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FOREIGN AND MILITARY INTELLIGENCE

BOOK I

FINAL REPORT

OF THE

SELECT COMMITTEE TO STUDY GOVERNMENTAL OPERATIONS

WITH RESPECT TO

INTELLIGENCE ACTIVITIES UNITED STATES SENATE

TOGETHER WITH

ADDITIONAL, SUPPLEMENTAL, AND SEPARATE VIEWS

APRIL 26 (legislative day, APRIL 14), 1976

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C.I.A. Data Show 14-Year Project On Controlling Human Behavior

By NICHOLAS M. HORROCK

Special to The New York Times

WASHINGTON, July 20—The Central Intelligence Agency conducted a 14-year program to find ways to "control human behavior" through the use of chemical, biological and radiological material, according to agency documents made public today by John Marks, a freelance journalist.

Mr. Marks, an associate of the Center for National Security Studies, asserted at a news conference that Adm. Stansfield Turner, Director of Central Intelligence, in a letter to the Senate Select Committee on Intelligence last week, "seriously distorted" what the C.I.A. research programs involved.

Mr. Marks said that, based on documents about the program he had received under the Freedom of Information Act, he had concluded that Admiral Turner "seems to be practicing what used to be called 'a modified limited hangout'" when he called the agency's activity "a program of experimentation with drugs."

"To be sure, drugs were part of it," he said, "but so were such other techniques as electric shock, radiation, ultrasonics, psychosurgery, psychology and incapacitating agents, all of which were referred to in documents I have received."

The documents made public today and the disclosure by the C.I.A. last week that it had found another cache of previously undiscovered records suggested broader experimentation on unwitting humans by the intelligence agency or its paid researchers than had been publicly known before. Mr. Marks said he had obtained or read about 1,000 C.I.A. documents, many of which were never turned over to the Senate intelligence committee for its 1975 investigation of agency activities.

C.I.A. spokesmen declined comment on Mr. Marks's charges. However, Admiral Turner told newsmen after leaving a meeting with senators that the agency

Continued on Page A20, Col. 3

ties would have serious repercussions in political and diplomatic circles and would be detrimental to the accomplishment of its missions."[5]

The research and development program, and particularly the covert testing programs, resulted in massive abridgments of the rights of American citizens, sometimes with tragic consequences. The deaths of two Americans [6] can be attributed to these programs; other participants in the testing programs may still suffer from the residual effects. While some controlled testing of these substances might be defended, the nature of the tests, their scale, and the fact that they were continued for years after the danger of surreptitious administration of LSD to unwitting individuals was known, demonstrate a fundamental disregard for the value of human life.

The Select Committee's investigation of the testing and use of chemical and biological agents also raise serious questions about the adequacy of command and control procedures within the Central Intelligence Agency and military intelligence, and about the relationships among the intelligence agencies, other governmental agencies, and private institutions and individuals. The CIA's normal administrative controls were waived for programs involving chemical and biological agents to protect their security. According to the head of the Audit Branch of the CIA, these waivers produced "gross administrative failures." They prevented the CIA's internal review mechanisms (the Office of General Counsel, the Inspector General, and the Audit Staff) from adequately supervising the programs. In general, the waivers had the paradoxical effect of providing less restrictive administrative controls and less effective internal review for controversial and highly sensitive projects than those governing normal Agency activities.

The security of the programs was protected not only by waivers of normal administrative controls, but also by a high degree of compartmentation within the CIA. This compartmentation excluded the CIA's Medical Staff from the principal research and testing program employing chemical and biological agents.

It also may have led to agency policymakers receiving differing and inconsistent responses when they posed questions to the CIA component involved.

Jurisdictional uncertainty within the CIA was matched by jurisdictional conflict among the various intelligence agencies. A spirit of cooperation and reciprocal exchanges of information which initially characterized the programs disappeared. Military testers withheld information from the CIA, ignoring suggestions for coordination from their superiors. The CIA similarly failed to provide information to the military on the CIA's testing program. This failure to cooperate was conspicuously manifested in an attempt by the Army to conceal

[5] CIA Inspector General's Survey of TSD, 1957, p. 217.

[6] On January 8, 1953, Mr. Harold Blauer died of circulatory collapse and heart failure following an intravenous injection of a synthetic mescaline derivative while a subject of tests conducted by New York State Psychiatric Institute under a contract let by the U.S. Army Chemical Corps. The Committee's investigation into drug testing by U.S. intelligence agencies focused on the testing of LSD, however, the committee did receive a copy of the U.S. Army Inspector General's Report, issued on October 1975, on the events and circumstances of Mr. Blauer's death. His death was directly attributable to the administration of the synthetic mescaline derivative.

their overseas testing program, which included surreptitious administration of LSD, from the CIA. Learning of the Army's program, the Agency surreptitiously attempted to obtain details of it.

The decision to institute one of the Army's LSD field testing projects had been based, at least in part, on the finding that no long-term residual effects had ever resulted from the drug's administration. The CIA's failure to inform the Army of a death which resulted from the surreptitious administration of LSD to unwitting Americans, may well have resulted in the institution of an unnecessary and potentially lethal program.

The development, testing, and use of chemical and biological agents by intelligence agencies raises serious questions about the relationship between the intelligence community and foreign governments, other agencies of the Federal Government, and other institutions and individuals. The questions raised range from the legitimacy of American complicity in actions abroad which violate American and foreign laws to the possible compromise of the integrity of public and private institutions used as cover by intelligence agencies.

A. The Programs Investigated

1. Project CHATTER

Project CHATTER was a Navy program that began in the fall of 1947. Responding to reports of "amazing results" achieved by the Soviets in using "truth drugs," the program focused on the identification and testing of such drugs for use in interrogations and in the recruitment of agents. The research included laboratory experiments on animals and human subjects involving *Anabasis aphylla*, scopolamine, and mescaline in order to determine their speech-inducing qualities. Overseas experiments were conducted as part of the project.

The project expanded substantially during the Korean War, and ended shortly after the war, in 1953.

2. Project BLUEBIRD/ARTICHOKE

The earliest of the CIA's major programs involving the use of chemical and biological agents, Project BLUEBIRD, was approved by the Director in 1950. Its objectives were:

> (a) discovering means of conditioning personnel to prevent unauthorized extraction of information from them by known means, (b) investigating the possibility of control of an individual by application of special interrogation techniques, (c) memory enhancement, and (d) establishing defensive means for preventing hostile control of Agency personnel.[4]

As a result of interrogations conducted overseas during the project, another goal was added—the evaluation of offensive uses of unconventional interrogation techniques, including hypnosis and drugs. In August 1951, the project was renamed ARTICHOKE. Project ARTICHOKE included in-house experiments on interrogation techniques, conducted "under medical and security controls which would ensure

[4] CIA memorandum to the Select Committee, "Behavioral Drugs and Testing," 2/11/75.

funding mechanism for highly sensitive CIA research and development projects that studied the use of biological and chemical materials in altering human behavior. The projects involved:

> Research to develop a capability in the covert use of biological and chemical materials. This area involves the production of various physiological conditions which could support present or future clandestine operations. Aside from the offensive potential, the development of a comprehensive capability in this field of covert chemical and biological warfare gives us a thorough knowledge of the enemy's theoretical potential, thus enabling us to defend ourselves against a foe who might not be as restrained in the use of these techniques as we are."[12]

MKULTRA was approved by the DCI on April 13, 1953 along the lines proposed by ADDP Helms.

Part of the rationale for the establishment of this special funding mechanism was its extreme sensitivity. The Inspector General's survey of MKULTRA in 1963 noted the following reasons for this sensitivity:

> a. Research in the manipulation of human behavior is considered by many authorities in medicine and related fields to be professionally unethical, therefore the reputation of professional participants in the MKULTRA program are on occasion in jeopardy.
>
> b. Some MKULTRA activities raise questions of legality implicit in the original charter.
>
> c. A final phase of the testing of MKULTRA products places the rights and interests of U.S. citizens in jeopardy.
>
> d. Public disclosure of some aspects of MKULTRA activity could induce serious adverse reaction in U.S. public opinion, as well as stimulate offensive and defensive action in this field on the part of foreign intelligence services."[13]

Over the ten-year life of the program, many "additional avenues to the control of human behavior" were designated as appropriate for investigation under the MKULTRA charter. These include "radiation, electroshock, various fields of psychology, psychiatry, sociology, and anthropology, graphology, harassment substances, and paramilitary devices and materials."[14]

The research and development of materials to be used for altering human behavior consisted of three phases: first, the search for materials suitable for study; second, laboratory testing on voluntary human subjects in various types of institutions; third, the application of MKULTRA materials in normal life settings.

The search for suitable materials was conducted through standing arrangements with specialists in universities, pharmaceutical houses, hospitals, state and federal institutions, and private research organizations. The annual grants of funds to these specialists were made under ostensible research foundation auspices, thereby concealing the CIA's interest from the specialist's institution.

The next phase of the MKULTRA program involved physicians, toxicologists, and other specialists in mental, narcotics, and general hospitals, and in prisons. Utilizing the products and findings of the basic research phase, they conducted intensive tests on human subjects.

One of the first studies was conducted by the National Institute of Mental Health. This study was intended to test various drugs, including hallucinogenics, at the NIMH Addiction Research Center in Lexington, Kentucky. The "Lexington Rehabilitation Center," as it was then called, was a prison for drug addicts serving sentences for drug violations.

The test subjects were volunteer prisoners who, after taking a brief physical examination and signing a general consent form, were administered hallucinogenic drugs. As a reward for participation in the program, the addicts were provided with the drug of their addiction.

LSD was one of the materials tested in the MKULTRA program. The final phase of LSD testing involved surreptitious administration to unwitting nonvolunteer subjects in normal life settings by undercover officers of the Bureau of Narcotics acting for the CIA.

The rationale for such testing was "that testing of materials under accepted scientific procedures fails to disclose the full pattern of reactions and attributions that may occur in operational situations."[15]

According to the CIA, the advantage of the relationship with the Bureau was that

> test subjects could be sought and cultivated within the setting of narcotics control. Some subjects have been informers or members of suspect criminal elements from whom the [Bureau of Narcotics] has obtained results of operational value through the tests. *On the other hand, the effectiveness of the substances on individuals at all social levels, high and low, native American and foreign, is of great significance and testing has been performed on a variety of individuals within these categories.* [Emphasis added.][16]

A special procedure, designated MKDELTA, was established to govern the use of MKULTRA materials abroad. Such materials were used on a number of occasions. Because MKULTRA records were destroyed, it is impossible to reconstruct the operational use of MKULTRA materials by the CIA overseas; it has been determined that the use of these materials abroad began in 1953, and possibly as early as 1950.

Drugs were used primarily as an aid to interrogations, but MKULTRA/MKDELTA materials were also used for harassment, discrediting, or disabling purposes. According to an Inspector General Survey of the Technical Services Division of the CIA in 1957—an inspection which did not discover the MKULTRA project involving the surreptitious administration of LSD to unwitting, nonvolunteer

[12] Memorandum from ADDP Helms to DCI Dulles, 4/3/53, Tab A, pp. 1-2.
[13] I.G. Report on MKULTRA, 1963, pp. 1-2.
[14] *Ibid*, p. 4.

[15] *Ibid*, p. 21.
[16] *Ibid*., pp. 11-12.

DEPARTMENT OF THE ARMY
Office of the Chief of Staff
Washington 25, D. C.

COPY

CCS: 385 (30 Jun 53) 30 June 1953

MEMORANDUM THRU: ASSISTANT CHIEF OF STAFF, G-4

FOR: CHIEF CHEMICAL OFFICER
THE SURGEON GENERAL

SUBJECT: Use of Volunteers in Research

1. This directive prescribes policies and procedures governing the use of volunteers in research in defense against atomic, biological and chemical warfare. The purpose of this research is to permit a realistic evaluation and/or development of effective preventive measures of defense against atomic, biological or chemical agents.

2. Certain basic principles must be observed in order to satisfy moral, ethical and legal concepts. These basic principles are:

a. The voluntary consent of the human subject is absolutely essential.

(1) This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, over-reaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.

(2) The consent of the human subject shall be in writing, his signature shall be affixed to a written instrument setting forth substantially the aforementioned requirements and shall be signed in the presence of at least one witness who shall attest to such signature in writing.

(a) In experiments where personnel from more than one Service are involved, the Secretary of the Service which is exercising primary responsibility for conducting the experiment is designated to prepare such an instrument and coordinate it for use by all the Services having human volunteers involved in the experiment.

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SUBJECT: Use of Volunteers in Research

(3) The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.

b. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.

c. The number of volunteers used shall be kept at a minimum consistent with item b, above.

d. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.

e. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.

f. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur.

g. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by experiment.

h. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.

i. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.

j. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.

k. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgement required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

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(1) The established policy, which prohibits the use of prisoners of war in human experimentation, is continued and they will not be used under any circumstances.

3. The following opinions of the Judge Advocate General furnish specific guidance for all praticipants in research in atomic, biological and/or chemical warfare defense using volunteers.

a. Legality of accepting volunteers. The authority of the Secretary of the Army to conduct research and development activities is contained in section 104 of the act of 10 July 1950 (64 Stat. 322; 5 U.S.C. 235a) which provides:

> "The Secretary of the Army is authorized to conduct, engage and participate in research and development programs related to activities of the Army of the United States and to procure, or contract for the use of, such facilities, equipment, services, and supplies as may be required to effectuate such programs."

Section 101 of the Army Organization Act of 1950 (64 Stat. 264; 5 U.S.C. 131-4) provides in part as follows:

> "Except as otherwise prescribed by law, the Secretary of the Army may make such assignments and details of members of the army and civilian personnel as he thinks proper, and may prescribe the duties of the members and civilian personnel so assigned; and such members and civilian personnel shall be responsible for, and shall have the authority necessary to perform, such duties as may be so prescribed for them."

b. Military Personnel and Department of the Army Civilian Employees. Compensation for the disability or death of a civilian employee resulting from personal injury or disease proximately caused by his employment is payable under the Federal Employees Compensation Act (39 Stat. 742 et seq.), as amended (5 U.S.C. 751 et seq.), regardless of whether his employment was of a hazardous nature. The amount and type of disability compensation or other benefits payable by reason of the death or disability of a member of the Army resulting from injury or disease incident to service depends upon the individual status of each member, and is covered by various provisions of law. It may be stated generally that under present laws no additional rights against the Government will result from the death or disability of military and civilian personnel participating in experiments by reason of the hazardous nature of the operations, although it is possible that the Congress may confer benefits or grant relief by general or special legislation subsequently enacted. Even should the injury or disease result from a negligent or wrongful act, the recovery of any compensation or benefit under present law in addition to these noted above is doubtful.

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SUBJECT: Use of Volunteers in Research

c. Use of Appropriated Funds for the Purchase of Life Insurance. In effect, the payment of insurance premiums on the life of an officer or employee is a form of compensation (Commissioner of Internal Revenue v. Bonwit, 87 F. 2d 764 (2nd Cir., 1937), cert. den. 302 U.S. 694, 82 L. Ed. 536; Canaday v. Guitteau, 86 F. 2d 303 (6th Cir., 1936)). In this regard, section 1765 of the Revised Statutes (6 U.S.C. 70) provides as follows:

> "No officer in any branch of the public service, or any other person whose salary, pay, or emoluments are fixed by law or regulations, shall receive any additional pay, extra allowance, or compensation, in any form whatever, for the disbursement of public money, or for any other service or duty whatever, unless the same is authorized by law, and the appropriation therefor explicitly states that it is for such additional pay, extra allowance, or compensation."

There is no statutory authority for the payment of premiums for insuring the lives of military and civilian personnel, and current appropriations for military and civilian pay and allowances do not expressly provide therefor. It follows that the payment of such premiums from appropriated funds is prohibited by the quoted section. The statutory provision in question is applicable to all military and civilian personnel of the Army "whose salary, pay, or emoluments are fixed by law or regulations" (24 Comp. Gen. 646 (1945).

d. Private Citizens. Section 3679 of the Revised Statutes, as amended (31 U.S.C. 665(b)), provides:

> "No officer or employee of the United States shall accept voluntary service for the United States or employ personal service in excess of that authorized by law, except in cases of emergency involving the safety of human life or the protection of property."

It is the policy of the quoted statute to prohibit the acceptance of voluntary services which may provide a basis for future claims against the Government. The stated policy applies not only where legal claims for compensation may arise from performance of the services, but also where the circumstances surrounding the proffer support a reasonable possibility that the services may provide the basis for seeking remedial Legislation from the Congress. The JAG is therefore of the opinion that the services in question should not be accepted by the Department of the Army. In view of this conclusion, it is unnecessary to consider the extent to which such persons could exert claims against the Government by reason of disability or death resulting from participation in the proposed experiments, or whether premiums on life insurance for the said participants may be paid from appropriated funds.

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e. Contractors' Employees. The applicability of the foregoing considerations to contractors' employees is considered below:

(1) Legality of employment. The authority of the Secretary of the Army to contract for services necessary to effectuate research and development activities is contained in section 104 of the act of 10 July 1950 (64 Stat. 322; 5 U.S.C. 235a), quoted in subparagraph a, above. There appears to be no provision of law which would prevent a contractor from employing his personnel upon experiments of the nature contemplated. In the literal sense, no question of "acceptance" of the services in question by the Government is involved, as the private relation of such an employee is with the contractor rather than the Government. It devolves upon the contracting officer to ascertain whether the terms are sufficiently broad to permit the participation of contractor employees in the experiment. The terms of the contract must insure that the contractor will observe the conditions and safeguards set forth in this directive.

(2) Claims against the Government. Generally, benefits to which a private employee may become entitled by reason of death or disability resulting from his employment are payable under State, rather than Federal, laws, with the exception of persons covered by the survivor's insurance provisions of the Social Security Act (49 Stat. 623), as amended (42 U.S.C. 402). In some situations the employee may have remedies against his employer under State workman's compensation or other laws. It is not possible to generalize upon the right of such an employer, where he is a Government contractor, to claim reimbursement from the Government for additional costs by reason of liability to his employees incurred in this regard, as this depends upon the terms of each individual contract. The question of whether any additional rights against the employer-contractor may result from the death or disability of employees participating in experiments, by reason of the hazardous nature of the experiments, is likewise not susceptible of any general statement, due to the numerous factors involved. Such persons would not be disqualified from prosecuting claims against the Government under the Federal Tort Claims Act (28 U.S.C. 2671 et seq.). (See also AR 25-70, 2 March 1951.)

(3) Purchase of life insurance. In cost-reimbursable type contracts, the expense of maintaining group accident and life insurance plans may be an allowable item of cost under the contract (ASPR 15-204(p)). Group life insurance plans provided voluntarily to contractors' employees on a reimbursable basis are subject to review by heads of procuring activities to determine that greater benefits are not being extended under the cost-reimbursement type contract than those granted to employees under the contractor's regular commercial operations (APP 10-351). In special cases, life insurance for employees may be authorized by heads of procuring activities (ASPR 10-302; APP 302) even in fixed-price contracts (APP 10-301). In order to be applicable, cost principles

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must be set forth or incorporated in a cost-reimbursable contract (ASPR 15-102). It will be seen from the above that, if a contractor obtains insurance on the lives of his employees while participating in the proposed experiments, he may be reimbursed for the expenses involved only where the contract is of a type allowing reimbursement and the terms thereof allow recovery as an item of cost.

f. Irregular and Fee-basis Employees. The stated category comprehends all persons paid from appropriated funds for intermittent services, as distinguished from regular, full-time employees. For example, the Secretary of the Army may procure the temporary or intermittent services of experts or consultants, including stenographic reporting services, without regard to civil service and classification laws at rates not to exceed $50 per diem (sec. 15, act of 2 Aug 1946 (60 Stat. 810; 5 U.S.C. 55a); sec. 601, Department of Defense Appropriation Act, 1953 (Pub. Law 488, 82d Cong.); see CPR A7.6, par. 6-3). The employment of experts and consultants either on a per diem basis or without compensation is also authorized by section 710, Defense Production Act of 1950 (64 Stat. 819; 50 U.S.C. App. 2160). (See CPR A7.6, par. 6-3.) The Secretary of the Army may also employ architects, engineers, and other technical and professional personnel on a fee basis, without regard to classification laws (sec. 2, act of 7 Aug 1939 (53 Stat. 1240; 5 U.S.C. 221).

In general, the employment status of such person must be determined individually from the statutory authority under which they are employed and the terms and conditions of their employment agreements. In some cases it will be found that their status is not that of employees, but of contractors furnishing services to the Government at agreed contract prices. The following observations are made upon the applicability of the three questions considered in subparagraph e, above, to the category of persons under consideration:

(1) Legality of accepting volunteers. The terms of the statutory authority for the employment and the provisions of the employment agreement must be inspected in each case to determine whether the particular individual is an employee subject to detail or assignment upon the proposed experiments, or whether his employment is limited to other specific objects. If his employment upon the project is not so authorized, it would appear that acceptance of his services for this purpose on a voluntary basis would be prohibited by the considerations discussed in subparagraph d, above.

(2) Claims against the Government. The Federal Employees Compensation Act (39 Stat. 742 et seq.), as amended (5 U.S.C. 751 et seq.), is applicable to "all civil officers and employees" of the Government and all "persons rendering personal services of a kind similar to those of civilian officers or employees of the United States***without compensation or for nominal compensation, in any case in which acceptance or use of such services is authorized by an Act of Congress or in

which provision is made by law for payment of the travel or other expenses of such person." The foregoing broad coverage of the act would appear to include most irregular and fee-basis employees. However, the administration of the benefits in question are within the province of the Bureau of Employees Compensation, Department of Labor, and only that agency may provide a definitive ruling with respect to coverage of the individuals in question. With the foregoing reservation, the views of this office set forth in subparagraph b, above, would appear equally applicable to irregular and fee-basis employees.

(3) Purchase of life insurance. The Comptroller General has approved the payment of surgical and hospitalization expenses of a field employee injured while engaged upon flood control work (3 Comp. Gen. 57 (1923)), on the ground that "the employee's compensation was not fixed by law but was subject to administrative discretion, since, otherwise, payment of the expense by the Government would constitute payment of additional compensation, which is prohibited by section 1765, Revised Statutes" (28 Comp. Gen. 175 (1948)). Subject to such restrictions and limitations as may appear in the statutory authority under which he is employed, it would appear from the foregoing that the Government may legally bear the expense of premiums upon the life of an irregular or fee-basis employee whose rate of compensation is not fixed by law or regulations. In this regard, it may be advisable for the Government to provide an additional allowance to the employee for financing such private insurance arrangements as he may wish to make rather than to undertake direct negotiations with insurance carriers for the desired coverage.

4. Subject to the above conditions, Armed Forces personnel and/or civilians on duty at installations engaged in research in subject fields shall be permitted to actively participate in all phases of the program. As a general rule, volunteer subjects should be males under 35 years of age, with no physical or mental diseases.

5. Agents used in research must have the following limiting characteristics:

a. Controllable lethality.

b. No serious chronicity anticipated.

c. Effective therapy available.

d. Adequate background of animal experimentation.

6. As added protection for volunteers, the following safeguards will be provided:

SUBJECT: Use of Volunteers in Research

a. Direct responsibility for the planning and conduct of the investigations and for the medical care will rest with one adequately trained physician.

b. All apparatus and instruments necessary to deal with any emergency situations must be available, e.g., Drinker respiratory, Mine Safety Pneophor, oxygen apparatus, etc.

c. Medical treatment and hospitalization will be provided for all casualties of the experimentation as required.

d. The physician in charge will have available to him on short notice throughout the investigation competent consultants representing any of the specialties to be encountered.

7. Due to the specialized nature of biological agents, the following procedures in addition to the foregoing policies and procedures will be observed in regard to this phase of the program:

a. In selecting agents for investigation, priority should be given to those which possess a high probability of successful infection under operational conditions against U. S. forces.

b. The effectiveness of available defensive measures, either immunization or chemoprophylaxis, will determine the necessity for study of the agent considered.

c. Use enlarged (4X) Henderson or other suitable apparatus for exposure.

d. First experiments will be designed to determine level of susceptibility. The investigation should utilize the minimum number of volunteers which will yield statistically valid data at low levels of dosage.

e. Increase number of persons to that level which will give significance.

f. Then use immunized persons and persons on prophylactic chemotherapy.

g. Determine and apply details of immunologic study.

h. From the foregoing the final step will be to use volunteer subjects, of if there exists a good correlation with a particular animal for a particular micro-organism, then use that animal, on a proving ground, downwind far enough from the munition so that the concentration will be known to be approximately equal to the level required to induce infection. (This will rule out subjecting volunteers to "crash" concentrations.)

SUBJECT: Use of Volunteers in Research

3. No research in atomic, biological and/or chemical agents using volunteers will be undertaken until the Secretary of the Army has stated his approval in writing. The Surgeon General of the Army will review and comment on all proposals for the use of volunteers. When appropriate, he will seek the advice of The Surgeon General of the Navy, Air Force and/or the U. S. Public Health Service. The sponsoring Army agency will submit its proposal, together with the Surgeon General's review and comment thereon, to the Secretary of the Army through this office. As a minimum, the proposal will state the nature and purpose of the experiment and the name of the person who will be in charge.

BY DIRECTION OF THE CHIEF OF STAFF:

(Signed)
JOHN C. OAKES
Brigadier General, GS
Secretary of the General Staff

Copies furnished:

Asst. Chief of Staff, G-4
Chief Chemical Officer
The Surgeon General
The Judge Advocate General
Chief of Research and
Development, OCS

COPY

[redacted] A/B, 4, 23/32

Office Memorandum • UNITED STATES GOVERNMENT

TO : [redacted] A

Via :

FROM :

DATE: 3 March 1952

SUBJECT: Attached.

1. The attached memorandum is an Eyes Only report for your study and consideration.

2. The writer has set down personal comments relative the Bluebird operation and particularly contributions or rather lack of contributions to this effort by OSI. The writer has also commented relative matters involving the medical staff in relation to the Bluebird program.

3. The paper is not an official document, but rather a confidential report for I & SO information only.

4. If you have no further use for it after reading, I will retain it in our controlled files.

A [redacted]

that is useful along these lines. What effect these elements would have on individuals who are under control is unknown. However, certain of these elements would produce bodily conditions such as high fever, delerium, etc., but it is doubted if these conditions could be exploited advantageously.

5) Diet

If individuals under strict control are continuously fed food or liquid containing high quantities of salt, spices, etc. or if certain basic food elements (such as fats, starches, proteins, etc.) are continuously removed from the diet of controlled individuals, will they or can they thus be conditioned for Bluebird techniques?

There is considerable literature to indicate that a standard Soviet and satellite technique is the use of food containing high salt content, which produces thirst in the subject to be interrogated. The exact reasons for this are unknown, but a number of intelligent guesses can be made.

20. FURTHER COMMENTS RELATIVE ELECTRO-SHOCK

As has been noted above and in conversation, there has been a considerable amount of discussion relative possible uses of electroshock as a weapon by Bluebird.

It has been reported to the writer that [redacted], referred to above, believes that the electroshock or post electroshock coma can be used [redacted] obtaining information from individuals. According to [redacted] and his associates have been able to obtain information from subjects after the electroshock convulsion and during the coma period following the convulsion after the initial electroshock. There is very little information on this technique and while we are not certain that individuals who are attempting to conceal information could be forced to give up information through this method, the idea may have some merit, but it is apparently in experimental form only and has not been widely tested. At least as far as the writer knows there is little, if any, literature available relative this technique.

C
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[redacted]

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RADIATION EFFECTS

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CENTRAL NERVOUS SYSTEM RESPONSE TO LOW-LEVEL I-
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DESCRIPTORS: (*CENTRAL NERVOUS SYSTEM, RADIATION EFFECTS), (*RADIATION EFFECTS, X RAYS), ELECTROPHYSIOLOGY, DOGS, NERVE CELLS, RADIOLOGICAL DOSAGE

AN ELECTROPHYSIOLOGICAL RESPONSE OF THE CNS OF DOGS MANIFESTED BY HIGH-VOLTAGE, ERRATIC SPIKING AND BILATERAL ASYNCHRONY HAS SHOWN TO EXIST FOLLOWING LOW-LEVEL HEAD-ONLY X-IRRADIATION OF 1 - 100 RAD. EVIDENCE OBTAINED IN A STUDY OF POSSIBLE MECHANISMS INVOLVED IS CONSISTENT WITH NERVE CELL MEMBRANE PERMEABILITY CHANGES. (AUTHOR)

Hearing Breakthrough?

'Ear Teeth' Wired for Sound

NEW YORK — (NEA) — Men will be able to hear through their mouths as well as their ears in the not-too-distant future is the prospect if two inventive dreams pan out.

"I couldn't hear you, my mouth was closed."

The idea isn't quite so simple, but the gist of the matter is that man can indeed hear this way — more precisely, through his teeth.

If you don't believe it, get a tuning fork or even an all-metal table fork, strike the prongs and hold the handle of the fork against your teeth. Be careful not to let your lips interfere.

While making a telephone call six years ago, Dr. Earl Collard did the same thing you just did. He held a vibrating tuning fork against one of his teeth. Hearing a clear tone, he conceived the idea that this principle could be used to make a tooth-hearing device that would be completely entirely in the mouth.

THE PRINCIPLE of tooth-hearing is called audiodontics and could be the basis of an entire new method of communication, according to Dr. Collard, assistant professor of dentistry at the University of California at Los Angeles.

Audiodontics holds promise in a host of areas ranging from ruin, peters to signaling lost ski players and from keeping track of children to helping some who are hard of hearing, says Dr. Collard who is working on the project under a basic research grant from the Division of Research Resources of the National Institute of Health.

The device works like this. A tiny receiver, no larger than a tooth, is placed in the mouth. It may be located in a gap left by a missing tooth, or a smaller device may be affixed to the back of a structurally sound tooth or even inserted inside it. A tiny transmitter-receiver would be worn somewhere on the body, in a pocket for example. This device would pick up sounds sent from a given source and retransmit them several feet to the mouth. It would be a wireless arrangement similar to a walkie-talkie. The person with the audiodontic device would be able to hear words or music clearly although he could not transmit back the same way.

CONVERTING HIMSELF into a radio receiver, graduate student Gerald C. Dahlin places a plastic oral retainer in his mouth to pick up audiodontic transmitter's signal.

"When the sound gets to the mouth the tiny receiver drives it through the bones of the upper jaw and into the inner ear. Here the sound goes through the tiny ear bones, the hammer, anvil and stirrup, and is transmitted to the brain via the auditory nerve. If there is severe nerve damage, of course, the system is of no use.

Most hearing aids simply amplify sound in the air which is going to the ear-drum. Some hearing aids, however, do transmit sound through the mastoid bone, behind the ear, to the inner ear. This type of bone transmission hearing aid, as well as the tooth-hearing device, transmits sound to the inner ear through a mechanism sometimes referred to as "bone rattling," which it actually is.

Dr. Collard says that he has received hundreds of letters from people around the world who have been led to believe that the tooth-hearing device is a great new breakthrough for the deaf or hard of hearing.

"It is very difficult writing back to these people that what we have is basically a communications device that is commonly concealed," he says.

The tooth-hearing device may indeed be useful for some hard-of-hearing persons, just as some benefit more from the bone conduction hearing aids than from the regular sound amplification systems.

Primarily, of course, the audiodontic system is preferable because there are no wires or other devices to show. A child with this sort of hearing aid would not be subject to ridicule by his schoolmates. It also holds advantages for athletes or crippled or disabled persons because there is nothing on the head to get knocked loose.

ALTHOUGH Dr. Collard says he would be very happy if his device helped the hard-of-hearing, he adds that currently there are more applications for general communications.

Football players could receive instructions from their bench, deep-sea divers could get messages from the surface, prisoners could have their lectures "fed" to them and actors could be cued. All of this could be done without anybody ever knowing about it. Moreover, since the device does not block either ear, the person still has his full hearing faculties in addition to his "ear teeth."

Students could even cheat on exams by getting information via their teeth, and such a "crib sheet" would be virtually undetectable.

Dr. Collard, however, likes to talk about legitimate uses. "This device would add great stability to the hard-of-hearing child at play. There would be no chance of losing his hearing aid."

"Imagine," he adds, "a tiny transmitter safety-pinned to a child. Meanwhile, his mother, who might be cooking in the kitchen, could monitor where the child was as well as resuming her normal hearing."

DR. COLLARD and his colleague, Dr. Fresence Allen, an electrical engineer at UCLA, have already developed a working model for their audiodontic device.

"We are now in the pure research stage. We are testing the teeth to determine the amount of force or energy necessary to vibrate the teeth. Once we have determined this, we can proceed with the design and manufacture of the miniature (device) to be inserted into the teeth," they say.

HEALTH

Drilling for Danger?

A debate over the safety of 'silver' fillings

As if there weren't enough reasons for qualms about visiting the dentist, here's another. The "silver" fillings sparkling in at least 100 million mouths include about 50 percent mercury (chart), a toxic heavy metal. Over the last 10 years, researchers have shown that mercury escapes from fillings and winds up in body tissues, but not whether the amount of mercury in those residues is harmful. This week, at a meeting of the American Physiological Society, scientists are presenting the first evidence that it is. Mercury "seriously compromises" organ systems in test animals, say Canadian and American researchers, and "should be banned immediately," concludes dentist Murray Vimy of the University of Calgary.

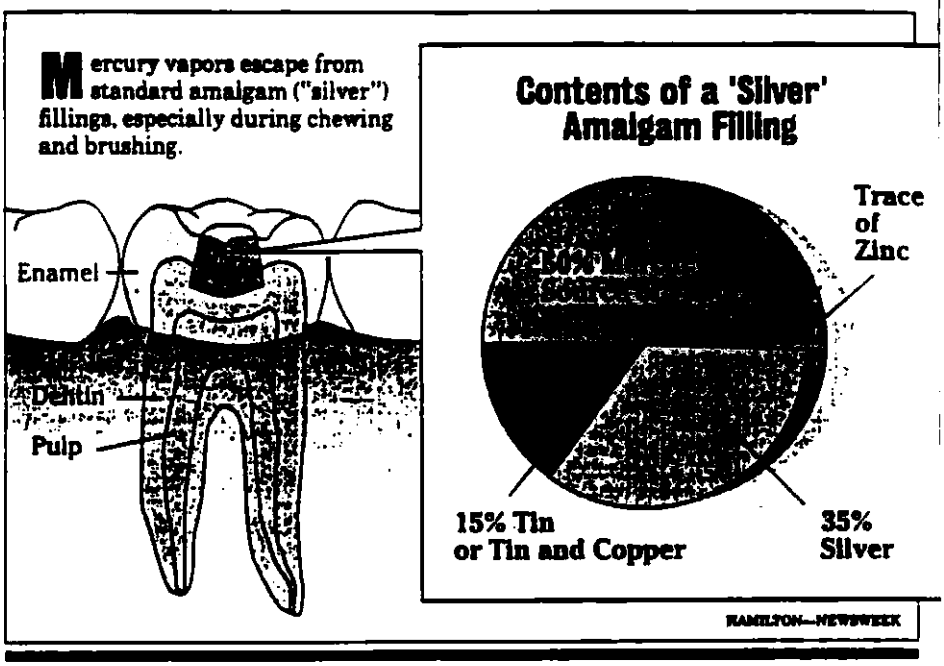
For most of the 150 years that mercury has been in fillings, the dental establishment insisted that it posed no health threat because it could not escape from the amalgam. Nevertheless, some patients have long claimed that replacing their silver fillings with gold, porcelain or composite resins (cost: $65 to $500 per) cured them of colitis, food allergies, PMS or multiple sclerosis. Although few doctors believed them, enough unscrupulous dentists were happy to rip out old fillings on any pretext. But in 1979 researchers established that mercury does leach from filled teeth. In fact, fillings can be the largest single source of exposure to inorganic mercury. The next step came when scientists showed that the escaped mercury winds up in body tissues: autopsies at Sweden's Karolinksa Institute found in 1987 that some people with silver fillings had three times as much mercury in their brain, and nine times as much in their kidneys, for instance, as those without fillings. The American Dental Association countered that the amounts of mercury reaching organs are too small to cause the tremors, anxiety and kidney disease triggered by heavy doses.

The latest study challenges that assertion. The Calgary researchers placed 12 amalgam fillings in the mouths of six ewes. Within two months, the test animals experienced a loss of kidney function of between 16 percent and 80 percent; control animals suffered no loss. And in the first such study in primates, the Calgary team will report next month that, in monkeys given amalgam fillings, mercury winds up in the kidneys, gastrointestinal tracts and jaws.

The ADA, partly out of concern that dishonest dentists will exploit patients' fears, dismisses animal studies as irrelevant to humans. It warns that any dentist who removes amalgam fillings "for the alleged purpose of removing toxic substances" is acting unethically, and opposes dentists' informing patients that silver fillings contain mercury that can be toxic. Says general counsel Mary Logan, "We don't want to make the public hysterical." Some nephrologists question whether mercury from fillings could seriously impair human kidney function. The number of people whose kidney disease might be traced to fillings is tiny, notes Stuart Sprague of the University of Chicago. But the crux of the debate is that amalgam foes have "never been able to tie any disease to . . . mercury from silver fillings," says dentist John Dodes, who heads an anti-quack group in New York.

That's because no one has really looked. That sort of investigation, plus laboratory studies comparing people with and without the fillings, is the next step. The Food and Drug Administration, which approved mercury fillings in 1976 under a grandfather clause that required OK'ing substances in wide use, says the new research could lead to regulatory changes. Until then, add amalgam fillings to the list of risks Americans must decide whether or not to bear.

SHARON BEGLEY *with* PATRICIA KING *in Chicago*



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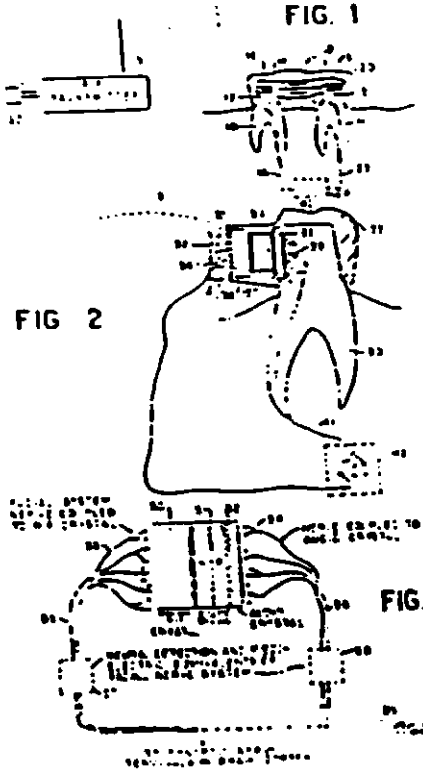

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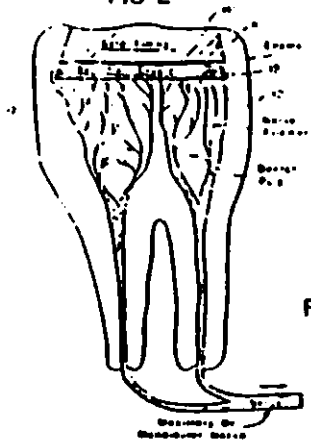

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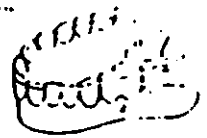

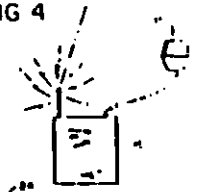

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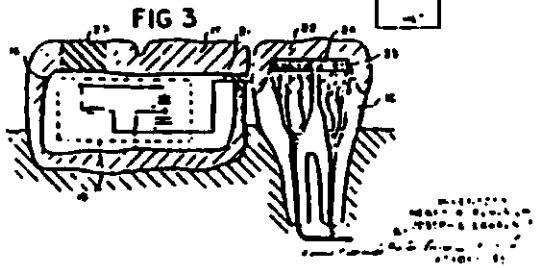


Puharich and Lawrence
Pedulated Alternating Current Energy Used to Stimulate Audition in Totally Deaf Humans. Paper presented at the Annual Meeting of the Aerospace Medical Association Bal Harbour, Florida, May 13, 1964. Published as an abstract in: Journal of Aerospace Medicine. 35: May, 1964.

Puharich and Lawrence

(a) Dispositif d'audition a l'etat solide. Royaume de Belgique, Brevet d'Invention No. 648.030. May 19, 1964.

(b) Systeme d'ecoute a stimulation electrique avec signal de reaction. Republique Francaise, Brevet d'Invention No. 1.388.844. October 19, 1964.

Puharich, H.K.
How Many Channels Have Been Allocated to the Brain? Luncheon Address to the National Electronics Conference. Chicago, Illinois, October 28, 1964. Published in: Missiles and Rockets, October 26, 1964.

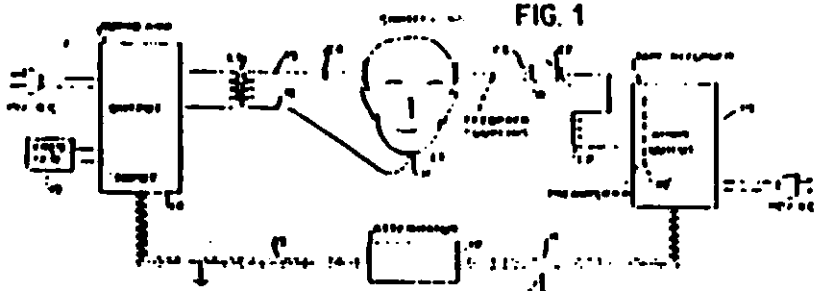
Puharich and Lawrence
Solid State Hearing System. U.S. Patent No. 3,156,787. November 10, 1964.

Puharich and Lawrence
Electrostimulation Techniques of Hearing Technical Documentary Report, No. RADC-TDR-64-18, December, 1964; Project No. 5534, Task No. 553401. Prepared under contract No. AF30 (602) - 3051, Intelectron Corporation, 432 West 45th Street, New York, New York, 10036. Published by: Defense Documentation Center, Alexandria, Virginia.

Puharich and Lawrence

(a) Dispositif pour assurer l'audition avec ou sans intervention du nerf auditif. Confederation Suisse, Expose d'invention No. 384,681. January 29, 1965.

FIG. 1



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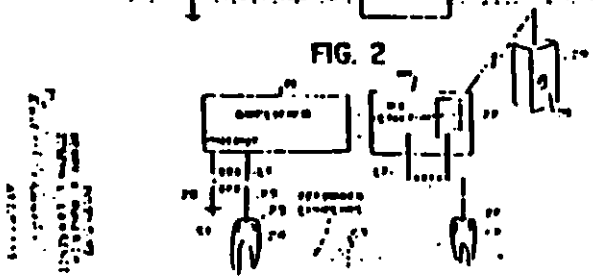
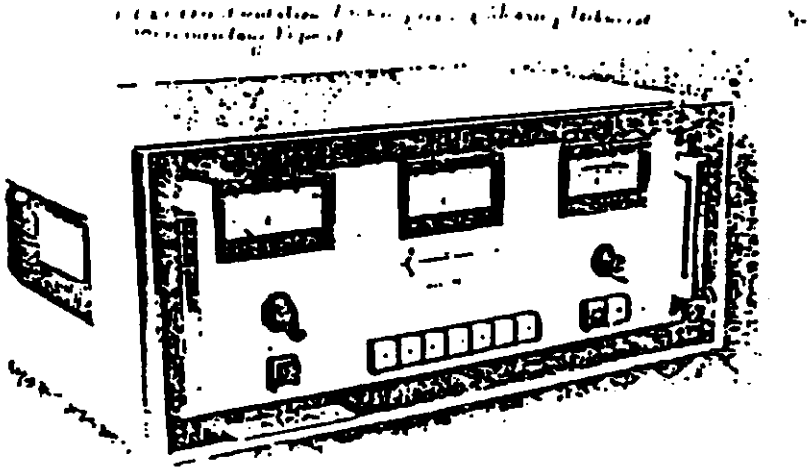
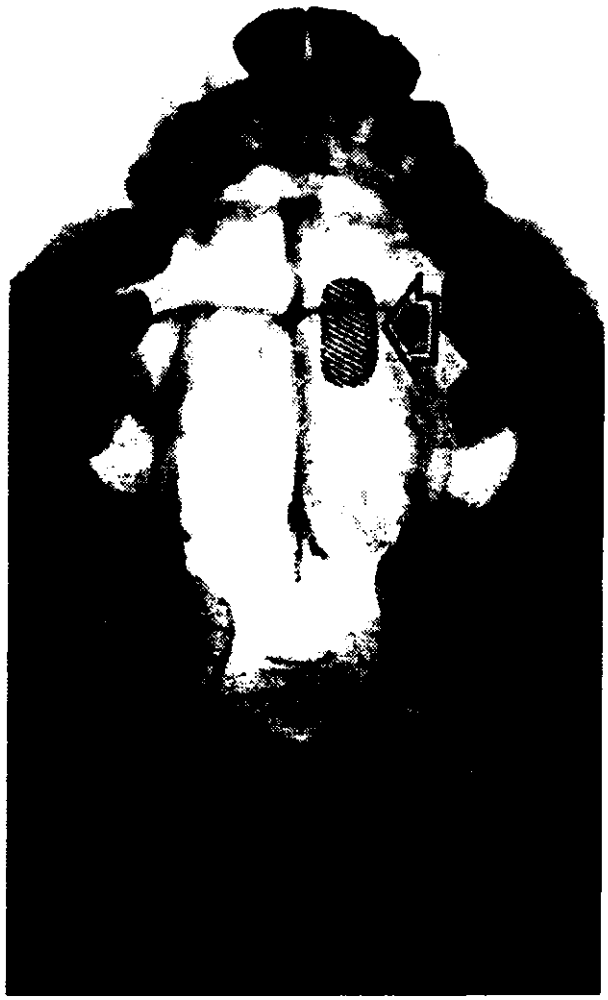




THE INTELECTRON MODEL TD-100
PROFESSIONAL TRANSDERMAL THERAPY INSTRUMENT



Top: X-ray photos of brain transmitters. Bottom: Dr. and Mrs. Skinner view daughter Debbie in a "Skinner box." Debbie committed suicide in her 20s.

Back to Basics Reform ... or Skinnerian International Curriculum? by Charlotte T. Iserbyt, 1985 (new printing, 1993)), 48 pages, paperback, $7.00. Available from Charlotte Iserbyt, 1062 Washington Street, Bath, ME, 04530. Postage and handling included.

A senior policy adviser in the U.S. Department of Education's Office of Educational Research and Improvement from 1981 to 1983, Iserbyt was one of the first to blow the whistle on the 1985 and 1988 U.S.-Soviet education exchange agreements that gave official U.S. sanction to collaboration between the mind controllers of the Soviet Ministry of Education and American change agents at the Carnegie Corporation, the American Council of Learned Societies, and other U.S. organizations. Besides initiating new ventures, those agreements expanded U.S.-Soviet educational research and exchange projects that had already been underway for many years Iserbyt presents compelling evidence to show that a coterie of social engineers in the major tax-exempt foundations and federal and state governments has been actively working on a hidden agenda "to manipulate and control Americans from birth to death using the educational system as the primary vehicle for bringing about planned social, political and economic change."

The Washington Times
WASHINGTON, D.C.
NOVEMBER 29, 1996

Ritalin — the 4th R?

Calming the classes raises c... cern

SPECIAL REPORT: PAGE A...

...in — the 4th R?

Worries About Overactive Kids

Are too many youngsters being misdiagnosed and medicated?

They are Dennis the Menace come to life, half-pint hellions who drive parents and teachers to distraction with their disruptive antics. At home they clamber on kitchen counters, unscrew light bulbs and mess up the simplest tasks, from hanging up their clothes to making the bed. In school they throw erasers, kick desks, shove classmates and are so busy making nuisances of themselves that they fail to absorb their lessons. One bedeviled mother speaks for many when she says, "I would have given the kid away."

lants, dampen impulsive behavior in hyperactive youngsters and enable them to concentrate longer. Up to 750,000 American children now take drugs to control ADHD; that figure is expected to reach 1 million by the early 1990s.

But within the medical field and among parents concern is growing that too many youngsters are being incorrectly labeled and improperly medicated. Hyperactivity has become a convenient diagnostic wastebasket into which doctors and impatient parents, teachers and school

of education over whether her son's public school can demand that he take Ritalin to attend regular classes.

Many physicians defend the use of Ritalin, citing studies indicating that the drug is generally safe and is effective in about 80% of cases of hyperactive children. Adverse effects are usually limited to temporary appetite loss and insomnia. "Ritalin is not a panacea," says researcher Howard Abikoff of the Long Island Jewish Medical Center, "but without medication we'd be up against the wall."

Yet some medical experts acknowledge that Ritalin is being overprescribed. In Georgia, Michigan, Utah and Maryland use of the drug is two or three times the national average. Says Andrew Watry, executive director of Georgia's

SUSAN SHAW

Running around a schoolyard, as demonstrated by these normal children in San Francisco, is a good way to blow off steam. But today's youngsters, under ever greater pressure to be successful students, often have few such physical outlets.

Such hyperactivity has emerged within the past decade as the most common—and controversial—childhood behavioral disorder. According to the National Institutes of Health, as many as 1 out of 10 U.S. youngsters—mostly boys—may suffer from the baffling syndrome. Doctors disagree about what causes hyperactivity, or attention deficit hyperactivity disorder (ADHD), as it is now known. Everything from brain damage to stress, food allergies or radiation from TV sets has been suggested. The NIH says the problem is probably a combination of as yet elusive genetic, environmental, neurological or biochemical factors. Diagnosis is difficult, since there is no laboratory test for the disorder, and the symptoms are vague and confusing. "Hyperactivity is in the eyes of the beholder," notes James Kavanagh, an NIH behavioral scientist.

Treatment for hyperactivity includes psychological counseling, special diets that restrict artificial flavorings and preservatives and, most typically, medication with such amphetamines as Ritalin and Dexedrine. For unexplained reasons, these drugs, which usually act as stimu-

administrators toss too many hard-to-handle children. Says pediatrician Martin Baren of Orange, Calif.: "Kids get diagnosed with this when the problem is something else, like a language or learning disability." Or they may be simply rambunctious. A recent study revealed that of 200 children brought to the University of Chicago's ADHD clinic, 40% did not suffer from hyperactivity.

The alarming fact is that many children whose symptoms have been misdiagnosed are being given Ritalin and other powerful drugs. Since 1987, parents around the country have filed more than a dozen Ritalin-related lawsuits against doctors, teachers and school districts. In one such suit, a Washington woman claimed that the drug led her six-year-old son to attempt suicide. Complaints about depression, listlessness and insomnia in medicated children are common. Valerie Jesson, of Derry, N.H., says her son Casey, 10, became a zombie while on Ritalin: "It knocked him into next week. His eyes would glaze, and he would just sit staring." Jesson is currently locked in a legal battle with New Hampshire's department

medical board: "It's seen by some as a quick fix for behavior problems." The blame belongs not only to doctors, who sometimes give little more than cursory examinations before reaching for the prescription pad, and teachers, who want their classrooms to be peaceful. It also rests on parents, who often expect their children to be stellar performers. ADHD is most commonly diagnosed in prosperous suburbs, where the pressures to achieve are frequently greatest.

Doctors emphasize that drugs should be a last, not a first, resort. Minor interventions, such as moving a child to the front row in class or allowing him more time to complete tasks, can lead to improvement. Rewards—extra television or a favorite snack—can help reinforce good behavior. And psychological therapy can bolster a child's flagging self-esteem and address social problems, like a lack of friends, that contribute to his distress. Only when these remedies fail should parents try medication on their overly active youngsters. *—By Anastasia Toufexis. Reported by Joyce Leviton/Atlanta and Marguerite Michaels/New York*