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SETI Program Office

LIST OF INVITED SPEAKERS SETI SESSIONS AT 1988 IAF CONGRESS

> SESSION I (Half Session)

TOPIC: CHAIRMEN: RAPPORTEUR: SETI Science and Policies JIII Tarter and Cyrll Ponnamperuma Michael Michaud

Topic

Speaker

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Die Sterne, 67, Band, Hoft 5, 1991, 5, 271-278

J.A. Barth, Leipzig

ETI, SETI und die Öffentlichkeit heute') Von Roberto Pinorri, Florenz/Italien

Mit i Abbidhung

Ei sit beune jedern, der sich öffeutlich mit diesen Themen beschaftigt, immer deutliber, das lich die Frage auch extraterrestrischem Leben im öffentlichen Pewulfstein nicht
von der judge der unidentifizieren oft objekte (LFG) intenne ladi. 1983 schrieb Dr. David
w. Swift, Professor für Soziologie an der Universität Hawail, er sei sehet, daß der Glaube an außerfüsste Intelligenz (ETT) und UFO in der infinzierten Bevolkerungsschicht, d. b. unter den Soziologie informierten und verdiennehen Leuten, ans statisch der Glaube
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An International Agreement Concerning the Detection of Extraterrestrial Intelligence

ETI, SETI and Today's Public Opinion

Current Status of Deployment Research for a SETI
Space-Based Antenna System

Main Sequence Circumstellar Disks and Their Relation to Planetary Systems

THE ASTROMETRIC TELESCOPE FACILITY: Discovery and Study of Planetary Systems from Space

> ETI, SETI and today's public

Roberto Pinotti

Today it is more and more evident to anyone who deals with the public on these subjects that the question of extraireristal life is inseparable from the question of unidentified flying objects (UFOs) in the public mind. In 1982 Dr David W. Swift, professor of sociology at the University of Hawaii, wrote he was sure belief in extraorrestrial intelligence (ETI) and UFOs is strongest in the most influential stratum of the population in the USA, that is, among better-informed, higher-income people.

This opinion has been confirmed by opinion polis. In March 1987, in a Gailup survey, 5% of US adults expressed the belief that there are 'people somewhat like ourselves living on other planets in the universe', while only M% were sceptical and 16% unsure. These figures are virtually unchanged from those recorded in a previous 1978 survey of the same kind (with 51% expressing their belief in extraorrestrial life; 33% denying this possibility and 16% unsure), but considerably more people now than in either 1973 on 1966 believe in the existence of extraorrestrial beings (46% and 34% of believers, 38% and 46% of sceptics and 16% and 20% of unsure subjects respectively).

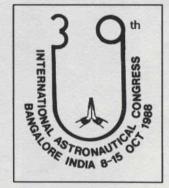
Similarly, today 49% of those who have heard or read about UFOs think they are read, while 30% are down slightly from its peak in 1978, when 57% of US citizens thought they were real, only 27% considered them imaginary and 16% were unsure. Today's percentages fall between the results of the 1973 and 1966 polts, which yielded 34% and 46% of believers, 30% and 25% of sceptics and 16% and 20% of unsure subjects respectively.

These figures show an evident consolidation of the onlines of

subjects respectively. These figures show an evident consolidation of the opinion of one-half of the US public in its belief in both ETI and UFOs (50% and 49% respectively), while only one-third still deny their existence. A curious detail is that, as far a belief in ETI is concerned, women seem to be more sceptical than men (40% and 62% respectively), while men and women share the same opinions about UFOs (50% and 40% respectively). Moreover, people aged 30 and older are less convinced than their jointons that either phenomenon has a basis in fact, but more older than younger adults are undecided. Last but not least, belief in the

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ETI, SETI AND TODAY'S PUBLIC OPINION

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39th CONGRESS OF THE INTERNATIONAL ASTRONAUTICAL FEDERATION

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Abstract

During the last three decades the general public's initial opinions about ETI and SETI changed, turning ignorance, fear and superficiality into a gradual understanding of the importance of these concepts.

After a brief analysis of this changing psychosociological attitude, the paper provides a sort of "estimate of the situation" about general interest for ETI and SETI, suggesting a growing avareness in today's public opinion.

Science fiction movies like CLOSE ENCOUNTERS OF THE THIRD KIND and E.T. THE EXTRA_TERRESTRIAL and popular interest in UFOs as visitors from outer space played a major rôle in the average man's acceptance of the reality of extraterrestrial life and of its meaning for mankind.

Background

Today it is more and more evident to anyone who deals with the public on these subjects that the question of extra-terrestrial life is quite insep erable from the question of Unidentified Flying Objects (UFOs) by the public at large. In 1982 Dr. David W. Swift, professor of sociology at the University of Hawaii, wrote bewas sure belief in ETI and UFOs is strongest in the most influential stratum of the population in the United States; that is, among better informed, higher income people. And this opinion was to be confirmed by facts. In March 1987, in a new Gallup survey, 50% of American adults expressed the belief that there are "people somewhat like ourselves living on other planets in the universe", while only 34% were skeptical and 16% unsure. This means that the current figures are virtually unchanged from those recorded in a previous 1978 survey of the same kind (with 51% expressing their belief in extra-terrestrial life, 33% denying this possibility and 16% unsure), but considerably more now than in either 1973 or 1966 believe in the existence of extra-terrestrial beings (46% and 34% 38% and 46% of skeptics and of believers. 16% and 20% of ensure subjects respectively). Similarly, today 49% of those who have heard or read about UFOs think they are real, while 30% are doubtful and 21% uncertain. This means that belief in UFOs is down slightly from its peak in 1978, when 57% of Americans thought they were real, only 27% considered them imaginary, and 16% was unsure. Today's opinion of American adults on UFOs is expressed by figures whose

values are just in the middle between those emerged in the 1973 and 1966 polls, with 54% and 46% of believers, 30% and 29% of skeptics and 16% and 25% of unsure subjects respectively. In conclusion, all this shows the evident consolid ation of the opinion of one-half of the American public in its belief for both ETI and UFOs (50% and 49% respectively) with only one-third of it still denying their existence. A curious detail is that, as fas as belief in ETI is concerned, women seem to be more skeptical than men (40% and 62% respectively), while men and women share the same opinions about UFOs (50% and 49% respectively). Besides, people 50 and older are less convinced than their juniors that either phenomenon has a basis in fact, but more older than younger adults are undecided. Last but not least, belief in the existence of life on other planets and in UFOs is substantially higher among persons who attended college than among those whose formal education ended at or before graduation from high school. In other words. Dr. David W. Swift's opinion as it was expressed in 1982 proved to be extremely right after all. And no wonder about this. Several national polls over the years have clearly indicated that belief in UFOs is correlated with education and income. If it were all a matter of credulity, superstition and ignorance, one would certainly expect an inverse correlation. But, as Carl Sagan wrote in his book THE COSMIC CONNECT_ ION, "there is today - in a time when old beliefs are withering - a kind of philosophical hunger. a need to know who we are and how we got here. There is an ongoing search, often unconscious, for a cosmic perspective for humanity. This can be seen in innumerable ways, but most clearly on the college campus. There, an enormous interest is apparent in a range of pseudoscientific or borderline-scientific topics - astrology, scientology, the study of unidentified flying objects, investigation of the works of Immanuel Velikovsky, and even science-fiction super-heroes - all of which represent an attempt, overwhelmingly unsuccessful in my view, to provide a cosmic perspective for mankind. Professor George Wald, of Harvard, is thinking of this longing for a cosmic perspective when he writes: 'We have desperately to find our way back to human values. I would even say to religion. There is nothing supernatural in my mind. Nature is my religion, and it's enough for me. What I mean is: We need some widely shared view of the place of Man in

the Universe' ".

A number of scientists have pointed out that



The Gallup Poll

FOR RELEASE Thursday March 12, 1987

All persons in the survey were asked the following question:

Do you think there are people somewhat like ourselves living on other planets in the universe, or not?

Extraterrestrial Life

Only One-Third of Public Deny Existence Of UFO's, Extraterrestrial Life

By George Gallup, Jr.

PRINCETON, N.J. - For millions of American adults a "Close Encounter of the Third Kind" is a distinct possibility, with only about one in three flatly denying the existence of either unidentified flying objects (UFO's) or extraterrestrial life

In a new Gallup survey, 50% express the belief that there are "people somewhat like ourselves living on other planets in the universe," while 34% are skeptical and 16% unsure. The current figures are virtually unchanged from those recorded in a 1978 survey, but considerably more now than in either 1973 or 1966 believe in extraterrestrial life.

Similarly, 49% of those who have heard or read about UFO's think they are real, while 30% are doubtful and 21% uncertain. Belief in UFO's is down slightly from its peak in 1978, when 57% thought they were real.

9% Report Sighting UFO

In the new survey, one person in 11 (9%) reports actually having seen something he or she thought a UFO, statistically similar to the findings of earlier poils.

Belief Higher Among College-Educated

Belief in the existence of life on other planets and in UFO's is substantially higher among persons who attended college than among those whose formal education ended at or before graduation from high school.

Men are more likely than women to believe in extraterrestrial life, 62% and 40%, respectively, but men and women share the same opinions about UFO's

As a rule, people 50 and older are less convinced than their juniors that either phenomenon has a basis in fact, but more older than younger adults are undecided. Westerners are most apt to be believers; Southerners,

Following are the questions, the trends and the latest findings among key demographic groups:

Respondents were first asked:

Have you heard or read about UFO's (Unidentified Flying Objects)?

Those answering affirmatively (88% of the total) were then asked:

Have you ever seen unything you thought was a UFO?

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1987		6				D.		3	ie	5	,	è	*		9				,	,	14		9	ļ		
1978		٥		,		at.		8	÷	ż	k	è	ä	÷	e.	5	e	٠			18	ır.	3	,	ě.	9
1973																									8	
1966	74	6	4	3	4	190	4	-2	14	16		*		4	19	×	7		7	15		3	4	3	4	

In your opinion, are UFO's something real or just people's imagination?

	(Based on aware		
	Real %	Imaginary %	Not sure %
1987	49	30	21
1978	57	27	16
1973	54	30	16
1966	46	29	25
1900	Foltomer of I		43

(Based on aware groups)

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	Real %	Imaginary %	Not sure
NATIONAL	49	30	21
Men	50	31	19
Women	49	28	23
Attended college	56	26	18
No college	44	33	23
18-29 years	53	32	15
30-49 years	57	21	22
50 & older	36	39	25
East	52	30	18
Midwest	48	27	25

19

	Yes %	No %	Not sure %
1987	50	34	16
1978	51	33	16
1973	46	38	16
1966	34	46	20

Ext	Extraterrestrial Life							
	Yes	No	Not					
	%	%	sure					
NATIONAL	50	34	16					
Men	62	30	8					
Women	40	28	32					
Attended college	57	33	10					
No college	46	35						
18-29 years	52	36	12					
30-49 years	56	35	9					
50 & older	42	33	25					
East	55	29	16					
Midwest	49	34	17					
South	38	48	14					
West	63	21	16					

The latest findings are based on telephone interviews with 527 adults, 18 and older, conducted in scientifically selected localities across the nation during the period Feb. 2-18. For results based on samples of this size, one can say with 95% confidence that the error attributable to sampling and other random effects could be 6 percentage points in either direction.

In addition to sampling error, the reader should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls. These statements conform to the standards of disclosure of the National Council on Public Polls.

belief in such borderline subjects as UFOs, extra-sensory perception (ESP), Kirlian photography and so on can be described as an effort to substitute new scientific certainties for the old religious certainties that science has undermined. It has often been remarked that ufologists believe that the Earth is being watched by beings from the heavens who have remarkable powers and who could save humanity from its present plight; the conclusion of the hit movie CLOSE ENCOUNTERS OF THE THIRD KIND surely emphasised the religious tinge to the UFO belief. Erich Von Däniken himself has underlined that the present religious uncertainty is a major reason for the world-wide success of all his books since CHARIOTS OF THE GODS?, describing the purported ancient astronauts as "gods" later deified by our primitive ancestors.

"It must be noted" as award-winning NEW YORK DAILY NEWS science editor Edward Edelson remarks "that the same sort of faith is at the root of SETI. If a SETI programme on Earth is to succeed in making contact with another civilisation, that civilization will have to be very advanced, in ways that go far beyond its technology ... ". "But even leaving any tinge of religion out of the discussion, the belief that such a civilizat ion could exist is an act of faith in humanity. It is belief that a civilization like ours can break through all the problems that now threaten not only to bring our technological society to its knees but also to destroy the human race. The SETI community wants the human race to assume that such a positive breakthrough has taken place elsewhere in the galaxy. It is stated in almost so many words by people in SETI that contact with such a civilization is almost certain to transform mankind ... ". We have already discussed the problem of the possible consequences of extraterrestrial contact on mankind, with the definite possibility of a dramatic socio-anthropological impact involving fear, panic and hysteria all over the world, including a devastating "chain reaction" process

of anomy causing a general "authority crisis" in the public as direct consequences of an unexpect ed releasing of the news. In order to prevent such negative conditions and maybe the collapsing of today's society we suggested a long-term strategy through the combined efforts of science, political leaders, intelligence agencies and mass media, in an attempt at creating the cultural conditions in which a confrontation with ETIwon't affect mankind in a thraumatic way. But the dangers of the effects of a possible planetary "cultural shock" do not seem to alarm SETI scient ists, nor do the public. A new mythology is gripping modern man: ETI and UFOs have replaced the gods of Mount Olympus as the source of mystery and wonder in the world. And so during the last three decades the general public's initial opinions about ETI and SETI changed, turning ignorance, fear and superficiality into a gradual understanding of the importance of these concepts. with growing enthusiasm but without critical remarks. The great fascination that SETI holds for most people is a matter of charm. For SETI has been Little Green Men and Kardashev civilizations and space probes to the outer planets and beyond. but is also UFOs and Chariots of the Gods and Ancient Astronauts for most people, bombarded with confusing information and unsubstantiated claims from the great halls of universities. the poverful voice of mass media and casual conversation between neighbors as well. And the average man's increasing interest is more and more evident in the 1987 Gallup Poll.

A growing awareness

But what about public opinion on ETI and SETI on a world scale?

It is interesting to learn that a Gallup survey in 1971 of top leaders in 72 different nations found 53 percent expressing belief in the existence of human life on other planets in the universe, while 47 percent ruled out the possibility. The survey was obtained through the cooperation of leaders in science, medicine, education, politics, business and other fields, selected by careful sampling methods from the INTERNATIONAL WHO'S WHO.

Recently, even international politics was affected by ETI, in the sense that the possible existence of Extraterrestrials was mentioned by both President Reagan and Premier Gorbachev.

As the American President remarked to Fallston (Maryland) High School and Faculty on 4 December. 1985, "... beople don't start wars, governments do. I couldn't but -- one point in our discussions privately with General Secretary Gorbachev — when you stop to think that we're all God's children, wherever we may live in the world, I couldn't help but say to him, just think how easy his task and mine might be in these meetings that

we held if suddenly there was a threat to this world from some other species from another planet outside in the universe. We'd forget all the little local differences that we have between our countries and we would find out once and for all that we really are all human beings here on this Earth together".

Comments by Gorbachev were reported in the SOVIET LIFE Supplement of May, 1987, and once again ETI were mentioned. According to the Soviet Premier, "... in spite of all the differences between us, we must all learn to preserve our one big family of humanity. At our meeting in Geneva, the U.S. President said that if the Earth faced an invasion by extraterrestrials, the United States and the Soviet Union would join forces to repel such an invasion. I shall not dispute the hypothesis, though I think it's early yet to worry about such an intrusion. It is more important to think about the troubles that have entered our common home. It is more important to realize the need to eliminate the nuclear threat and accept that there is no roof on the Earth or in space to save us if a nuclear storm breaks out".

All this sounds remarkable and shows that the ETI concept may be used in politics, too. But that's not all. President Reagan underlined once more the same argument on 21 September 1987, and this time openly and in front of the whole world. In fact his words were parts of the President of the United States of America's speech delivered during the Forty-second Session of the United Nations General Assembly. Let us quote Reagan's words from the verbatim record of the General Assembly (4th Meeting):

"... Cannot swords be turned to plowshares? Can we and all nations not live in peace? In our obsession with antagonisms of the moment, we often forget how much unites all the members of humanity. Perhaps we need some outside, universal threat to make us recognize this common bond. I occasionally think how quickly our differences worldwide would vanish if we were facing an alien threat from outside this world. And yet, I ask, is not an alien force already among us? What could be more alien to the universal aspirations of our peoples than war and the threat of war?".

It is evident that President Reagan's words prove that the ETI concept is being absorbed by today's world more and more. In the present situation, a reaction of mass hysteria of the same uncontrollable type as occurred in 1938 when Orson Welles' programme THE INVASION FROM MARS was broadcast over the radio in the United States would probably not occurr today, thanks to all the science-fiction movies and extraterrestrial video programmes of the past two decades. In particular, since 1977 the tremendous success of certain Hollywood SF productions like CLOSE ENCOUNTERS OF THE THIRD KIND and E.T. THE EXTRA-TERRESTRIAL by Steven Spielberg, STARMAN by John Carpenter and COCOON by Ron Howard, all depicting "good" aliens with the hopeful "WE ARE NOT ALONE" message, did modify the

public's feelings in a positive sense, and unconfessed fear was replaced by hope. Besides, popular interest in UFOs originated a definite interaction between the general impact of SF movies and UFOs, reducing the possibility of negative consequences.

One attempt has been made to estimate public response to extraterrestrials by seeking out views of leading American social psychologists. Although the circumstances projected (ETI visiting our planet in UFOs) are rather different from the circumstances of a SETI detection program (passively determining the existence of intelligent creatures by means of radio astronomy), most of the conclusions that have been presented in 1974 to Robert Emenegger by the five leading American social psychologists involved expressed the opinion that panic as such would not be the only possible answer. In fact the reactions of individuals would depend largely on the existing belief system of these individuals. The responding psychologists noted also that negative reactions could be greatly dissipated by knowledge that we are in control that "... if worse comes to worse, the aliens - so recently brought into our lives...can be taken out of our lives". As Mary M. Connors of NASA Ames Research Center remarked in 1987, "... a point that has emerged repeatedly is that how people will respond to the news of detection depends, to a large extent, on what they already believe that is related to the existence of extraterrestrials. Yet, we know very little about what these beliefs are. Various measures indicate that about half the population believes that extraterrestrials have already visited this planet. Since this belief is far more extreme than a simple belief in the existence of extraterrestrials, one might assume that a much larger percentage of the population would take the discovery of extraterrestrials as something to be expected ... ".

Mary M. Connors concluded that " ... in order to plan effectively, we need to evaluate how detect ion is likely to influence various publics as well as how it will affect special groups ... ". In other words, this means a deep and integrated study of the reactions to be expected in different socio-political contexts (for instance, in less developed and more developed nations, as well as in capitalistic, communistic and socialistic societies, and so on). We agree with Mary M. Connors that various methods can be employed to meet these goals; the most pressing need is to begin. Besides, ways must be discovered of involving various nations in this search. In any case, the more significant effects will evolve over time as we begin to reevaluate and reassess our rôle in the universe. As Dr. James W. Deardorff underlines, even a gradual public awareness of an extraterrestrial existence and eventual appearance would, over a several-month

period even, still be such a shocking revelation that it could cause economic chaos and topple governments. The religious consequences alone could be huge, "since large masses of people would likely begin to question the basis of their own beliefs if an extraterrestrial presence were confirmed. That is, any religion based upon worship or adoration of a human figure may no longer seem valid or universal upon learning of the definite existence of extraterrestrials having a history of many thousands or millions of years, and upon learning possibly of the alien religious or spiritual learnings, if any ... ". Popular interest for both science fiction and UFOs will play a major rôle in the average man's acceptance of the reality of ETI and their meaning for mankind. This changing psycho-sociological attitude is evolving into a growing awareness in teday's public opinion of SETI's scientific and historical importance. In this light the world-wide success of certain movies (from Kubrik's 2001: A SPACE ODISSEY to Spielberg's productions) and TV serials (like in the case of Carl Sagan's COSMOS) was and will be important for the future developments of a new cosmic perspective for man.

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