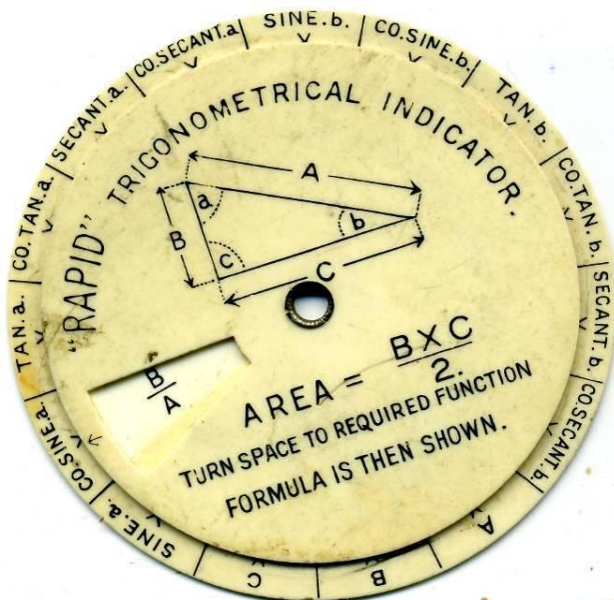




My world of reality of the future that yet has to be; man will try to halt progress by all means, but he will fail in the end as he has always done.



Here is another one of the tools that I had as a guide line to solve how to obtain various values for materials.

It is correct that I never had your schooling like you had, but seeing that result I am more than glad that I missed out of your schooling.

My knowledge came from dreams whose results I am most pleased with, for without those dreams there are no S.E.Gs., no future, and no hope for mankind.

I agree they were simple tools; it is not how simple a tool is, but how you use it which is vital.

188: I might be an old man now, but I am not a fool, I work no doubt upon this technology each day beyond the hours that you would work, and eat far less of out of date food to save money, which I doubt that you would be prepared to do. I give up all pleasure for the sake of you, which I doubt that you would do the same for me, that is what makes me a man my son.

189: Today, February Saturday 2nd, 2008 at 1804 GMT, just finished eating a light meal in the kitchen when I thought that I was losing urine, and notice blood building up on the floor, checking my eyes not being good thought that the bleeding was coming from the end of the urinary track, so holding the penis gland tight to stop the blood I rush to the bathroom to wash the blood from my legs only to see blood building up of the floor there, I realised that it was the testicles which were bleeding.

Wetting a flannel with cold water I wrap the testicles in it and squeezed tight and made my way to phone for a doctor and still blood was appearing on the carpet right to the phone. Being a Saturday, there was no surgery open; have you try to write down phone numbers coming to you fast with one hand trying to stop the bleeding and the other handing a phone and you cannot hear what is being said.

Impossible, so I walked to each flat for the purpose to ask them to come and phone for a doctor, and I cannot believe it; no one was available they were all out, no doubt at the pub. I had climb up on steps to pull the help line cord, nothing responded, guess that now the council had sold this property to housing associates the system of help has been removed from operations.

I did manage in the end to stop the bleeding, not because I had ran out of blood, but had manage to find the place by feel where the vein had burst open, my doctor most like will drop in tomorrow to see how the work is progressing; so I can show him the problem and see if he feels that surgery is required to prevent that happening again.

The UK has sure change with a government who proudly state how they are caring for the aged; really they must be taking drugs to believe that crap!

190: In my book 8A, I wrote an article on Mars, and it was release to the public on May 21st 1995. As I feel that Mars will soon become again a talking issue, I shall release it again here so that you can witness what my views were then.

DOC-SISRC-PM-1.
DATE: 21st May 1995.
EITION: Two.



Grahame Park, London, England.

LOCATION : Headquarters, London, England.
DIVISION : Manned Flight.
SUBJECT : Planet Mars.
AUTHOR : Prof. John Roy Robert Searl.
STATUS : Head of R&D Human Studies.

191: A research and development company, such as ours, must set itself some goal to achieve, and that goal must be set high, if a mass of new products have to be created for that success to be achieved.

To this aim, Searl International Space research Consortium, has set a target impossible, which shall be termed **TARGET MARS**.

For the success of such a target: will call for many new products.

It will force the market place to develop those components and they are doing just that, in different ways.

First, we must understand our objective, so we can design and construct such a project.

Through these books, I have and shall continue to present all the knowledge known upon this problem.

192: **FACTS, AS I KNEW THEM IN 1963:**

In my book 8, page 29, the word at the end of that page, is missing, should have been GAS.

At that time, I had no choice but to accept the view that our solar system having originated from the same galactic globule astronomically close to the Earth, Mars will have, as stated in book 8, a similar overall composition.

Yet, its lower density of 3.94 indicates, after an allowance has been made for reduced internal compression, an expectedly higher proportion of lightweight materials, including some substances relatively scarce on the Earth, with a corresponding reduction in the heavier elements..

In other words – more sial and less nife.

Something can be learned about the internal structure of a planet from its polar flattening, or oblateness, which is the result of interaction between gravitation and axial rotation.

The condition of gravitational equilibrium is achieved in a perfect sphere, but the centrifugal forces generated by the spin, which are strongest at the equator and peter out towards the poles, causes a rotating body to bulge out at the former and to sag in at the latter.

The oblateness, or ellipticity, e , is measured by the difference between the equatorial radius R_e and the polar radius R_p divided into R_e ; in other words:

$$e = \frac{R_e - R_p}{R_e}$$

Since the centrifugal drag is directly proportional to the mass and its distance from the axis of revolution, it is clear that the faster the planet spins, the larger it is and the less its mass is concentrated towards the centre, the more oblate, or flatten at the poles, I must be.

There exist comparatively simple mathematical relating these factors to one another and oblateness to the internal distribution of mass.

Now the equatorial radii of the Earth and Mars are 3,963 and 2110 miles respectively.

The sidereal day, between two successive transits of the same star observed from a point on the surface, is 23 hours 56 minutes and 4 seconds in the first case, and 24 hours 37 minutes and 23 seconds in the second.

Thus the centrifugal forces within the body of Mars are smaller, yet its oblateness of 0.0052 is higher than the Earth 0.0034.

Thence it is inferred that the mass of Mars is less towards the centre.

To some extent this is the inevitable consequence of its smaller mass, which is only 0.107 of our planet for the central density of the Earth, put at 17.2, is due to compression. Arising from increased gravity acting on a greater thickness of super jacket rocks.

Nevertheless, the oblateness of Mars forms a close approach to the theoretical model of a homogeneous planet of uniform density throughout.

In the model constructed by Sir Harold Jeffrey's, to my knowledge, Mars is credited with a small iron nickel core, but it has been noted that it may not have no core at all, there having been no gravitational fractionation of material, which requires the interior to have passed through a liquid phase.

THIS, HOWEVER, DOES NOT APPEAR VERY PROBABLE.

- 193: Taking the terrestrial and meteoritic abundances of radioactive elements as the starting point, G. P. Kuiper has calculated that 4,500 million years ago, when the planets were formed, the heat released by the decay of these elements will have been ten times higher than at present, and concluded that all bodies over 100 miles in diameter must have melted inside as a result.

It could, of course, be that Mars was spinning faster to begin with and acquired its present figure at that time, the excessive oblateness having been preserved into the present stage of its evolution by the hardening of the light surface layers.

SIAL HAS A MUCH HIGHER MELTING POINT THAN SIMA.

- 194: The Moon, too, is excessively flattened at the poles, which calls for a similar explanation.

To my knowledge, this is substantially the conclusion reached by D. L. Lamar, who investigated the situation in 1961, without, however, invoking the evolutionary explanation just mentioned.

He, to my knowledge, distinguishes between the observed optical oblateness and the dynamical oblateness of the invisible equipotential surface over which the forces of gravitational and centrifugal drag are isostatically balanced.

Assuming that the crust of Mars is 0.5 gm / cm^3 lighter than the mantle, he states, that he finds that the discrepancy can be removed by variation in crustal thickness alone, this being between 18 and 175 km. with the isostatic equilibrium attained at depths of over 250 km, say 150 miles.

Here in 1963, I cannot say who is right or wrong, therefore, too much importance must not be attached at this time to such numerical results, but in agreement Jeffrey's reasoning these indicate

a thick Sialic layer.

To my knowledge at this time, based upon these experts' statements, I would state, in other words, that basic rocks cannot be expected to outcrop on Mars and its surface formations will be higher acid and include many light mineral species.

Well, we shall have to wait until we get there, to check how correct they were, I myself expect to find many rocks lying around upon the surface, and I would doubt if we will find any planet different, in respect to that conditions.

By the same token Mars must have received at birth a proportional allowance of water, ammonia, methane and other gases exceeding that of the Earth.

Since these substances were acquired by the aggregation of cold cometary and meteoric matter, the outcome could not have been seriously affected by the lower mass of Mars: and since the primitive atmospheres of the terrestrial planets have been lost anyway during the later hot – surface stage, that is, if the experts are correct in their thinking, only such volatile constituents as have been chemically bound or occluded in the interior could have contributed to the present situation in either cases.

The remaining secondary atmosphere has been produced by volcanic exhalation.

YET MARS HAS NO SEAS AND ONLY A THIN ATMOSPHERE.

195: The latter is cold.

The surface gravity of 0.38 g and the escape velocity of 3.1 miles per second are wholly adequate for retaining most atmospheric gases, excepting hydrogen H 1 and Helium He 2, and water for cosmic periods.

The loss of surface water through photo – dissociation by ultra – violet radiation at high atmospheric levels is one of the common clichés without much substance, as the ascending water vapour will be entirely frozen out t the cold trap.

Thus the question poses itself, what has become of the volatiles originally trapped inside Mars?

Here Mars invites once more comparison with the Moon rather than the Earth that has always been my view. For the Moon presents a similar problem.

To my knowledge, it is true that a body of small mass, having a low escape velocity, will be steadily losing some of the outer gas envelope by molecular evaporation to space, as well as by the sweeping action of the solar wind of fast protons emitted by flares.

IT SEEMS, HOWEVER, THAT THE LATTER EFFECT HAS BEEN EXAGGERATED.

196: Moreover, it is not all lost, for there will also be gravitational and collisional capture of interplanetary gas, whose density rises with the solar wind.

To my knowledge, in Jean's original investigation (1925) of the problem of dissipation of planetary atmospheres an atmosphere of a given gas will endure for over 1000 million years

(one eron) if its mean square velocity is less than a fifth of the velocity of escape, and I have seen that Mars ought to satisfy this condition for most gasses.

But the problem is immensely complicated and no simple mathematical treatment can give a true picture of the situation.

Jeans considered as I understand it, the atmosphere to be isothermal throughout.

In actual fact, however, temperature drops steadily with height in the lower convective atmosphere, or troposphere, which contains most of the atmosphere mass.

The overlying stratosphere may fit the model in part, but there, too, the temperature varies at higher levels owing to the presence of such gases as ozone, which becomes heated by absorbing ultra-violet radiation, and to ionisation.

The existence of cold traps may substantially remove some atmospheric constituents from the escape level, so that they will be preserving in defiance of such simple theory.

On the other hand, heavy gasses may be lost through photo-dissociation into lighter components.

Moreover, neither Jeans himself nor those who followed in his footsteps paid any attention to the hydrosphere.

To my accepted knowledge, this point was taken up by J. J. Gilvarry in 1960 for the case of the Moon.

Starting from the reasonable assumption that the original lunar magmas contained the same proportion of water as their terrestrial counterparts, he found that the Moon ought to have preserved a substantial hydrosphere for at least one aeon, allowing life to develop, and the Maria of its heyday would have been true seas with an average depth of $1\frac{1}{4}$ miles.

This sounds exciting, but, unfortunately, there is little indication of massive water action on the surface of the Moon, with some highly localised exceptions, such as temporary watercourses.

I, myself doubt it as the LAW OF THE SQUARES suggest the opposite, we shall wait and see what happens when we get there.

My knowledge of the Martian surface is too scanty for such an assertion, but the available evidence points to a very similar general situation, although Mars, being some eight times as massive as the Moon, Gilvarry's reasoning should apply to it all the more.

But the LAW OF THE SQUARES say that such amount of water will not be present, we shall wait and see what man shall find when we get there.

A LITTLE DIGRESSION SEEMS NOT OUT OF PLACE HERE.

197: There exists a general tendency to think of water and oxygen O₂, which are vital to animal life known to us, in magical rather than scientific terms.

Their presence on any other world is always regarded as something extremely improbable and requiring special proof.

Yet, I agree, as a matter of sober fact hydrogen H 1, is by far the commonest of all chemical species in the universe to my knowledge, and the next commonest, passing the chemically – inactive helium He 2 and neon Ne10, is oxygen O 8, so that it is the absence of water that should be a matter for comment, while at least some oxygen O 8 must be formed by its dissociation.

It is, therefore, the apparent scarcity of water on the surface of Mars, which will be considered in another book of this series, from the observational and ecological standpoint, that requires explanation.

One point to be borne in mind is that, while it may be mathematically convenient to assume that a planetary atmosphere was supplied all ready made in a single fiat, this is quite obviously untrue, for it was produced over a long geological period by volcanic action, which has not ceased yet withal.

Instead of surging to the surface of the moon or mars in a great flood, the juvenile waters were arriving there in little dribbles, with perhaps an occasional pipe burst.

Thus in considering a planetary atmosphere – or hydrosphere I must think of it in the terms of a current account, with small gains and losses to be added and deducted all the time, rather than of a single big win on the pools that was subsequently squandered.

I suspect, however, that even this obvious fact does not provide the complete answer.

For it applies to the Earth as well, and if the direct effect of reduced gravity as such is insufficient to account for the observed differences, it is necessary to explore its further consequences, as well as the thermal factors.

Low gravity, combined with the absence of surface water and its consolidating action, will cause surface rocks to be lightly compacted and the primary or igneous formations to assume the form of bubbly (vesicular) lava.

To my understanding such rocks will be highly absorbent of gas, including water vapour, and so tend to suck up and deplete the atmosphere.

They may also be specifically lighter than water (Firsoff, 1959), which would then underline them in the order of natural gravitational stratification, not appearing on the surface in ordinary circumstances.

Moreover, for different reasons, the subsoil of the Moon and Mars will be permanently frozen at a certain depth, thus forming a permafrost seal (Firsoff, 1959; T. Gold, 1960), so that the water rising to the surface from the interior will be caught in it and frozen on the way, with the exception of geysers or volcanic vents where the seal is broken.

That is not quite how I see it, back there in 1963, I don't expect to find any volcanic activity let alone geysers, and whether water is frozen in the top surface, I rather doubt it, we shall have to wait until we get them to solve those problems, we will get there in the end.

It thus seems that in Martian conditions most of the water will stay locked underground, so that Mars has never had any seas, as we have grown to know.

It is not to say that I do not think that Mars had seas, but these have been lost to space, a very long time ago.

This has important and varied implications, one of which is a further lowering of the mean density of the crust.

The time is now ripe to examine Mars in the light of observational data.

This is some of the state of events relating to both the Moon and Mars, back there in 1963, when I started planning a craft to be called STAR SHIP EZEKIEL MK. 11. From which the DEMO 1 was constructed to test out the structure concept for that program.

WHEN WE GET TO MARS WHAT SHALL WE FIND?

Will we find plenty of water frozen or none at all?

Shall we find that there had been seas there but when?

What shall we find in reference of an atmosphere?

Shall we find that life did start there?

Or shall we find that no life has existed there at any time?

It sure is an interesting place to, not know what you will find.

Maybe some reader will feel that they have read this before, yes, you could be right, I did release this report in 1956, and shall continue here with that report of 1965, which was also a newsletter of that time.

THE SEARL INTERNATIONAL SPACE RESEARCH COMNSORTIUM:

Must study the past to plan the future, yes that might confuse you.

FIRST: I must not build into the future, that which is now known to have failed.

NEXT: I must weave into the future ideas, which I hold in my head, the best of the past, as partners with future plans and concepts.

Bear in mind, that one good idea, can give birth to lots of ideas, and that is my task here.

I cannot design a concept, unless I fully understand all of the problems, which must be solved for such a success to take place.

Here within this book, like those before it, I have been looking at these problems, which must be studied extremely careful to identify the problems.

Now, we can all agree that the only recognised system for space transportation is by rocket.

***Is that really true?
There is no other way?***

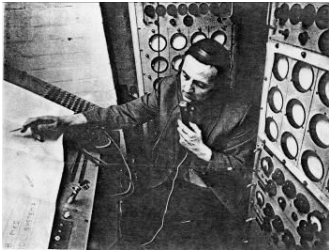
198: That is the task of Searl International Space Research Consortium, as my dream stated, plus the law of the squares states, there are always two options, one good and one bad, so is the rocket system the bad one?

If that is the bad system, then the good system has yet to be discovered.

Normally, I would at this point proceed as I did then in the past upon NASA problems in their Mariner – Mars Project, which clearly gives you a good example of what it takes to win over the impossible. You know and I know that they did win, but at what a cost and risks involved.

Yes every thing new in transportation presents risks, for without risks there is no reward.

This document has been released to the general public by the authority of:



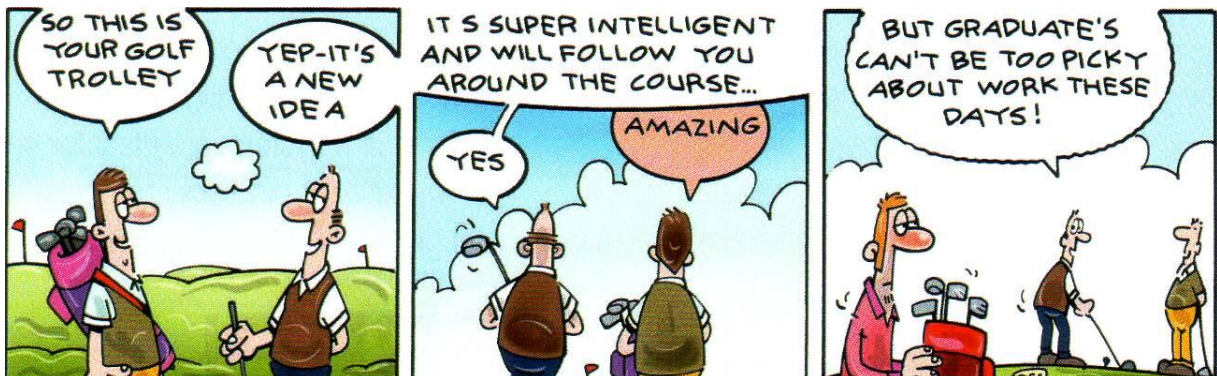
***Prof. John Roy Robert Searl: Lecturer – human studies.
Manned flight division.
Status: Head of R&D.***

Before closing this report I wish to add other points which are important to me for the success of any deep space penetration missions.

Clown Doctors remind me of so many things: to take our work seriously but ourselves lightly; the value of a smile and a laugh; that it is OK to take a minute to play – to this aim I pray that I meet those conditions before my enemies and my friends alike.

There have been lost of life in the space domain: that the causes were technically related to failure on human being actions that were responsible to see such problems did not occur.

Let it be known to all creatures' great and small: this kind of attitude of not performing to required standards cannot be accepted within the SEARL INTERNATIONAL SPACE RESEARCH CONSORTIUM, it is not just the cost of the vehicle its is also the lost of trained staff.





These two photos are of Sydney, Australia airport of today and the future that yet to come.



The National Air Traffic Services (NATS) is a joint civil/military organisation responsible to the Civil Aviation Authority and the Ministry of Defence for the safe, orderly and expeditious flow of civil and military air traffic within the airspace over the United Kingdom and its surrounding waters, including the eastern part of the North Atlantic.

This is the world of reality – my world- this is the UK operation – other countries will have their operation rules; and Searl International Space Research Consortium Manned Flight Division must fully understand their functions and work within them.

199: ***HOW AIRSPACE IS ORGANISED:***

United Kingdom airspace in 1968 was divided into two FLIGHT INFORMATION REGIONS:

LONDON and SCOTTISH – with air traffic control centres at West Drayton, Middlesex, and Prestwick, Ayrshire.

The Oceanic Area Control Centre, also at Prestwick, looks after air traffic control in the Eastern part of the North Atlantic.

Within the Flight Information Regions, some airspace is designated Controlled Airspace and some



This real life picture gives an illustration on what it will appear like to the operating staff; within Searl International Space Research Consortium Space Port operations.

Aircraft or Inverse-Gravity-Vehicles flying in Control Airspace must have certain navigation and communications equipment and their pilots must be specially qualified to fly in this airspace.

Please note that I have flown in controlled air space during my training as a pilot, but that is another book.

SPECIAL RULES AIRSPACE: comprises all the airspace between 24,500 and 66,000 feet.

Civil traffic in it is subject to special rules ensuring a full and mandatory ATC service.

Most of the airspace is also military Mandatory Radar Service Area in which military aircraft must receive a radar control service.

SPECIAL RULES AIRSPACE: also occurs below 24,500 feet near some aerodromes, and shall apply to all Space Ports, where there is a special need to protect public transport flights without introducing all the requirements of controlled airspace.

Outside these categories of airspace a variety of services is available on request from both civil and military Air traffic Control (ATC) units but it is not mandatory for pilots to use them.

Having said that; here in the UK some airfields come inside a military control zone and you have to request permission to enter such said zones, and if you failed to do so you cannot blame them for whatever action they take to protect their sector of control.

But they are also human and when they see you are not responding as expected they will help you to get moving towards your target; and I speak from experience of first hand, that is another book which relates to the day I took my pilots test.

AREA CONTROL: is provided by civil and military air traffic controllers working in Air Traffic Control Centres and Air Traffic Control Radar Units.

They ensure safe separation between aircraft and Inverse-Gravity-Vehicles in Controlled and Special Rules Airspace and on request provide advisory services to aircraft or Inverse-Gravity-

Vehicles (I-G-V) outside Controlled or Special Rules Airspace.

APPROACH CONTROL: is provided by air traffic controllers working in a room within the Aerodrome or Space Port control tower.

They provide safe separation for aircraft or Inverse-Gravity-Vehicles which are approaching to land or which have just taken off.

AERODROME OR SPACE PORT CONTROL: is provided by air traffic controllers who work in a glass walled Visual Control Room at the top of the aerodrome or space port control tower, from which they can see all that is going on, in and around the aerodrome or space port.

They control aircraft or Inverse-Gravity-Vehicles and vehicles moving on the ground and aircraft or Inverse-Gravity-Vehicles taking off, landing or flying in the aerodrome or space port visual traffic circuit.



The London Air Traffic Control Centre at West Drayton is responsible for providing air traffic services to all aircraft and Inverse-Gravity-Vehicles flying in or over the London Flight Information Region, England up to 55⁰ N. Wales, the Isle of Man, Northern Ireland and the surrounding seas up to the airspace of adjacent countries.

LATCC is supported by a sub-centre at Manchester Airport which handles aircraft or Inverse-Gravity-Vehicles flying below 13,000 feet at Manchester and Liverpool Airports and on certain parts of the airways round Manchester and over the Irish Sea.

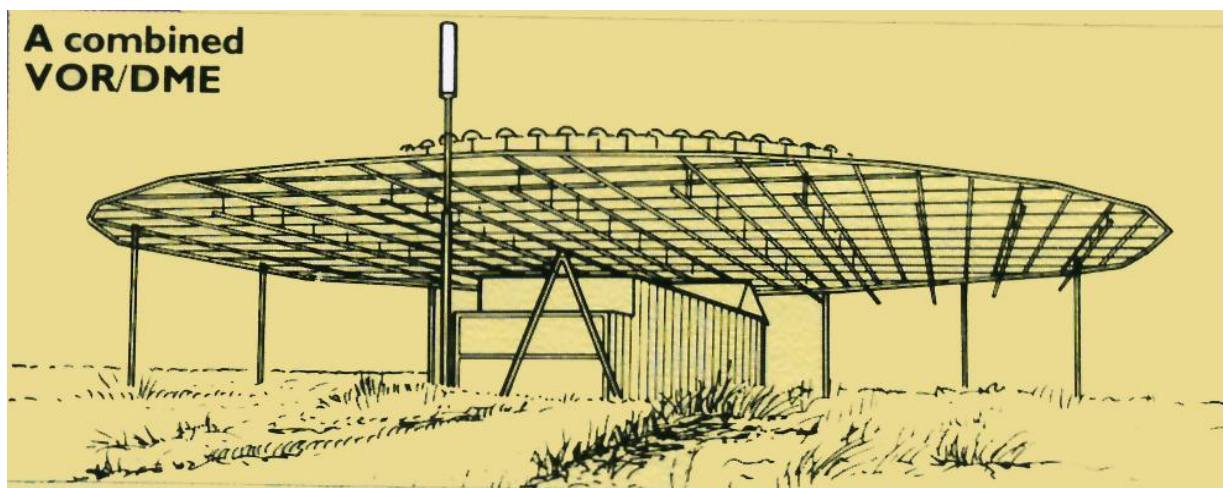
The Scottish Air Traffic Control Centre at Prestwick is responsible for an area from 55° N to 61° N – near the Faroe Island. Eastwards, it reaches 250 miles to the boundaries of the Norwegian and Danish Flight Information Regions.

To the West, it extends about 150 miles to the Oceanic Control Area, taking in airspace over Northern Ireland.

Air Traffic control over the North Atlantic is divided between the United Kingdom, Portugal, the USA, Canada and Iceland.

The Oceanic Control Area served by UK stretches westwards between latitudes 45° N and 61° N to longitude 30° W.

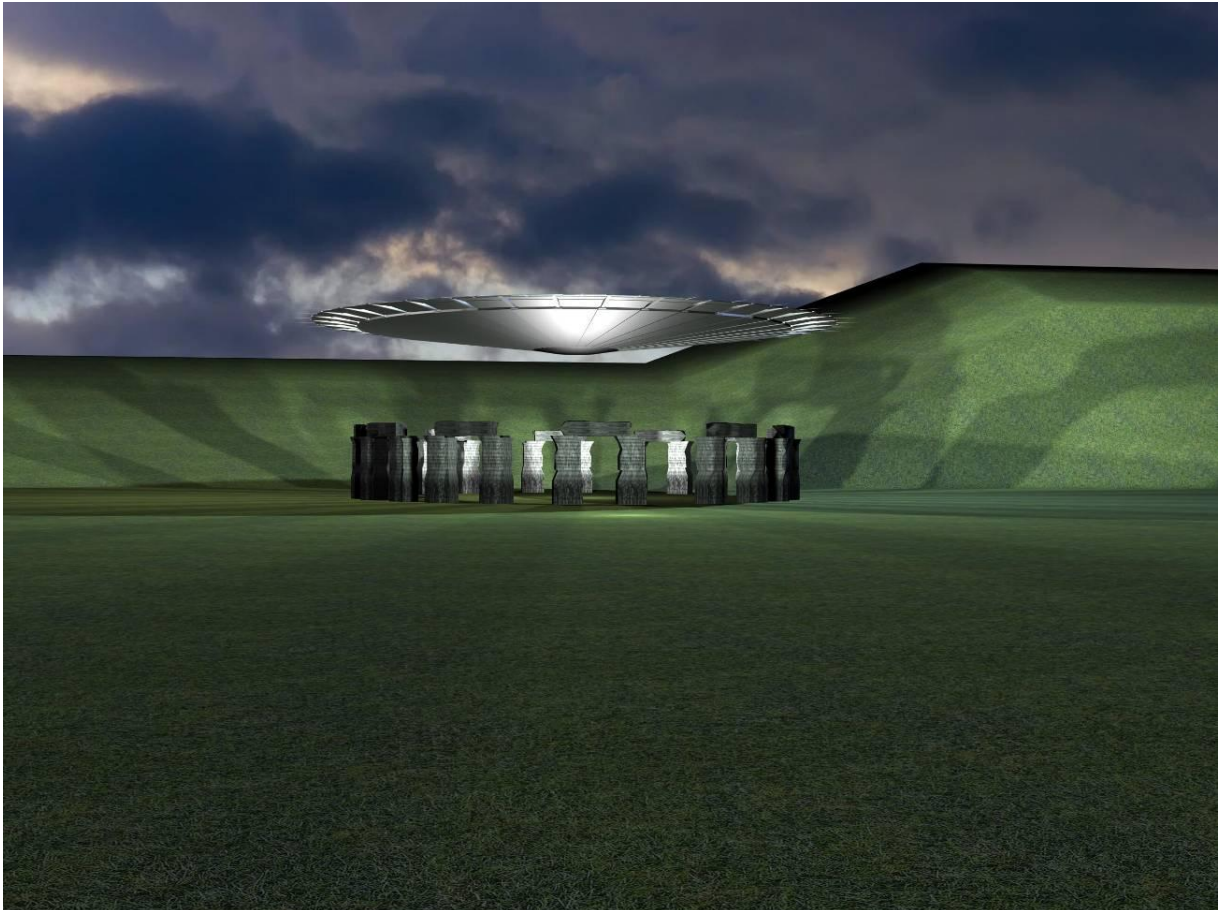
The Oceanic Area Control Centre at Prestwick communicates with aircraft through an HF radio station at Ballygirreen in Ireland.



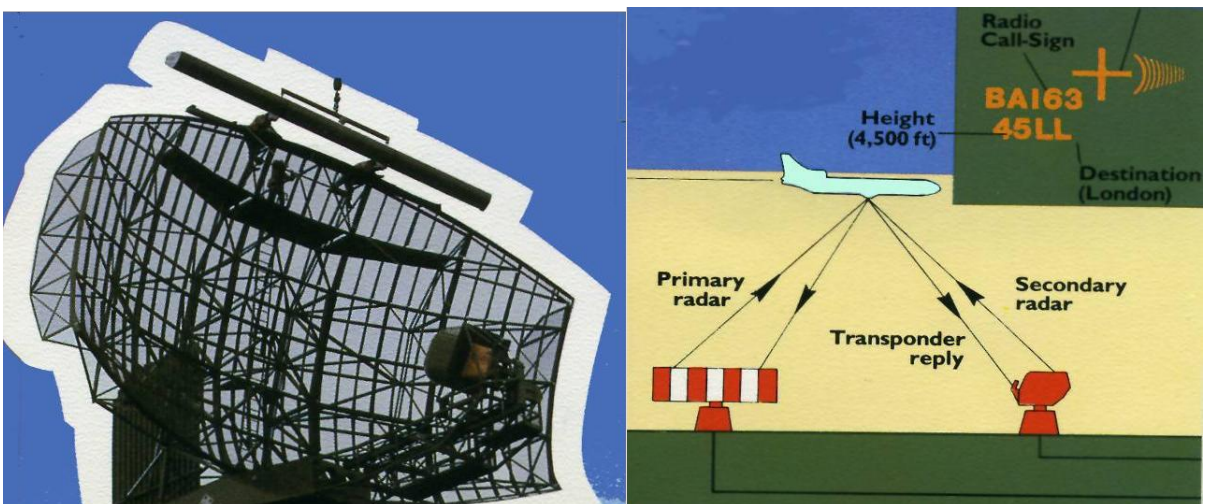
I SHALL GIVE YOU THE ABSOLUTE FACTS OF REALITY AS I KNOW IT.

From 1963, flying became a major interest; due in part by what I saw happening to this planet that major natural events would happen, and there was no realistic technology in place to cope with such events; in the task of saving life across the whole spectrum of the animal domain.

Flying has reached a high standard, with exceptions of a few evil attacks upon the system, have created success, to which my interest is to be able to extend that success to an even higher level both in functions and structures to extend it to the universe itself.



Technologies by which the Homo sapiens can advance our capabilities are arriving from minds; and time is the governing factor as when and where it will start.



200: ***DISTRESS & DIVERSION:***

The London and Scottish Air Traffic Control centres both operate a Distress and Diversion system, manned by military controllers.

The D&D Cell, as it is called, maintains a continuous listening watch on the emergency frequency and can fix the position of an aircraft in distress by means of a nationwide network of direction finding stations.

Primary and secondary radars are available to the D&D Cell, as well as instant communications to guide the distress aircraft to the nearest airfield.

The D&D Cell is part of the UK search and Rescue Co-ordination Centres.

Other facilities are RNLI, HM Coastguard, mountain rescue teams and police, fire and ambulance services.

201: ***NAVIGATION AIDS:***

The United Kingdom has a network of about a hundred stations for navigation aids.

They provide radio signals for aircraft, give positions and locate aerodromes or space stations, once they are established.

There are three main types of aid.

<i>VOR and DVOR</i>	<i>(Doppler) VHF Omni-directional Ranges.</i>
<i>DME</i>	<i>Distance Measuring Equipment</i>
<i>NDB</i>	<i>Non-Directional Beacons.</i>

202: ***RADAR:***

There are two types of radar – Primary and secondary.

Primary radar gives basic information about an aircraft's position, or that of the Inverse-gravity-Vehicle (I-G-V) in relation to the radar head.

Secondary radar gives the aircraft's or I-G-V's position, identity, height and some on-board emergency information for those aircraft or Inverse-Gravity-Vehicle with the necessary transponder.

All aircraft and Inverse-Gravity-Vehicles in controlled or special rules airspace must be equipped with a transponder.

When questioned by the radar, the transponder's identity can be converted by computer into aircraft or Inverse-Gravity-Vehicle call sign.

Other relevant data, such as its destination, can also be displayed on the air traffic controller's screen. At least I am presenting a very basic picture of the reality that is now in place, to which Searl International Space research Consortium need to fit into, not only UK but the world.

LANDING AIDS

Aircraft separation

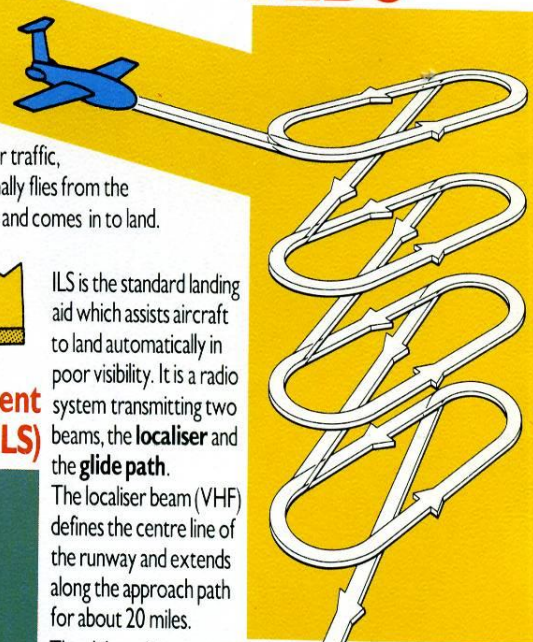
Aircraft flying in airways are separated from each other by vertical and horizontal distances. The vertical separation is at least 1000ft up to 29,000ft and at least 2000ft above that height. Horizontal separation distance varies according to circumstance, but there is a minimum distance of 5 miles when radar is being used.



The Holding System

When density of traffic or bad weather delay an aircraft's landing at an airport, the air traffic controller directs it to a **Holding Area**. The area, also known as a "stack", is organised over a "radio" beacon where each waiting

aircraft flies a special circuit separated vertically from other aircraft by a minimum of 1000ft. An aircraft drops to the next level as soon as it is free of other traffic, until it finally flies from the stack and comes in to land.

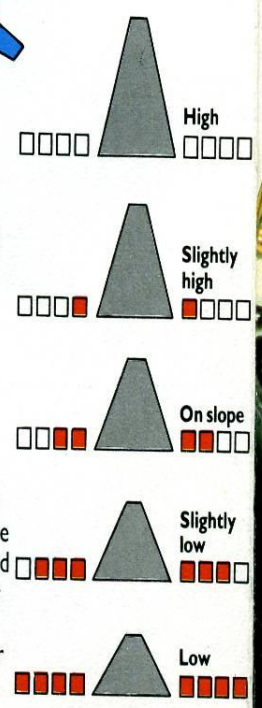
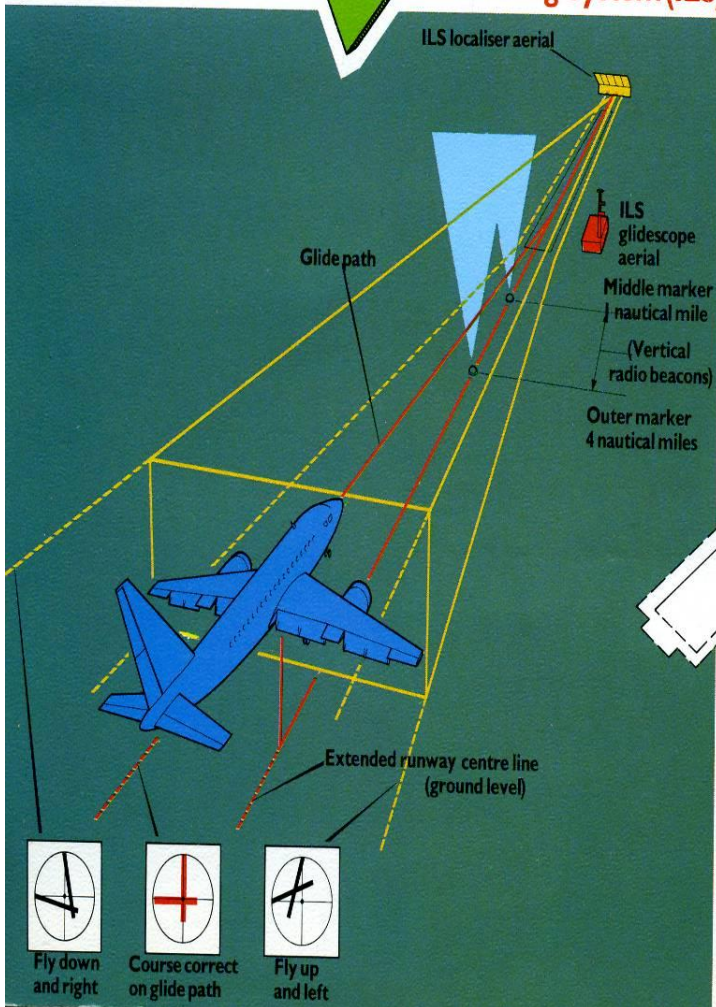


Instrument Landing System (ILS)

ILS is the standard landing aid which assists aircraft to land automatically in poor visibility. It is a radio system transmitting two beams, the **localiser** and the **glide path**.

The localiser beam (VHF) defines the centre line of the runway and extends along the approach path for about 20 miles.

The glide path beam (UHF) defines the angle which the aircraft should fly, safely clearing all obstacles. The ILS can be used by suitably equipped aircraft for automatic landings.

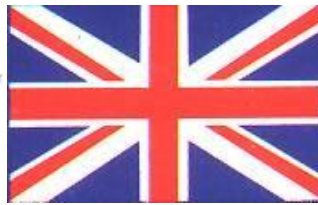


Precision Approach Path Indicator (PAPI)

PAPI consists of high intensity light boxes placed alongside the runway. The boxes contain red and white lights which by their appearance tell the pilot whether he is above, below or on the correct glide path.

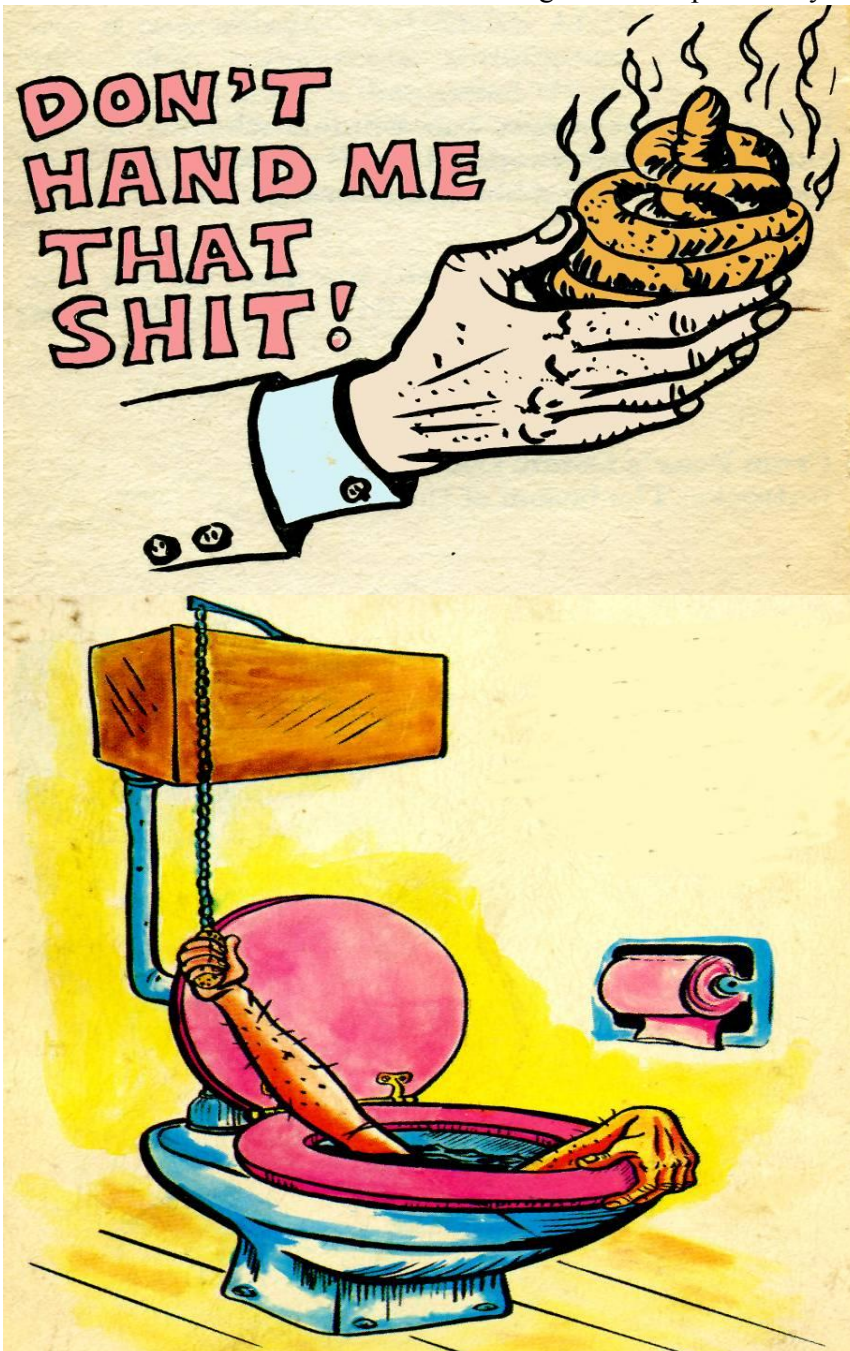
This gives a basic picture of reality of conventional flying – but the Inverse-Gravity-Vehicle is not a conventional aircraft – it is a futurist transportation carrier – hopefully it will save all our tomorrows: so that the children of today shall live to see that their children will have a future to live and enjoy.

203: This document has been released to the general public by the authority of:



*Prof. John Roy Robert Searl Head of Research and Development.
Manned Flight Division.
Subject: National Air Traffic Services.
Status: Lecturer / Author / Inventor.*

204: Dear beloved Flowerbower here is a message from the public to you:



Some come to sit and think; others come to shit and stink.

Dear Flowerbower if only you were half as good as you are on youtube in bed you would win the international awards for the hottest sex maniac in the world, even if you are over 60 years of age.

205:

DOC-SISRC-MFD-MAT-3.

DATE: 27th August 1968.

EDITION: First.



MORTIMER-READING-BERKSHIRE-ENGLAND.

LOCATION : Headquarters – Mortimer – England.

DIVISION : Manned Flight.

SUBJECT : Metals Reference.

AUTHOR : John Roy Robert Searl.

STATUS : Head of Research and Development.

Just to remind you that this book is to explain what I knew and did as from 1947 to this date, in response to the expert crap which appears upon the web.

Any research regardless that is claimed must entail structures that must have functions, no matter what you claim.

Structures must contain atoms or molecules regardless and in my case that is absolutely true, unfortunate you were not present, so you cannot have any knowledge what was involved, and therefore you have no authority to make any claims upon this issue.

So I shall continue upon my work that relates to 1968, so you can understand where my interest was, and what I understood at that date.

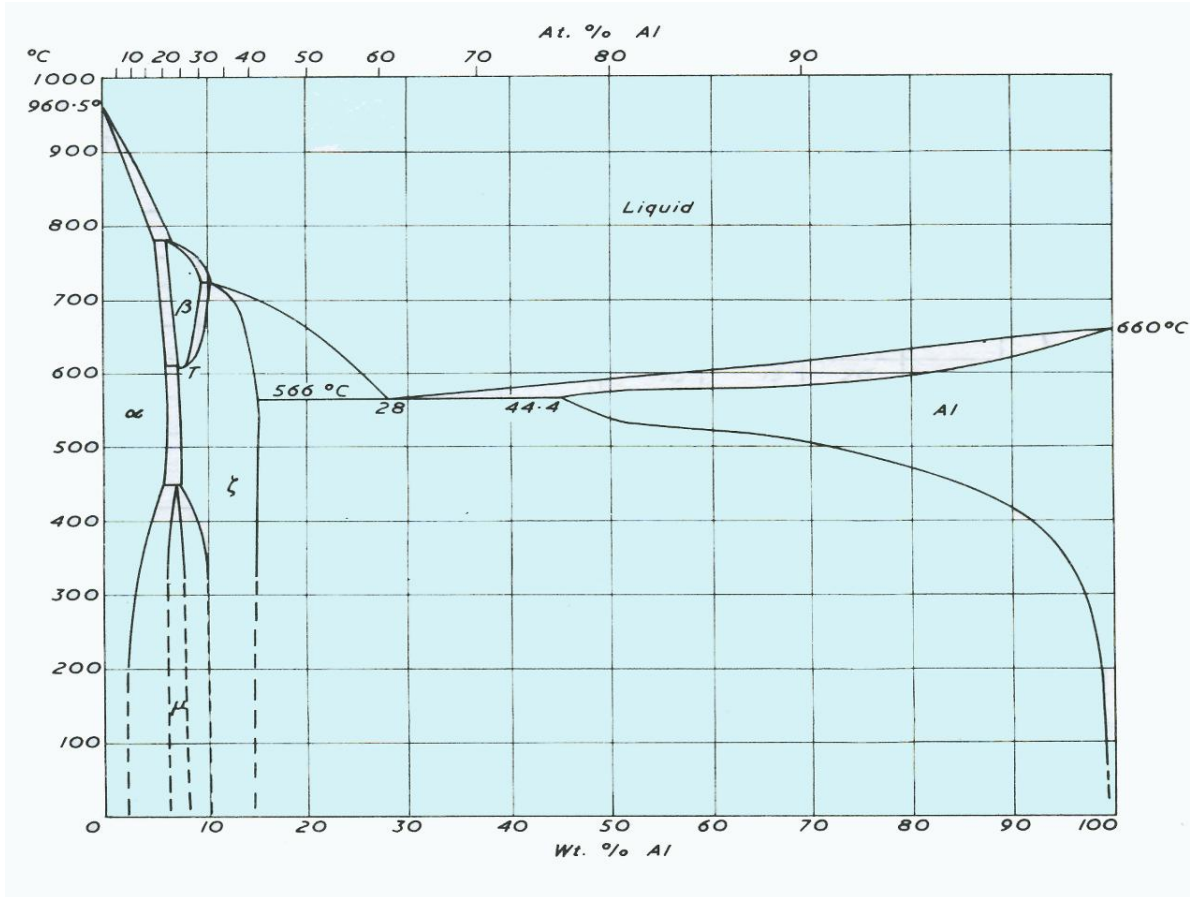
Elements are naturally a key part of my studies, even if I am dealing with molecules, it contains elements regardless, but what I show in this book are the reality of my work that it has taken hundreds of inventors before me to create the way forward for this technology, most of whom no longer exists.

Since my birth hundreds of people have been employed creating the pathway for this technology to be born, without any idea that they are involved indirectly, NASA, Lockheed, Russians, Europe space agency you name them, they are without knowing it playing a part of this success. Everyone is indirectly involved as I am studying your structure and your functions as a critical part of this

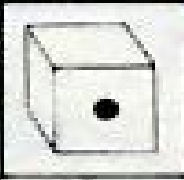
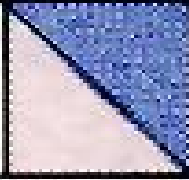
Research and development program to certify that Star Ship Explorer will be a great success, because it takes a team work to achieve success, and that team is you.

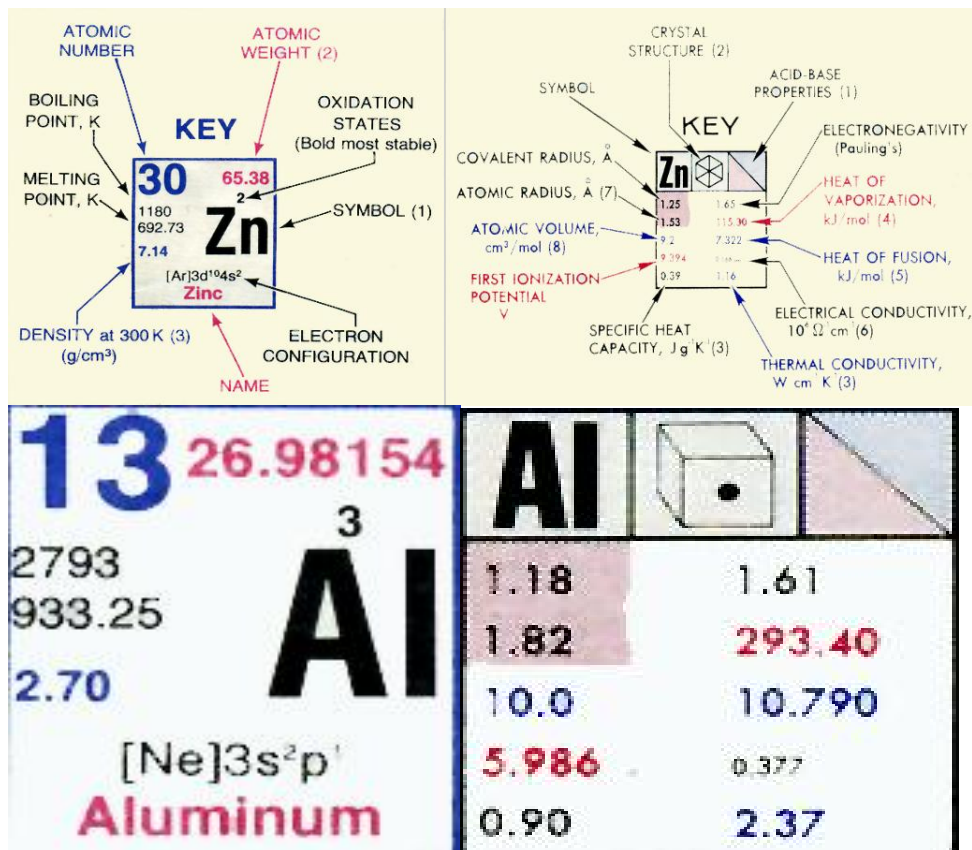
On my site members are listed each are being carefully studied to find those who are worthy of being members of the staff, thus some names will vanish and be replaced by others to give them a chance to prove to me that they would make a good staff member.

Of cause are also materials which either fail a mission or create success of a mission.



This is the equilibrium diagram for Silver Ag 47 with Aluminium Al 13.

<p>47 107.868</p> <p>2436 1234</p> <p>Ag</p> <p>[Kr]4d¹⁰5s¹</p> <p>Silver</p>	<p>Ag</p> 			
			1.34	1.93
			1.75	250.580
			10.3	11.30
			7.576	ϕ 830
0.235	4.29			



206: **METALLOGRAPHY:**

Metallography can be defined as the study of the structure of materials and alloys by the examination of specially prepared surfaces.

Its original scope was limited by the resolution and depth of field in focus by imaging of light reflected from the metallic surface

These limitations have been overcome by both transmission and scanning electron microscopy (TEM, STEM and SEM).

The analysis of X-rays generated by the interactions of electron beams with atoms at or near the surface, by wavelength of energy dispersive detectors (WDX, EDX), has added quantitative determination of local composition, e. g. of inter metallic compounds, to the deductions from the well developed etching techniques.

Surface features can also be studied by collecting and analysing electrons diffracted from the surface.

A diffraction pattern of the surface can be used to determine its crystallographic structure (low-energy electron diffraction or LEED).

These electrons can also be imaged as in a conventional electron microscope (low-energy electron microscopy or LEEM).

The technique is especially useful for studying dynamic surface phenomena such as those

Occurring in catalysis.

X-ray photoelectron microscopy (XPS or ESCA) now enables the metallographer to analyse the atoms in the outmost surface layer to a depth of a few atoms (0.3 to 5.0 nm) and provides information about the chemical environment of the atom.

Auger spectroscopy uses a low-energy electron beam instead of X-rays to excite atoms, and analysis of the Auger electrons produced provides similar information about the atoms from which the Auger electrons is ejected.

Nevertheless, the conventional optical techniques still have a significant role to play and their interpretation is extended and reinforced by the results of the electronic techniques.

207: ***MACROSCOPIC EXAMINATION:***

For examination of large-scale features – which are important to both the Searl effect Generator (S-E-G) and the Inverse-Gravity-Vehicle (I-G-V) are the grain structure of castings, coarse grain in wrought products, porosity in castings, major defects, or distribution of alloying elements and impurities on a large scale (i. e. to study ‘segregation’) it is necessary to prepare large surfaces free from distortion, but extreme smoothness and structural perfection are not required.

The required section is cut by sawing, abrasive slitting wheels or machining with adequate cooling and lubrication, and is normally finished by fine machining, followed by etching if necessary.

Grinding on abrasive cloth or paper, which may be followed by polishing with proprietary metal polish, is beneficial, but vigorous polishing, especially with power driven machines, may cause the metal to flow over defects such as porosity.

Examination for porosity is usually best carried out on a fine machined surface.

The final machining operation should be done with a single sharp tool, for instance by planing, turning or milling with a fly-cutter, rather than by the use of a milling cutter

For soft metals (e. g. Copper Cu 29, Lead Pb 82, pure aluminium Al 13) the shape of the tool is important; it should have a rounded nose and adequate front clearance to prevent rubbing, and it should have a large top rake (the softer the metal, the larger the rake required) precisely what the law of the squares predicts, so that it presents almost a chisel edge to the specimen.

For harder metals more orthodox tools may be used.

Illumination of unetched specimens for photomicrographs to show porosity requires a broad source of illumination.

The sky (without direct sunlight) is sometimes the most suitable source.

Etching reagents for macroscopic work, I hope to be able to list them here later on, and if possible to find time cover I shall attempt to cover directions for ‘sulphur-printing’ to show the distribution of sulphide in steel.

208: ***MICROSCOPIC EXAMINATION:***

Metallographic specimens are normally prepared for examination under the microscope by cutting out the piece to be examined – *preferably* - not more than 3 cm diameter, carefully removing the disturbed surface layer – *by turning or filing with a sharp tool* – and then rubbing the surface with successively finer abrasives until a smooth polished surface is obtained, sensibly free from disturbing effects from the cutting and grinding, the clean, smooth, undistorted surface is then attacked chemically, or otherwise, by etching reagents which reveal the structure of the metal.

Any mechanical method of cutting or smoothing the surface produces distortion of the metal near the surface, and it may produce local heating; the objective is to make the disturbed layer successively thinner at each stage until it is negligible or can be removed by etching.

My team who are working on the construction of the Searl Effect generator (S-E-G) in Thailand do not have to carry out this operation as the companies making the materials for us have done that already.

The thickness of the disturbed layer is in the range 10 – 100 µm for emery or silicon carbide papers with hand grinding.

Some or all of the mechanical grinding and polishing can often be replaced by chemical or electrochemical polishing methods, by which the metal is attacked in such a way that protuberances are preferentially dissolved and the flat undisturbed metal surface is laid bare, usually with a saving of time and frequently with an improvement in result.

For some purposes, e. g. study of slip processes involving individual dislocations, electron microscopical studies of fine structure, and quantitative microhardness testing under light loads, electro polishing is almost indispensable.

In general, the type of finish required varies somewhat with the magnification to be used in examination.

High power examination demands great perfection of small areas, but relatively large scale undulations, such as may sometimes occur on electro polishing specimens, are unimportant.

At lower powers detail may be less important, but widely spaced imperfections and undulations are liable to become obtrusive, and will greatly reduce the power that the Searl effect Generator (S-E-G) would normally produce.

Now I will attempt to give you details of what I know about etching.

ETCHING REAGENTS FOR MACROSCOPIC EXAMINATION:

Material	Reagent*	Remarks
1) Aluminium Al 13, And its alloys.	<i>(A) Concentrated Keller's Reagent</i> <i>Nitric acid</i> <i>1.40 100ml</i> <i>Hydrochloric acid</i> <i>1.19 50ml</i> <i>Hydrofluoric acid</i> <i>40% 1½ml</i>	<i>Can be diluted with up to 50ml water</i>
	<i>(B) Nitric acid</i> <i>1.40 30ml</i> <i>Hydrochloric acid</i> <i>1.19 30ml</i> <i>2% conc. Hydrofluoric acid</i> <i>30ml</i>	<i>Widely applicable, but very vigorous.</i>

<i>(c) Tucker's Reagent</i>		<i>Use fresh</i>
<i>Nitric acid</i>	<i>1.40 15ml</i>	
<i>Hydrochloric Acid</i>	<i>1.19 45ml</i>	
<i>Hydrofluoric acid</i>	<i>40% 15ml</i>	
<i>Water</i>	<i>25ml</i>	

(d) 10% sodium hydroxide in water Use at 60-70°C

**Acids are concentrated, unless otherwise indicated, e. g. with specific gravity.*

So far what you have read here in small print is what the firms undertake when they produce the materials for us. I close this section at this point, there is much more they do which will be discuss in another part of this book.

This document has been released to the general public by the authority of:



*Prof. John Roy Robert Searl head of research and development.
Author – lecturer
Tomorrow's energy and transportation systems.*

209: Today, 7th February 2008: 1445 EST (1945 GMT)

The STS 122 Atlantis with crew of 7 astronauts took off on 11 day mission for the international space station with another section to add to it.

From NASA'S Kennedy Space Centre, Cape Canaveral, Florida, USA: The crew left to right:

- 1) Leopold Eyharts:*
- 2) Stan Love:*
- 3) Hans Schlegel:*
- 4) Rex Walheim:*
- 5) Leland Melvin:*
- 6) Alan Poindexter:*
- 7) Steven Frick:*

The members of the Searl International Space Research Consortium wish them well and our prayers go with them for a successful mission, and a safe return home again.

And our admiration to Peggy Whitson who is showing the world those women can play an important part in space missions which has been a subject within my books that swallow command will have a place for them in their operational programs.

I have stated so often that the way a true female brain is wired up makes them suitable for space work, where a number of functions are needed to be handled at the same time, they brain meets those requirements, which will be discussed in this book at some point, for it creates much interest to my mind how life developed its functions, and why don't we use them to their full capacity.



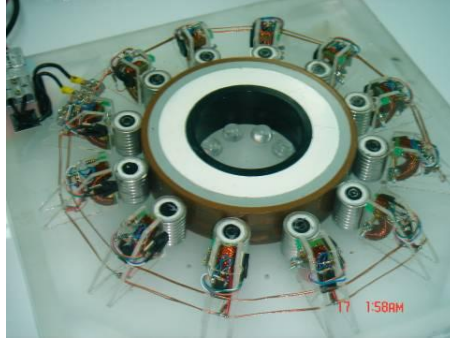
Thanks for the photograph, some day I hope that the Searl International Space Research Consortium shall also proudly show off their space crew, like NASA has done here; as space is wide open for those who dare to risk a gamble of seeking knowledge of our universe.



Time never standstill, we all have dreams, but only a few make the effort to make that dream come true.

210:

***DOC-SISRC-MFD-LAB-1
DATE: 29TH December 2007.
EDITION: First.***



SWALLOW COMMAND-LONDON-ENGLAND

***LOCATION : Headquarters – London – England.
SECTOR : Manned Flight.
DIVISION : Research and Development Laboratory.
AUTHOR : Prof. John Roy Robert Searl.
STATUS : Head of research and development.***

In the world of reality, things are quite different due to the fact that they cost money, more often lots of it, and the Searl Effect Generator or the Inverse-Gravity-Vehicle unfortunately falls into this domain.

I made this statement based upon the e-mails which I have received; where clearly the said person thinks that all I need to do is go to his place pop down to the shop and buy a number of magnets and show him how to set them up to make a small generator to power his farm.

What the hell is wrong with our education?

Millions are spent on it – and this is the best that can be produced?

I am glad that I was not educated – or I would be just as insane.

For those people I will present what Searl International Space Research Consortium needs as a section commonly known as a laboratory which houses the equipment and tools to carry out research and investigation into problem, faults, malfunctions in the task of resolving them; or in creating a better approach to the construction of or part thereof, of a project.

And let me assure everyone that you cannot pop down to your local warehouse and buy the magnetic devices needed or the test equipment and certainly not the required magnetiser.

But through the required industry sectors you can today obtain all the testing equipment that will allow you to make the S-E-G or the I-G-V components to the required perfection for success.

The construction of the S-E-G: call for absolute precision, not normally required in basic engineering domain of today. Even a measuring scale to measure the weight may not be good enough for this work, special scales are needed, and they cost a lot more.

Let's take a look at Searl International Space Research Consortium laboratory requirements:



This is only the beginning of our requirements, so let me explain some pints in question here.

- 1) PC with Geopak-Win for easy use very important point.
- 2) Dedicated MH20 Probe kit.
- 3) Cantilever Design allows easy work piece loading / unloading.
- 4) Obstruction free approach to work piece.
- 5) Smooth manual probing permits minimal operator fatigue.
- 6) Geopak-Win provides host of features for advanced measurement and analysis.

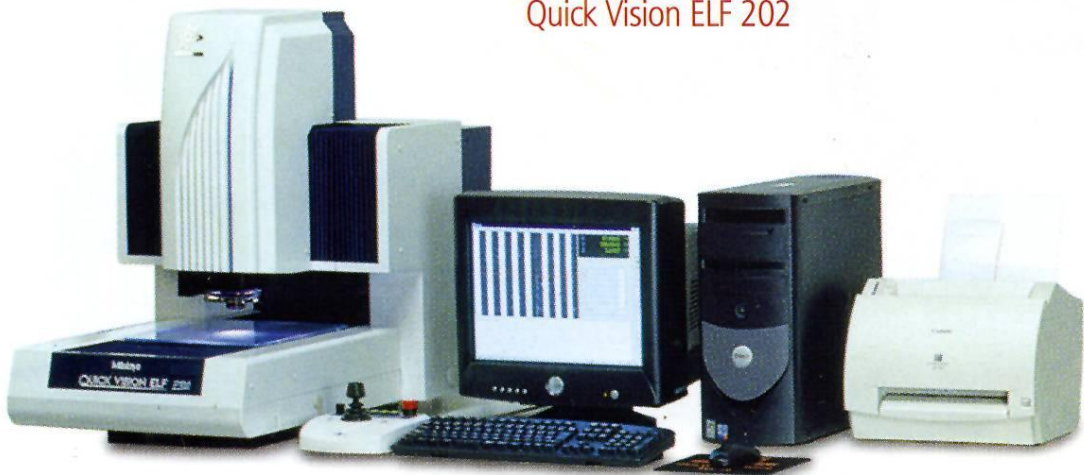
To my understanding, Geopak-Win is the latest and most advanced CMM analysis and programming module available – even if at this time I am not using it, nevertheless it is available for me when required.

As I understand it; superior levels of operability are offered by the use of tool bars, icons and pull down menu operations, which completely eliminates the use of awkward codes.

Quick Vision Pro 302

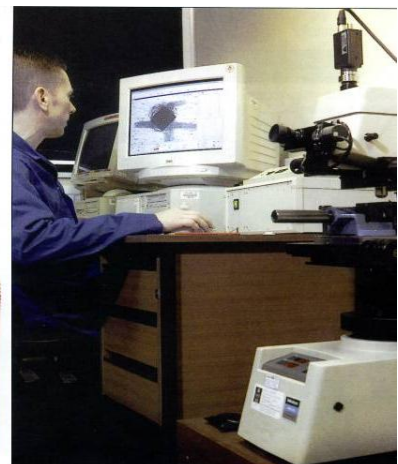


Quick Vision ELF 202



Just an illustration of what will be part of the laboratory of Swallow Command.

But the objective of this book is to enlighten you what it has taken and what it will take to get the Searl Technology to the marketplace, and it will get there as all present day technology got there.



Since 1946, and even since 1968 technology has changed so vastly in design, structures and their functions. And strangely I have been sitting at the forefront of this changing world. Which has unfortunate included a major war, which in reality has not ended yet, it's simply has strange is format like virus do, and now has become a cancer across the face of the earth.

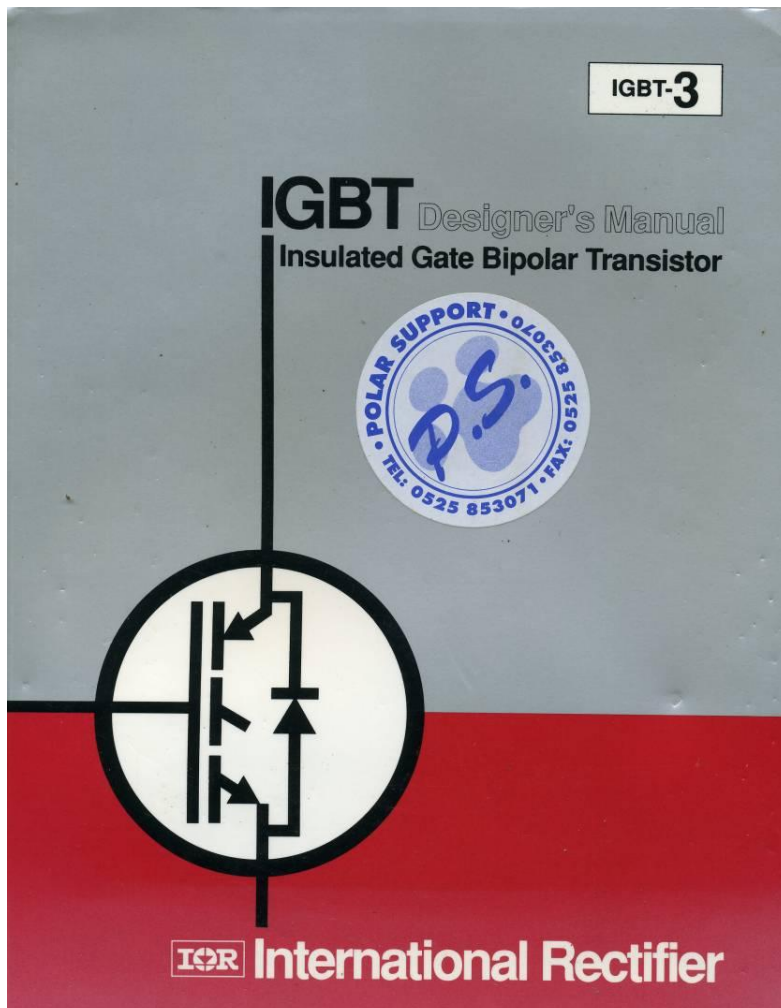
Placing this cancer one side, or just sweep it under the carpet, let me present another point that is so important, besides the equipment that is really required for this class of development.

It is the question how do we define the amount of materials to use or indeed as to what materials to use.

211: In 1946, there were no books available to me, and if they had been, I was completely unaware of their existence.

Nevertheless, by 1968 I was able to obtain from Mullard Ltd, students education section some small leaflets upon then what was new technology; such as the transistor, well set out in colour too, unfortunate all those reports from Mullard limited except the element chart of 1946 which I believe still exists here, were destroyed by my wife Doris and her family. I guess no one today has a copy of those papers which Mullard Ltd made available.

Another company who from 1968 which I had obtain very data book from them up to the time I entered this building; unfortunate Martin Colborne had them all except one of them and here is that proof of that one.



My work does include an amount of electronics, special the I-G-V clearly every bit of information upon components are vital to me in selecting the best options available on the market.

Unfortunate all along the time band of this work such data has been removed from my use off.

That data was vital to my work, and could have still played a part in the present effort.

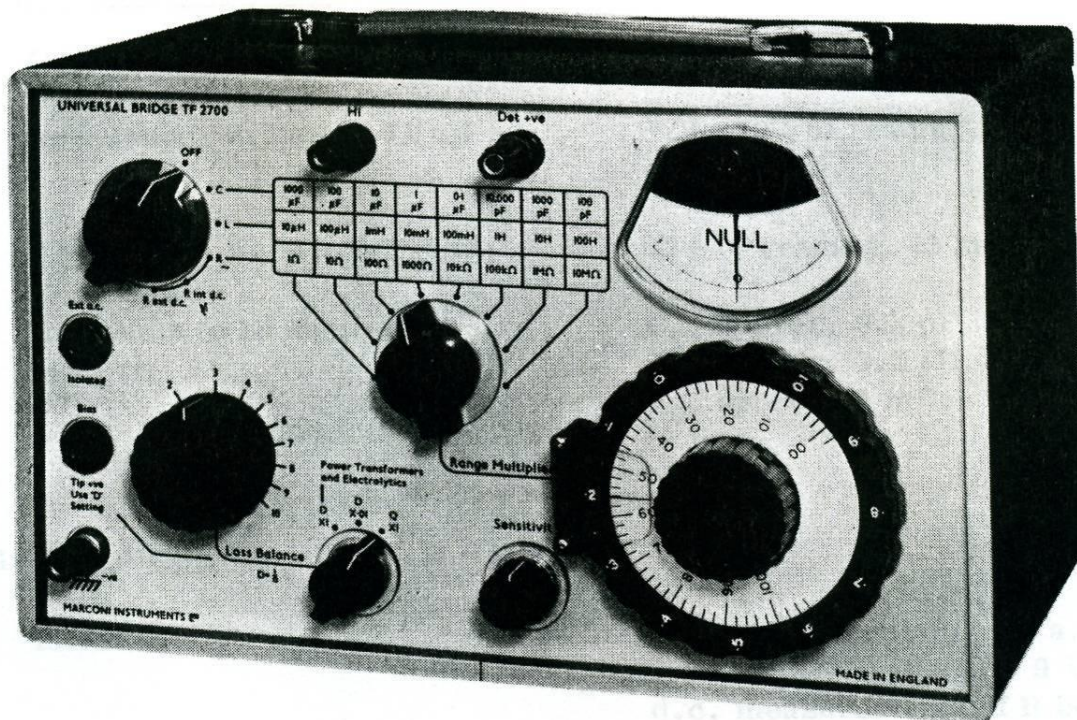
From this you can understand that its not just equipment, tools, materials and space, it also requires company data upon their products which you must use, and all this cost money, not cents or pennies, but dollars or pounds not one but many often thousands of them.

Of course, the question of what materials to use and how much to use., to which there was no solution available back in 1946, I had to find that solution, lucky for me that answer was in dream one as I term it. Look at the squares, there is the answer – sure enough there was the answer.

I shall latter in this part 16 add another sample of the squares, but for now I will continue with the details of the past

Instruction Manual
No. EB 2700
for
Universal Bridge
TF 2700
Code: 52700-015 L

MARCONI INSTRUMENTS LIMITED
ST. ALBANS HERTFORDSHIRE ENGLAND



TF 2700 Universal Bridge joined my R&D work late 1974 and I think its still here.

There were other equipment; some which might still be here and some odd ones recently obtained.



This was obtained a few days ago to assist me to trace individual leads of the mass wiring which I am undertaking at this time.



This checker was being used just before the robbery took place here, for some reason they failed to take that as well.



This light meter has just been obtained a few days ago, and will later be playing a part in the research work which I shall be undertaking. Its objective is to check what changes take place under certain light conditions to certain plastics which have been treated.

I have just recently obtained 5 new units to replace those stolen from here. They will be included in documents relating to their operations.

Also I will have to include the following items:



8 monitors: for rough checking of material from output systems before passing into computer system.



These are devices which I am giving a lot of study to due to the quality of DVDs which will in the end become available upon this work.

It is important that you know how I am thinking and why; what I have achieved over time, where and how, and why it suddenly stopped.

What it has taken in knowledge and understanding to achieve this present day success in Thailand, is unbelievable as this book will show.



This is a stereo Dynascope without eyepieces but there are multiple accessory options.

- 1) Superb resolution and contrast.
- 2) Head and body freedom.
- 3) Freedom to wear glasses.
- 4) Increased operator throughput.
- 5) Reduced scrap rates.

The breakthrough is achieved by the use of a multi-faceted rotating lenticular disk...

Over 3.5 million discrete image forming surfaces provide an exit pupil with an area 64x larger than that of conventional eye piece microscopes.

212: This is just a grain of sand if Searl International Space Research Consortium is to reach a state of success as a commercial space business.

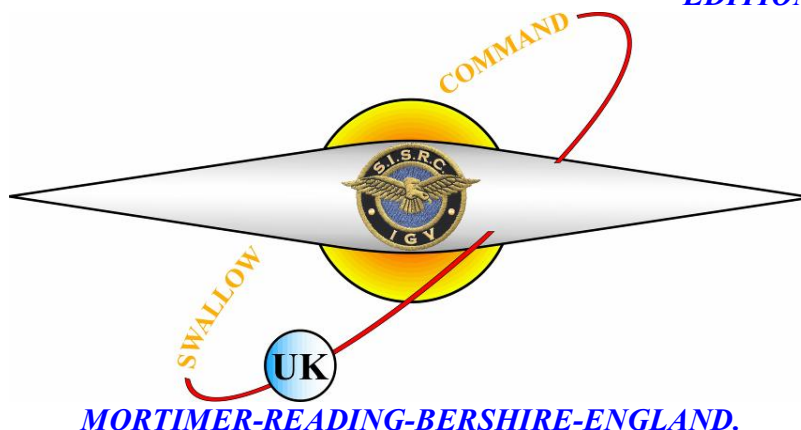
This document has been released to the general public by the authority of:



**Prof. John Roy Robert Searl Head of Research and development,
Manned flight division.**

213:

***DOC-SISRC-MT-1.
DATE: 24th February 1968.
EDITION: First.***



***LOCATION : Headquarters – Mortimer – Berkshire – England.
DIVISION : Rail transportation.
AUTHOR : John Roy Robert Searl.
STATUS : Superintendent of Documents – UK.***

I had tried to get BR to fund and support this drive concept, but as you know from my books they turn it down not directly, but indirectly, by saying that if I construct a full size train they would supply a length of track to certify that they would not interfere with the new conversion signal system work that was then half way done to the rail system.

So with one breath they said yes they would allow me to test run a train – on the other hand they said that they could not fund such a system – the reason I had travel so far to meet them face to face was for funding – clearly they knew without funds I was grounded so their project which was being funded to proceed without any problems from John Searl.

And of cause John Searl could not beat them at the post due to lack of funds – simple way to block the technology.

John Searl did in fact constructed 2 complete model rail system, the first was got rid of my his wife and family while in the USA lecturing, but another was constructed to replace it for his shows which he held on the first Sunday of every month.

In this report I shall show only 4 types of trains that were used in the display.



The Portland Rose set number 251 first quarter of 1978 it was well made. (HO)

The Shasta route is an important railway line linking San Francisco, Portland, Tacoma, Seattle.

As I understand it, as I have not in person travelled on it; that this train leaving San Francisco crosses the Suisan Bay on a high bridge, which I bet is a great sight to see, and runs through the green and fertile Sacramento Valley.

I feel certain that I have been through that valley by car, sight seeing with Paul who I was staying with at the time.

After a long run, looking out from the right side windows, it is possible to admire Lassen Peak, the only active volcano in the United States.

Saying that, I trust that I am correct otherwise I guess there will be a queue of helping hands waiting to give my bottom a lesson in the Geography of the USA.

Next stop, I hope it's not my bottom, should be Redding gateway, which I have seen while staying in Redding which is to Shasta Dam which I have taken a number of photos off, which is a wide water basin closed by the Shasta Dam And to the National Park of Lassen (unfortunate the water level appear to me a bit low at that time) but I cannot enter one of those photos here, it takes hours searching thousands of photos to find one, but rest assure some where in this book you see one at least to prove what I state is absolutely true.

After Dunsmuir the line runs close to Mount Shasta with its peaks always covered with snow surrounded by the blue sky, which sounds like the slices of bread I eat to save money.

Overcome the boundary line between California and Oregon, the train reaches Klamath Falls from where it is possible to reach Crater Lake, National Park.

On goes the train through the Cascade Mountains covered by a wide forests, or at least it use to be with enormous trees; which is great if you want to pee; the scenery leaves the passengers breathless – I guess that is logic if you see a man peeing against one of those trees; and at the top of the pass lake Odell. Full of trout's, shows all its beauty.

The train now goes down and reaches Portland, city of roses, through Albany and Salem.

From Portland, Or. To Seattle Wash, the service was granted by the "Union Pacific" in 1946 the Portland Rose train linked these cities and some cars of that consist came also from Huntington. How that is form the point of interest

The Union Pacific considering the very good results obtained with other types of locos, applied smoke deflectors also to some 4-6-4 Challengers and also change their livery to suit the rolling stock they had to haul on the Portland – Huntington Portland-Seattie lines.

I guess in those days that were some sight to see, unfortunate I missed out on that sight, but in Canada during 1971, I did see one in a museum there and what a sight it was.



The 1453/1 Italian electric locomotive E 656-023 FS – Caimano.

I received this model just when the real loco was put into service.

The first group of these locos was identified only with a group code number a nickname for the loco had not yet been found.

Later on the loco was nicknamed Caimano due to the fact that she eats a lot of miles and the animal's figure was then reproduced on some of the locos already on service and on all those built by and by the toy company could not help to follow up, and the version I brought was the prototype E 656-023 with its characteristic silver striping around the front windows and the length was 22.7 cms.



The 1265: Articulated steam locomotive with tender of the Baltimore and Ohio Company. Delivery was the third quarter of 1978. (HO)

Wheel arrangement 2-8-8-0, Projected by the USRA – United States Railway Administration the loco group ED-5 of the B&O was built in between 1919 and 1920 by the Baldwin locomotive Co. which was before I was born or even conceived.

That makes me feel rather old; to my understanding they had the Baker distribution system and were equipped with a Vanderbilt type tender.

To my understanding that the B&O used the articulated locos to haul freight trains on the uneven lines of the Cumberland and on the severe ruling gradients of Cranberry, Cheat River, Newburg.

Very powerful motor driving the two articulated motor groups through a longitudinal shaft and pendular transmission with universal joints.

Metal frame, in spite of its considerable length the model has an exceptional smooth running and can negotiate curves down to 40 cms radius thanks to the two articulated motor groups.

Front headlights and it was extremely detailed and fully operating valve gear system, and its length was 40 cms.

You might wonder what these trains were supposed to do, well I shall tell you shortly, after I discuss the last train in this report taken from the 100 trains that was used at shows.



The 1254/2: Articulated Steam locomotive Big Boy for heavy freights. (HO)

The first group of heavy locomotives with wheel arrangement 4-8-8-4 were delivered to Union Pacific by the American Locomotive Company in 1941, while 5 more locos were built in 1944.

To my understanding, that among all the articulated locomotives having a single expansion, the 4-8-8-4 was indeed the biggest in every sense, dimensions, weight, power, speed.

The name Big Boy which properly synthesizes all its features was adopted at once to identify this type of locomotive.

It seems that the nickname came out from a chalk writing on the smoke box cover of a prototype No 4000 made by an unknown mechanic of the ALCO.

The loco could reach a speed of 80 miles per hour (130 kms/h) and their maximum power of 7000 HP was developed at a speed of 30 miles per hour (48 kms / h).

The locomotives were employed for the special service they had been built for to haul heavy freight trains on the line connecting Ogden, Utah and Green River Wyoming; a line with a very high ruling gradient through the Wasatch Mountains.

To my knowledge, every loco had enough power and supplies of water and coal, being coupled to

Great capacity centipede type tender and could haul one hundred freight cars that is more than a mile of overall length – without need of a helper loco.

That model which I purchased was faithfully reproduced prototype 4013, built in 1941, mainly characterised by the metallised grey painting scheme of the enormous fire box and of the smoke box.

These four models were obtained on the 26th June 1978, and represent the last of the ones brought to replace those which had been stolen by my own family while I was over seas lecturing.

This model set up for display to the public was termed a time train control system, and the problem to solve was that some trains operated from track others operated from overhead feed; that was the easy part the hard part was some trains operated on AC power others on DC power, the trains had to communicate with signals and stations instructions what their program required without any accidents, un-touch by man throughout the days display.

For a hundred train display I used an SEG to supply a 15V line load DC and a 15V AC line load.

Strange today I do not even have one train set to start the third display setup, and now I doubt that will ever happen again, a shame because Police and their wives and Doctors and their wives enjoy the day at the shows, good proof that all visitors enjoy those day shows. Even the media ask how I could put on such shows without charging people to come in, and I replied; if I charge nobody would come.

This Document was released to the general public by the authority of:



Prof. John Roy Robert Searl head of research and development.

Section : Rail Transportation systems.

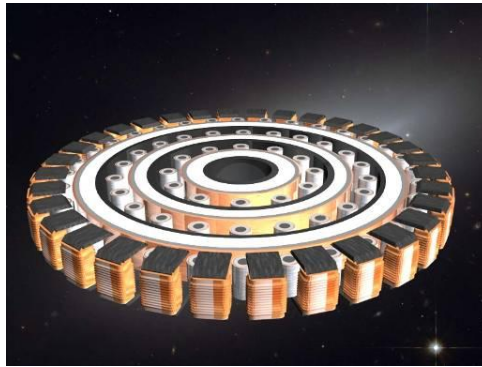
Status : Superintendent of Documents UK.

It is better to understand little than to misunderstand a lot- from this seat it appears to be the case that so much has been misunderstood.

Basics appear to be missing in many of the emails which I receive – I cannot help but wonder if there really is some education out there for the up and coming generations or killing is now top issues – drug taking – and theft.

Since wars begin in minds of men, it is in the minds that the defence of peace must be constructed- the question which I put to you- is how?

I am a camera with the shutter open, quite passive, recording everything as I go on my way.



MORTIMER – READING – BERKSHIRE – ENGLAND.

LOCATION : *Headquarters – Mortimer.*
DIVISION : *Manned Flight.*
SUBJECT : *Electromagnetic Fields and Circuit Concepts.*
AUTHOR : *John Roy Robert Searl.*
STATUS : *Head of Research and Development Generators.*

In this book I am discussing every issue related to the Searl Effect Generator and the Inverse-Gravity-Vehicle, main purpose to help those young men and women who soon will be moving into universities to extend their knowledge base; and let me state there sure are many adults who also ought to join them.

I shall attempt to discuss the procedures used to analyze electric circuits.

Although these analysis techniques are general and can be applied to disciplines other than networks, they are fundamental to all electric circuits and systems and hence are indispensable to the electrical engineer.

I shall begin in this part with the most fundamental aspects of electric circuits according to my mind.

The material is developed from a discussion of electric fields.

Most of remainder of this book does not use this field-theory approach; I am only including it here to provide an idea of the origins of circuit theory.

Many of the topics I shall discuss in this part will be a review for the reader interests as to my reasoning that created the Searl Effect Technology.

They are included only to reinforce the idea of the fundamental concepts of network theory.

Please take note that often this material need not be included in classroom lectures, as it is only intended for these young ladies and gentlemen who are about to move up to university studies who have asked me for advice on how I was able to invent such technology.

You may find some things hard to follow, but you will in the end understand.

215: ***ELECTRIC CHARGE AND COULOMB'S LAW;***

All atoms comprise a nucleus and electrons which travel about the nucleus.

In an equilibrium state the atom is said to be uncharged or neutral.

However, if one or more *electrons* are removed from it, then the atom is said to be *positive charged*.

A *negative charge* is associated with the *electrons*, while a *positive charge* is associated with the *protons*, which are contained in the nucleus.

The atom to my mind is a universe in minute structure form, containing similar functions, just as I see the *Searl Effect Generator* and the *Inverse-Gravity-Vehicle* in the same light.



It has been known since early Grecian times that forces existed between charged bodies.

Indeed it was because those forces that the concept of charge was developed.

If an object is *positive charged*, it will attract one that is *negatively charged* and will repel another that has a *positively* charged.

Because the operation of all electrical devices is based on the motion of these charges and / or the forces between them, it is important for us to obtain quantitative information about charges and their motion.

In this part of my book I shall use the mks (meter, kilogram, second) system of units.

This system is commonly used by electrical engineers and results in convenient numerical values.

No matter what system of units is used, however, the fundamental ideas are the same.

The basic unit of charge is the coulomb, which represents the charge of 6.242×10^{18} electrons; I shall be explaining this later; that a single *electron* has a charge of -1.602×10^{-19} coulomb.

The minus sign is used to indicate that the *electron* is assigned a *negative charge*.

C. A. Coulomb French physicist 1736 to 1806; in which the derived SI unit of electric charge; the
141.

Quantity of electricity transported in one second by a current of one ampere whose symbol is C, was to my understanding in 1947.

Yes, Coulomb discovered that the force between two charged bodies was proportional to the product of their charges and inversely proportional to the square of the distance between them, that is, the force on a charge q_1 in the presence of another charge q_2 is:

$$\mathbf{f} = \frac{q_1 q_2}{4\pi\epsilon r^2} \mathbf{U}_r$$

Equation 16.1

Where f is the force in Newton's, q is the charge in coulombs, and r is the distance in metres.

The quantity ϵ , called the permittivity, depends upon the medium between the charges, that is, it has been found experimentally that the force is a function of the medium between the charges, which I have been stating since 1946.

ϵ is expressed in units of Newton-metres squared per coulomb squared.

In a vacuum the value of ϵ to be used Equation 16.1 is 8.85×10^{-12} Newton-m² / coulomb².

The quantity 4π is included by convention and can be omitted if the value of ϵ is modified.

NOTE: that f is a vector quantity; that is; it has both a magnitude and a direction.

The magnitude is given by:

$$q_1 q_2 / 4\pi\epsilon r^2.$$

The direction of the vector is given by the unit vector \mathbf{U}_r .

Its magnitude is unity and its direction points from q_2 towards q_1 .

In this part 16 *vectors* will be designated by *bold faces* and *italic letters* and colour *violet*, and *green* will be used for the *magnitudes* of these *vectors*.

A force will be exerted upon a single charge in a region where there is more than one fixed charge.

This can be considered to be the sum of the forces due to the individual charges.

This appears to be a point which these experts do not understand relating to the S.E.G.

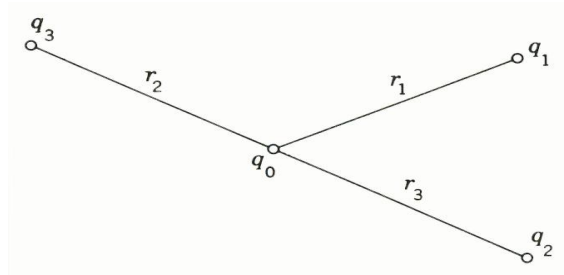


Figure 16.1.

A charge in the presence of others.

For instance, consider Figure 16.1:

The force on q_0 is:

$$\mathbf{f} = \frac{q_0 q_1 \mathbf{U}_1}{4\pi\epsilon r_1^2} + \frac{q_0 q_2 \mathbf{U}_2}{4\pi\epsilon r_2^2} + \frac{q_0 q_3 \mathbf{U}_3}{4\pi\epsilon r_3^2}$$

Example 16.2

The unit vector \mathbf{U}_j points from q_j to q_0 .

If I did not know the location and magnitudes of the charges, I could still determine that q_0 experienced a force.

I shall try to explain this; I say there is a field, called an electric field, which interacts with q_0 .

Now if the *charges* do not change as a *function of time*, the *field* is called an *electrostatic field*.

The electric field, which is a vector, is defined as the force on a unit (*positive*) charge (I assume that the unit charge does not disturb the location of the other charges).

For instance, in Figure 16.1 the electric field is given by:

$$\mathbf{e} = \frac{q_1 \mathbf{U}_1}{4\pi\epsilon r_1^2} + \frac{q_2 \mathbf{U}_2}{4\pi\epsilon r_2^2} + \frac{q_3 \mathbf{U}_3}{4\pi\epsilon r_3^2}$$

Example 16.3.

The units of electric field are Newton's per coulomb (I shall be showing other ways of expressing this unit subsequently).

I may not know the location of the charges that produce the electric field.

However, I can move a small test charge q_0 into the region in question and determine the force on it.

The electric field is then given by

$$\mathbf{e} = \frac{\mathbf{f}}{q_0}$$

Figure 16.4

In general, when a charge is moved in an electric field, work is done.

Let me calculate this work, or more precise let me try to calculate it in some specific cases.

For instance: in Figure 16.2. The electric field \mathbf{e} is assumed to be everywhere constant in both magnitude and direction.

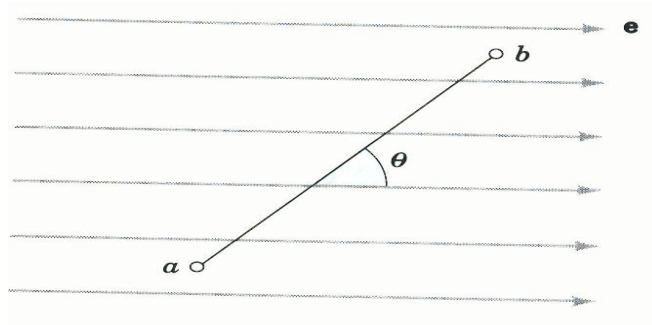


Figure 16.2

Figure 16.2. A path in a uniform electric field.

Such a field is called a *uniform field*.

A charge q_0 is to be moved from point a to point b .

The component of force along line ab is:

$$f_{ab} = q_0 e \cos \theta$$

Example 16.5

Thus the work or energy expended in moving the charge from a to b is:

$$w = -q_0 e \cos \theta |$$

Example 16.6

Where $|$ is the length of the line ab and e is the magnitude of \mathbf{e} .

To avoid conflict with the many other meanings usually assigned to the letter l , in this part 16 the magnitude of the length vector will be designated by the light face $|$ and its complete vector by the bold face \mathbf{l} .

The minus sign indicates that the field actually does work on the charge.

Now let me consider a more general problem.

Suppose that the electric field is not uniform, that is, that its magnitude and direction vary from point to point.

Moreover, I need not assume that the path is a straight line.

Such a situation is illustrated in Figure 16.3:

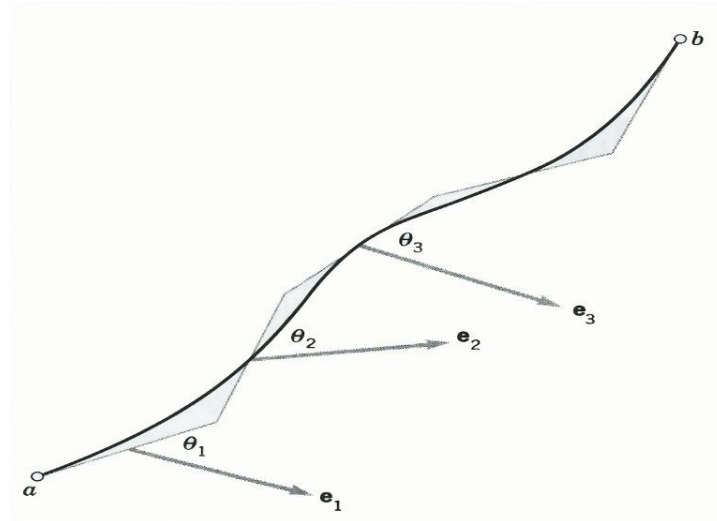


Figure 16.3

A curve path in a non-uniform electric field.

One procedure for determining the work done in moving the charge from point a to point b would be to approximate the path by a straight line segments, as shown.

These should be short enough that the path is well approximated and also that the electric field can be considered uniform over any one segment.

Thus the work done in moving a charge q_0 over any one segment is given approximately by Equation 16.6:

$$w = -q_0 e \cos \theta \Delta l$$

Equation 16.6

If I break the path into n segments of length Δl , then the total work, expressed in joules, is given approximately by:

$$w \approx -q_0 \sum_{k=1}^n e_k \cos \theta_k \Delta l$$

Equation 16.7

In the limit, as Δl approaches zero, the result becomes exact.

This is defined as a line integral.

It is written as:

$$w = -q_0 \int_a^b e \cos \theta \, dl$$

Equation 16.8

Where e is the magnitude of the electric field as a function of position and θ is the angle between the electric field and the tangent drawn to the path as a function of position.

It should be emphasised that the integral of equation 16.8 is simply *defined* as the limit of the sum of equation 16.7

Let me now discuss a matter of notation.

The product of the magnitude of two vectors and the cosine of the angle between them occurs very often in a variety of physical problems, which I am well experience with.

For instance, in Figure 16.4 I might require $f_1 f_2 \cos \theta$.

The notation for this product is:

$$\mathbf{f}_1 \cdot \mathbf{f}_2 = f_1 f_2 \cos \theta$$

Equation 16.9

The dot placed between the two vectors indicates the operation of equation 16.9 and is called a vector dot product, or simply a dot product.

In this compact notation I can write Equation 16.8 as:

$$w = -q_0 \int_a^b \mathbf{e} \cdot d\mathbf{l}$$

Equation 16.10

NOTE: that $d\mathbf{l}$ represents a vector of differential length whose direction is tangent to the curve of Figure 16.3.

It has been determined empirically that if there are no time-varying fields – that is, all charges are at rest – then the work done in moving a test charge from one point to another is independent of the path taken.

For instance, if I were to choose a different path from point a to b in Figure 16.3, then the work as evaluated by Equation 16.8 or 16.10 would be the same.

This is analogous to the situation in a gravitational field where the work done in moving a mass between two points is independent of the path taken.

I can use this result to derive another one.

Let me consider Figure 16.5.

The work done in moving a test charge from point a to b along path 1 is equal to that done moving it from point a to point b along path 2.

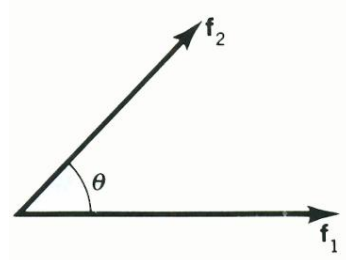


FIGURE 16.4

Two vectors.

Thus the work done in moving the test charge q_0 from point b to point a along path 2 must be the negative of that done in moving q_0 from point a to point b along path 1 in Equation 16.8 I interchange the limits when the direction is changed.

Hence the net work in moving a to b and back to a is zero.

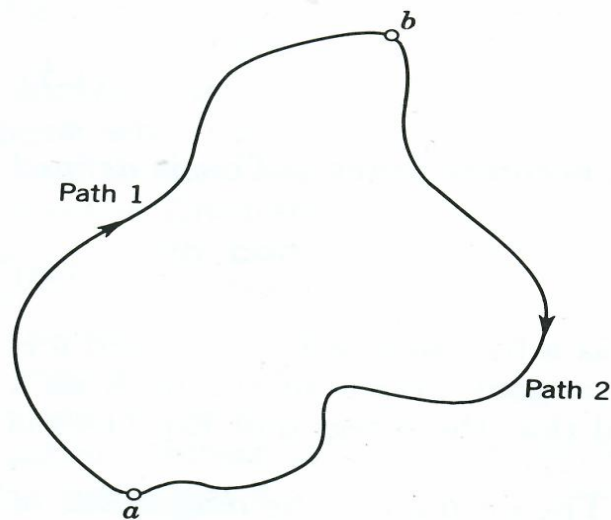


Figure 16.5

Two paths in a time invariant field.

In general, I can state that if there are no changes in motion – except the test charge – then the work done in moving the test charge around a closed path is zero.

This is symbolically written as:

$$q_0 \oint \mathbf{e} \cdot d\mathbf{l} = 0$$

Equation 16.11.

The circle on the integral sign indicates a closed path – at times an arrow is included to indicate the path direction.

Since q_0 is constant, I can state that:

$$\oint \mathbf{e} \cdot d\mathbf{l} = 0$$

Equation 16.12,

These results are analogous to those in gravitational fields, that is, the work done in moving a mass around a closed path in such a field is zero.

I shall see that Equation 16-12 is modified when time-varying fields are present.

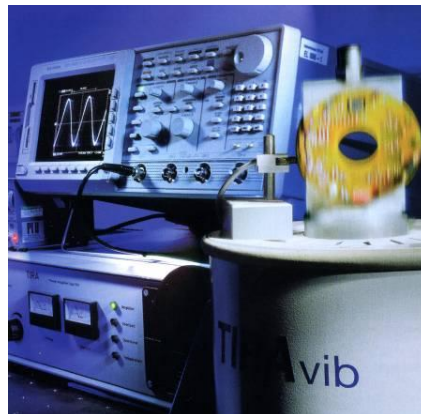
217: This document has been released to the general public by the authority of;



*Prof. John Roy Robert Searl Head of Research and Development.
Tomorrows Energy and Transportation.*

218:

*DOC-SISRC-PRO-BS-1
DATE: 18th July 1968.
EDITION: First.*



MORTIMER – READING – BERKSHIRE – ENGLAND.

*LOCATION : Headquarters – Mortimer – Berkshire.
DIVISION : Energy and Transport.
SUBJECT : Production.
AUTHOR : John Roy Robert Searl.
STATUS : Head of Research and Development.*



Italy is standing by to set up research and development and intend to follow up in manufacturing of the Products of the Searl Technology. The Man in the white shirt will be in charge of the Italian production side.

The future that is meant to be – is now in the conception stage of birth.

This part 16 is one part of the whole requirements of the Searl International Space Research Consortium drive to improve our knowledge base and from it the technology that will improve this planets state of health; which includes you as well.

This section of part 16 is covering production; it is intended to present an image of reality that is required in planning and operational of a production plant for Searl Technology.

While recognising a fundamental need for a sound knowledge of the concepts and theory of production management, emphasis is placed on the need for objective decision making based on factual data and, in order to achieve this the readers is introduced to the problems associated with short – medium, and long term planning.

Where applicable, an appropriate technique is presented as an instrument which can be used to facilitate the resolution of these problems, but it should be emphasised that the technique in themselves are not a substitute for management; they are merely the tools of the trade.

219: This approach is based on my experience of 46 years in industry, followed by 30 years of studying
149.

Upon the subject of getting this technology to the marketplace, in which time many contacts have been made and are still being made with business executives; only to be blocked from doing so by those who think they could do it cheaper and faster – proof is clearly to be seen there are no SEG's on the market place – so they were not that so clever after all – incapable of planning because their eyes were bigger than their belly, the money gain was their God.

I agree that an prospective employer who can back up a theoretical knowledge with an awareness of the practical issues associated with a business has a great deal to offer and can perform a useful function very quickly following a period of initial training.

This has commenced to take place, and already Thailand is progressing in the skills which are needed for this development work, other countries are applying to join this program and will become active during 2008.

This introduction to this document is to update it as to the facts that exists today and in no way does it degrade that document, but hopefully add to its value.

This document has two basic objectives:

- 1) To provide the reader with an understanding of the production function and to make them aware of its relationship with other functions within the Searl International Space Research Consortium.*
- 2) To make readers aware of production problems and to demonstrate methods for their solution.*

It should very quickly become apparent to the reader that, in relation to career prospects, production management within the Searl International Space Research Consortium offers tremendous variety and scope for personal development.

Technology is changing rapidly and new products, processes, materials and markets are being introduced with such rapidity that it is often difficult to keep abreast of current developments.

Of course, many of these advances run concurrent with the advance of computer based systems, which will be a subject that I shall deal with when I arrive at the end of this document which may not be this year.

Unfortunate, technological advance cannot, however, be achieved without social, political, Cultural and economic repercussions.

Take, for example, the coal-mining, iron and steel, and ship building industries which have been fundamental to the growth and economy of the country since the industrial revolution.

Sadly, these great industries have now declined through the introduction of new materials, like emergence of hitherto non-industrialized countries as major competitors and ever increasing cost.

Investment in highly mechanised or automated machinery and equipment has resulted in fewer personnel being required for production processes.

This raises questions and aspirations of the labour force in particular and society in general, which has been a major issue within my books.