

SETI Institute 2035 Landings Drive Mt. View, CA 94043 (415) 961-6633 Facsimile (415) 961-7099

October 5, 1989

Mr. Terry Sauvain Deputy Staff Director of the Committee on Appropriations 131 Dirksen Senate Office Building Washington, DC 20510

Dear Mr. Sauvain:

As you suggested, I have written to Senator Byrd to inform him about the NASA SETI (Search for Extraterrestrial Intelligence) Microwave Observing Project and its potential connection to West Virginia via the NRAO Green Bank 140 foot antenna. I'll be waiting eagerly to hear if he has any interest.

In the meantime, I'd like to bring something else to your attention. This spring marks the 30th anniversary of the very first radio search for signals from a distant technology. That search was performed by Professor Frank Drake, using the Tatel Telescope at Green Bank during the time that Otto Struve was the Director of the observatory. The following year (November, 1961) Drake convened a meeting about SETI at Green Bank under the sponsorship of the National Academy of Sciences. It was on this occasion that he first wrote down what is called either the Drake Equation or the Green Bank Equation. This formulation attempts to incorporate all the factors that must be considered when attempting to estimate the number of technological civilizations that might exist in our Milky Way Galaxy and be detectable by a radio search. For decades scientists have argued over the correct values to use in this equation. It is an extraordinarily fine tool for organizing our thoughts and cataloging our ignorance about the physical and biological universe. It has been the introduction to SETI for countless astronomers and science students and it provided the central theme for a recent PBS television show on SETI.

Since 1985, when we attended an international meeting at Green Bank to commemorate the 25th anniversary of Project Ozma (the name Drake gave to his first search), several of us from the SETI Institute have been planning on producing a large bronze plaque of the Drake/Green Bank Equation. Our intent is to present this plaque to the observatory on the 30th anniversary of the 1960 search or the 1961 meeting. It could be mounted above the fireplace in the very room where the equation was first introduced. If Senator Byrd should take an interest in the

SETI endeavor, then perhaps he'd like to become part of this ceremony. I'm not sure of the current plans and timing, but it is even conceivable that there could be a combination of ground breaking for the new 300 foot antenna and commemoration of the historic SETI "firsts" at Green Bank.

Sincerely,

Jill Tarter

Project Scientist

SETI Microwave Observing Project

P.S. I've enclosed a 30 minute video tape about the SETI Project that you might enjoy and can perhaps use to answer any questions about exactly what observations are proposed and why. Since you may never have seen it, I've also enclosed a formulation of the Drake/Green Bank equation.

JT:cn

cc: Paul Vanden Bout, Director NRAO George Seielstad, Director Green Bank James B. Huggins

OPINION

Fairness siedge — Persons whose judgment or conduct is questioned by the Gazette may respond at reasonable length and be assured their response will be displayed personal release who believe they have been unfairly treated in news columns, personal columns or advertisements may phone the publisher. Robert L. Smith. 348-3101, or the editor, Don Marsh. 348-3130.

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New Hampshire governor, is best positioned to know Souter. Hence, conservatives feel Souter is acceptable.

They may be right — or wrong. Justices have often defied early perceptions of their judicial philosophies. Examples:

Hugo Black of Alabama was a Ku Klux Klansman who became a champion of human rights. Felix Frankfurter wore a liberal label but turned very conservative. Warren Burger defended Communist Party members in the 1950s, but was a staunch right-winger as chief justice. Harry Blackmun seemed a Burger clone, but became a liberal voice. Liberals applauded Byron White's appointment; now he votes mostly with the conservatives. And Earl Warren interned Japanese-Americans in World War II as governor of California, but led major advances in civil rights as chief justice.

Nobody knows whether Souter might change, as these justices did. In fact, nobody knows his present course, much less its future direction. But the Senate must do its best to learn his beliefs before voting on his confirmation. Supreme Court justices do more to shape America than any other leaders, except the president. The job is too important to put into the hands of an unknown.

up needed

audit. He gave evidence to federal prosecutors. He tried to shut off payments to landlords not entitled to them.

One accused landlord, former Deputy Mayor Ed Leonard, is a chum of Chairman Harris's. Soon, the chairman became hostile to Edds, and their conflict has marred the agency for months. Edds accused Harris of holding secret meetings.

Robert Byrd as economic asset

Somebody is always saying that tourism or the wood industry will end West Virginia's poverty. I disagree. My candidate is Robert C. Byrd.

The best example of Byrd's effectiveness is his effort to move the FBI fingerprint center from Washington to Clarksburg. A new facility will cost \$185 million and will employ 2,500 people. They will be paid \$75 million a year.

A site won't officially be selected until a study is completed. That is supposed to be done by September. Because nothing has been signed, there is always a chance of a sife-up but I think the deal is guaranteed.

As a consequence, I dismiss news stories saying other states are hidding for the center and that city officials in Washington are trying to retain it.

The big reason is Byrd's participation. He did more than get the center for West Virginia. He got it for the FBI.

Byrd is chairman of the Senate Appropriations Committee. He has told his staff to look for money for the state. One of them discovered that the FBI needs a new fingerprint identification center.

There is a real problem. The existing center is slow and old-fashioned. Some agencies have waited as long as six months to get fingerprints identified. In June, the agency had a backlog of more than 700,000 fingerprint cards.

The FBI system has been outpaced by technology, Access to cards is by hand. Some states are using automated fingerprint identification systems that incorporate computers, Fingerprints can be identified in a matter of minutes.

The older FBI system is not compatible. For instance, the FBI could not identify prints from a man who killed a state policeman in Maryland. However, the prints were hand-carried to New York, which has an automated system, and the suspect was found.

Another problem is that workers are not highly paid by Washington standards. The range for most salaries is \$12,982 to \$27,206 a year. Because of the high cost of living in metropolitan Washington, workers don't stay long.

The annual turnover rate varies from 15 percent to 35 percent. The average employee leaves in less than two years. The government hardly recoups training costs.

The jobs would be more prized



DON MARSH

in West Virginia, Carlos Fernandez, an FBI spokesman, said one of the inducements of Clarksburg is that it would offer a stable work force.

Byrd said that he met three or four times with William Sessions, the FBI director. He said the director was desperate for a new center.

"Judge Sessions was most concerned about the collapse of the system he now has and he was worried because it was not compatible with systems in many of the states. All I asked was that West Virginia be considered if we met the criteria and I could get the money."

The FBI sent two survey teams to West Virginia. The teams decided that Clarksburg best met the criteria. (The standards have never been fully explained, partly for security reasons, Byrd said.)

Byrd said he checked with the Office of Management and Budget to make sure that it would not object. OMB is an arm of the White House. OMB did not complain.

Byrd also discussed the project with Richard Thornburgh, the attorney general and a former governor of Pennsylvania. Byrd wanted Thornburgh's approval for the project and got it.

"The attorney general said that a modernized fingerprint division was a great need if we hoped to cope with the growing problems in law enforcement and that he hoped I could get an appropriation."

Byrd persuaded Congress to appropriate \$185 million. West Virginia as a site wasn't mentioned. A committee statement calling for location "in the Middle-Atlantic region" was as close as anyone got.

"I didn't want to spotlight anything by putting in West Virginia alone," Byrd said. "There is always a lot of competition for a facility of this size and to be too specific would just cause problems."

Byrd said that he chose to be Appropriations chairman rather than majority leader because he thought he could do more to bring projects to his state. His timing could have been better. In an er of deficita, there is not nearly a much money available to Congress as there used to be.

Nonetheless, he has done wel. Eisigoal is to win approval of \$ billien in federal projects for Wes Virginia. I'm sure he'll make is He keeps a list. At the end o 1989, the total was \$494 million.

Further, Byrd plays by the rules. His standard is that a project be needed and desirable. Notion long ago, a delegation from Gir mer County visited him to solici his support of a plan to move the District of Columbus prison from Lorton, Va., to their county.

Byrd tried to avoid answering saying that Congress would not binvolved unless there was a need for a transfer of land. At the end a member of the delegation de manded that he express a position because he was a public official.

"All right, since you asked, I'l answer," he said. "I'm 100 per cent against it."

I have said before that Byrd in the most remarkable public official in West Virginia history. Becoming one of the state's major economic assets is his newes accomplishment.

I have seen several letters to the editor criticizing the president of West Virginia Wesleyan for waiting to ban use of the Confederate flag by a dampus fraternity. Writers deny that the flag is symbol of racism. They also sathat the Civil War was fough over states' rights, not slavery.

I disagree. If the idea of states rights had never been conceived there would have been a Civi War. Had slavery been abolished when the Constitution was adopted (as it very hearly was) there would not have been a Civil War.

* * * * *

As much as I favor reduction of school employment, I thought Su perintendent Alvin Profitt had a point in protesting a state-ordered reduction of administrators in Monroe County.

The county has seven schools and 9.47 administrators. I'm no sure how the .47 figure was arrived at. I assume it represents a partition administrator.

In any case, after each school gets a principal, there will be 2.47 administrators left for the rest of the system. Next year, the number will be reduced to fewer that seven administrators, or not enough to supply each school with a principal.

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the Gazette

The State Newspaper — Our 118th Year

Benedict decries Byrd pork barrel

FROM STAFF, WHICE REPORTS

West Virginia's ranking Republican officeholder Wednesday complained that Sen. Robert Byrd, D.W.Va., should be more concerned about cutting the huge federal deficit than in getting pork-barrel projects for the state.

Agriculture Commissioner Cleve Benedict said Byrd's announcement that a Senate subcommittee approved funding for an \$80 million addition to the federal courthouse in Charlerton flios in the faço of efforts to reduce the nation's debt,

"They ought to be voting for spending limits," Benedict said.

Ryrd, meanwhile, announced Wednesday that the \$80 million request breezed through the Senate Appropriations Committee. The bill now goes to the Senate floor.

He also announced that he added \$28.6 million Weanesnay to a 1991 appropriations bill for military construction.

That amount, Byrd noted in a prepared statement, is more than 70 times the allocation in the president's budget for military construction in West Virginia.

In Charleston alone, Byrd added funding for construction of an Air National Guard operations and training center at Yeager Airport for \$12.1 million, an Army Reserve center and operations complex for \$5 million, and a new Army National Guard armory, at \$2.9 million.

Other major projects added in Byrd's bill are \$2.5 million



Benedict



Byrd

for construction at Camp Dawson in Preston County, \$1.5 million for designing a Navy Reserve expansion in Martinsburg, \$1.1 million for construction of a maintenance shop in Kingwood, and \$1 million for planning and design of two Navy projects a Greenbank, Pecahentas County.

Byrd also added \$1.8 million for Army Reserve land acquisitions in Mercer, Harrison, Calhoun, Lewis, Greenbrier and Hancock counties.

Byrd. Sonate appropriations committee chairman for the past 18 months, has yowed to become West Virginia's "billion-dollar industry" before his term ends in 1994.

In response, Benedict said he questions whether Byrd, who is working with President Bush and other leaders on a deficit-reduction plan, is sori ous about getting the federal government out of debt.

Estimates of the federal deficit are about \$200 million, while the national debt ceiling was recently raised by Congress to \$3.4 trillion.

"I believe Senator Byrd is

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Pork barrel

doing nothing to change the system," said Benedict, recently elected to the Republican National Committee. "He is part of the problem."

Neither Byrd nor his staff could be reached for comment Wednesday, but Byrd has said praviously his projects are "well justified."

"It is becoming even more difficult to find federal dollars, but I am trying to do the best I can under the circumstances to serve the people of West Virginia and the nation," he said recently.

Benedict said, while he objects to Byrd's claim that he is doing his best for the nation, he won't argue that the senator is helping his home state.

"M-[Congress ::3] gaing in hethrowing around our money, then by God, we should be getting our fair share," Benedict said.

A formor congressman, Benedict said he always voted against expensive appropriations bills, but if they passed, he tried to get what he could for West Virginia

Benedict represented West Virginia's 2nd District for one term in the early 1980s. The Lewisburg dairy farmer and Procter & Gambie heir then lost in a bid to unseat Byrd in the 1982 general election.



NATIONAL RADIO ASTRONOMY OBSERVATORY

POST OFFICE BOX 2 GREEN BANK WEST VIRGINIA 24944
TELEPHONE 304 456-2301 FAX 304 456-2271 Internet::gseielst@nrao.edu

May 21, 1992

The Honorable John D. Rockefeller, IV United States Senate Hart Office Building, Room 724 Washington, DC 20510

Dear Senator Rockefeller:

Linley Ogilvie has suggested I write you about the involvement of the National Radio Astronomy Observatory (NRAO) at Green Bank in NASA's Search for Extraterrestrial Intelligence (SETI) program. The main point is that NRAO would have a major SETI role.

NRAO and the Ames Research Center, where the SETI project is headquartered, have approved a Memorandum of Agreement to commit the existing 140-ft. telescope full time to a Targeted SETI Search as soon as the new Green Bank Telescope is operational. The Memorandum is to be signed by the NASA Administrator and the Director of the National Science Foundation. At the moment, it is working its way through NASA.

The period of commitment of the 140-ft. telescope is expected to begin in 1995 and extend through 2001, with a possibility of extension beyond the latter date. If money needed to convert the existing telescope to its new function is included, the estimated NASA funding to NRAO - Green Bank between now and 2001 would be \$9.3 million. Six people would be employed full time for at least seven years.

Use of the Green Bank facilities is appropriate for several reasons. For one, the first Search for signals from another intelligent civilization was conducted here in 1960, the so-called Project Ozma. The Drake Equation, which provides a means to estimate the number of intelligent civilizations, was derived at a meeting in Green Bank. Finally, the 140-ft. telescope is the largest and most sensitive in the United States that can be dedicated solely to SETI.

Operating a major part of NASA's SETI program in Green Bank is extremely cost effective because of the technical infrastructure already in place. Furthermore, the other projects at NRAO - Green Bank are strengthened by the addition of the technical talent needed for the SETI project.

We appreciate your continuing interest and active support for all the activities at Green Bank.

Sincerely yours, Long a, Sevelstad

George A. Seielstad

cc: L. Ogilvie