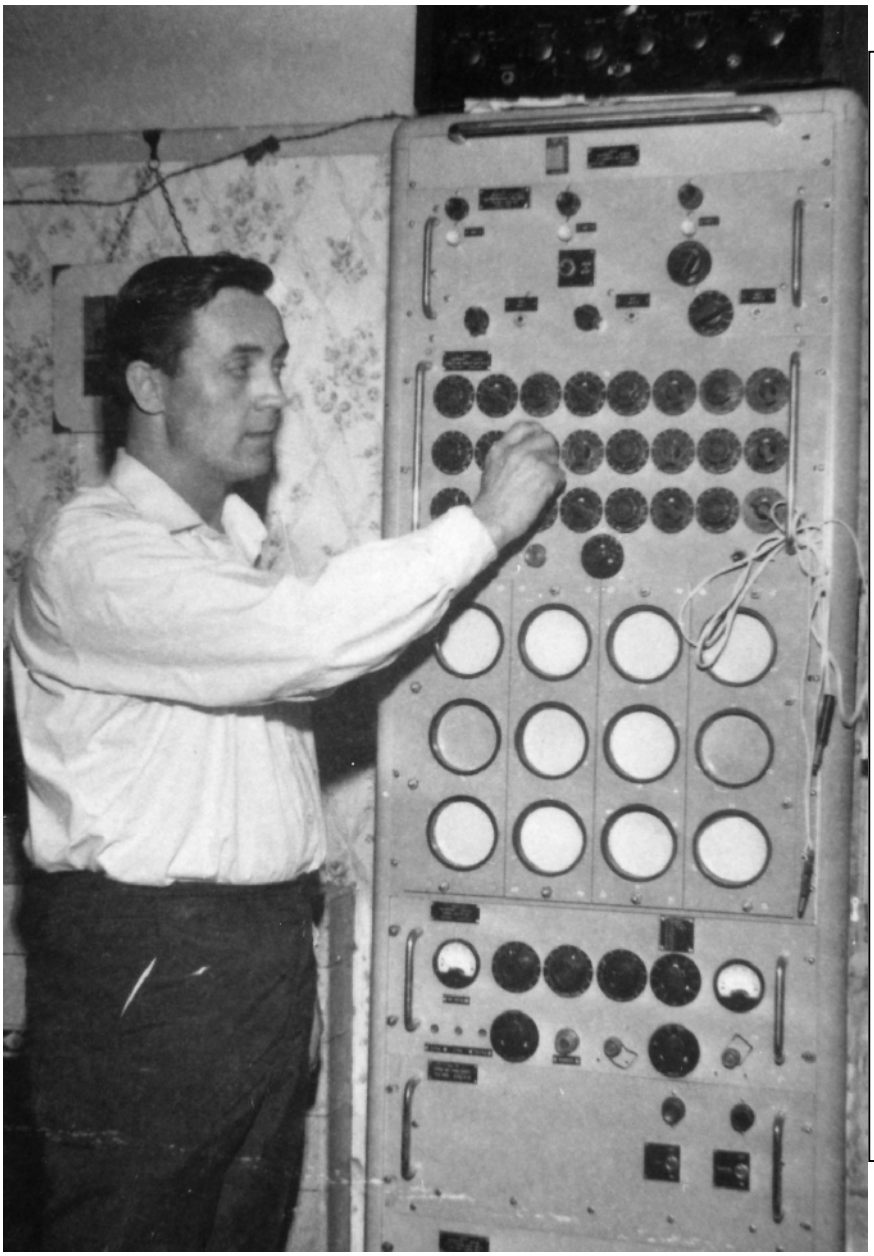
Flowerbower I have the cane, HD movie camera, studio lights the only thing missing is your arse, but soon it will be here and the welcome party will start; it will be the best video clip on YouTube and I promise it will be the best welcome party your arse has very had.

In addition, to you it will all be free, a gift from my heart to a very evil-minded person, a reward for your effort to block clean energy and transport systems to the world that urgently needs it; son see you soon!

This equipment was a lot of equipment and I can only release details of each part there of as a document to prove that such equipment I certainly had,

Until the next report of this section, enjoy looking at the rest of the book it is free.

This document released by authority of:



Prof. John Roy Robert Searl.

Head of Research and Development of the Searl Effect technology.

Creator of the Searl Effect Generator (S.E.G), and the Inverse-Gravity-Vehicle (I.G.V).

Author of many books under the title LAW OF THE SQAURES.

With hands on experience across many disciplines which were needed for this undertaking.

Since this time goods have vanished the technology then used have gone for good.

New concepts have taken over and I have to blend into them, as there are no options.

One thing is certain this technology will get to the market a bit more pricey then 1946 – 1968.

We are the future – then why not join us and help us to win.

Strange that women's Lib argument against pay toilets Flowerbower; there are no pay urinals!

Prof. Searl replies; I am delighted to inform the Women's Lib that all men must pay 20P to use the urinals from this day fourth.

Please do not complain to this department should you find queues of men peeing up your front door, as you would understand why.

Some men have a habit, when they like someone to give those four kisses one on each cheek, which is a good gesture on the part of the kisser, and greatly appreciated by the receiver.

What goes up must come down, all men know that is true, it is the going up that often fails, which worries men.

DOC-S.I.S.R.C.-SIMH-1.

DATE: 11th March 2009

EDITION: First.

ISSUE: First.

Glasgow-Lanarkshire-Scotland.

LOCATION : Headquarters Glasgow-Lanarkshire-Scotland.

DIVISION : Searl International Marketing Hub.

SEMINAR : Marketing.

LECTURER : Prof. John Roy Robert Searl.

STATUS : R & D Human studies – marketing.

The time has now arrived where serious studies of creating the International Hub that for many years I have tried to get that issue on the move.

With ***Searl Technology Ltd*** and bank account now in place plus ***Searl Magnetics Ltd*** and its bank account also in place.

New Space Technology Ltd has been in operation for a few months now, their progress continues on the ***Searl Effect Generator (S.E.G),*** and there are other products under development along the ***S.E.G.***

Searl International Marketing Hub is in the process of being set up, this section is a rather mighty task to undertake, mush more complicated than those sections now in place.

Whether we are considering Ford Motor Co, or ICL, the local football team or a dental practice, or Searl Technology Ltd or Searl Magnetics Ltd, even New Space Technology Ltd, a fundamental process, which is common to all of them, is that of marketing.

Each has goods – or services – which it is prepared to offer to potential and existing customers, because the

'***Searl Technology Ltd'*** recognises that customers have needs and / or wants which require to be satisfied.

However, marketing is not simply '***selling***': that is one small – but important – part of the whole marketing process.

What then is marketing?

Marketing is that part of the managerial process which attempts to identify, anticipate and supply the consumer's requirements, efficiently and profitable – institute of marketing.

It has also been described as:

The performance of business activities, which direct the flow of goods or services from the producer to the consumer.

Searl Technology Ltd, ***Searl Magnetics Ltd*** and the pending ***Searl International Marking Hub*** need to recognise that the only constant thing in life is change.

Public tastes and technology necessitate a constant re-appraisal of a product's utility.

Competitiveness, particularly from overseas and the EEC, has become a significant factor in influencing corporate goals, both long – and short term, and plans and control procedures necessary to achieve such targets.

Today's businesses exists in a dynamic and evolving society and the marketing function in ***Searl Technology Ltd*** and ***Searl Magnetics Ltd*** and the pending ***Searl International Marketing Hub*** must recognise the uncertain nature of such a society.

No marketing policy can therefore, remain fixed for long, for marketing is – or should be –in the vanguard of ***Searl International Marketing Hub Ltd*** activities, acting as the antennae of the organism, regulating its internal workings and influencing its relationships with other organisations and individuals in the society in which Searl Technology Ltd, which it operates.

The aim of this book is to act primarily as a revision aid for members or for those who will in the long term becomes members within the Searl International Space Research consortium complex and its text is telegrammatic and precise – well I sincerely hope so.

Because of its concise form, it is hope that this book will also appeal to the interest of the public at large, whether he / she is a businessman or woman or not, who wishes simply to understand the fundamentals of marketing without the need to examine the subject in great depth and whose time and commitment may well be limited.

I am grateful to those who without their help setting up my sites, this book would not been available to the public free of charge; therefore, this book would not have been written.

Of all the functional areas of ***Searl Technology Ltd***, marketing is the most pervasive and dynamic activity.

It is a well-known concept that marketing leads all other functions of a commercial organisation in terms of time but not, of course, in terms of importance.

It is on the information culled and the analysis undertaken by the marketing department that the ***Searl Technology Ltd*** and ***Searl Magnetics Ltd*** resources, and their acquisition and allocation to the various departments – such as production, personnel, research and development and finance – must be made.

As the corporate departments or divisions may be considered as sub-systems, which collectively comprise the total system of the organisation, rather like the various systems of the human body.

The essence of the management task is to control, co-ordinate, and monitor and ensures that all the sub-systems contribute meaningfully to the total output of the enterprise.

Which means: work to the attainment of the corporate objectives, whatever they might be?

It may well be that the members of some departments may agree with neither the organisational, tactical objectives nor with those operational objectives of the formal group to which they have been allocated, but in establishing the firm's goals the top management must take into consideration the diverse expectation of the stakeholders – the shareholders, employees, customers, etc.

In addition, to some extent, diverging group and individual aims must be expected, and my decisions will be based upon my own experience in the workplace, which is plenty.

The conflict; which may result must be regarded as unhealthy, for controlled, manifest conflict is often catalytic in its effects.

It is latent and inhibited conflict, which may precipitate low morale, poor output and individual disaffection with the enterprise.

It is due to this reason that I undertook a course on robotics and automation in industry so that any such problems occur they can be replaced b robotic automation,

The departments, or sub-systems, must interconnect Freddie like cogwheels in an engine.

It is of little use, and indeed may be positively detrimental, if one cogwheel spins incessantly yet fails to contribute to the total effort required to turn the main shaft of the engine, which in turn pushes the firm forward.

An organisation is never static or stagnant: it will tend to go either forward or backward.

It is the responsibility of the marketing to ensure that the firm always advances and never retreats, even for a tactical re-grouping.

An enterprise will tend to reach its peak of fitness if the sub-systems are able to receive and digest adequate and reliable information and to respond appropriately, in much the same way that a living organism must, if it is to develop, reproduce, regenerate and indeed survive.

I feel that this is a good point to break for now, I shall continue with this problem in a latter part of this book.

This document released by authority of:



Prof. John Roy Robert Searl and member of the workforce Debbie.

Status – R&D human behaviour studies.

Did you hear about the Polish doctor who diagnosed a boil on the behind as a brain tumour?

Oh, give me a home where the buffalo roam and the deer and the antelope play, and Flowebower I will show you a home with assorted crap all over floor and still it cannot beat yours on YouTube.

Ladies and Gentleman Flowerbower is our darling our darling crap producer on YouTube: three cheers for crap; no wonder there is global warming thanks to Flowerbower.

STARPORT EARTH ONE-BERKSHIRE-ENGLAND

LOCATION : Starport Earth One – Newbury-Berkshire-England.

DIVISION : Manned Flight.

SEMINAR : Starship Ezekiel MK V - Materials.

LECTURE : John Roy Robert Searl.

STATUS : Head of Research and Development.

All these 64 struts for the Demo one model was constructed by myself in the back yard of 17 St. Stephens Close, Mortimer.

The amount of publicity this was obtaining brought a man by the name of Mr. Fleetwood running to offer me his land to build it, which I accepted.

The photos above show the struts have arrived at StarPort Earth One ready to start the construction of Demo one which would become media interest.

The rest is histroy; this document will continue upon the subject of materials available then, today there are many more available.

ABRASIVES:

Materials used for surfacing and finishing metals, stone, wood, glass, and other materials by abrasive action.

The natural abrasives include the diamond, emery, corundum, sand, crushed garnet and quartz, Tripoli, and pumice.

ARTIFICIAL ABRASIVES:

Or manufactured abrasives, are generally superior in uniformity to natural abrasives, and are mostly silicon carbide, aluminum oxide, boron carbide, or boron nitride, marketed under trade names.

Artificial diamonds are also now being produced.

The massive natural abrasives, such as sandstone, are cut into grinding wheels from natural block, but most abrasive material is used as grains or built into artificial shapes.

For industrial grinding, artificial abrasives are preferred to natural abrasives because of their greater uniformity.

Grading is important because uniform grinding requires grains of the same size.

The abrasive grains are used as a grinding powder, are made into wheels, blocks, or, stones, or are bonded to paper or cloth.

ABRASIVE CLOTH:

Is made of cotton jean or drills to close tolerances of yarns and weaves, and the grains are attached with glue or resin.

However, the ***FABRICUT CLOTH*** of the ***3M Co***. is an open-weave fabric with alumina or silicon carbide grains of 100 to 400 mesh.

The open weave permits easy cleaning of the cloth in an air blast.

ABRASIVE PAPER:

Has the grains, usually aluminium oxide or silicon carbide, glued to one side of 40 to 130 lb kraft paper.

Any of which could do the job of rubbing piles smooth.

The usual grain sizes are No 16 to No 500.

ABRASIVE POWDER:

Is usually graded in sizes from 8 to 240 mesh.

Coarse grain is to 24 mesh; find grain is 150 to 240.

BLASTING ABRASIVE:

For blast, cleaning of metal castings is usually coarse gain.

ARROWBLAST:

Of the Norton Co., is aluminium oxide with grain sizes 16 to 80 mesh.

GRINDING FLOUR:

Consists of extremely fine grains separated by flotation, usually in grain sizes from 280 mesh to 600 mesh, used for grinding glass and fine polishing.

LEVIGATED ABRASIVES:

Are fine powders for final burnishing of metals or for metallographic polishing, usually processed to make them chemically neutral.

GREEN ROUGE:

Is levigated chromic oxide, and mild polish may be levigated tin oxide; both are used for burnishing soft metals.

POLISHING POWDER:

May be aluminium oxide or metal oxide powders of ultrafine particle size down to 600 mesh.

MICRIA AD:

Of the Monsanto Co., is alumina

MICRIA ZR:

Is zirconia.

MICRIA TIS:

Is titania

GAMAL:

Of the Fisher Scientific Co.: is fine aluminium oxide powder, the smaller cubes being 1.5µm, with smaller particles 0.5µm.

CEROX:

Of the Lindsay Division, is cerium oxide used to polish optical lenses and automobile windshields.

It cut fast and gives a smooth surface.

GRINDING COMPOUNDS:

For valve grinding, is usually aluminium oxide in oil.

MILD ABRASIVES;

Used in silver polishes and window cleaning compounds, such as chalk and talc, have a hardness of 1 to 2 Mohs.

The milder abrasives for dental pastes and powders may be precipitated calcium carbonate, tricalcium phosphate, or combinations of sodium metaphosphate and tricalcium phosphate.

Abrasives for metal polishes may also be pumice, diatomite, silica flour, Tripoli, whiting, kaolin, tin oxide, or fuller's earth, and fuller's earth was the one I used as a boy at the Chestnuts to polish all the knives, forks and spoons at least I started young with abrasives materials.

This type of fine abrasive must be of very uniform gain in order to prevent scratching.

CUTTLE BONE or CUTTLEFISH BONE:

Is a calcareous powder made from the internal shell of a Mediterranean marine mollusc of the genus Sepia, and is used as a fine polishing material for jewellery and in tooth powders.

GROUND GLASS:

Is regularly marketed as an abrasive for use in scouring compounds and in match head compositions.

LAPPING ABRASIVES:

For finish grinding of hard materials, is diamond dust or boron carbide powder.

ALUMINUM OXIDE:

Wheels are used for grinding materials of high tensile strength.

SILICON CARBIDE:

Is harder but is not as strong as aluminium oxide.

It is used for grinding metals that have dense grain structure and for stone.

VITRIFIED WHEELS:

Are made by moulding under heat and pressure.

They are used for general and precision grinding where the wheel does not exceed a speed of 6,500 surface ft/min – 33 m/s.

The rigidity gives high precision, and the porosity and strength of bond permit high stock removal.

SILICATE WHEELS:

Have a silicate binder and are baked.

The silicate bond releases the grains more easily than the vitrified, and is used for grinding edge tools to reduce burning of the tool.

Synthetic resins are used for bonding where greater strength is required than is obtained with the silicate, but less openness than with the vitrified.

Resinoid bonds are used up to 16,000 surface ft/min – 81 m/s-, and are used especially for thread grinding and cut off wheels.

Shellac binder is used for light work and for high finishing.

Rubber is used for precision grinding and for centre less feed machines, did you know that Flowerbower?

Grading of abrasive wheels is by grit size number from No 10 to No 600, which is 600 mesh; by grade of wheel, or strength of the bond, which is by letter designation, increasing in hardness from A to Z; and by grain spacing or structure number.

Sorry, that I cannot move a mass of heavy equipment to get at a couple of them to scan in here, but rest assure that some future document I shall be able to include photos of them.

The ideal condition is with a bond strong enough to hold the grains to accomplish the desired result, and release them before they become too dull.

Essential qualities in the abrasive grain are; penetration hardness, body strength sufficient to resist fracture until the points dull and then break to present a new edge, and an attrition resistance suitable to the work.

Some wheels are made with a porous honeycombed structure to give free cutting and cooler operation on some types of metal grinding.

Some diamond wheels are made with aluminium powder mixed with a thermosetting resin, and the diamond abrasive mix is hot pressed around this core wheel.

Norton diamond wheels are of three types;

1. ***Metal bonded by powder metallurgy;***
2. ***Resinoid bonded***
3. ***Vitrified bonded.***

Well beloved son Flowerbower in whom we are all feed up with; how do your knackers feel like now?

ABRASIVE SAND:

Any sand used for abrasive and grinding purposes, but the term does not include the sharp grains obtained by crushing quartz and used for sandpaper.

The chief types of abrasive sand include:

1. ***Sandblast sand;***
2. ***Glass grinding sand;***
3. ***Stone cutting sand.***

Sand for stone sawing and for marble and glass grinding is usually ungraded, with no preparation other than screening, but it must have tough, uniform grains.

CHATS:

Are sand tailings from the Missouri lead ores, used for sawing stone.

BANDING SAND:

Is used for the band grinding of tool handles, and for the grinding of plate glass, but it is often replaced by artificial abrasives.

Banding sand grains are fine, 95% being retained on a 150-mesh screen.

BURNISHING SAND:

For metal polishing, is a fine-grained silica sand with rounded grains.

It should pass a 65-mesh screen, and be retained on a 100-mesh screen.

Sorry to say that was all I understood back there in 1968, I appreciate that things have continued in a forward motion and I except materials in this domain have increase, unfortunate the mass robbery left me in a state of no funds to keep up to date.

So please do not waste time writing me to say that there are more materials now available; unless you are sending me the data book covering them, which I would appreciate to be up to date.

Searl Technology Ltd and ***Searl Magnetics Ltd*** will depend on ***Searl International Marketing Hub*** to have this data in store like all technical universities have, without such data work will not advance quick for the ***Searl Technology*** depends on knowledge available as it involves hundreds of inventors not just one.

Also, please note that this book is not being written just for one person but for the world to read, to learn to understand who invented this technology and how he did it.

This document released by the authority of:

S.I.S.R.C.

IGV

DOC-SISRC-MFD-BP-1

DATE: 17th June 1968

EDTION: First

ISSUE: First.

MORTIMER-READING-BERKSHIRE-ENLAND.

LOCATION : Headquarters-Mortimer-Berkshire-England.

DIVISION : Manned Flight – Medical.

SEMINAR : Star ship Ezekiel MK V - Human Functions.

LECTURER : John Roy Robert Searl.

STATUS : Head of R&D human functions.

This is a very serious issue; as the International Space Station has experience the results of such problems.

When there has been a program aired about Mars I have tried to listen to it – so far I have been shock at statement made by the person who claims to work for NASA or have work for NASA stating that we all be transported to Mars in the first step to find a new home.

Really – multimillions of people going to Mars and not one ruddy toilet in place, no water, no food; what is this a suicide trip to rid planet earth of Homo sapiens –thus reduce the damage being done to planet earth – maybe I am wrong – maybe he is right – agree that would reduce the population naturally by hunger and thirst.

However, in this document I shall deal with the world of reality about critical human functions that has to be address if one is to survive.

The Homo sapiens are a fantastic structure concept which man has never yet been able to copy; it is so complex that there is so much more we need to know so we can understand the functions of each unit.

Not simple functions like breathing, drinking, eating, breaking wind, Urinating and defecation, which are in the kiddie's domain of understanding.

For deep space exploration, we have to talk adult fashion with intelligence and understanding what we do in a precise manner, as you will observe in this book.

BLADDER PROBLEMS:

NORMAL BLADDER FUNCTION:

The normal bladder has a dual function: for the majority of the time it acts as a highly compliant storage vessel for urine propelled from the kidneys; periodically the bladder acts as a contractile organ expelling its contents via the urethra.

The bladder is unique in that it is the only organ comprised of smooth muscle, which is under voluntary control.

The normal urinary bladder accommodates approximately 500 ml of urine at a low pressure.

Measurement of intravesical pressure during bladder filling demonstrates this – Figure 18.1.

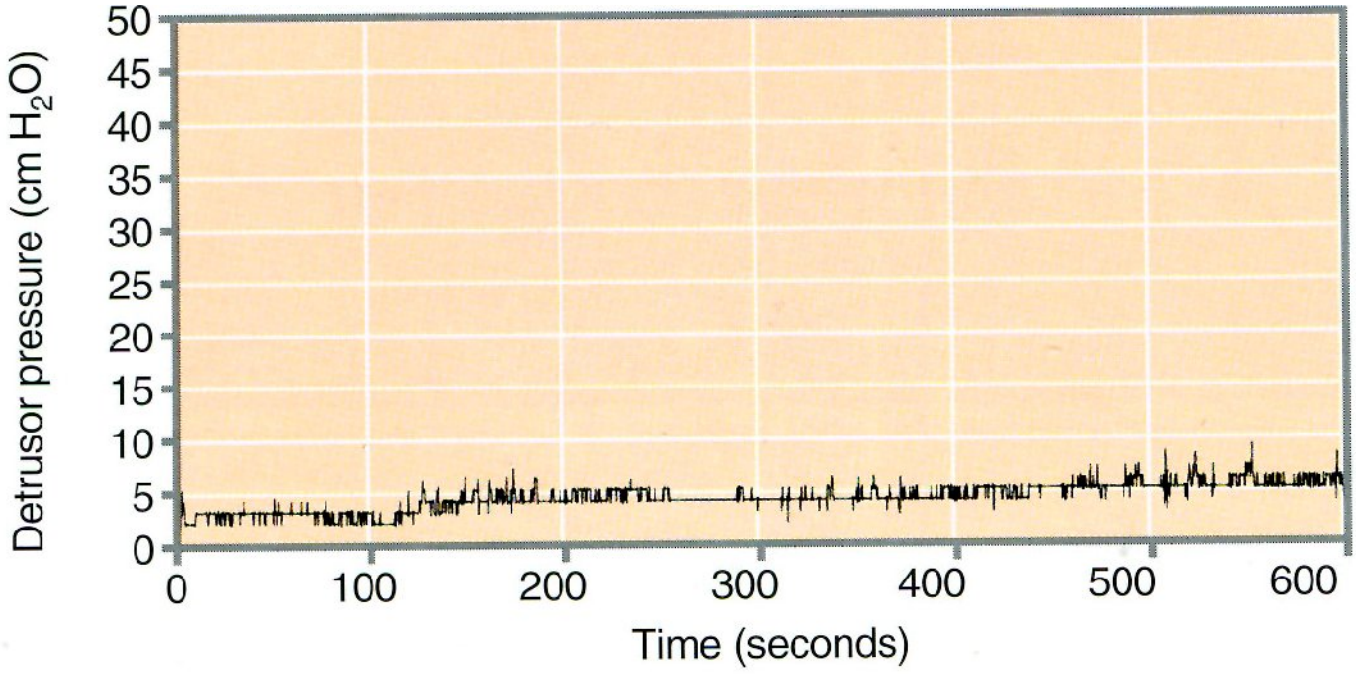


Figure 18.1. A plot of detrusor pressure versus time during filling to a volume of 500 mL

This compliant behaviour of the bladder is probably due to a combination of rearrangement of bladder wall components and viscoelastic properties of the detrusor muscle and its surrounding connective tissue matrix.

DETRUSOR MUSCLE (di-troo-ser) n.

A band of smooth muscle fibres that form the outer muscular coat of the urinary bladder and are attached to the pubis.

The existence of active neurological control of relaxation is controversial but both the storage and voiding phases require extensive neurological input.

Effective emptying of the bladder requires the coordinated activity of the urethral sphincter and the detrusor; relaxation of the urethra preceding detrusor contraction allows low resistance voiding.

As the bladder reaches functional capacity, sensory impulses initiate the urge to void.

This can be voluntarily suppressed so that bladder emptying can occur at a convenient time and place; for me that pleasure has been lost for some time.

If signal say empty now and I do not obey then it will do it automatically and it cannot be stopped, which is not in my best interest.

NEUROLOGICAL CONTROL OF MICTURITION:

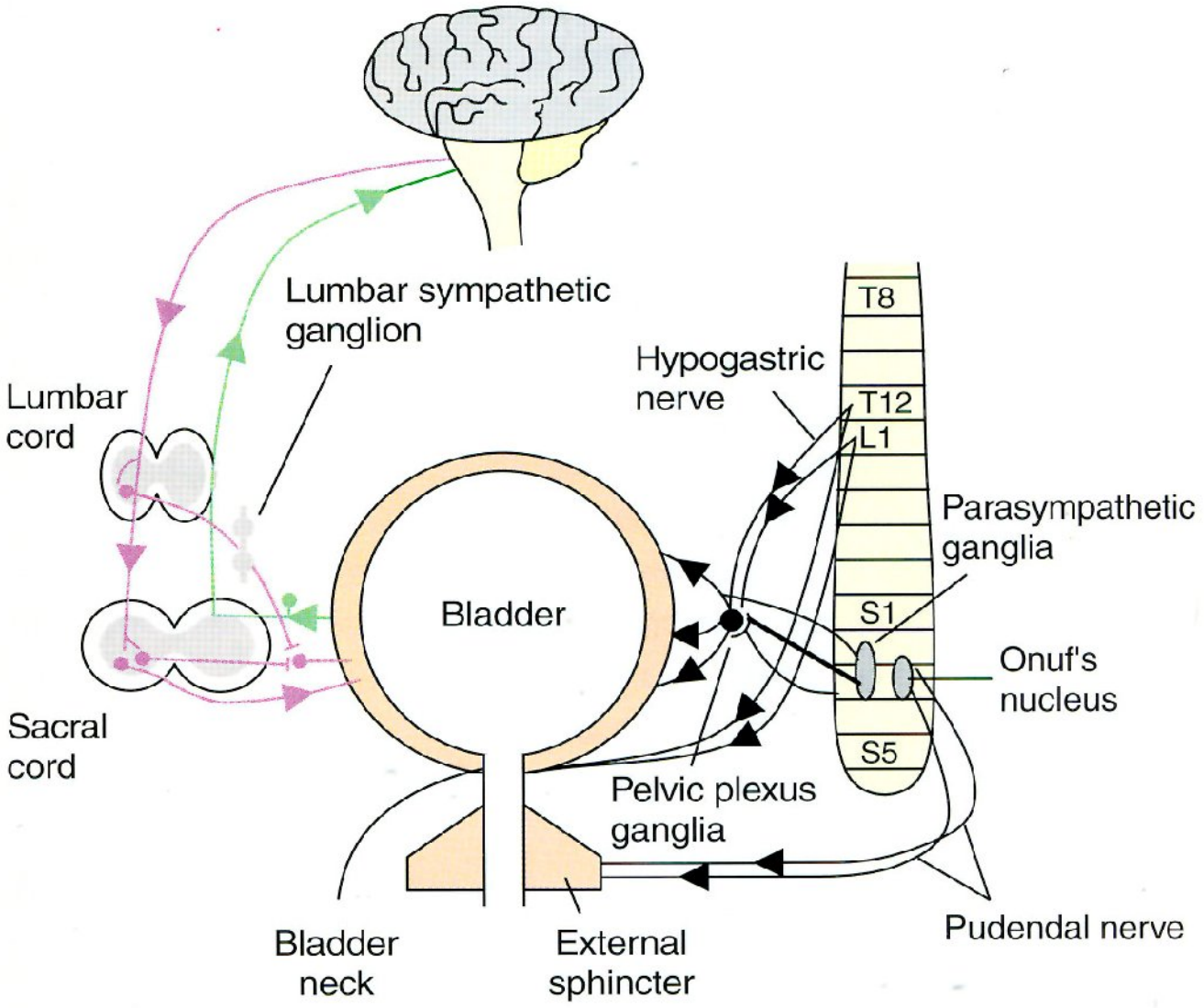


Figure 18.2 Efferent nervous supply to the bladder – right hand side – and voiding reflexes – left hand side.

The coordinating centres for control of micturition are thought to lie in the pons – which to my mind means that in reality we do not know for certain, therefore we are assuming which is not good enough for deep space exploration, we have to do much better than that.

These pontine micturition centres determine the switching from storage to voiding phase and are, in turn, influenced by input from higher centres, including the frontal lobe and hypothalamus.

HYPOTHALAMUS (hy-poh-thal-ă-mŭs) n.

The region of the forebrain in the floor of the third ventricle, linked with the thalamus above and the pituitary gland below.

It contains several important centres controlling body temperature, thirst, hunger, and eating, water balance, and sexual function, that last function appears to have been erased by German measles when I was 29 years old.

It also functions as a centre for the integration of hormonal and autonomic nervous activity.

FRONTAL LOBE:

The anterior part of each hemisphere: extending as far back as the deep central sulcus of its upper and outer surface.

Fibres from the pons can be traced to Onuf's nucleus, which lies in the sacral region of the spinal cord Figure 18.2.

This nucleus is the source of somatic innervations to the external sphincter mechanism, the pelvic floor and anal sphincter via the pudendal and pelvic nerves.

Parasympathetic fibres from S2 to S4 roots innervate the bladder, either via the ganglia within the pelvic plexuses, which lie on either side of the genitourinary tract, or straight to ganglia on the surface of the bladder.

Sympathetic nerves, which run from the thoracic cord via the hypogastric nerves to the pelvic plexuses, modulate the function of these nerves.

The sensory afferents of the bladder lie both beneath the urothelium and between the muscle fibres.

They respond to bladder wall tension as filling increases and communicate the urge to void.

They run in both sympathetic and parasympathetic nerves to the dorsal sacral roots.

These then connect with supraspinal centres to allow coordinated voiding - figure 18.2.

A guarding reflex influences sphincteric function during filling, the activity of this reflex increases as wall tension increases.

This serves to keep the urethral resistance high in the face of an increasing bladder pressure and is involved in the ability to voluntarily delay micturition.

It can be seen that coordinated, socially acceptable micturition is dependent upon many factors and is susceptible to damage or injury at many levels.

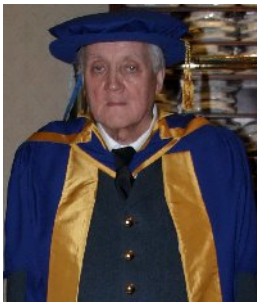
Most commonly, neurological damage results in urinary incontinence due to an impaired ability to store urine; impaired voiding can also result.

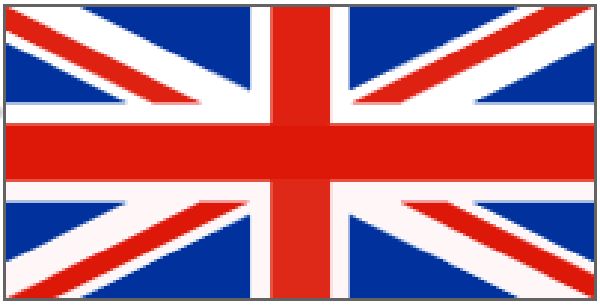
When disrupted storage occurs with impaired voiding, bladder dysfunction can be particularly severe.

I will end this first part; at this point, and will be continue later in the book as it's a big problem with many people on earth suffering from its effects.

Therefore, with deep space missions of many years I have to accept this will become a problem that has to be handle in the best way possible; as existing in space presents an entirely different world due to its very nature of being out of reach for normal products that one takes for granted here on earth.

This document released by authority of:





Prof. John Roy Robert Searl Head of Human behaviour studies.

PROGRESS NEVER STANDS STILL FOR LONG.

New equipment, new ideas, each claiming to improve our lives, some today just take a peep, unfortunate I can't order such on the web there is always something wrong for this one I had to sign agree to terms but no way could I find such a statement after many tries I just gave up and called it a day.

Equipment is on constant change just like all of us, every fortnight we have changed in some way or another, it takes time to spot it we are all moving forward in time and we have no options.

Yes, you can go under the knife to try to halt it, you might win for the moment but often there is a price to pay for it later.

I accept reality, and I would not pay many thousands of pounds out to have my nose, face, tummy or bum changed in any way, if you don't like seeing them then do not look.

Unfortunate with this technology the mathematics changes often during the designing due to it nature.

Yes indeed technology is improving, so well that it is often a job to get it to work.

I guess that I do not have the hands on experience to cope with this modern stuff, but my eyes are not so good and this new stuff is getting smaller and smaller, the signs are getting smaller that it is impossible to understand what it indicates.

The instruction handbook is type so small instructions even with a magnifier glass a job to follow what they say.

I guess I must be pass myself life, and writing these pages are taking longer than twenty years ago, agree I do not get much time to write.

However, this book is to expose what it is taking me to undertake this work, in the past, now and expected future, as many wish to understand.

This technology today cost vast sums of money but economics suggest that the cost could be worth it, if the results meet our expectations.

I accept that a big partner will be required to meet all of my objectives, but when you check the cost that has been wasted on massive projects that failed is far more then this technology requires proving itself to the world.

In the space side vast sums of money has been lost by failures that too adds up to far greater cost then this technology requires proving itself.

Today, many people are all experimenting in energy devices, and one today video clip I watched had constructed a circle aircraft and it actual fly beautiful, and NASA wind tunnel tested it and agree it was perfect for flight that he had solve a problem of wings which are under load in flight causing problems.

I am please for his success, well planned out, executed and tested even if he calls it a flying saucer, so who cares; it works that is what matters.

All trying to create better products: to them our wishes go with them that they become successful too; unless you give a commitment to an idea, you will never know if it would work, many ideas fail not because the idea was wrong – but because something needed for success has yet to be invented.

DOC-SISRC-MFD-MM-FP-1

DATE: 7th July 1968.

EDITION: First.

ISSUE: Third.

SWALLOW COMMAND-MORTIMER-BERKSHIRE-ENGLAND.

LOCATION : Headquarters-Mortimer-Berkshire-England.

DIVISION : Manned Flight.

SEMINAR : Mariner-Mars 1964.

LECTURER : John Roy Robert Searl.

STATUS : Head of R&D Star ship Ezekiel MK V Project.

How did NASA do it – after all how they achieved it gives clues upon ideas to develop better concepts for such missions in the future and the whole idea of Star Ship Ezekiel MK V was to create a concept that from the economics issues would solve problems that are encountered in the rocket concept.

The important issue here is that it is possible to reach Mars, may not yet by man, because man is the problem.

Within this book I look at all issues from which I can assess the possibility of success, from how I started and step by step how things as data was achieved that allows me to conceive, design and construct ideas to bring into the world of reality better concepts in energy and transportation systems.

That transport system also includes space exploration – the future for humankind to venture, explore and develop for the benefits of life on Earth.

Mars is a target to reach and study for it will reveal what has happen to it and maybe give us some idea what will happen to planet Earth; such information is vital to understand.

Mars may well be able to supply us with raw materials that would save us from damaging this planet to get.

Going to Mars and filming all of it taking drill samples would help to erase all the crap on the internet, and put minds back on the right track about reality that exists.

LAUNCH CONSTRAINS ANALYSIS:

An analysis was conducted to define all constrains affecting the launch of the Mariner-Mars 1964 spacecraft caused by the spacecraft itself, the launch vehicle, the space flight operations, and the tracking and data acquisition activities required for a successful mission.

PROF. SEARL:

I understand what is stated here, the spacecraft itself sets the main functions which has to be defined, the whole idea of Star Ship Ezekiel MK V concept that would reduce this load of constrains and make mission planning easier and quicker to carry out, thus reducing the operation footprint to a much more ideal time schedule for any mission.

NASA:

The only constraints imposed by the spacecraft were those due to the Canopus sensor and low-gain-antenna operational characteristics.

The Atlas D first stage and Agena D second stage imposed several important constrains on the launch, which had to be considered in the establishment of the available launch interval; which will be discussed at a later date – for both launches could be continuous, no constrains were imposed by this possible source.

In addition, adequate deep space station coverage – discussed later in book – was planned for both launches.

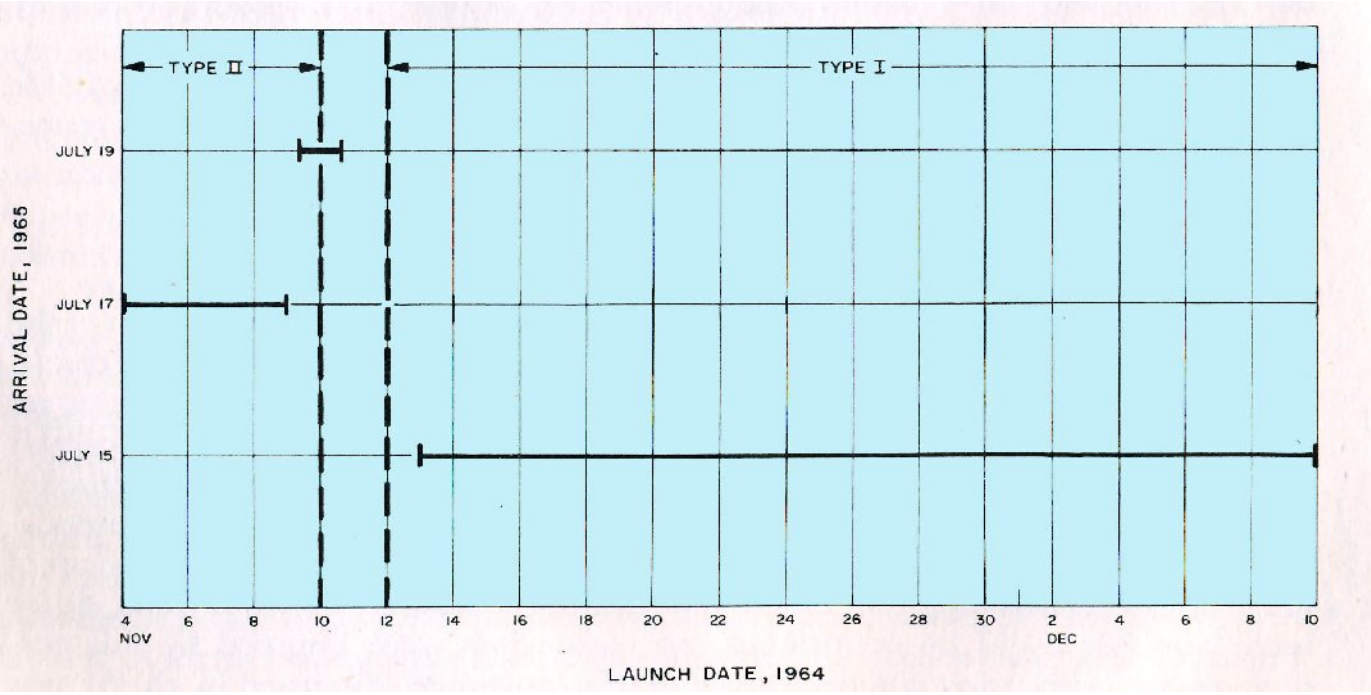
A constraint which resulted from the inability to deliver and analyze realistically certain tracking and telemetry data much before 36 hours dictated at least one launch window should elapse between the launches.

Various computer programs were used in this analysis.

The final launch window designs were shown on a launch constrains board maintained in the JPL Space Flight Operations Centre at the Air Force Eastern Test Range.

This board was kept current by a continuing analysis of all possible constrains until both Mariner-Mars 1946 spacecraft had been launched.

FINAL PRELAUNCH TRAJECTORY DETERMINATION:



With a launch interval of 27 days, the first spacecraft launch was scheduled for November 4th 1964.

It was found that, by making the arrival date for this spacecraft July 17th 1965 and by accepting some penalty in injection energy, it was possible to utilize an aiming point, which provides good occultation and good television coverage.

As shown in Figure 18.7, launch days November 4th to 10th required the use of type II trajectories; since it had been decided that only one Mariner-Mars 1946 spacecraft would be launched during the type II trajectory period, the second spacecraft would be launched sometime after November 10th and would thus have a type I trajectory.

After considering all possible constrains, final precision trajectories were computed, and a detailed simulation of the Atlas D/Agena D ascent trajectory was computed to determine proper guidance and control settings.

In addition, the launch and parking orbit coast times were computed to yield arrival conditions at Mars as specified.

These were determined for a 90^0 to 114^0--launch azimuth interval.

The daily firing period was about three hours, with injection locations confined to a region of about 10.5^0 in latitude and 69.6^0 in longitude over an area slightly west of South Africa and extending into the Indian Ocean.

Parking orbit coast times ranged from 19.1 to 34.6 minutes, depending on both launch date and launch azimuth.

ORBIT DETERMINATION OPERATIONS:

Control of the aiming point parameters B•T and B•R and of the time of flight was essential for control of the flyby distance, look angles, and illumination for science instruments; correct timing of the automatic encounter sequence; and adequate deep space station view periods at encounter.

PROF. SEARL:

All this information is vital to ***SWALLOW COMMAND*** as to what is involved in planning to go to Mars, regardless of the fact that our intentions differ to that of NASA in respect of spacecraft structure technology, but needs to fulfil the same objectives, though such objectives may appear to differ to them, they are regardless similar in nature.

NASA:

The launch vehicle theoretically is supposed to inject the spacecraft onto a trajectory having the required arrival parameters; however, because of various uncertainties in guidance parameters, which are unavoidable before the mission, the initial parameter values are not necessarily acceptable once the spacecraft has been launched.

Therefore, radio-tracking data received after injection were used to determine the initial trajectory for the Mariner-Mars 1964 spacecraft; to ascertain whether or not a midcourse manoeuvre was necessary; and, if so, to compute a velocity increment that, when added to the spacecraft velocity vector, would correct the trajectory parameters.

Orbit determination operations centred around the orbit determination computer program using IBM 7090 digital computer.

A functional block diagram of the midcourse manoeuvre operations program is given in Figure 18.8.

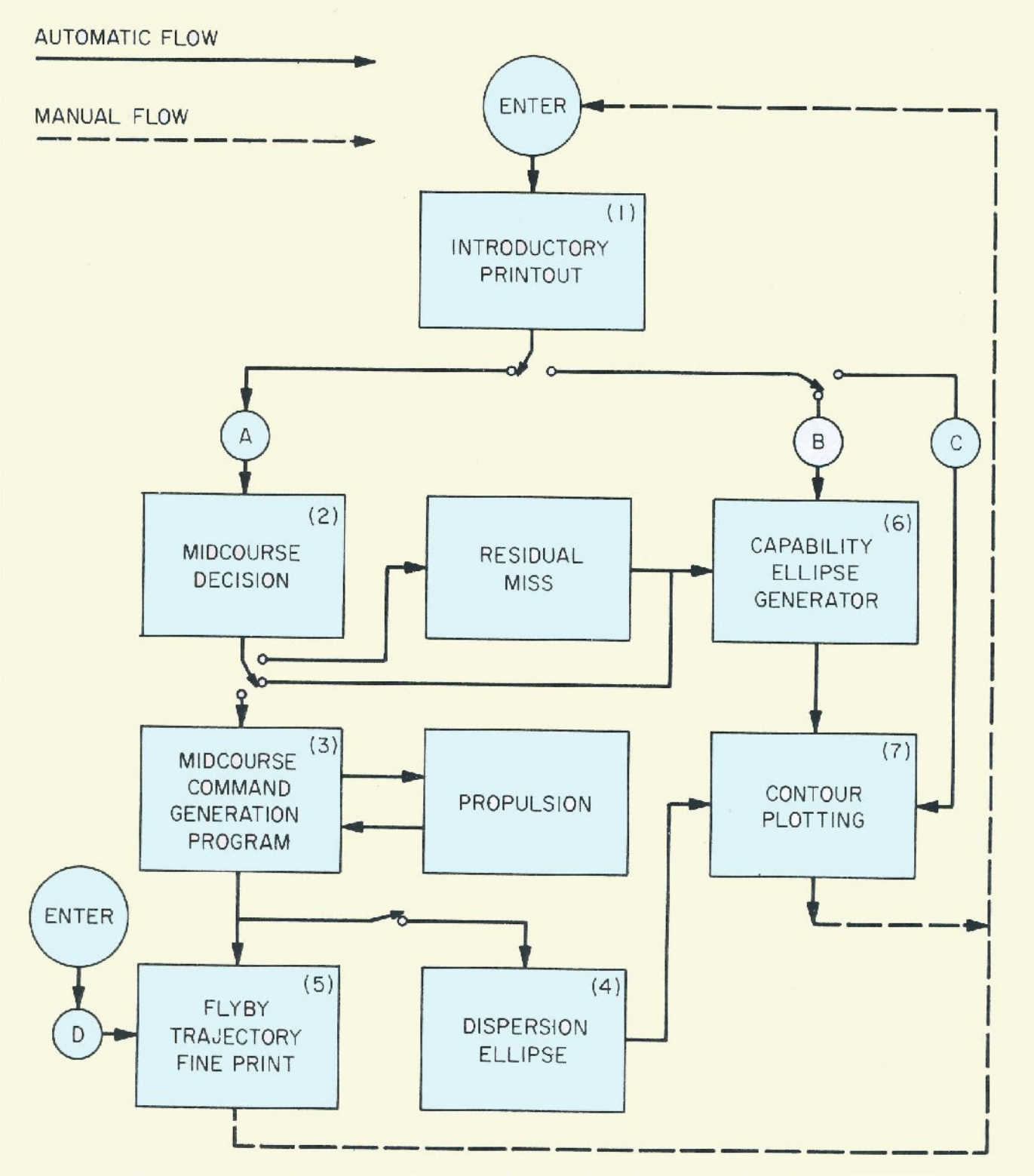


Figure 18.8 Functional block diagram of midcourse maneuver operations program.

Because of tolerances in the guidance system components, some errors in the maneuver were unavoidable, and, therefore, the miss at the target would not be totally nullified by execution of the maneuver.

The total allowable miss parameter dispersions at the target caused by uncertainty in orbit determination and maneuver execution – based on 15 m/sec – 50 ft/sec- errors were specified to be less than 2262 and 4093 km – 1406 and 2544 statute miles, respectively, or a 30 minute error in flight time.

After the midcourse maneuver, an estimate of the new trajectory would be made to determine whether a second maneuver was required and to allow control of the remainder of the mission in a manner that would enable the maximum probable data return from the science instruments on the spacecraft.

Throughout the cruise and encounter portions of the mission, the orbital estimate would be updated repeatedly as new tracking data became available.

One of the first requirements in precise orbit determination is a source of accurate tracking data.

These data can include almost any type of measurement that in some way describes the position or velocity of the spacecraft at some point along its trajectory.

The most important measurements made by deep space stations are of angles and two way Doppler Effect.

The angle data are valuable primarily during the very early portion of a mission when the trajectory geometry is changing rapidly.

The two-way Doppler Effect, however, is most valuable and accurate after the spacecraft has left the vicinity of the Earth.

The two-way Doppler Effect is described later in this book and will be discussed in more detail later still in this book.

The two-way Doppler system developed by the Deep Space Instrumentation Facility (DSIF) is probably the most accurate source of spacecraft tracking data in existence.

Using extremely precise ***rubidium Rb 37*** frequency standards – stable to about 1 part in 10^{11} over both long and short periods of time, it can provide low-noise, unbiased tracking data from a spacecraft transmitting at 10-watt power from a range of over ***100 million Km*** – ***62.5 million statute miles***.

An estimate of the orbit of the spacecraft is computed from the tracking data by a weighted least squares fitting technique.

By this technique, a theoretical spacecraft trajectory is computed that best fits the observations concerning the true trajectory.

Since a free space trajectory must obey a known deterministic set of equations of motion, a set of trajectory initial conditions is all that is required.

The independent variables that specify a spacecraft trajectory and whose effects can be seen in the tracking data consist not only of the initial spacecraft position and velocity, but also of the masses of the various gravitating bodies, the lunar and planetary ephemeris scaling factors, and the reflectivity of the spacecraft - ***since its trajectory is perturbed by the force of the impinging sunlight*** -.

It is because the effects of these parameters can be accurately measured by Doppler tracking that the determination of the orbit of a spacecraft can frequently produce values of physical constants that are far more accurate than those are available by other methods.

Although the direct results of the least squares fit to the tracking data is the set of trajectory initial conditions, the parameters of greatest interest are the target conditions resulting from integrating – ***mathematically projecting*** – the trajectory forward to its point closest approach to Mars.

These parameters are expressed in the B-plane system previously defined.

The least squares orbit computation also produces an estimate of the orbit accuracy.

This accuracy is a function of the way in which the data are weighted and of the a priori uncertainties attached to the physical constants and the station locations – ***with respect to the exact centre of the Earth***.

In the Mariner-Mars 1964 computer program, 66 of these uncertainties were treated as error sources.

The accuracy estimate appears in the form of standard deviations on the estimated parameters,

Standard deviations are also called 1σ values.

These also can be mathematically projected forward to the target to show uncertainties in the B-plane, and are expressed in terms of the semi major axis, semi minor axis, and orientation angle of the 1σ dispersion ellipse in the plane.

In classical least squares fitting, each data point is given a rating indicating the assumed variance on the point.

Thus, measurements thought to be more accurate exert a stronger influence on the estimate.

All possible sources of error are considered.

A study to provide a detailed analysis of the relative effects of various error sources, which degrade orbit, showed that:

1. ***Orbit uncertainties would be only moderately affected by change in data weighting;***
2. ***Uncertainties in the Earth's gravitational constant and in the astronomical unit would contribute a negligible amount to orbit uncertainty;***
3. ***For an early launch date, the major source of error would be uncertainties in station locations*** – ***with respect to the exact centre of the Earth*** – ***and, for a later date, the major source of error would be uncertainties in the solar pressure forces.***

Another study demonstrated a steady increase in orbit determination accuracy as later launch dates were used, with an apparent discontinuity near November 11th 1964, when the transition from type II trajectories would occur – which caused this date to be eliminated from consideration as a possible launch date.

It was found that, following a midcourse manoeuvre performed from three to ten days after launch, three to five days of tracking would reduce the semi major axis of the dispersion ellipse to less than 2010 km – 1250 statute miles.

After 60 to 90 days of tracking, solar pressure forces would be known well enough to be a negligible source of error.

After that time, the semi major axis would remain relatively constant at from 302 to 503 km – 188 to 312.5 statute miles – until shortly before encounter.

It was felt that tracking the spacecraft for a few hours once or twice each week from a single station would result in the same orbit accuracy as continuous tracking during the heliocentric portion of the flight.

Tracking during this phase could provide an estimate of the astronomical unit with a standard deviation of less than 503 km – 312.5 statute miles.

Tracking data for the encounter phase could reduce current estimates of the uncertainty of the mass of Mars from 0.1 to 2.0 percent to a value no greater than 0.001 percent.

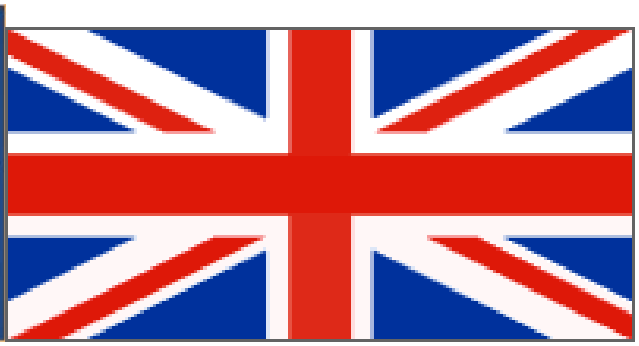
So much of this data is vital to understand if you intend some day to fly to Mars, agree we have very small amount of knowledge upon Planet Mars, and what we do know is not good, the hottest day there is just about freezing, lots of sand storms, no food, and doubtful any usable water either.

I doubt if we shall ever find any proof that some form of intelligent life ever emerged there, still if even bacteria form, which is clearly the first step along the road for structure building of fife forms; manage to gain any inroads on the surface or not.

There may not be oil or petrol deposited there, if there are then they were created by a different route to here on Earth unless our experts are wrong some oil is create by other means which has not been recognised.

This document will be continue in the future, as it contains important steps that ***SWALLOW COMMAND*** will have to follow likewise even is its mode of flight is opposite in NASA in concept both system has to meet certain rules getting to know them is the first step up the ladder of understanding.

This document released by the authority of:

Prof. John Roy Robert Searl – Head of R&D – Human Behaviour Studies.

Manned Flight Division.

Today, Wednesday April 4th 2009 I was informed that two sons and their father are willing to machine parts for me.

That two sons and their father would be please to make parts for me and I received some photos; I would like to show a couple of them; would be good if they would form the French section of Searl Technology Ltd.




Just to show some of the equipment they have to make parts.

1	2	3	4	5	6	7	8	9	10
Atomic No. Z	Element	Symbol	Atomic Diameter 10^{-10}m	First Ionization Potential V	Chemical Valence	Configuration of Valence Electrons	Spectral Term of Ground State	Wavelength of Most Intense Spectral Line 10^{-10}m	Atomic No. Z
11	Sodium	Na	4.46	5.139	**1**	$3s^1$	$^2S_{0\,1/2}$	5889.95	11
12	Magnesium	Mg	3.44	7.646	**2**	$3s^2$	$^1S_0$	2852.13	12
13	Aluminum	Al	3.64	5.986	**3**	$3s^2\,3p^1$	$^2P^0_{1/2}$	3961.53	13
14	Silicon	Si	2.92	8.151	**±4**	$3s^2\,3p^2$	$^3P_0$	2516.12	14
15	Phosphorus	P	2.46	10.486	**5, ±3**	$3s^2\,3p^3$	$^4S^0_{1\,1/2}$	1774.94	15
16	Sulfur	S	2.18	10.360	**6, 4, −2**	$3s^2\,3p^4$	$^3P_2$	1807.34	16
17	Chlorine	Cl	1.94	12.967	**±1, 7, 5**	$3s^2\,3p^5$	$^2P^0_{1\,1/2}$	1347.24	17
18	Argon	Ar	1.76	15.759	**0**	$(3s^2\,3p^6)$	$^1S_0$	1048.22	18
19	Potassium	K	5.54	4.341	**1**	$4s^1$	$^2S_{0\,1/2}$	7664.91	19
20	Calcium	Ca	4.46	6.113	**2**	$4s^2$	$^1S_0$	4226.73	20
21	Scandium	Sc	4.18	6.54	**3**	$3d^1\,4s^2$	$^2D_{1\,1/2}$	3911.81	21
22	Titanium	Ti	4.00	6.82	**4, 3**	$3d^2\,4s^2$	$^3F_2$	3653.50	22
23	Vanadium	V	3.84	6.74	**5, 4, 2**	$3d^3\,4s^2$	$^4F_{1\,1/2}$	4379.24	23
24	Chromium	Cr	3.70	6.766	**3, 6, 2**	$3d^5\,4s^1$	$^7S_3$	3578.69	24
25	Manganese	Mn	3.58	7.435	**2, 7, 4, 6, 3**	$3d^5\,4s^2$	$^6S_{2\,1/2}$	4030.76	25
26	Iron	Fe	3.44	7.870	**3, 2**	$3d^6\,4s^2$	$^5D_4$	3719.93	26
27	Cobalt	Co	3.34	7.86	**2, 3**	$3d^7\,4s^2$	$^4F_{4\,1/2}$	3453.50	27
28	Nickel	Ni	3.24	7.635	**2, 3**	$3d^8\,4s^2$	$^3F_4$	3414.76	28
29	Copper	Cu	3.14	7.726	**2, 1**	$(3d^{10})\,4s^1$	$^2S_{0\,1/2}$	3247.54	29
30	Zinc	Zn	3.06	9.394	**2**	$4s^2$	$^1S_0$	2138.56	30
31	Gallium	Ga	3.62	5.999	**3**	$4s^2\,4p^1$	$^2P^0_{0\,1/2}$	4172.06	31
32	Germanium	Ge	3.04	7.899	**4**	$4s^2\,4p^2$	$^3P_0$	1998.89	32
33	Arsenic	As	2.66	9.81	**±3, 5**	$4s^2\,4p^3$	$^4S^0_{1\,1/2}$	1890.43	33
34	Selenium	Se	2.44	9.752	**4, 6, −2**	$4s^2\,4p^4$	$^3P_2$	1960.91	34
35	Bromine	Br	2.24	11.814	**±1, 5**	$4s^2\,4p^5$	$^2P^0_{1\,1/2}$	1488.45	35
36	Krypton	Kr	2.06	13.999	**0**	$(4s^2\,4p^6)$	$^1S_0$	1164.87	36
37	Rubidium	Rb	5.96	4.177	**1**	$5s^1$	$^2S_{0\,1/2}$	7800.23	37
38	Strontium	Sr	4.90	5.695	**2**	$5s^2$	$^1S_0$	4607.33	38
39	Yttrium	Y	4.54	6.38	**3**	$4d^1\,5s^2$	$^2D_{1\,1/2}$	4102.38	39
40	Zirconium	Zr	4.32	6.84	**4**	$4d^2\,5s^2$	$^3F_2$	3601.19	40
41	Niobium	Nb	4.16	6.88	**5, 3**	$4d^4\,5s^1$	$^6D_{0\,1/2}$	4058.94	41
42	Molybdenum	Mo	4.02	7.099	**6, 3, 5**	$4d^5\,5s^1$	$^7S_3$	3798.25	42
43	Technetium	Tc	3.90	7.28	**7**	$4d^5\,5s^2$	$^6S_{2\,1/2}$	3636.10	43
44	Ruthenium	Ru	3.78	7.37	**3, 4, 6, 8**	$4d^7\,5s^1$	$^5F_5$	3498.94	44
45	Rhodium	Rh	3.66	7.46	**3, 4**	$4d^8\,5s^1$	$^4F_{4\,1/2}$	3434.89	45
46	Palladium	Pd	3.58	8.34	**2, 4**	$(4d^{10})$	$^1S_0$	3404.58	46
47	Silver	Ag	3.50	7.576	**1**	$5s^1$	$^2S_{0\,1/2}$	3280.68	47
48	Cadmium	Cd	3.42	8.993	**2**	$5s^2$	$^1S_0$	2288.02	48
49	Indium	In	4.00	5.786	**3**	$5s^2\,5p^1$	$^2P^0_{0\,1/2}$	4511.32	49
50	Tin	Sn	3.44	7.344	**4, 2**	$5s^2\,5p^2$	$^3P_0$	2839.99	50

1	2	3	4	5	6	7	8	9	10
Atomic No. Z	Element	Sym-bol	Atomic Diameter 10^{-10}m	First Ionization Potential V	Chemical Valence	Configura-tion of Valence Electrons	Spectral Term of Ground State	Wavelength of Most Intense Spectral Line 10^{-10}m	Atomic No. Z
51	Antimony	Sb	3.06	8.641	**3**, 5	$5s^2\,5p^3$	$^4S^0_{1\frac{1}{2}}$	2068.33	51
52	Tellurium	Te	2.84	9.009	**4**, 6, –2	$5s^2\,5p^4$	$^3P_2$	2142.75	52
53	Iodine	I	2.64	10.451	**1**, 5, 7	$5s^2\,5p^5$	$^2P^0_{1\frac{1}{2}}$	1782.76	53
54	Xenon	Xe	2.48	12.130	**0**	$(5s^2\,5p^6)$	$^1S_0$	1295.59	54
55	Cesium	Cs	6.68	3.894	**1**	$6s^1$	$^2S_{0\frac{1}{2}}$	8521.10	55
56	Barium	Ba	5.56	5.212	**2**	$6s^2$	$^1S_0$	5535.55	56
57	Lanthanum	La	5.48	5.58	**3**	$5d^1\,6s^2$	$^2D_{1\frac{1}{2}}$	6249.93	57
58	Cerium	Ce	5.40	5.54	**3**, 4	$4f^1\,5d^1\,6s^2$	$^1G^0_4$	5699.23	58
59	Praseodymium	Pr	5.34	5.46	**3**	$4f^3\,6s^2$	$^4I^0_{4\frac{1}{2}}$	4951.36	59
60	Neodymium	Nd	5.28	5.53	**3**	$4f^4\,6s^2$	$^5I_4$	4924.53	60
61	Promethium	Pm	5.24	5.554	**3**	$4f^5\,6s^2$	$^6H^0_{2\frac{1}{2}}$	4781.29	61
62	Samarium	Sm	5.18	5.64	**3**	$4f^6\,6s^2$	$^7F_0$	4296.74	62
63	Europium	Eu	5.12	5.67	**3**, 2	$4f^7\,6s^2$	$^8S^0_{3\frac{1}{2}}$	4594.03	63
64	Gadolinium	Gd	5.08	6.15	**3**	$4f^7\,5d^1\,6s^2$	$^9D^0_2$	4225.85	64
65	Terbium	Tb	5.02	5.86	**3**	$4f^9\,6s^2$	$^6H^0_{7\frac{1}{2}}$	4326.47	65
66	Dysprosium	Dy	4.98	5.94	**3**	$4f^{14}\,6s^2$	$^5I_8$	4211.72	66
67	Holmium	Ho	4.94	6.018	**3**	$4f^{11}\,6s^2$	$^4I^0_{7\frac{1}{2}}$	4103.84	67
68	Erbium	Er	4.90	6.101	**3**	$4f^{12}\,6s^2$	$^3H_6$	4007.97	68
69	Thulium	Tm	4.84	6.184	**3**	$4f^{13}\,6s^2$	$^2F^0_{3\frac{1}{2}}$	4094.19	69
70	Ytterbium	Yb	4.80	6.254	**3**, 2	$(4f^{14})\,6s^2$	$^1S_0$	3987.99	70
71	Lutetium	Lu	4.50	5.43	**3**	$5d^1\,6s^2$	$^2D_{1\frac{1}{2}}$	3359.56	71
72	Hafnium	Hf	4.32	6.65	**4**	$5d^2\,6s^2$	$^3F_2$	3072.88	72
73	Tantalum	Ta	4.18	7.89	**5**	$5d^3\,6s^2$	$^4F_{1\frac{1}{2}}$	2714.67	73
74	Tungsten	W	4.04	7.98	**6**	$5d^4\,6s^2$	$^5D_0$	4008.75	74
75	Rhenium	Re	3.94	7.88	**7**, 4, –1	$5d^5\,6s^2$	$^6S_{2\frac{1}{2}}$	3460.47	75
76	Osmium	Os	3.84	8.7	**4**, 6, 8	$5d^6\,6s^2$	$^5D_4$	2909.06	76
77	Iridium	Ir	3.74	9.1	**4**, 3, 6	$5d^7\,6s^2$	$^4F_{4\frac{1}{2}}$	2543.97	77
78	Platinum	Pt	3.66	9.0	**4**, 2	$5d^9\,6s^1$	$^3D_3$	2659.45	78
79	Gold	Au	3.58	9.225	**3**, 1	$(5d^{10})\,6s^1$	$^2S_{0\frac{1}{2}}$	2427.95	79
80	Mercury	Hg	3.52	10.437	**2**, 1	$6s^2$	$^1S_0$	1849.50	80
81	Thallium	Tl	4.16	6.108	**1**, 3	$6s^2\,6p^1$	$^2P^0_{0\frac{1}{2}}$	3519.24	81
82	Lead	Pb	3.62	7.416	**2**, 4	$6s^2\,6p^2$	$^3P_0$	4057.82	82
83	Bismuth	Bi	3.26	7.289	**3**, 5	$6s^2\,6p^3$	$^4S^0_{1\frac{1}{2}}$	3067.72	83
84	Polonium	Po	3.06	8.42	**4**, 2	$6s^2\,6p^4$	$^3P_2$	2450.08	84
85	Astatine	At	2.86	—	—	$6s^2\,6p^5$	$^2P^0_{1\frac{1}{2}}$	2244.01	85

ELECTRONIC PROPERTIES OF INDIVIDUAL ATOMS:

1	2	3	4	5	6	7	8	9	10
Atomic No. Z	Element	Sym-bol	Atomic Diameter 10^{-10}m	First Ionization Potential V	Chemical Valence	Configura-tion of Valence Electrons	Spectral Term of Ground State	Wavelength of Most Intense Spectral Line 10^{-10}m	Atomic No. Z
86	Radon	Rn	2.68	10.748	**0**	$(6s^2\ 6p^6)$	$^1S_0$	1786.07	86
87	Francium	Fr	—	—	**1**	$7s^1$	$^2S_{0\,1/2}$	7177.00	87
88	Radium	Ra	—	5.279	**2**	$7s^2$	$^1S_0$	4825.91	88
89	Actinium	Ac	—	5.17	**3**	$6d^1\ 7s^2$	$^2D_{1\,1/2}$	4179.98	89
90	Thorium	Rh	—	6.08	**4**	$6d^2\ 7s^2$	$^3F_2$	3719.44	90
91	Protactinium	Pa	—	5.89	**5**, 4	$5f^2\ 6d^1\ 7s^2$	$^4K_{5\,1/2}$	3957.85	91
92	Uranium	U	—	6.05	**6**, 5, 4, 3	$5f^3\ 6d^1\ 7s^2$	$^5L^0_6$	3584.88	92
93	Neptunium	Np	—	6.19	**5**, 6, 4, 3	$5f^4\ 6d^1\ 7s^2$	$^6L_{5\,1/2}$	6972.09	93
94	Plutonium	Pu	—	6.06	**4**, 6, 5, 3	$5f^6\ 7s^2$	$^7F_0$	4385.10	94
95	Americium	Am	—	5.993	**3**, 4, 5, 6	$5f^7\ 7s^2$	$^8S^0_{3\,1/2}$	6054.64	95
96	Curium	Cm	—	6.02	**3**	$5f^7\ 6d^1\ 7s^2$	$^9D^0_2$	—	96
97	Berkelium	Bk	—	6.23	**3**, 4	$5f^9\ 7s^2$	$^6H^0_{7\,1/2}$	—	97
98	Californium	Cf	—	6.30	**3**	$5f^{10}\ 7s^2$	$^5I_8$	—	98
99	Einsteinium	Es	—	6.42	**3**	$5f^{11}\ 7s^2$	$^4I_{7\,1/2}$	5204.40	99
100	Fermium	Fm	—	6.50	**3**	$5f^{12}\ 7s^2$	$^3H_6$	—	100
101	Mendelevium	Md	—	6.58	**3, 2**	$5f^{13}\ 7s^2$	$^2F^0_{3\,1/2}$	—	101
102	Nobelium	No	—	6.65	**3, 2**	$(5f^{14})\ 7s^2$	$^1S^0$	—	102
103	Lawrencium	Lr	—	—	**3**	$6d^1\ 7s^2$	$^2D_{1\,1/2}$	—	103
104	Unnilquadium[1]	Unq	—	—	—	$6d^2\ 7s^2$	—	—	104
105	Unnilpentium[1]	Unp	—	—	—	$6d^3\ 7s^2$	—	—	105
106	Unnilhexium[1]	Unh	—	—	—	$6d^4\ 7s^2$	—	—	106

[1] Systematic names and symbols recommended by IUPAC.

This book objectives are to show you why you have not got an Searl Effect Generator in your home today – and who did invent it and how – absolutely straight – my training in the medical field instructs me that they will be those who cannot stand reading the truth – so enough I find them as expected.

For the rest of you, the facts on how it was done and those who helped me to achieve it will prove of interest and watching what is going on and where – thank you for your interest..

From this book you see what I was doing and where, today I am still trying to recover from the last robbery by re-working all that data back on PC here, a big task to undertake.

KEY TO THE PERIODIC CHART OF THE ATOMS:

In his Principles of Chemistry D. Mendeléeff stated that "if all the elements be arranged in the order of their atomic weights a periodic repetition of properties is obtained.

This is expressed by the law of periodicity: the properties of the elements, as well as the forms and properties of their compounds, are in periodic dependence or, expressing ourselves algebraically, form a periodic function of the atomic weights of the elements.

The history of this discovery given in Mendeléeff's own words in another section to be written in the future.

This Russian plays a vital part in the ***Searl Technology*** success for his input makes possible the ***Searl Effect***.

The Searl Technology involves hundreds of inventors most are dead and gone now, some for centuries ago, but what they left behind play a part in this success story.

Each and every one of you without knowing it are playing a part in this development, because I am watching you the way you walk, talk, health.

So that this technology is put to the best use in space and it is you that is the problem, as you will witness throughout this book as I try to solve so many problems relating to you.

Yes, you never know where I am watching you – but you are very important to me – even idiots are too – which might surprise you.

It is not just knowing things for space: you need to understand them and apply that understanding to its best use, whereby a successful mission can be assured.

Economics play the vital issue in any undertaking; the cost of space exploration is beyond the average understanding of the man in the street, or the efforts to make the economics of such exploration worth it.

Space exploration is necessary there is a number of reasons why it is so important to master space now, the risks of being hit by a large rock grows all the time, how to deal with them must be done in space well away from planet Earth.

Before we can say that there is no worry from space the technology, have to be invented and put in place and implemented.

Space has lot to offer planet earth, but first the technology has to be invented them implemented to obtain those riches that awaits you.

I will close at this point to wish you all a happy Easter holiday, while I carry on working for the Searl Technology future success.

THE FUTURE LOOKS BRIGHT SO LET IN THE LIGHT AND BE SEEN THERE IS ALWAYS HOPE IF YOU BELIEVE IN WHAT YOU DO.

Fact: Guinness Record Book reports the world record for eating prunes, but omits the obvious record that followed.

However, let me assure you that this book will never omits the obvious because that is the world of reality; my world.

Did you ever look up at a 747 airliner in the shy and wonder how they dispose of that excrement of all those passengers?

Guess you have never given that a thought, space that is just one problem yet to solve; reality can be a major problem – our task are to solve them – and solve them we shall.