

DOUGLAS PRIVATE

TO BE OPENED ONLY
BY THE ADDRESSEE

STORE IN LOCKED CONTAINER



BROWN

Fix

Pg 52

Pg 470

412 = Comparison

work on 412 on Pg.

13 after 25?

8010 after 23

7 after 25

Pgs 28-30

ADVANCED VEHICLE CONCEPTS RESEARCH

'2 May 1968

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D. B. Harmon

OUTLINE

INTRODUCTION

R. M. WOOD

UFO OBSERVATIONS

R. M. WOOD

APPROACH TO A NEW SCIENCE

J. M. BROWN

VEHICLE APPLICATIONS

D. B. HARMON

RESEARCH AND DEVELOPMENT PROGRAM

R. M. WOOD

INTRODUCTION

INTRODUCTION

HISTORY OF DAC INTEREST

TWO APPROACHES TO NEW VEHICLES (DFO)

- o NEW TECHNOLOGY
- o NEW SCIENCE PRINCIPLES

WHAT WE'VE LEARNED FROM UFO'S

- o A DFO CAN BE BUILT
- o UFO'S GIVE CLUES

DESCRIPTION OF THE NEW SCIENCE

- o CURRENT
- o SCIENCE ASSUMPTIONS AND LIMITATIONS
- o FUNDAMENTALS OF A NEW SCIENCE

PROGRAM APPROACH:

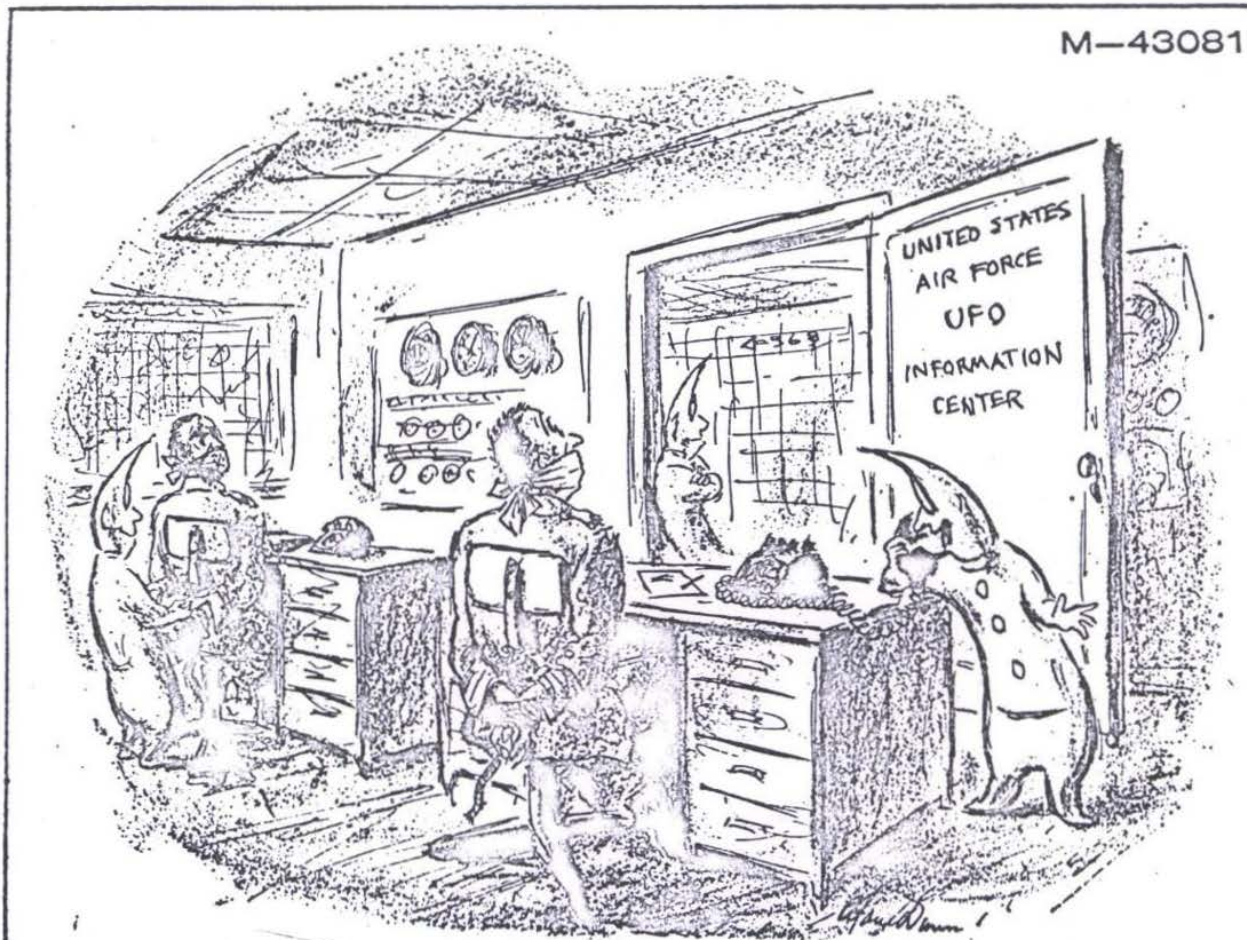
- o UFO DATA, ANALYSIS, AND TESTS
- o NEW THEORY ANALYSIS AND EXPERIMENTS
- o OTHER UNEXPLAINED PHENOMENA
- o ASSEMBLE INFORMATION INTO VEHICLE CONCEPT

COMPETITION AND IMPORTANCE TO MDC

RECOMMENDED PROGRAM

UFO OBSERVATIONS

M-43081



"I assure you, Madam, if any such creatures as you describe really existed, we would be the first to know about it."

M-43101

"WHY, THEY'RE PLAIN FOLKS, LIKE US!"



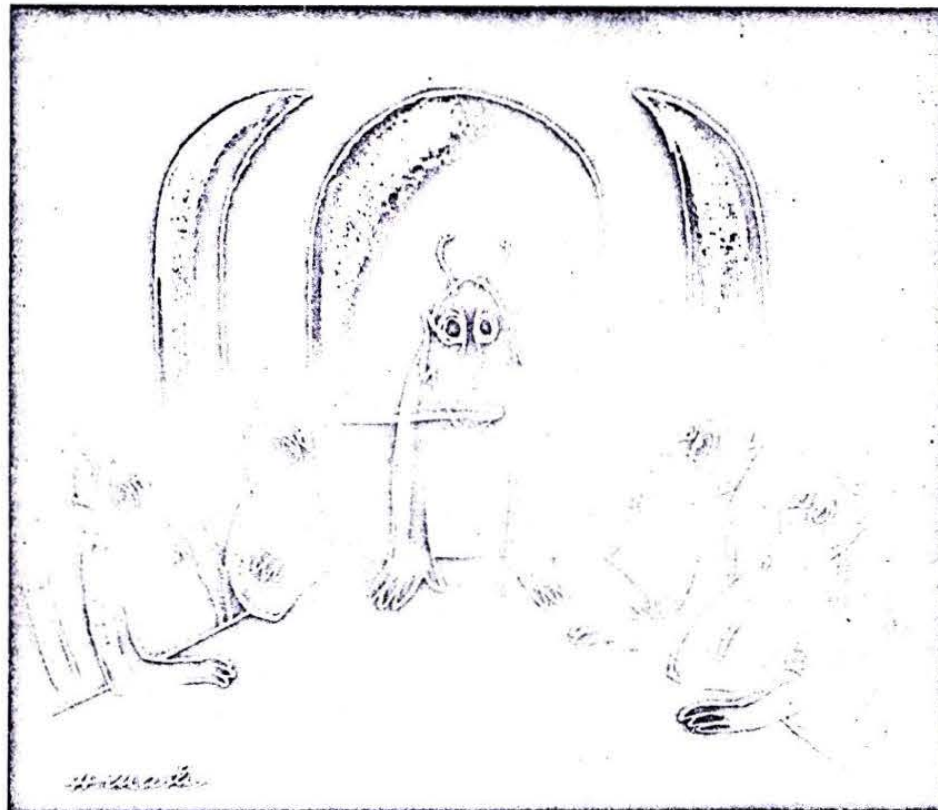
M-43132

"AMMONIA! AMMONIA!"



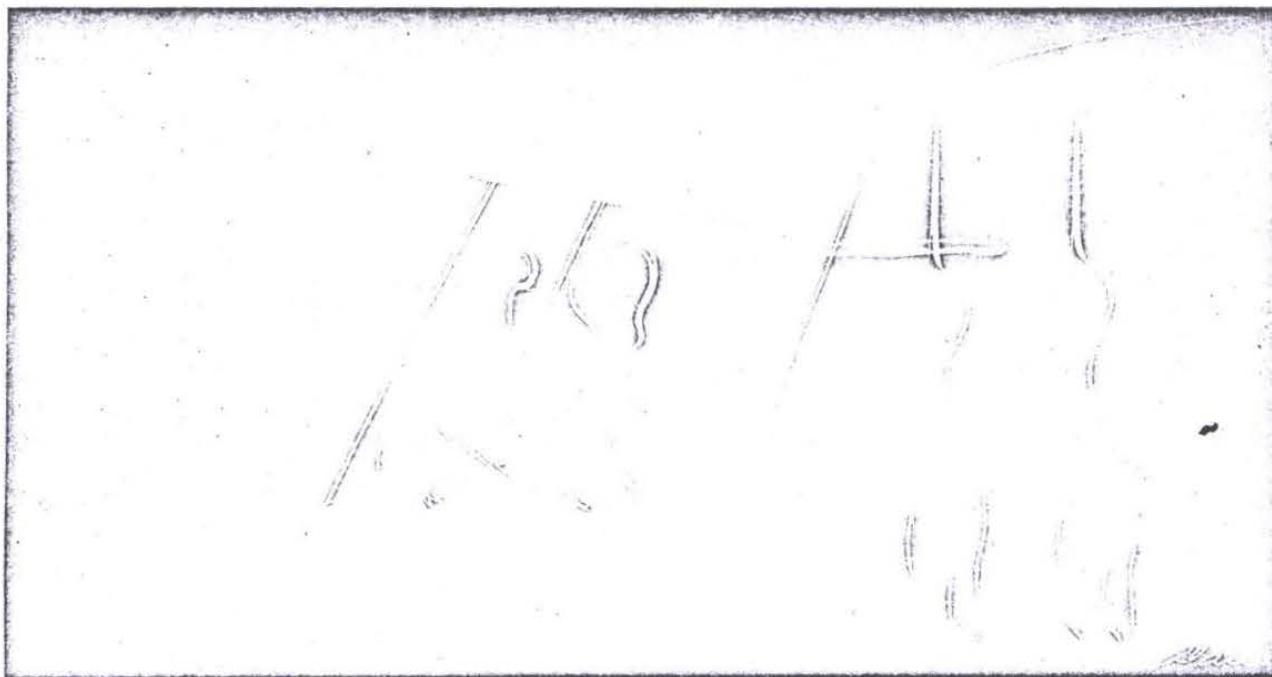
M-43079

" I SAY IF THEY KEEP
TOSSING HARDWARE
UP HERE, WE KEEP
BUZZING THEIR SWAMPS."



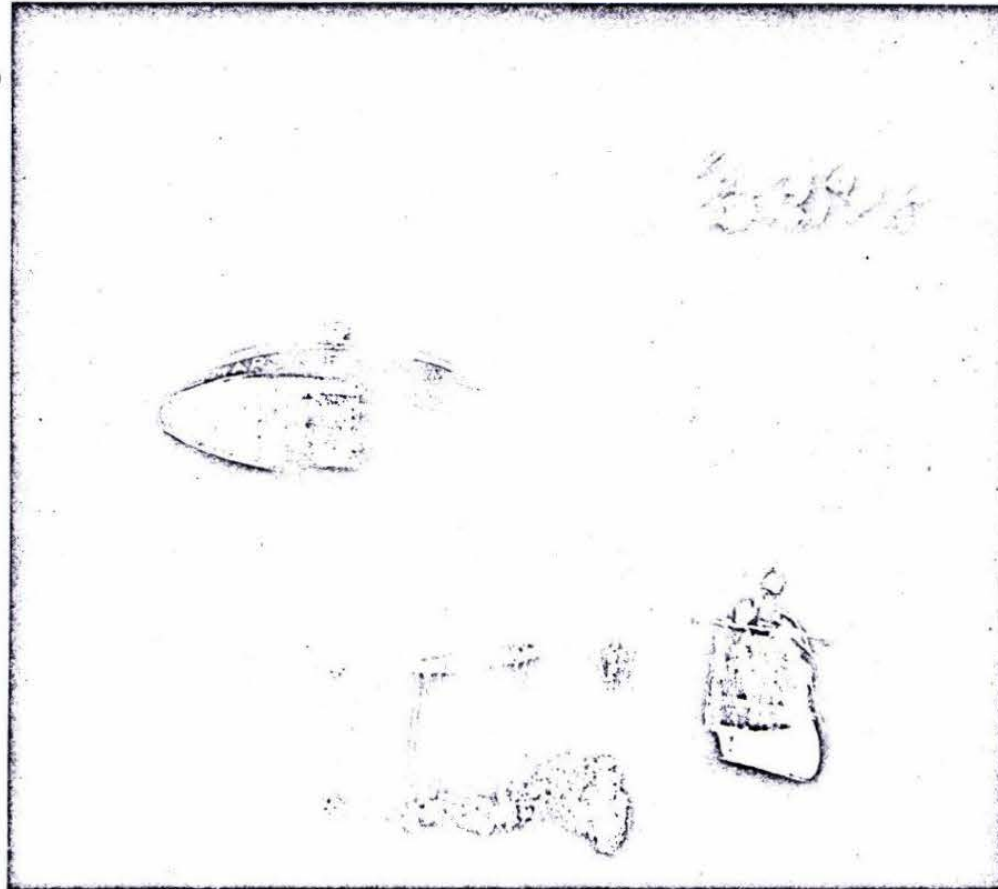
M-43131

"IT ISN'T SO MUCH THE HEAT OUT THERE. IT'S THE HUMIDITY."



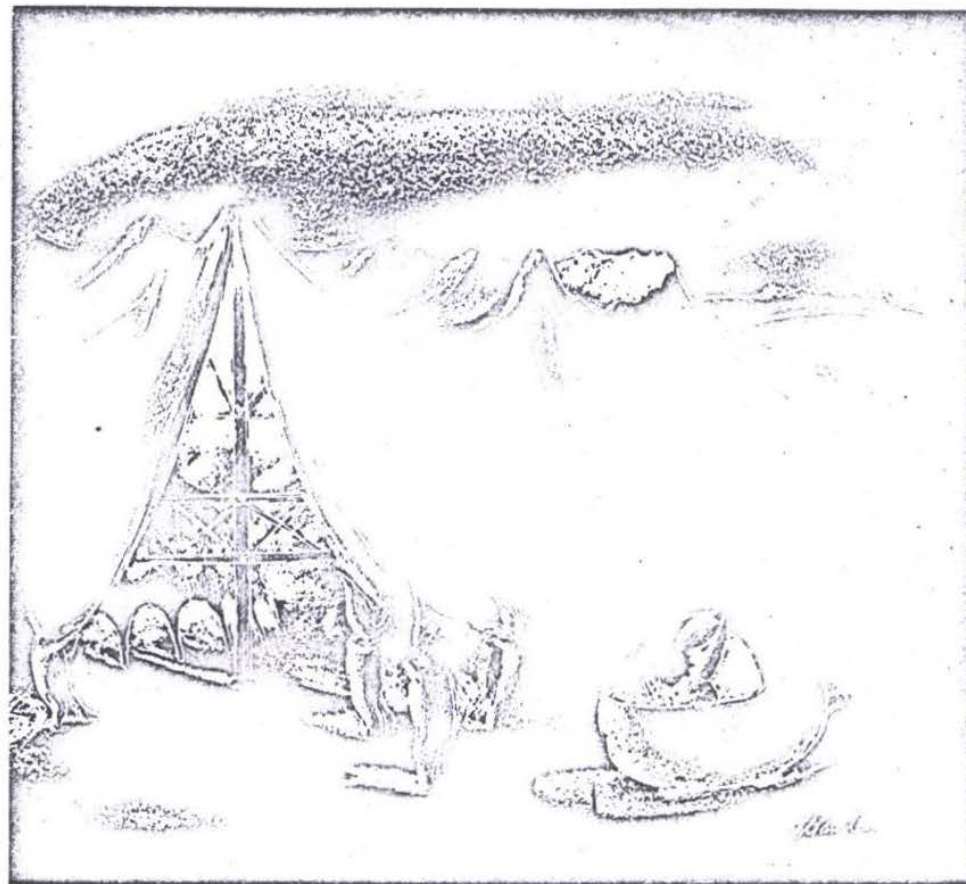
M-43080

"IT'S A FLYING OBJECT,
BUT IT'S NOT EXACTLY
AN UNIDENTIFIED
FLYING OBJECT."

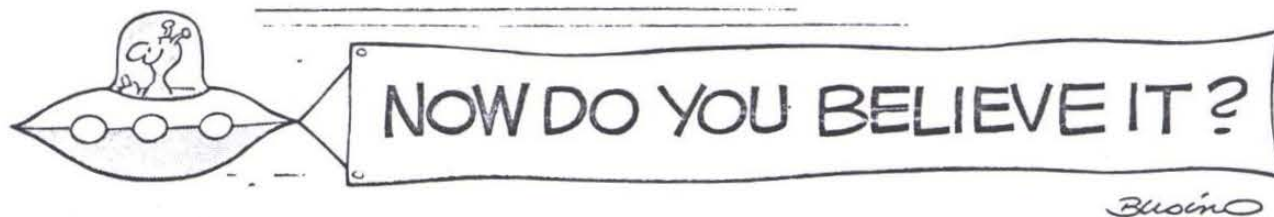


M-43103

"ALL RIGHT, MEN,
YOU CAN TAKE
DOWN THOSE CRATERS NOW."



M-45258



ARE UFO'S REAL - YES!

ANECDOTAL DATA - OVERWHELMING AMOUNT

- o SPECTRUM OF SIGHTINGS
- o THE OBSERVERS

PHYSICAL DATA

- o PHOTOGRAPHS - 100's OF CASES
- o GROUND MARKINGS - 10's OF CASES
- o OTHER PERMANENT SIGNATURES - 10's OF CASES

TYPES AND NUMBER OF OBSERVATIONS

PHENOMENON	NUMBER OF REPORTS
UNEXPLAINED LIGHTS IN THE SKY	MILLIONS*
WELL FORMED MANEUVERING SHAPES	HUNDREDS OF THOUSANDS*
DETAILED MANEUVERING SHAPES	THOUSANDS*
CLOSE-UP VEHICLE VIEWS	THOUSANDS*
PERSONAL CONTACTS WITH HUMANIDS	HUNDREDS*
CLAIMED VEHICLE RIDES	TEN(S)

*SEEN BY ORDINARY PEOPLE DOING ORDINARY THINGS

INFORMATION SOURCES

NEWS MEDIA

- NEWSPAPER: 50 EVENTS/DAY

- RADIO: SEVERAL EVENTS/DAY

MAGAZINE ARTICLES (NON-UFO MAGAZINES): 3 ARTICLES/MONTH

UFO MAGAZINES: 10

NON-UFO BOOKS (BIBLE,
CHARLES FORT, ETC.): 10

UFO BOOKS: SEVERAL HUNDRED

UFO ORGANIZATIONS: 25

PLUS INDIVIDUAL WITNESSES

RECURRING UFO CHARACTERISTICS

VISUAL

- SIZE - 1 FT. → 300 FT.: OFTEN 30 FT.
- SHAPE - USUALLY DISK-LIKE WITH DOME, OFTEN CIGAR OR FOOTBALL
- MOTION - HOVER TO HI V, HI G, ROTATE, INSPECT, TRACK, FLY FORMATION, DOGFIGHT WITH PLANES AND THEMSELVES, EVADE, LAND.
- GENERAL - OFTEN GLOW OR HAVE LIGHTS, CHANGE COLOR, LOOK METALLIC, HAVE "ANTENNAS", "FINS", "LANDING GEAR", ETC., DISAPPEAR, HAVE MARKINGS.

(change of shape in flight expansion in flight)

FIELD EFFECTS

- MAGNETIC FIELDS - VERY STRONG
- ELECTRIC FIELDS - SOME CASES

HAVE MADE BURNS UNDER CLOTHING, CARS STOP, LIGHTS GO OFF, RADIO INTERFERENCE, TV INTERFERENCE

PRESSURE ON HEADS

LIFTING OF WATER IN RESERVOIR AND OBJECTS

RECURRING UFO CHARACTERISTICS (CONTD.)

MATERIAL EFFECTS

HAVE STRONG ODORS (H_2S , etc.)

GIVE OFF MATERIAL (MISTS, ANGEL HAIR, OTHER RESIDUE)

GROUND PRINTS, BROKEN TREE LIMBS, LIFTOFF THERMAL DAMAGE, RESIDUAL RADIOACTIVITY

SOUND

NO SOUND USUALLY, ~~NO SONIC BOOMS~~, OCCASIONAL BUZZ, WHINE OR ROAR (TAKEOFF)

TOUCH

SMOOTH, HARD, HOT.

UFO "PASSENGER" DATA

DANIEL FRY - THE WHITE SANDS INCIDENT - 4 JULY 1950

OBLATE SPHEROID - 30 FT X 16 FT - DARK BLUE LANDING, LATER SILVER

DIFFERENTIAL ACCUMULATOR (ENERGY SOURCE), 2 FORCE RINGS

RODE - FELT NO ACCELERATION EVEN AT 10 G's.

PROPELLED BY MOVING ELECTRONS, SETTING UP VARIABLE MAGNETIC FIELDS, WHICH FORM NEW

ELECTRIC FIELDS, WHICH RESONATE, WHICH IS SIMILAR (IS) GRAVITY

PLATINUM RADIATED WITH PHOTONS SETS UP (ANTI-GRAVITY) CHARGED MATERIAL WHICH WILL

LAST TWO WEEKS.

INVISIBILITY ACCOMPLISHED BY RAISING PHOTON FREQUENCY, PASSING THROUGH METAL,

THEN LOWERING.

UFO "PASSENGER" DATA (CONTD.)

BETTY AND BARNEY HILL - THE INTERRUPTED JOURNEY - 19 SEPTEMBER 1961

PANCAKE - DOUBLE ROWS OF WINDOWS - 200 FT DIA. X 10+ FT. HIGH - OUTSIDE CORRIDOR -

PIE SHAPED ROOMS - TUBE AT CENTER

BOOK - STAR MAP (WITH PEGASUS) - COLUMN WRITING

OCCUPANTS - 5 FT. - ENGLISH SPEAKING - BLACK SHINY COATS - BLACK SCARF - UPWARD SLANTED EYES

SPOT ON CAR - REMOVED PAINT - OSCILLATED COMPASS

ANTONIO VILLAS-BOAS - FLYING SAUCER OCCUPANTS - 15 OCTOBER 1957

ELONGATED EGG - THREE METAL SPURS IN FRONT - CENTER OVAL ROOM - RECTANGULAR OUTER ROOMS

SILVERY METAL WALLS

OCCUPANTS - 5 FT. - DOG NOISES - UPWARD SLANTED EYES - GRAYISH ONE PIECE UNIFORMS

TRACTOR ELECTRICAL FAILURE (ON COMMAND)

ATMOSPHERE SMELLED OF BURNING PAINTED CLOTH

PRELIMINARY CONCLUSIONS FROM THE OBSERVATIONS

"NO SUCH THING AS AN INFORMED [UFO] SKEPTIC", DR. JAMES E. McDONALD

CANNOT ESCAPE THE HYPOTHESIS THAT SOME UFO'S ARE INTELLIGENTLY CONTROLLED VEHICLES

(AEROSPACE COMPANIES MUST REFLECT THIS POSSIBILITY IN THEIR PLANNING)

VEHICLES MUST BE EXTRATERRESTRIAL

CONSERVATIVE TO ASSUME PERFORMANCE AT LEAST TO OUR SCIENCE LIMITS

$$(I_{sp} \leq 10^7 \text{ sec or } E \leq mc^2)$$

CONCLUSIONS NOT BASED ON UFO OBSERVATIONS

DOES INTELLIGENT EXTRATERRESTRIAL LIFE EXIST IN THE UNIVERSE? ALMOST CERTAIN!

STARS ARE EXPECTED TO HAVE PLANETS

MANY PLANETS EXPECTED TO HAVE EARTH-LIKE ENVIRONMENT

INTELLIGENT LIFE MAY EVEN BE COMPATIBLE WITH NON-EARTH-LIKE ENVIRONMENT (THUS,
EVEN SOLAR SYSTEM PLANETS OTHER THAN EARTH MAY HAVE INTELLIGENT LIFE)

MARS SATELLITES

PULSARS

METEORITE LIFE FORMS

MANY CIVILIZATIONS MUST EXIST

SHKLOVSKI-SAGAN IS BEST SUMMARY

TECHNOLOGY FOR SOME CIVILIZATIONS MUST HAVE ADVANCED TO OUR KNOWN SCIENCE LIMITS

I_{sp} of 10^7 sec

SPEEDS CLOSE TO SPEED OF LIGHT

EXTRATERRESTRIAL VEHICLES EXIST AND MANY CIVILIZATIONS ARE WITHIN REASONABLE TRANSIT TIME OF THE
EARTH

18 QUESTIONS

SOME OBVIOUS QUESTIONS*

POORLY UNDERSTOOD NATURAL PHENOMENON
 SECRET TEST VEHICLES (OURS OR THEIRS) [EARTH]
 IF EXTRATERRESTRIAL, WHY NO CONTACT
 WHY NO CRASHED UFO'S
 WHY NOT LOTS OF GOOD PHOTOS IF UFO'S ARE REAL
 WHY NOT SEEN IN CITIES RATHER THAN REMOTE DESERTS AND SWAMPS
 ARE SIGHTINGS HALLUCINATIONS
 HOW ABOUT HOAXES
 WHY NO SONIC BOOMS
 HOW CAN ONE ACCOUNT FOR NON-INERTIAL TURNS AND MANEUVERS
 WHY DON'T OPTICAL-TRACKING PROGRAMS PHOTOGRAPH UFO'S
 WHY DON'T OUR RADAR SYSTEMS SEE UFO'S
 IF NOT INTRA-SOLAR, HOW ABOUT REASONABLE INTERSTELLAR TRANSIT TIMES
 WHERE COULD THEY BE COMING FROM
 WHY NOT DETECTED BY MILITARY RADAR THROUGHOUT WORLD
 WHY NOT SEEN BY MILITARY AND AIRLINE PILOTS
 WHY NOT SEEN BY ASTRONAUTS IN ORBIT
 WHY NOT SEEN OCCASIONALLY BY LARGE CROWDS RATHER THAN SINGLE WITNESSES

- INCONSISTENT WITH DATA
- ILLOGICAL
- NOT IN BEST INTEREST?
- A FEW, BUT EFFECTIVE DESTRUCT SYSTEMS
- MANY EXIST
- THEY ARE
- VIRTUALLY IMPOSSIBLE
- THOUSANDS ARE, QUICKLY ESTABLISHED
- NEW TECHNOLOGY
- NEW SCIENCE
- THEY DO
- THEY DO
- NEW TECHNOLOGY, MAYBE SCIENCE
- BOTH SOLAR SYSTEM AND STARS
- THEY ARE
- THEY ARE
- THEY ARE
- THEY ARE

GETTING ALL THEY WANT
 DON'T WANT TO INTERFERE (POL)
 PLAN COVERT TAKEOVER
 AFRAID OF DAMAGE TO FLEET, CAPTY
 DON'T CONSIDER US WORTHY OF CONTACT
 POLICY SAME AS OURS ON MARS

*DR. J. E. McDONALD, "ARE UFO'S EXTRATERRESTRIAL SURVEILLANCE CRAFT?" (ANSWERS BY WOOD AND BROWN)
 TALK GIVEN TO AIAA, LOS ANGELES, 26 MARCH 1968

UFO'S VERSUS SCIENTIFIC LIMITATIONS

CURRENT TECHNOLOGY

"MOTHER" VEHICLES >> THAN APOLLO

SMALL EXCURSION VEHICLES WITH CONVENTIONAL PROPULSION

LOW ACCELERATION RATES

LOW VELOCITIES IN THE ATMOSPHERE

CURRENT SCIENCE LIMITS

FUSION PROPULSION

FIELD PROPULSION (FOR EXCURSION VEHICLES)

MATTER - ANTIMATTER PROPULSION (POSSIBLY)

MATTER ANNIHILATION PROPULSION (POSSIBLY)

BEYOND CURRENT SCIENCE

MANNED VEHICLES WITH ULTRA-HIGH ACCELERATION RATES (1,000 g's)

DISAPPEARING VEHICLES (POSSIBLY)

NO SOUND WHEN MOVING FAST IN ATMOSPHERE

ESP COMMUNICATION

GRAVITY CONTROL

Beyond Speed of Light (?)

UFO OBSERVATION SUMMARY

CANNOT DISCOUNT ALL DATA - SOME MUST BE VEHICLES

VEHICLES MUST BE EXTRATERRESTRIAL

EXTRATERRESTRIAL HYPOTHESIS RELAXES OUR TECHNOLOGY CONSTRAINT

MANY "OBSERVED" VEHICLES ARE CONSISTENT WITH KNOWN SCIENCE LIMITS

SUCH VEHICLES WOULD BE QUITE VALUABLE

MANY "OBSERVED" VEHICLES GO BEYOND OUR KNOWN SCIENCE LIMITS

SUCH VEHICLES WOULD BE PHENOMENAL

OTHER REPORTED CAPABILITIES WOULD BE EXTREMELY VALUABLE

ESP - COMBAT

DISAPPEARING CAPABILITY

HAND-HELD ANTI-GRAVITY DEVICES

PENCIL PARALYZER

CONTACTEE DATA COULD BE USEFUL

EXPERIENCING HIGH ACCELERATIONS WITHOUT FORCES

VISUAL INTERNAL APPEARANCE OF VEHICLES

APPROACH TO A NEW SCIENCE

SCIENCE (CURRENT AND NEW)

PHILOSOPHY OF SCIENCE

MAKE OBSERVATIONS (NATURAL DATA, EXPERIMENTAL DATA)

MAKE BASIC SCIENTIFIC ASSUMPTIONS (i.e., POSTULATES)

TRY TO DERIVE THE OBSERVATIONS

CONTINUE SEEKING MORE BASIC SCIENTIFIC ASSUMPTIONS TO CONNECT MORE OBSERVATIONS

CURRENT SCIENCE

FUNDAMENTALS

INCONSISTENCIES

UNADDRESSED PHENOMENA

NEW SCIENCE

DESIRED GOALS

FUNDAMENTALS

RIGOROUS RESULTS

WORK IN PROCESS

FUNDAMENTALS OF CURRENT SCIENCE

SPACE-TIME CONTINUUM POSTULATED ($x^2 + y^2 + z^2 - c^2t^2 = 0$)

CONSERVATION LAWS POSTULATED

ENERGY PLUS MASS, MOMENTUM, ANGULAR MOMENTUM, CHARGE, STRANGENESS, BARYON NUMBER,

LEPTON NUMBER, PARITY, SPIN

RADIATION AND NUCLEAR PARTICLES ARE POSTULATED

RADIATION PARTICLES

GRAVITONS*

PHOTONS*

NEUTRINOS

MATTER PARTICLES

ELECTRONS

PROTONS

MUONS

NEUTRONS

PIONS*

100's OF OTHERS

W* (Decay)

MANY RULES POSTULATED FOR PARTICLE INTERACTIONS

NOT ALL PARTICLES INTERACT WITH EACH OTHER

"STEADY" FORCES DUE TO CONTINUOUS SUB-QUANTAL EXCHANGE OF VIRTUAL PARTICLE

* FORCE PRODUCING EXCHANGE PARTICLE AS DESCRIBED BY RELATIVISTIC QUANTUM THEORY



PROBLEMS WITH CURRENT SCIENCE - INCONSISTENCIES

QUANTUM PROBLEMS

PARITY VIOLATION

INFINITIES

RELATIVISTIC PROBLEMS

GRAVITATIONAL DEFLECTION OF LIGHT

ROTATION OF PLANET PERHELIA

GRAVITATIONAL RED SHIFT

PHENOMENA UNEXPLAINABLE BY CURRENT SCIENCE

- GRAVITY AMPLIFICATION
- PSYCHICAL PHENOMENA

DESIRABLE GOALS OF A NEW SCIENCE

ATTEMPT TO DERIVE ALL OBSERVATIONS FROM A COMMON SET OF ASSUMPTIONS

REMOVE INCONSISTENCIES IN CURRENT SCIENCE

EXPLAIN UNADDRESSED PHENOMENA

HOPE TO FIND THE "TRUE" FUNDAMENTALS

WOULD PREDICT ALL NEW OBSERVATIONS

WOULD DETERMINE WHICH UFO OBSERVATIONS ARE POSSIBLE

WOULD DETERMINE HOW TO BUILD A DFO

FUNDAMENTALS OF THE NEW SCIENCE

Brief History

63 *Antenna*
65 *11 Pages Book*
66 *35 Pages Book*
67
Consolidated to 1 volume

SEPARATE SPACE - SEPARATE TIME (GALILEAN)

ONE FUNDAMENTAL PARTICLE

INDESTRUCTIBLE

$d \approx 10^{-21} \text{ cm}$

$10^{-20} \rightarrow 10^{-30}$

SMOOTH

$m \approx 10^{-50} \text{ gm}$

$10^{-40} \rightarrow 10^{-60}$

ELASTIC

$\rho \approx 10^{70} / \text{cm}^3$

$10^{-50} \rightarrow 10^{-70}$

SPHERICAL

$v \approx \sqrt{2}$ SPEED OF LIGHT

RADIATION AND NUCLEAR PARTICLES ARE ASSEMBLAGES

ALL FORCES ARE PRESSURES ^{*Pressure*} AND PRODUCE ALL INTERACTIONS

ATTEMPTS TO PROVIDE COMPREHENSIVE FOUNDATION FOR CURRENT SCIENCE (WAVE EQ., MAXWELL'S EQ'NS.)

ADDITIONAL INFORMATION MAY BE DERIVABLE

THEORY IS A CLASSICAL ~~ETHER~~ THEORY

ETHER CONSISTS OF SAME CONSTITUENTS AS MATTER AND RADIATION

WELL CHARACTERIZED BY THE TITLE "KINETIC PARTICLE THEORY OF PHYSICS"

HISTORY OF THE ETHER

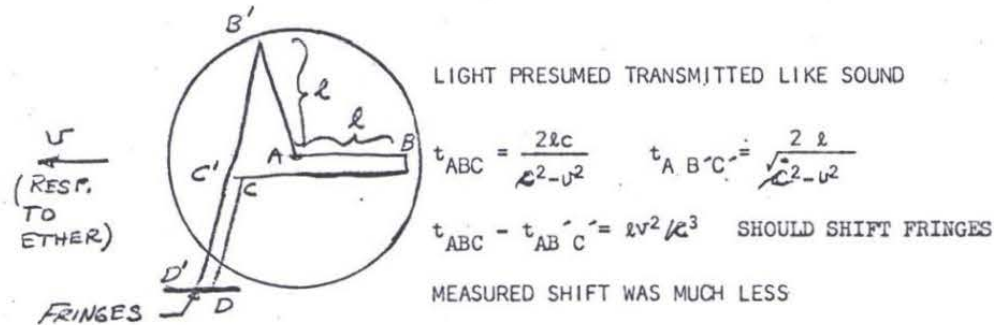
PRIOR TO MICHELSON - MORLEY EXPERIMENT

RIGID LUMINIFEROUS MEDIUM

MEDIUM FOR TRANSMITTING LIGHT AND OTHER EM PHENOMENA

LUMINIFEROUS - PERMITTED PLANET AND OTHER MATTER MOTION

MICHELSON - MORLEY EXPERIMENT (RICHTMEYER, KENNARD, LAURITSEN)



IMPACT (E. T. WHITTAKER)

LORENTZ (AND FITZGERALD) - MATTER SHORTENS IN DIR'N OF v BY $\sqrt{1 - v^2/c^2}$

- IF ALL MATTER IS A FIELD THEN SHORTENING CAN BE DERIVED

POINCARÉ - ETHER (AND ABS. MOTION) CAN'T BE DETECTED

- ASSUME ETHER DOESN'T EXIST

- CIRCUMVENTS PROBLEM OF MATTER MOTION THROUGH RIGID MEDIUM

LORENTZ/POINCARÉ - EVOLVED SPECIAL THEORY OF RELATIVITY

HISTORY OF THE ETHER (CONTD.)

MAXWELL'S EM THEORY REQUIRES ETHER CHARACTERISTICS

- DISPLACEMENT CURRENTS

QUANTUM ELECTRODYNAMICS REQUIRES ETHER CHARACTERISTICS

(WHITTAKER ATTEMPTED TO REVIVE INTEREST)

KINETIC PARTICLE THEORY OF PHYSICS

MICHELSON-MORELY RESULTS DUE TO MATTER SHORTENING

MATTER MOTION PROBLEM OBTIATED

MATTER AND ETHER (AND RADIATION) MADE OF SAME PARTICLES

MOVING MATTER PICKS UP PARTICLES ON FRONT DROPS FROM REAR

MATTER (AS RADIATION) MOTION IS WAVE-TYPE PHENOMENON

More recent work.

① *Principle of Relativity remains
Newtonian time.
Maxwell's eqn's take no account
(Recall the many special
theory.
(Recall the eqn's)*

② *Present Interpretation of Relativity
all observables are standing or
translating waves.
Governed by Classical Wave Eqn.
 $x^2, y^2, z^2, c^2 t^2$ have
same role
thus - special theory says.*

RIGOROUS RESULTS OF NEW SCIENCE POSTULATES

*Start
Here*

DEFINITIONS

MOTION, TIME, MASS, INERTIA, FORCE, ENERGY, MOMENTUM, ANGULAR MOMENTUM

CONSERVATION LAWS (*Derived, Rather than postulated*)

MASS, ENERGY, MOMENTUM, ANGULAR MOMENTUM

ANYTHING POSSIBLE WHICH DOESN'T VIOLATE THESE CONSERVATION LAWS

(discrete chunks of ang. mom.)
CHARGE, SPIN, ETC. ARE OBEYED STATISTICALLY (*non-Conservation possible*)

PORTION OF PHYSICS GENERALLY HELD TRUE BY MOST PHYSICISTS

RESULTS RIGOROUSLY FROM SIMPLE POSTULATES

UNIVERSAL LAWS

INDESTRUCTIBLE PARTICLES (BRUTINOS)

BASIC
PARAMETERS

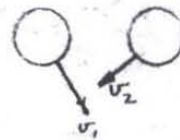
d - Brutino
DIAMETER

v - Speed

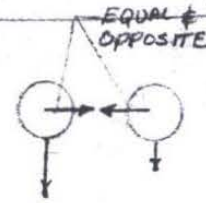
m - Mass

f - No./Vol.

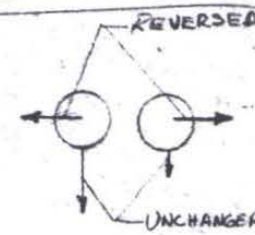
COLLISION
MECHANISM
(HUYGENS'
PRINCIPLE)



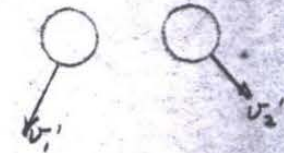
PRE-COLLISION
ORIGINAL FRAME



PRE-COLLISION
CENTER OF MASS
REFERENCE FRAME



POST-COLLISION
CENTER OF MASS
REFERENCE FRAME



POST-COLLISION
ORIGINAL FRAME

RESULTS IN - CONSERVATION OF MASS, ENERGY, LINEAR MOMENTUM, AND ANGULAR MOMENTUM

35.1

THE CONTINUUM

ALL OBSERVATIONS IN THE UNIVERSE HAVE RESULTED FROM A UNIFIED ACTION OF A LARGE NUMBER
OF THE BASIC PARTICLES

ONLY STABLE ASSEMBLAGES THUS ARE OF INTEREST

NEED A FUNDAMENTAL EQUATION REPRESENTING THE ACTIONS OF LARGE NUMBERS OF THE
BASIC PARTICLES

THE BASIC PARTICLES BEHAVE LIKE A MONATOMIC IDEAL GAS

THE GENERAL EQUATION FOR THE MONATOMIC, IDEAL GAS HAS NEVER BEEN WRITTEN

(TRANSPORT)
BOLTZMANN EQUATION IS NEAREST THING, BUT ASSUMES THE MOLECULAR CHAOS PRINCIPLE WHICH
OBVIATES THE POSSIBILITY OF STABLE DENSE ASSEMBLAGES (e.g., THE PHOTON AND ELECTRON)

THE CONTINUUM EQUATION

$\varphi = \varphi(x, y, z, \Omega, s, t)$ - x, y, z, Ω, s DENSITY FUNCTION OF PARTICLES AT TIME t - UNITS T/L^4

EXPECTED NUMBER OF PARTICLES INSIDE PHASE SPACE VOLUME IS $\varphi \Delta x \Delta y \Delta z \Delta \Omega \Delta s$

$$\begin{aligned} \vec{\nabla} \cdot (\vec{V} \varphi) &= 2\pi d^2 \int \varphi_1 d\Omega_1 dA_1 \int \varphi_2 f(\Omega_2, A_2) \sqrt{A_2^2 + A_1^2 - 2A_2 A_1 \cos \theta} d\Omega_2 dA_2 \\ &+ \pi d^2 \varphi \int \varphi_1 \sqrt{A^2 + A_1^2 - 2AA_1 \cos \theta} d\Omega_1 dA_1 = -\frac{\partial \varphi}{\partial t} \end{aligned}$$

NET PARTICLES CONVECTED OUT - PARTICLES SCATTERED IN

+ PARTICLES SCATTERED OUT = INCREASE OF NUMBER INSIDE

$f(\Omega, s)$: PROBABILITY OF IN-SCATTERING PER UNIT VELOCITY

DISCUSSION OF THE CONTINUUM EQUATION

EQUATION IS NEW, QUITE GENERAL, AND QUITE COMPLICATED

NEXT STEP IS TO CHECK DERIVATION - PROBABILITY ASPECTS

TRY TO SOLVE

DERIVE MAXWELL-BOLTZMANN SPEED DISTRIBUTION

MAJOR ACHIEVEMENT

DERIVE JUST ONE STABLE HIGH DENSITY SOLUTION

WOULD FIRMLY ESTABLISH THE KINETIC PARTICLE THEORY

PROGRESS POSSIBLE WITHOUT SOLVING EQUATION

USE RIGOROUS RESULTS

ASSUME EXISTENCE OF FUNDAMENTAL PARTICLES (AS CURRENT SCIENCE DOES)

ATTEMPT DERIVATION OF RELATIVITY OBSERVATIONS

ATTEMPT DERIVATION OF QUANTUM ELECTRODYNAMICS OBSERVATIONS

ATTEMPT DERIVATION OF NEW PARTICLES^S AND FORCE INTERACTIONS

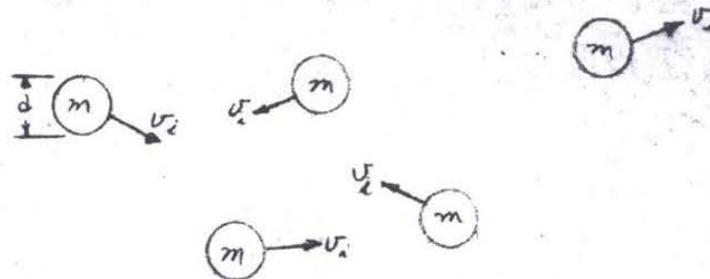
WHICH ARE BEYOND CURRENT SCIENCE

Simplist Solution of Continuum Equation?

BACKGROUND SPEED DISTRIBUTION

ASSUME - MOLECULAR CHAOS PRINCIPLE (LACK OF ORDER) (For Rigor must be simplist sol'n of Continuum Eq.)

SIMILAR TO
A PERFECT
GAS OF ATOMS

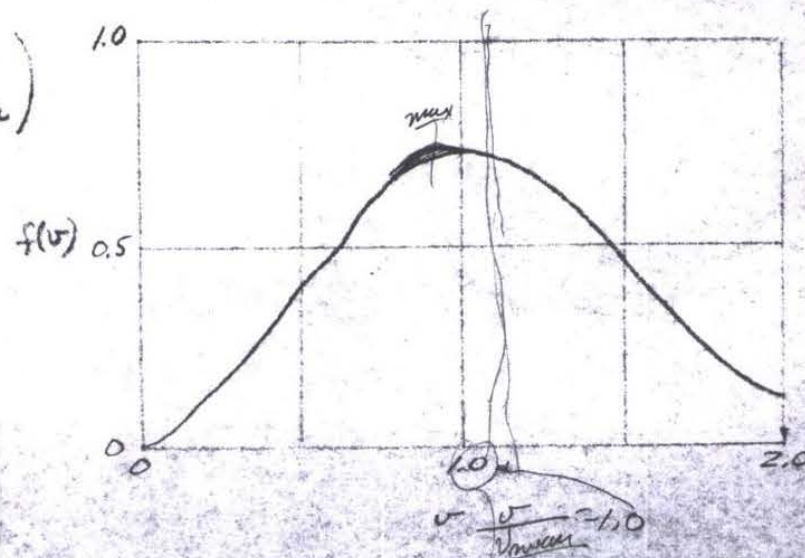


DERIVE MEAN FREE PATH - $\ell = \frac{1}{\sqrt{2} n \pi d^2}$

DERIVE SPEED DISTRIBUTION - MAXWELL/BOLTZMANN

$$f(v) = \frac{\sqrt{27}}{8\pi^3} \frac{1}{v_{rms}^3} \exp\left(-\frac{3v^2}{2v_{rms}^2}\right)$$

$$v_{rms} = 1.086 v_m$$



other CONJECTURES OF THE NEW THEORY

WHAT ARE PHOTONS

CONCENTRATIONS OF BASIC PARTICLES

SPHEROIDAL

$d \approx 10^{-15} \text{ cm}$ FOR ALL MASSES

VARY MASS BY VARYING DENSITY

"SONIC" WAVE PROPAGATION

LATERAL VIBRATION

ANGULAR MOMENTUM

$E = \text{NO. PARTICLES} \times \text{MASS OF EACH} \times \text{SPEED}^2$

WHAT ARE ELECTRONS

TWO COMPONENT VORTEX

EXTENDED FLOW FIELD ($1/R^2$)

NET ANGULAR MOMENTUM

MAGNETIC MOMENT

E DEFINED BY PHOTON ENERGY TO PRODUCE

$M = E/c^2$

CLASSICAL RADIUS - FLOW REVERSAL RADIUS

MOTION - NEW SHAPE, NEW MASS

WHAT ARE ATOMS

WHAT ARE THE FORCES

ALL FORCES ARE COMPRESSIONS - REPEATED COLLISIONS OF BASIC PARTICLES

NEW FORCE - PINCHING FORCE TO "GLUE" PHOTONS, POSSIBLY TO GLUE ELECTRONS

GRAVITATION - ALL MATTER COLLECTS BASIC PARTICLES FROM BACKGROUND, FORMS, AND EJECTS

NON-INTERACTING PARTICLE (NEUTRINO OR GRAVITON)

ELECTROMAGNETIC - MAGNETISM (FLOW INTERACTIONS)

- CHARGE (FLOW INTERACTIONS)

- COLLISIONS (PHOTON INTERCHANGE)

(Combine fields ^{unchanged} let off photons - ^{unchanged} then chem energy)

Stop here

RELATIVISTIC OBSERVATIONS

OBSERVATION

GRAVITATIONAL DEFLECTION OF LIGHT

COMPTON SCATTERING

PARTICLE ACCELERATORS (*Mass Growth*)

MICHELSON - MORLEY

ABBERATION OF LIGHT

PARTICLE LIFETIME - VELOCITY DEPENDENCE

ROTATION OF PERHELIA

GRAVITATIONAL RED SHIFT

$$E = mc^2$$

ANALYSIS STATUS

COMPLETE - AGREES WITH DATA

COMPLETE - AGREES WITH DATA
SOME QUESTION ON MASS GROWTH

DEPENDS UPON COMPTON SCATTERING

COMPLETED BY LORENTZ

COMPLETED BY LORENTZ

HAVE CONCEPT

KNOW SOME EFFECTS

KNOW SOME EFFECTS

SLIGHT RE-INTERPRETATION OF DEFINITION

SOME QUANTUM ELECTRODYNAMICS OBSERVATIONS

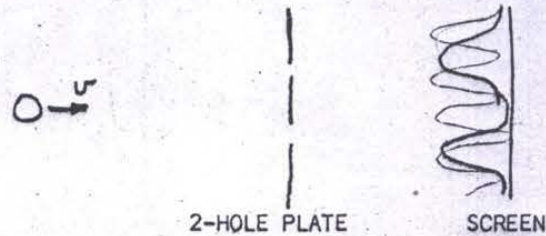
QUANTIZATION OF RADIATION AND MATTER

MAY RESULT FROM EIGENSTATES IN BACKGROUND "GAS"

INDETERMINISM PRINCIPLE

RESULTS DIRECTLY FROM MATTER AND RADIATION HAVING ANGULAR MOMENTUM $= \frac{nb}{2} \cdot \frac{h}{2\pi}$

ELECTRON DIFFRACTION (WAVE PROPERTY OF MATTER)



ELECTRON DOES GO THROUGH
BOTH HOLES AND RE-FORMS

*Don't get repeatedly know
why any mom. is quantized!!!*

*(uncertainty of
position in wave path)*



CONTRAST OF CURRENT AND NEW FOUNDATIONS OF PHYSICS

CONCEPT	CURRENT	NEW
MASS	[MASS AND ENERGY ARE	MASS IS INDESTRUCTIBLE
ENERGY	[INTERCHANGEABLE	ENERGY IS MASS IN MOTION
LINEAR MOMENTUM	CONSERVED) <i>Postulated</i>	CONSERVED) <i>Derived from particle interaction</i>
ANGULAR MOMENTUM	CONSERVED	CONSERVED
SPACE	[SPACE AND TIME ARE	SPACE IS VACANT ARENA
TIME	[INTERCONNECTED TO GIVE $v_{max} = c$ AND PRODUCE "STEADY" FORCES	MOTION OF MASS DEFINES TIME
TIME PARITY	POSTULATED-CONSERVED	DERIVED FROM MOTION REVERSAL
GRAVITATION	MASS PRODUCED CURVATURE IN - SPACE-TIME CONTINUUM	CONVERSION OF BACKGROUND PARTICLES TO LOW X-SECT. PART.
RADIATION PARTICLES	POSTULATED - LITTLE WORK ON MORE FUNDAMENTAL DERIVATION	OPTIC WAVE PACKETS IN BACKGROUND
VELOCITY OF LIGHT	POSTULATED	DERIVED WAVE <i>trans</i> -MISS. VELOCITY
NUCLEAR PARTICLES	POSTULATED - WORKING TOWARD MORE FUNDAMENTAL DERIVATION	STATIONARY EIGENSTATES IN BACKGROUND
CHARGE	POSTULATED - ALWAYS - CONSERVED	DERIVED FLOW FIELD - STATISTICALLY CONSERVED
INDETERMINISM PRINCIPLE	ANGULAR MOMENTUM COMES IN DISCRETE VALUES (DERIV.)	ANGULAR MOMENTUM (COMES IN) DISCRETE VALUES (DERIV.)
CLASSICAL MECHANICS	MACROSCOPIC APPROX.	ALWAYS APPLIES
QUANTUM MECHANICS	POSTULATED	DERIVABLE?
ELECTROMAGNETISM	DERIVED FROM QUANTUM MECHANICS	DERIVED FROM QUANTUM MECHANICS
THERMODYNAMICS	DERIVED FROM QUANTUM MECHANICS	DERIVED FROM QUANTUM MECHANICS

INVESTIGATION OF UNEXPLAINED PHENOMENA

RATIONALE

INVESTIGATE ANY UNEXPLAINED PHENOMENON

(CÓROLLARY - WOULD LIKE TO SUPPORT ANY PROPOSED THEORY WHICH CAN'T BE PROVEN INCORRECT)

OREGON VORTEX

"HAUNTED" HOUSES

WATER DOWSING

UFO'S (DUAL ROLE)

PSYCHIC PHENOMENA

EXPERIMENTS TO TEST THE THEORY

PHOTON VELOCITY SHOULD BE AFFECTED BY A MAGNETIC FIELD

DIRECTLY DETERMINE MAGNETIC FIELD PROPAGATION VELOCITY

ACCURATELY DETERMINE WAVELENGTH SHIFT OF COHERENT PHOTONS

BACKSCATTERED FROM LOW VELOCITY FREE ELECTRONS

FORCES AND TORQUES BETWEEN ELECTRONS SHOULD DEPEND UPON THEIR ORIENTATION

ESP MAY BE MAGNETIC PHENOMENA

MEASURE FIELD NEAR HUMAN HEADS

DETERMINE FORCE ON DOWSING ROD

YEAR'S PROGRESS ON THE THEORY

PRIOR TO START OF YEAR

POSTULATES STATED

GRAVITATIONAL DEFLECTION OF LIGHT

GUESSES AT PHOTON, NEUTRINO, AND ELECTRON CONFIGURATIONS

DURING YEAR

CONTINUUM EQUATION

REFINEMENT OF GRAVITATIONAL DEFLECTION OF LIGHT

MECHANISM OF GRAVITATION

COMPTON SCATTERING AND MASS GROWTH OF MATTER WITH SPEED

INSIGHT INTO OTHER RELATIVITY OBSERVATIONS

INSIGHT INTO PARTICLE CONFIGURATIONS

PROBABLE THAT SCHRÖDINGER EQUATION RESULTS FROM PRESENT POSTULATES AND ASSUMED EXISTENCE
OF ELECTRONS

IDENTIFICATION OF SEVERAL LABORATORY EXPERIMENTS

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PROGRESS ON THEORY ANTICIPATED FOR NEXT YEAR

- * ARRIVE AT A FIRM POSITION ON CONSISTENCY OF THEORY AND ALL RELATIVITY OBSERVATIONS
- * PROVE NON-RELATIVISTIC QUANTUM THEORY (SCHROEDINGER) RESULTS FROM POSTULATES PLUS ASSUMED ELECTRON
- * INVESTIGATE THE POSSIBILITY OF RELATIVISTIC QUANTUM THEORY (DIRAC EQ.) BEING CONSISTENT WITH POSTULATES

CONTINUUM EQUATION

COMPLETE DERIVATION

EXAMINE EXISTENCE OF SOLUTIONS

OBTAIN PHOTON AND/OR ELECTRON EIGENSTATE??

- * IF STARRED ITEMS WERE PROVEN CONSISTENT WITH THE POSTULATES THEN THE KINETIC PARTICLE THEORY WOULD EXCEED CURRENT THEORY ~

SUMMARY OF THE NEW THEORY

RIGOROUS DERIVATION OF THE MAJORITY OF QUANTITATIVE THINGS IN MY EXPERIENCE

QUALITATIVE EXPLANATION OF EVERYTHING KNOWN

POTENTIAL EXISTS TO EXAMINE EVERYTHING RIGOROUSLY

FIRST STEP TAKEN TOWARD QUANTITATIVE DERIVATION OF EVERYTHING

CONTINUUM EQUATION

Refers to
THEORY HAS GREAT SIMPLICITY

THEORY HAS PROMISE

IF PUBLISHED IN PRESENT FORM MIGHT ATTRACT WIDESPREAD, GENERAL INTEREST

JLW
FMW

Maybe

(mention Company Rpt
in process of writing -
- object will
- ~~make~~ Crystalline Solvers.
- Give other solubility.

(non-Vehicle Rpt
of Vehicle Rpt.

VEHICLE APPLICATIONS

VEHICLE APPROACH

FORCE GENERATION SCHEMES

- o MATTER - ANTI-MATTER ANNIHILATION
- o MATTER ANNIHILATION
- o GRAVITY AMPLIFICATION
- o OTHER "FREE ENERGY" SCHEMES
- o ELECTRIC OR MAGNETIC FIELD INTERACTION

CONFIGURATION/UFO OBSERVATIONS

EXPERIMENTS

GRAVITY AMPLIFICATION

○ POSSIBLE MECHANISM

- COLLECTION OF BACKGROUND PARTICLES
 - HI MAG FIELD/GEN BY ELECT FIELD
 - ORGANIZED BACKGROUND FLOW THRU VEHICLE
- GENERATION OF GRAVITONS AT FRONT OF VEHICLE
 - CONVERT MAG FLOW TO GRAVITONS BY ADDING ANGULAR MOMENTUM
 - ALLOWS OCCUPANTS TO TAKE ULTRA-HIGH ACCELERATIONS
- DIRECTIONAL RELEASE
 - OBTAINED BY DIRECTION OF ANGULAR MOMENTUM ADDITION
 - GIVES FORCE AND MANEUVER CONTROL

- "FREE ENERGY" SOURCE

VEHICLE EXPERIMENTS

GENERATION OF HIGH MAGNETIC FIELDS

MECHANICALLY ROTATE CHARGES

ROTATION OF MAGNETS

ROTATION OF MAGNETS IN LARGE MAGNETIC FIELD

HEATED RING-ROTATING MAGNET

RESEARCH AND DEVELOPMENT PROGRAM

RATIONALE

UFO'S IMPLY EXTRATERRESTRIAL VEHICLES EXIST

EVEN WITHOUT SEEING UFO'S EXTRATERRESTRIAL SPACE VEHICLES MUST EXIST

THUS, A DFO CAN BE BUILT

OUR CURRENT TECHNOLOGY IS FAR FROM OUR RECOGNIZED SCIENCE LIMITS

A DFO CAN BE BUILT WITHIN OUR SCIENCE LIMITS

USE ALL UFO ANECDOTAL DATA (PHILOSOPHY: HEAR EVERYTHING AND USE SOME OF IT TO OUR ADVANTAGE)

USE ALL OUR KNOWN SCIENTIFIC PRINCIPLES

TRY THEORETICALLY TO FIND NEW SCIENTIFIC PRINCIPLES

TRY EXPERIMENTALLY TO FIND NEW SCIENTIFIC PHENOMENA

ANALYSIS AND LAB DUPLICATION OF UFO DATA

EXPERIMENTS INDICATED BY NEW THEORY

MEASUREMENT OF ANECDOTAL, UNEXPLAINED PHENOMENA

THREE-WAY APPROACH

UFO DATA COLLECTION AND ANALYSIS

INTERVIEWS WITH CONTACTEES

MEASUREMENTS OF UFO OBSERVABLES

ANALYSIS OF LITERATURE

NEW SCIENCE DEVELOPMENT

CONTINUUM EQUATION SOLUTION

RELATIVISTIC OBSERVATIONS ANALYSIS

ANALYSIS OF QUANTUM OBSERVATIONS

INVESTIGATION OF ANY UNEXPLAINED PHENOMENA

ORGANIZE REPORTED RESULTS

MEASUREMENTS OF EVENTS OF OPPORTUNITY

LABORATORY MEASUREMENTS AND EXPERIMENTS

VEHICLE PROTOTYPE R&D

PAST YEARS ACCOMPLISHMENTS

(24 MAN MONTHS)

THREE NOTEBOOKS

CONTINUUM EQUATION

EXPERIMENTS IN PROCESS

MAGNETIC FIELD EFFECT ON LIGHT VELOCITY

ESP

UNEXPLAINED PHENOMENA INVESTIGATIONS

OREGON VORTEX

HAUNTED HOUSE

UFO SIGHTINGS (PLAYA DEL REY, ELSINORE)

STUDYING

QUANTUM ELECTRODYNAMICS, UFO MAGAZINES AND BOOKS, PSYCHICAL BOOKS

SOME EFFORT ON ALL THREE AREAS

TASKS FOR SIX-MAN EFFORT

CONTINUUM EQUATION - BROWN, PIPES AND TURNER?

CHECK, EXISTENCE PROOFS, IS WAVE EQUATION A SOLUTION?

LABORATORY EXPERIMENTS - BJORNLIIE PLUS ONE SCIENTIST (HENDERSON?)

SYSTEMATICALLY START EXPERIMENTS

RELATIVITY OBSERVATIONS - PHYSICIST (WILLETT?)

COMPARE WITH THEORY

QUANTUM OBSERVATIONS - PHYSICIST (WAHL?)

COMPARE WITH THEORY

UFO DATA AND ANALYSIS - SCIENTIST OR ENGINEER (WILSON?)

PRODUCE A SCIENTIFIC SUMMARY

OTHER UNEXPLAINED PHENOMENA - SCIENTIST OR ENGINEER (WILSON OR THOMAS?)

PRODUCE A SCIENTIFIC SUMMARY

PROVIDE BROAD MANAGEMENT/TECHNICAL GUIDANCE (WOOD, HARMON, BROWN?)

PERSONNEL QUALIFICATIONS

ABLE TO THINK OUTSIDE CURRENT PARADIGM

NOT AFRAID OF FAILURE

HIGH RISK OPERATION

SELF DIRECTED

MINIMIZE SUPERVISION

DIVERSE PROGRAM SUBTASKS

GOOD INDUSTRIAL SECURITY RISK

WILLINGNESS TO WORK SUB-ROSA

ESTABLISHED CREATIVITY

WIDE BACKGROUND (GENERALISTS RATHER THAN SPECIALIST)

SCOPE OF SYSTEM DESIGN, ANECDOTAL DATA, THEORETICAL PHYSICS

CROSS FERTILIZATION OF IDEAS

INTERDISCIPLINARY EFFECTS

Healthy Balance in Basic Loyalties
Family Country Company and Maintaining good
examining personal objectives as well as usual checks

COMPETITORS EFFORTS

HUGHES (~ 10 MEN AT FULLERTON UNDER MEIERS)

LOCKHEED SUNNYVALE

RAND HAS PROPOSED PROJECT

MARTIN HAD (HAS) GRAVITY PROJECT

(AS HAVE SEVERAL OTHER COMPANYS)

SEVERAL COMPANYS HAVE UFO RELATED EFFORTS

RAYTHEON (HAS HAD COMPUTER PROJECT FROM CONDON/U. OF COLO.)

OTHER COUNTRIES IN BUSINESS

RUSSIA NOW HAS UFO PROJECT

GREAT BRITAIN AND FRANCE HAVE MUCH MORE ENLIGHTENED OUTLOOK AND GREATER
INVESTIGATIONS GOING ON

IMPORTANCE OF EFFORT TO COMPANY

VEHICLES - IMMEASUREABLE

THEORY - SIGNIFICANT

HIGH MAGNETIC FIELDS - SALABLE

ESP - HEARING AIDS

- ENEMY INTELLIGENCE

RECOMMENDATIONS

SIX-MAN FUNDING FOR ONE YEAR

BRING IN DOD AT END OF YEAR IF RESULTS WARRANT

MAINTAIN TIGHT SECURITY CONTROL

- o MDC PRIVATE
- o STRICT NEED-TO-KNOW

PROVIDE PRIORITIES FOR MANPOWER AND EQUIPMENT

PROVIDE SECURE AREA FOR PROJECT

THE FUNDAMENTALS OF PHYSICS

