MSI PATCH SHEET

Jasons

Table 1

SUMMER STUDY TOPICS

Topic	K$	Participants
Underwater Sound Propagation	23.9	Munk, Callan, Flatté, Nierenberg, Richter, Rosenbluth, Watson, Zachariasen
Turbulence Theory	16.6	Case, Dyson, Frieman, Perkins, Watson
Frieman Panel	9.5	Frieman, Dyson, Garwin, Kroll, Lewis Peterson, Ruderman, Watson
Stratospheric Ozone	9.2	Ruderman, Chamberlain, Nierenberg
Ionospheric Modeling	8.8	Peterson, Perkins, Chamberlain, LeLevier
SALT-Related Issues	8.0	Drell, Garwin, Berman, Richter
Laser Interaction With Matter	6.1	Kroll, Watson
Ground-Based Optical SOI	5.3	Lewis, Dyson, Muller, Ruderman, Watson, Weinberg
LORAN	3.8	Berman, Peterson, Richter
RADAM	2.0	Peterson
Wave Interaction	1.7	Zachariasen, Callan
Lithospheric Propagation	1.3	Kroll
OTH-B	0.8	LeLevier, Nierenberg
Secure Voice	0.8	Lewis
Energy	0.2	Frieman

Enclosure 1

JASON

JASON is a group of approximately fifty-five individuals dedicated to sophisticated scientific and technical research and analysis in support of the national security community. JASON members, almost all of whom are university professors whose expertise and academic careers have been primarily devoted to theoretical and experimental physics and allied disciplines, come from twenty-some campuses. Membership is carefully balanced so as to provide a spectrum of expertise to apply to federal problems. The ability of JASON members across their range of interests has led to a collective vitae of six Nobel laureates; nearly thirty members of the National Academy of Sciences, eight members of the American Philosophical Society, two university presidents, as well as numerous past or present chairmen of physics departments. All JASON members are cleared for access to Top Secret material; in addition, many have special access clearances.

JASON is an autonomous group that was formed in 1959 and is totally governed by its own internal structure. The MITRE Corporation acts as a host organization to effect JASON contracting and administration and has an organizational element, the JASON Program Office, that reports to the President of MITRE. JASON Program Office staff are MITRE employees; each JASON member is a MITRE consultant. MITRE is responsible for JASON security, proposal submission, contract performance, and products.

JASON's internal organization is overseen by a Steering Committee, which is itself guided by a Charter and By-Laws. The chairman of the Steering Committee is the only official spokesman for matters relating to JASON, its policies and internal procedures. The Steering Committee has the ultimate authority in all matters directly affecting JASON, its members as JASONs, and its method of operation. The JASON Program Office is responsible for the contractual and administrative activities of JASON. The Director of the JASON Program Office reports to the Chairman of the JASON Steering Committee in support of JASON activities and to the President of MITRE with respect to JASON as an element of MITRE. In addition to the Steering Committee, JASON has Program and Membership Committees. The Program Committee is responsible for overseeing all substantive technical liaison. The Membership Committee reviews the membership, advising the Steering Committee twice annually on the performance of the group. As a part of this review, the performance and potential contribution of each JASON is evaluated not less than every three years. In addition, the Membership Committee recommends new members to the Steering Committee.

Since JASON members are principally drawn from the university community, the JASON activities reflect the constraints of the academic year. The major focus of the JASON year is an annual seven week summer study; however, approximately forty percent of the annual JASON effort occurs outside of the intensive, collocated summer study. Included in this latter is the process of in-depth reporting to

clients; selecting potential topics for future study; maintaining working relationships with the clients; attending specially arranged group briefings to maintain currency in problems relating to national security and, on occasion, responding to time-driven, important issues.

Two plenary sessions, one each in the spring and fall, are held in Washington. The fall meeting is devoted to providing the entire JASON membership a current perspective on scientific/technical issues of importance to the national security and intelligence communities. This meeting also initiates the formal, annual interchange between JASON and the clients for future project definitization. This process of interaction (which may include research and analysis) continues through the winter and spring. The spring meeting includes national policy briefings with additional briefings on technical matters relative to the JASON mission. Project definition, budgets and JASON member assignment and scheduling also take place during the spring meeting. Meetings between potential JASON project leaders and the respective client(s) occur throughout the spring to a further understanding of the problem and client requirements and to familiarize JASON leaders with the projects sufficient for them to enlist the assistance of other JASONs for the summer effort.

During the seven-week summer study, clients and other experts provide briefings and technical interchange and documentation to the JASONs assembled for each project. The summer study is conducted in a single location in order to facilitate communications, to eliminate repetition of briefings, and to stimulate creative synergism. The summer study concludes with a wrap-up session for the JASON membership, during which project review, JASON performance appraisal, and client commitments are made.

NATURE AUGUST 10, 1989 Pg. 422

Jason still a stealthy power

La Jolla

OPERATIONS wound down last week in a top-security compound above the affluent southern Californian town of La Jolla where an elite body of 45 scientists has met for the past two months. No-one outside the group knows exactly what has been under discussion and no conclusions will be made available to the public. Even a list of those attending is hard to obtain.

The group is known as 'Jason'. It has met every year since 1960 and exerts a powerful influence on US defence policy — yet few people even know it exists. Most of the topics it examines are classified. But many involve ideas as far in the future as Star Wars (the Strategic Defense Initiative) was 26 years ago, when the group first discussed the issue.

Almost every member of Jason is a physicist or an engineer. Their aim is to set aside politics and independently evaluate advanced defence projects and new concepts. Jason has included at least eight Nobel prizewinners, among them Charles Townes of the University of California, Berkeley, Murray Gell-Mann of the California Institute of Technology, and Joshua Lederberg, president of Rockefeller University.

Jason began with Project 137, set up in 1958 to involve academic people in defence and national policy decisions. It ended after only one year but the idea lived on in a new group organized by distinguished scientists, including Townes, fellow Nobel laureates Hans Bethe and Eugene Wigner, and black-hole pioneer John Archibald Wheeler. Over the years, they attracted a mix of older talent and up and coming stars. The name Jason was chosen because members felt the search for the Golden Fleece captured the mood of the venture.

The Jasons gather from mid-June until early August in La Jolla on the grounds of GA Technologies. Their headquarters, in Building 29, is surrounded by trees and ivy and is swept regularly for electronic eavesdropping equipment. Separate clearances are needed to enter both it and GA Technologies.

Although no-one knows exactly what they discuss, one of this summer's major topics is acknowledged to be an examination of the 'brilliant pebbles' concept for the Strategic Defense Initiative (SDI) Office. This scheme involves placing thousands of autonomous homing missiles in orbit. A Jason team headed by John M. Cornwall, a theoretical physicist at the University of California, Los Angeles, is evaluating the idea and asking if the project is possible and whether missiles can be prevented from shooting down the wrong targets. The results of the study are confidential.

Military matters are not the only things that Jason considers. Some topics are quasi-military, such as atmospheric turbulence, which is important both in astronomy and in Star Wars laser systems. And others, focusing on environmental problems such as acid rain or carbon dioxide buildup, are not related to defence at all.

Jason has spawned many government projects. Most are classified, but one involves a method of very-low-frequency communication with deep-sea submarines. And another, created by the late Nobel laureate Luis Alvarez, centres on new ways to detect explosives at airports. The idea is being pursued by the Federal Aviation Administration and was discussed at this year's meeting.

The group's annual budget of approximately $3 million comes mainly from the Department of Defense. But sponsors include the Defense Advanced Research Projects Agency, the Department of Energy and other, more secretive, governmental bodies. Administration and security are run through the Boston-based Mitre Corporation.

Members typically work in small groups, putting out a report at the end of the summer. The conclusions are not always what sponsors want to hear. "The thing about the Jasons is that they are, number one, an independent group and also a fairly critical group", says Dean Judd, chief scientist for the SDI Office.

Twice a year, in the autumn and spring, the Jasons gather in the Washington, DC, area for three days of technical and intelligence briefings and a chance to determine which topics they will consider in the coming summer.

Jasons rarely make statements to the press. But, off the record, they agree about the creative atmosphere inside Building 29 and what a welcome break it is from the competitive academic world. "A critical mass", is how one member describes the group. "The rate of ideas and useful information goes up exponentially. When I reach a dead end, I know who the expert on Jason is."

But Jason members also face criticism from opponents of academic involvement in military issues. Members have had their homes picketed by anti-military demonstrators. A consultancy fee of around $500 a day helps to provide some compensation. But current Jason chairman Will Happer, an experimental physicist at Princeton University, says members receive a better reward by providing a non-military voice in defence matters. "There are very few ways an academic scientist has an influence on defense matters now — especially on classified matters. Jason is one of the few ways left."

Robert Buderi

NATIONAL REVIEW
SEPTEMBER 1, 1989 Pg. 6

Don't Miss the HDTV Boat

Your editorial "HDTV: A Better Buggy Whip" ["The Week," July 14] trivializes the debate over government's role in reviving our consumer electronics industry.

You ask: "If HDTV is such a promising idea, why does it need all these government subsidies?" Innovation in the electronics field will undoubtedly come primarily from the private sector, with or without government financial involvement, but the last vestiges of our consumer electronics industry are in danger of disappearing. Our foreign competitors are not encumbered by our tax disincentives and antitrust policies, and they have access to significantly cheaper capital. If American industry is going to enter the HDTV [high-definition television] market, there needs to be a range of government policy support, perhaps even some financial support matched by industry on at least a one-to-one basis. This is not unrealistic given a $64-billion annual federal R&D budget that is mostly obsolete in its priorities.

The question you should be asking is: To what extent is our defense and economic security at stake if we are not in the HDTV market in the twenty-first century? On the defense side, the semiconductor chip that provides the brainpower for HDTV performs the same function in radar displays and high-performance aircraft. Conservatives usually endorse government spending for important defense-related technologies. The Strategic Defense Initiative is a good example. So is the Stealth bomber. Why not HDTV?

While it's true that "U.S. industry is already investing its own money in telecomputers and fiber optics," federal R&D funding was essential to the early development of the digital computer and computer networks.

On the economic side, HDTV, and its eventual merger with personal computers, could provide an "end-use" market that would dominate the semiconductor industry like nothing we've ever seen. In terms of global high-tech trade and the high-paying jobs it generates, to miss out on HDTV is to miss out on the twenty-first century. We would do well to boost these advanced "consumer" electronics, which are central to our global competitiveness and to better jobs for tomorrow. In short, if we do not enter the fray now, we could become a very advanced Third World nation exporting agricultur-

A VOICE OF REASON AMONG THE NUCLEAR WARRIORS

Physicist Richard Garwin is a key shaper of America's doomsday weapons. Unlike the secrecy-loving Pentagon, he thinks the missile race has reached a lunatic stage that cries out for public scrutiny and a new SALT treaty

TOM BUCKLEY
PHOTOGRAPHS BY JOHN MARMARAS

Each summer 40 of the best physical scientists in America vanish from their usual haunts and turn up at a private school in La Jolla, California. For seven weeks they meet in small panels, seeking answers to hard questions about national defense—discussing everything from anti-submarine warfare to satellite communications, from nuclear warhead guidance to particle-beam "death rays."

It is a beautiful and peaceful setting. The Bishop's Schools' white Spanish-style buildings stand on broad lawns, shaded by pines and palms. The Pacific Ocean thunders against 200-foot cliffs a quarter mile away. But the scientists think about the unthinkable behind locked and guarded doors in rooms that are swept electronically for bugs every day. They wear special identity cards, use scrambler telephones and secure computers, and keep their documents in armored, double-locked filing cabinets.

The group, which was established in 1960, is called Jason, after the legendary seeker of the Golden Fleece. Membership is by invitation only and is highly prized. The Jasons are drawn for the most part from the nation's leading universities. Their number includes both eminent physicists like Freeman Dyson of Princeton, the author of *Disturbing the Universe*, and younger men whose fame is still before them. Their task is to provide answers to major technical questions posed by the Department of Defense and by the Department of Energy, which has the responsibility for building nuclear warheads.

The chairman of Jason's steering committee, which chooses the projects it will undertake, is Richard Garwin, 52, a soft-spoken experimental physicist who is also one of the country's preeminent experts on the technology and strategy of nuclear weapons.

Garwin was introduced to that dark world in 1950, shortly after receiving his doctorate at the University of Chicago, when he spent a summer at the weapons laboratory at Los Alamos, New Mexico. Since 1952 he has also held a variety of full-time assignments, including a year as director of applied research with the International Business Machines Corporation. Now, as an IBM Fellow, Garwin is permitted to do whatever he thinks useful, and he divides his time, in equal parts, among corporate affairs, teaching public policy at Harvard and physics at Columbia, and serving as a government consultant on defense matters at the highest level. Because Garwin generally works seven long days a week and seldom takes a vacation, his schedule comes close to adding up to three full-time jobs.

In recent years Garwin has undertaken a fourth task. That is to make known his views on nuclear strategy and technology outside the guarded conference rooms and laboratories. "If we can have informed public debate about the things that can be discussed publicly, and almost all of them can be," he told me, "we'll come to much better

TOM BUCKLEY, a veteran *New York Times* reporter, has written frequently for this magazine on subjects ranging from reincarnation to the espionage novels of John le Carré.

Via G. Cameron
11/89

Cooper Stuff Goes South

I heard about Cooper " independent " confirmation of Jason shortly after the Jan 10,89 final release by Cooper. Realizing I better talk to Cooper before the Jason idea stated to circulate, I phoned Bill Cooper on Jan 20,89 and asked him questions about Jason. Cooper stated that he could not remember any Jason names while under hypnosis, even tho' he seemed to have recalled a number of UFO Project names and other details of the cover-up. I also asked Cooper about what Universities the Jasons had come from. He mentioned Yale and a number of others. In connection with Yale he mentioned Scull and Bones, thereby implying I suppose the involvement of George Bush. As Yale was not one of the homes of Jason members I had my doubts about what Cooper was stating. I also asked Cooper if MAGIC had anything to do with the cover-up, or if any of the same people had been involved. I did this because Cooper was making all sorts of claims about MAJIC and the higher MAJI. Strangely Cooper had no idea what I was talking about, even tho' MAGIC was the most highly classified item during WWII, and was contolled mostly by the Navy. As Cooper claimed to have a Navy background, this seemed strange.

In Cooper's Jan 10,89 final release Cooper also made some other errors. He identified the Jasons as " 32 of the most prominent men in the country." The Jasons, with one or two exceptions, are all physisists. Cooper stated that " the top twelve " were picked, and that the director of the CIA was MJ-1. This makes 13 - a point Cooper never seemed to clear up.

The hook came when Linda Howe's book " An Alien Harvest " was released. On page 212 we read;

Howe. Was there anything in the papers about what the gov't is trying to do about it?
Cooper. It said the president, which president I don't recall, had commissioned a group to sift...

Compare this with Cooper's final release dated THE SAME DAY after he had talked to Howe " President Eisenhower commissioned a secret society known as the Jason Society (Jason Scholars)... to sift...

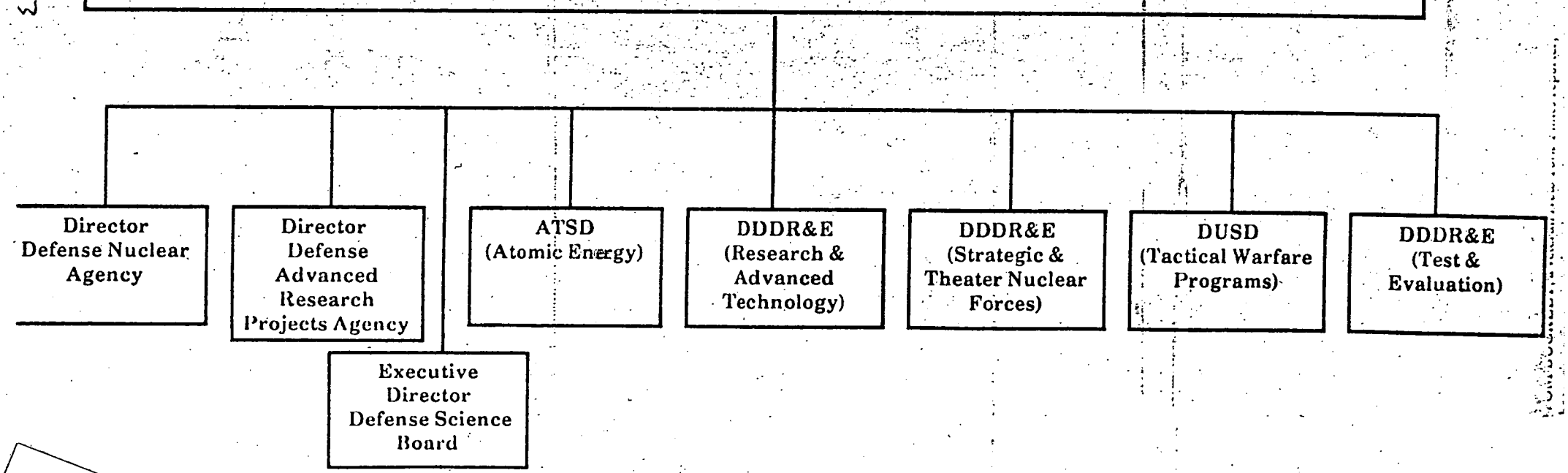
In Cooper's Dec.18,88 release (reproduced on page 183 of Howe's book) neither the President is named, nor the group identified.

Linda Howe had a Jason list from me, but she denied telling Cooper about it. Cooper's sudden recollection and later errors on the topic of Jason led us to conclude Cooper did not see any of this in any document. This material should actually have been pulled from the Preliminary Report.

ENCLOSURE 3

DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING

- Serves as the principal advisor and assistant to the Secretary of Defense and the Under Secretary of Defense (Acquisition) for Department of Defense scientific and technical matters; basic and applied research; and the development of weapon systems.
- Oversees basic and applied research and advanced technology program design and engineering, and the development of weapons systems.
- Oversees tactical warfare program activities related to research and development.
- Oversees strategic and theater nuclear forces programs related to research and development.
- Oversees development test and evaluation.
- Oversees defense atomic energy, chemical warfare, and biological defense plans and programs and chairs the Nuclear Weapons Council.
- Oversees the Defense Advanced Research Projects Agency and the Defense Nuclear Agency.
- Oversees administrative activities of the Defense Science Board.



JASON

Sunday, September 17, 1989 THE CINCINNATI ENQUIRER

The Pentagon's secret scientists

An elite group quietly guides national security decisions

BY RICHARD WHITMIRE
Gannett News Service

WASHINGTON — There was a long silence when physicist Jonathan Katz was asked about his work with JASON.

Since 1959, a society of about 50 university scientists calling itself JASON has quietly guided some of the nation's biggest security decisions.

Made up mostly of theoretical physicists, JASON is probably the most elite gathering of scientific thinkers in America. As of two years ago, the group included six Nobel laureates.

Perhaps the most curious thing about JASON is its obsession with secrecy, imposed more by the organization than by the Pentagon, its primary client. Everything about JASON is shrouded in what appears to be unnecessary secrecy.

JASON refuses to release a membership list, and despite the honor that comes with being chosen, many do not note their membership on their official resumes.

Request denied

Asked if he was still on the telephone line, Katz said yes. Another prolonged silence followed. Finally, the Washington University professor turned down a request for an interview: "I don't think it would serve a useful purpose."

Only a handful of JASON members will talk publicly; most refer questioners to their chairman, Will Happer, a Princeton physics professor. Happer offers polite but brief answers, often responding only to information unearthed elsewhere. He does not discuss another JASON member unless the name arises.

The founders of JASON include members of the Manhattan Project, which pulled together nearly every leading physicist in the country to build an atomic bomb near the end of World War II. JASON today sees itself in that same light, offering guidance the government cannot find elsewhere.

In recent years, JASON scientists have expanded their influence, advising the government not only on matters such as "Star Wars" and submarine warfare, but offering predictions about the "greenhouse" effect.

Heavy clout

The Pentagon uses JASON to pass judgment on the most futuristic weapons technologies. A devastating review can bring a quick death to a project, as many a shaky-kneed project manager has discovered after making a presentation before JASON scientists.

JASON has recently concluded its annual six-week summer gathering in

(Please see JASON, Page I-7)

■ A secrecy obsession, Page I-7.

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JASON

CONTINUED FROM PAGE I-1

La Jolla, Calif.

Each member is paid a $500-a-day consultant's fee; for support, the group has only crude technical equipment, blackboards and small personal computers.

"Of course, we have our minds," said Caltech physicist Steven Koonin. "We're not limited."

On the agenda this summer were 34 topics, ranging from a review of "Brilliant Pebbles," a proposal to build hundreds of tiny battle satellites as part of the Star Wars missile defense system, to a search for a way to help submarines escape torpedoes in a burst of speed.

At the summer meeting, JASON members divide into small groups to interrogate Pentagon program managers about projects. The scientists lunge for the fatal physics flaw that so often pops up when Pentagon engineers try to leap ahead of the Soviets.

Inside joke

For example, there is something of an inside joke in the number of times JASON has killed projects to detect enemy submarines by "neutrino emissions."

Neutrinos are given off by nuclear reactors and pass through lead reactor walls and ocean depths, which could make them a handy way to find submarines — except neutrinos can pass through Earth without hitting anything. Catching them in a detector is slow, difficult and expensive.

"It's like a vampire," said Happer. "You think you've got him buried in a crossroads with a stake through his heart, but then you're walking down a road and there he is again."

Neutrinos on hit list

JASON routinely kills a neutrino detector about every five years, "but not before (Pentagon officials) spend about $10 million on it," said Happer.

JASON's core of experts also remains skeptical about anti-ballistic missile systems.

"There is a certain amount of hostility within the government toward JASON, or certain particular JASON members, because of this open hostility to Star Wars," said JASON member Fredrik Zachariasen in a 1986 interview.

"The SDI (Strategic Defense Initiative) office tries to prevent Dick Garwin from going to various briefings and from having access to Star Wars information, which the rest of JASON will not tolerate," said Zachariasen, a Caltech physicist.

Garwin, an IBM physicist and JASON member, has for years been regarded as one of the nation's experts on missile systems and has emerged as an SDI critic.

Influential advisers

For three decades now, JASON oceanographers have been influential advisers to the Navy on anti-submarine warfare. Around 1968, JASON scientists wrote a paper raising the alarming possibility that submerged submarines might be found with a combination of overhead radars and computers that could track wakes previously thought to be invisible.

Through the 1970s, that paper triggered a search costing hundreds of millions of dollars looking for non-acoustic technology. A perfect solution was never found. But about four years ago, Congress became alarmed that the Soviets might be close to a solution, and research accelerated.

Higher clearance

Several JASON members who work on submarine warfare come from the Scripps Institution of Oceanography in La Jolla. The Navy considers submarine secrets its crown jewels, and JASON members researching submarine technologies hold clearances more restrictive than the Top Secret all JASON members have.

The Pentagon is not the only JASON client, and not all the projects are classified. This summer, JASON looked at new ways science could play a role in tracking drug runners and their cash.

JASON has drawn some criticism from fellow physicists. One, who left JASON, said the science is often flawed due to the mere six weeks spent on the agenda.

"They're kids playing in a sandbox with toy soldiers," said the former JASON, who asked not to be identified. He said JASON is used by the generals and admirals to win funding from lawmakers.

"Some admiral will tell Congress they've had the world's greatest experts look at (their project)," he said. "What they don't tell Congress is the world's greatest experts said not to do it."

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Keeping an eye on the future

JASON was handed 34 research projects for its 1989 summer gathering. Many are classified. A sampling from the 1989 list:

VERIFICATION TECHNOLOGY: One of the stickiest arms-control points. Scientists are looking for ways to monitor production and to detect nuclear warheads on cruise missiles without boarding ships.

DRUG ENFORCEMENT: Research focused on innovative ways to intercept drugs and track the finances of drug kingpins.

BRILLIANT PEBBLES: A leading "Star Wars" technology, it is a plan to place 100,000 small interceptors in space, each capable of tracking and destroying an enemy warhead.

FREE ELECTRON LASER PROPAGATION: The challenge is to correct distortions in the beam as it penetrates the atmosphere.

ANTI-SUBMARINE WARFARE COMPUTER: For several decades, JASON has probed technologies involved in submarine warfare, especially the detection of submarines. They are looking into new generations of more sensitive hydrophones and more sophisticated computers to separate the sound of quiet submarines from the thousands of other ocean noises.

SUBMARINE DRAG REDUCTION: The speed of a submarine is determined by its thrust and drag, the friction of the ocean water against the submarine's skin. Some submarine experts think the Soviets already have submarines with pores capable of exuding a slippery liquid. That would give the submarine "burst speed," a temporary burst of speed that might allow it to outrun torpedoes. The JASONs conducted unclassified work into the basic science of the polymers used in the process.

ICBM POINT DEFENSE SYSTEM: Probably the oldest of the JASON specialties is looking for ways to stop enemy ballistic missiles. For the most part, JASON has been skeptical, pointing out the inadequacies of "Star Wars".

Research: GNS

Matthew Copeland, Gannett News Service

There's even a mystery about the group's name

GANNETT NEWS SERVICE

WASHINGTON — JASON members who were contacted refused to discuss the advice they offer the government. There's even a small mystery over the group's name — simply a Greek name with five letters always capitalized.

A list of JASON members obtained from the Pentagon under a Freedom of Information request was badly outdated.

Assembling a profile of JASON is possible partly through a successful Freedom of Information Act request to the Pentagon by Gannett News Service, which produced the group's funding, client list and agenda for 1989's summer meeting.

In addition, a science historian from the American Physical Society recently interviewed several JASON members.

The list includes only one woman; nearly all JASON members come from a handful of universities.

The few JASON members willing to talk say the secrecy dates to the Vietnam War, when the release of the Pentagon Papers brought unwelcome publicity.

The papers described the role of JASON scientists in designing the "electronic barrier" between North and South Vietnam — a sensors and bomblets designed to seal off infiltration of South Vietnam by North Vietnam. That revelation brought down the wrath of campus protesters upon JASON members.

"During the Vietnam War, members of JASON were publicly vilified," said Happer. "One colleague (from Columbia University) had pickets outside his house with signs saying, 'A War Criminal Lives Here.'"

That trauma prompted some JASON members to leave; the rest eagerly slid back into a cocoon of secrecy.

RON SCHAFFNER *via* COUD—I