

NUKE INFO TOKYO

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☞ Citizens' Nuclear Information Center

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Citizens Visit Chernobyl



Distributing relief supplies to Zhitomir Pathology Research Center.

PHOTO BY S. GLABCHUK



With 2 firemen (in the center) contaminated during the Chernobyl fire, at Kiev Radiation Research Center.

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Already four and a half years have passed since the 1986 Chernobyl accident. But only recently have we started to learn of its drastic effects on the people and the environment through reports by the western mass media. Japanese TV stations and journalists have also made numerous visits and brought us vivid pictures and live reports of

the closed plant, deserted cities, evacuated people and their lives, and the many children sick in hospitals.

As more and more details of the real damage have come to light, Japanese citizens have become aware of the need to set up individual channels to relieve the victims. Many groups have been organized to raise funds to send Geiger counters, medical equipment, medicine, and money to help people evacuate.

Highlighting these efforts, some citizens' groups have actually been to the Soviet Union and visited Chernobyl and the victims. The Chubu District Association to Help Chernobyl, the Citizens' Investigation Group into the Effects of the Chernobyl Accident, and another group from Kyoto University, were the 3 citizens' groups that visited Chernobyl this summer.

The Chubu District Group brought 450kg. of relief supplies to hospitals and funds for relocation of families living in contaminated areas. They found a lack of supplies in many areas, but one of the most striking discoveries was that the "Children of Chernobyl" group, which they had assumed to be anti-nuclear, was in fact a group of children of Chernobyl workers, and they were actually supporting nuclear power. Such facts can only be confirmed by direct contacts such as these visits, although the visits may be too short to get at the real truth.

The Citizens' Investigation Group included people specializing in measuring radioactivity. They brought their own Geiger counters and measured radioactivity levels in various places. They found that the level of radioactivity differs from place to place. For instance it is higher in grass than on paved roads, and it is even higher under the eaves of houses where contaminated rain keeps dripping into the ground.

They came to the conclusion that to provide help and funds to relieve all the victims, such as evacuating 4 million people from

contaminated areas, would require a government level project. So what can a small citizens' group, relying only on donations, do to help? What the people really need are the means to grasp the situation they are in, to measure the radioactivity level of their surroundings and the contamination level of the food they eat, and information which will enable them to understand more about radioactivity. More Geiger counters may help to locate places where the radioactivity level is lower. Devices to help them find ways to live on their own, and for their own benefit, may be the best gift we can give.

From our past experience, we know that those who cause accidents or pollution never really take any sincere steps to relieve the victims, nor clarify the reasons why they happen. That is why citizens have to take action to get to the truth of what really happened, and what is really going on. The victims must also be supported and aided by the citizens, who stand on an equal level. Without such voluntary action by citizens, the nuclear industry could do as much as it liked to cover up the most disastrous accident of the century, and would merely use the victims as guinea pigs for a catastrophic nuclear accident.

"Relief is very important. But what is more important is solidarity. You must try to stop the nuclear power plants in your country as soon as possible so that the world will never experience this disaster again. Solidarity to make the world non-nuclear is what is really necessary today." This was the message to the Japanese people from the Professor of Gomel University entrusted to the Investigation Group on their return to Japan. As Hiroshima and Nagasaki have become the symbol of No More Nuclear War, Chernobyl has become the symbol of No More Nuclear Power!

Fukushima II-3 Re-started Despite Referendum

Some 9,973, or 57.4% of the 17,384 adult residents of the two townships neighboring Fukushima II-3 responded to calls for a local referendum. The referendum was organized by a group of people opposed to the re-start of the reactor and has no legal authority.

Nevertheless the result made public on October 26, was that 57.1% of residents who responded were against the re-start.

The referendum was very significant in terms of the number of people who responded to it. People had no obligation whatsoever to respond since it wasn't an official referendum, and yet large numbers sent in reply cards to express their opinions. There is no doubt that this high turnout shocked Tokyo Electric Power Company (TEPCO) which had been going from door to door assuring residents that it was now safe for the plant to be re-started.

The fact that more than half the residents were opposed to the restart also reveals a new trend. These two townships have been a TEPCO stronghold for a long time. Since quite a few residents are either employed by or depend in one way or another on TEPCO, the presence of the nuclear plants swells the towns' revenue in taxes and other related payments. Despite this, however, local people have finally started to express their real feelings.

Of the 9,973 people who sent in reply cards, as many as 2,000 added comments. Even some of those who wanted the reactor re-started expressed their anxiety and asked the power company to run the plant as carefully as possible.

The following Monday, October 29, a meeting had been scheduled between TEPCO officials and the anti-nuke activists. Encouraged by

the result of the referendum, the activists took a chance and stayed on in the lobby of the TEPCO main building to ask Mr. Ikegame, head of the nuclear division, and a member of the board of directors, to meet with them. None of the board of directors had ever agreed to meet with anti-nuke protesters before. Negotiations dragged on and on until finally, around 1 o'clock in the morning, the TEPCO side agreed that Mr. Ikegame would meet the protesters on November 2. While waiting for the answer the activists, including small children, had a good time talking, singing, dancing, and eating snacks in the lobby. Some of them tried to chat with the TEPCO workers, in suits and ties, who had been assigned to keep the protesters within the lobby.

By the time negotiations ended, the trains had stopped running, so most people stayed overnight in the lobby. The TEPCO workers also slept there on chairs.

The meeting started at 2 p.m. on November 2. 60 activists attended while another 100 or so people watched the proceedings on a TV monitor in another room. On the TEPCO side were not only Mr. Ikegame but several other top officials in the nuclear division. The anti-nuclear side included several people who had been doing technical research into the Fukushima II-3 accident. They asked a number of technical questions and at one point TEPCO officials got stuck, not knowing what to answer, and their hands, holding the papers, started to shake.

Several local people from Fukushima were also there to announce the results of the referendum, and the 9,973 reply cards were piled up in front of the TEPCO officials. Mr. Ikegame's only response was to

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Plutonium : 50 Years on

GROWING SKEPTICISM ABOUT THE RATIONALE OF PU RECYCLING

Half a century has passed since the first synthesis/discovery of plutonium by G. Seaborg et al. The 50-year history of plutonium has been one of shattered dreams and continued controversy. Particularly now, with the plutonium shipment from Europe to Japan scheduled only two years ahead, there is growing international concern about the safety and security of the planned sea transportation as well as the enormous stockpile of plutonium in Japan which is expected to result from the shipment.

The Japanese government and nuclear industry assert repeatedly that Japan would face a serious shortage of plutonium supply for use in its R&D reactor projects in the early 1990s without the shipment.

But a study of Japanese plutonium supply and demand by the Washington-based Nuclear Control Institute has shown that there would not be any shortage at all. We have reached a similar conclusion by an independent analysis, as previously reported in our newsletter (NIT No.16). According to our updated estimate, which appeared in the October issue of "The Bulletin of the Atomic Scientists," Japan's stockpile of surplus plutonium will amount to as much as 50 tons by the beginning of the next century - an amount sufficient to produce thousands of atomic bombs.

Another important article on the plutonium issue has recently been published by British researchers (F. Berkhout et al.: The Approaching Plutonium Surplus: A Japanese/European Predicament. International Affairs, July 1990). They also express grave concern about Japan's over-production of plutonium and stress the necessity of rethinking its reprocessing strategy.

Since the completion of our

"Bulletin" paper, there have been some new developments concerning the issue. JNFS (Japan Nuclear Fuel Service Co.), which has applied to construct the Rokkasho Reprocessing Plant, has presented a revised application to the Science & Technology Agency. The geological instability of the site, which is still one of its most serious weaknesses, necessitated a reassessment of the anti-seismic design using additional survey results. The revision has postponed the scheduled date of operation by almost a year from Dec. 1997 to Oct. 1998. In the meantime, we have acquired information that the Japanese utilities recently renewed their reprocessing contract with BNFL (UK) and COGEMA (France). This has increased the amount of LWR spent fuel to be reprocessed by BNFL from 2,300t. to 2,700t. and by COGEMA from 2,500 to 2,900. Thus, the one year delay of Pu supply from Rokkasho will be exactly compensated by the increase of reprocessing in Europe, and Japan is sure to have tens of tons of surplus plutonium, as illustrated in the figure on the next page.

The government strategy to cope with this surplus plutonium is to burn it in conventional light water reactors as MOX (mixed oxide fuel of uranium and plutonium). According to the long-term plan of the Atomic Energy Commission (AEC) adopted in 1987, from 1/4 to 1/3 of the reactor cores of 10 LWRs are to be replaced by MOX fuel subsequent to test irradiation now in progress at Tsuruga 1 (BWR) and Mihama 1 (PWR).

Despite the long-term plan, however, the future of MOX fuel use still remains shrouded in mystery. Whereas drawing a clear perspective on plutonium use for LWRs has been the main subject of the AEC's Advisory Committee on Nuclear Fuel

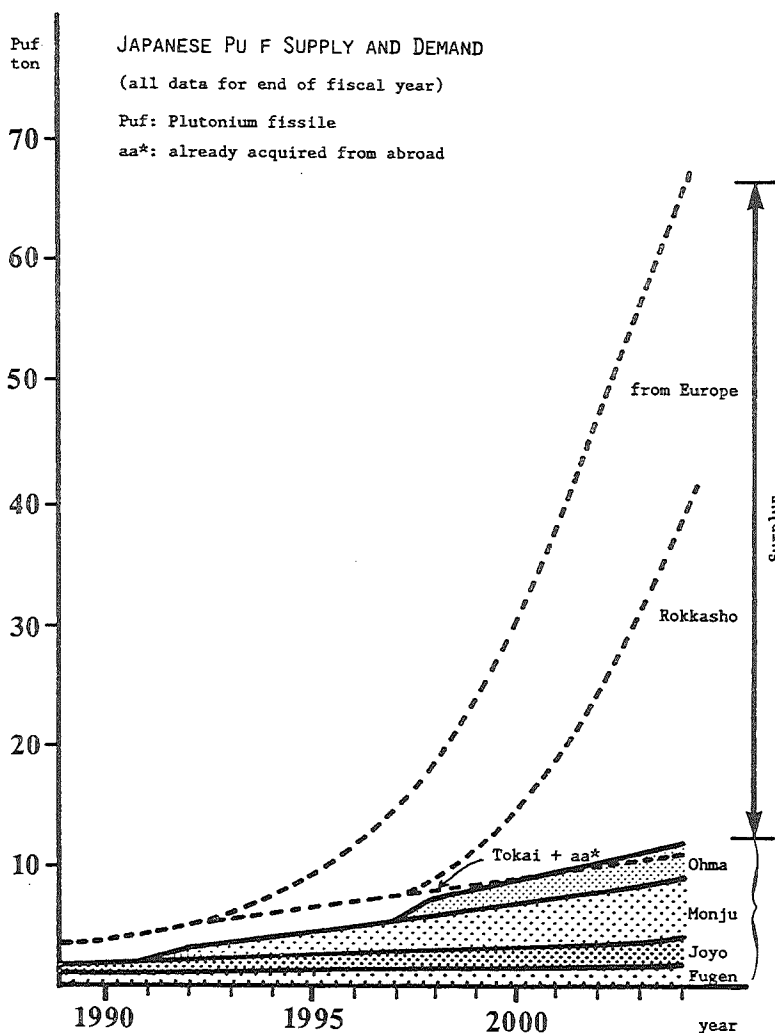
Recycling, chaired by H. Murata, since its start in May 1989, it has still not reached any concrete proposal for the use of plutonium. The reason for this is obvious. The dream of breeding and recycling plutonium in fast breeder reactors (FBRs) is shrinking rapidly, with the French Superphenix, the most advanced FBR project in the world, facing the crisis of permanent shutdown after a serious accident this summer.

Meanwhile, MOX use faces serious economic difficulties due to

the ever-increasing cost of reprocessing and the low cost of uranium.

Thus skepticism is growing, even inside the world nuclear industry, about the rationale for plutonium recycling, and the Japanese government appears to be quite alone in its willingness to promote the plutonium business. Whether pro or con, many people will agree that the future of the world plutonium industry now depends upon the attitude of the Japanese nuclear industry.

J. Takagi



"Low-level Storage" is Actually "High-level Dumping"

On Nov. 15, 1990, the Japanese government gave its approval to the construction of a "Low-level Radioactive Waste Storage Center," which is a facility for dumping 200,000 drums of radioactive waste underground in Rokkasho-mura, Aomori prefecture. The Nuclear Safety Commission had already submitted a report confirming the safety of the plan on Nov. 1. The report was drafted in haste and appears to have been submitted with the intention of preempting the gubernatorial election next February. The Science & Technology agency and the NSC have given the Storage Center the green light without making a full assessment of the plan, which is to be carried out by Japan Nuclear Fuel Industries, Inc. They intend to start construction before the end of November.

The terms "low-level" and "storage" are very misleading and give the impression that the facility is not particularly dangerous. In fact, it is planned to dump wastes which could even be called "high-level," and are by no means "low-level" in the accepted sense of the word.

The highest permissible radioactivity level under the plan is more than 100 curies/ton (50 curies in total for 1 drum) and this can't be classified as "low-level," even by the Atomic Energy Commission's own definition, which states that "low-level" refers to a level of under 2.5 curies/ton.

The reason for this high level is that the materials to be stored in the drums, like used ion exchange resins, contaminated gloves and clothing, are now incinerated before being put into drums to reduce the total volume of waste, resulting in a much elevated concentration of radioactivity.

Consequently, the radiation

level at the surface of a single drum would amount to 1 Roentgen/hour. The plan is to bury 200,000 of these "high-level" drums in the initial stage. During the dumping period, which would last about 10 to 15 years, the pit would be open to facilitate the work of burying the drums, and the workers, as well as passers-by and nearby residents, would be exposed to this high level of radioactivity even in normal conditions without any accidents.

JNFI says that they will control the area for "300 years," but in fact they would control it in a true sense for only 30 years after the burial is completed. After this time, there will be no radiation monitoring nor inspection of groundwater contamination. If underground water started to get contaminated after 30 years, it would not be detected, and if people kept drinking the contaminated water, they would be exposed to high level radiation, presumably of a level of several tens of rems per year.

On November 17 & 18, a "Joint Action to Stop the Nuclear Fuel Cycle Plan" was held in Aomori City.

On the 18th, it was announced that Mr. Shigeru Kanazawa, who is a lawyer and representative of the Nuclear-Phase Out/Anti-Nuclear-Fuel-Cycle Aomori Network, would run for the gubernatorial election in February.

In every election held in Aomori since last year, anti-nuclear-fuel-cycle candidates have been winning. But neither the government nor the governor have accepted the results as a rejection of the N-fuel facility by the prefectural residents. We believe the result of this election will have a crucial impact on the fate of the N-fuel cycle plan. □

Hidaka Scraps Nuclear Plant for Good

The plan by Kansai Electric to construct 2 to 4 new nuclear power plants (PWR, 1,200MW) in Hidaka City, Wakayama Prefecture has been decisively rejected.

The local Fishermen's Cooperative had already rejected the preliminary marine feasibility study on March 30, 1988, but the pro-nuclear mayor repeatedly demanded a review of the "rejection."

Just before the end of his term this September, the mayor made a "final appeal," asking the Fishermen's Cooperative to hold a representatives' meeting on September 3. However, contrary to the mayor's expectations, the pro-nuclear members kept their mouths shut, and only the anti-nuclear fishermen spoke out. In the end the Cooperative's board of directors reconfirmed its decision to reject the feasibility study, and unanimously decided to conduct no further reviews of this decision whatsoever in the future.

The pro-nuclear mayor has finally abandoned the idea of inviting the nuclear plant to the city and announced it officially. In the election held at the end of the mayor's term on September 30, an anti-nuclear candidate won with 55% of the vote.

The opposition candidate, although he announced that he would follow the former mayor's policy, was forced to declare himself against the nuclear power plant.

Anti-nuclear sentiment among the residents had grown that large during the 20 long years of struggle. Now that the issue has finally been resolved, the residents are all happy that they can become friends and partners again to work and take part in the life of the community together. □

Continued from page 3

say that TEPCO would be really careful in its handling of the II-3 reactor.

The activists had earlier agreed to set the meeting for two hours, from 2 p.m. to 4 p.m. At 4:05 p.m., even though the discussion had not ended, Mr. Ikegame suddenly left the room without saying anything. The activists, including those in the other room, rushed to the car Mr. Ikegame had got into and surrounded it. More than 50 TEPCO workers immediately came out and started to push the protesters away from the car. For about half an hour both sides struggled with each other while the car was prevented from moving. Finally Mr. Ikegame went back to the TEPCO building and fled somewhere. The protesters then went back to the meeting room and waited on and on for some comment from the TEPCO side. It was almost like a repeat sit-in in the TEPCO building. This time about 100 TEPCO workers in suits and ties came in and started to push the protesters out of the room. However, more than half of the protesters were women, some of them pregnant and some with small children, and there was no way TEPCO workers could force them out.

The protesters ended up waiting until 11:30 p.m. when TEPCO officials agreed to meet with them on the condition that they leave the building after the meeting. The protesters decided to hand the officials a statement asking them not to re-start the II-3 plant, and left the building, rather than stay and confront the police, who had already been called.

The next Monday, October 5, TEPCO started operation of the Fukushima II-3 plant. But protesters are not disappointed and are determined to continue fighting. □

ANTI-NUKE GROUPS

ACTIVE AROUND JAPAN

Toyonakamura Energy Cooperative

"We're going to make our own energy! How about you generating your own electricity, too? With this catch phrase, the "Toyonakamura Energy Cooperative" (ENEKYO) was created last November of the purpose of having people reassess their own lifestyles and how they interact with energy and environmental problems. The 1979 nuclear accident at Three Mile Island and the 1986 Chernobyl accident encouraged many anti-nuclear power movements in Japan, but in the fight to stop the construction of new plants, and to demand the decommissioning of existing ones, there has always arisen the discussion of what people will do for energy once the nuclear power plants are shut down. Owing to environmental problems, which have recently become worldwide issues, there are plans in Japan to double the number of nuke plants in order to hold down fossil fuel consumption. In addition to safety, the discussion on nuclear power must now take in matters of energy and the environment. It was here, in hopes of achieving a nuclear-free society, that ENEKYO came into being with the objectives of trying to find an energy system suited to ourselves, and of demonstrating to people a new energy system for the post-nuclear age.

ENEKYO now has about 40 members, who work mainly on the following four activities.

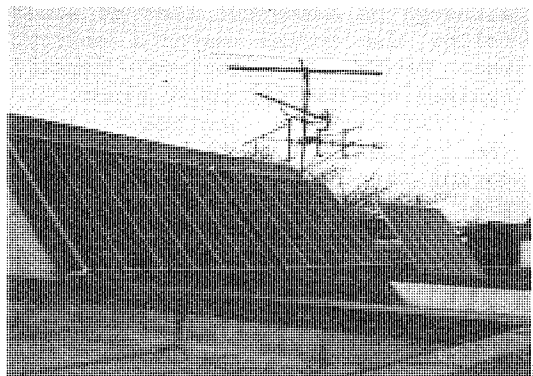
1. Proposing and promoting ways to conserve energy and electricity.
2. Performing research on soft energy, and examining, through practice, ways to use it.
3. Organizing a movement to amend the Electricity Enterprises Act.

4. Trying to get the national and local governments to adopt policies that promote the use of soft energy.

To research how we can live with soft energy, ENEKYO also operates photovoltaic generating stations in six locations. The photograph shows the "Toyonakamura Generating Station No.1" (1 kw), which began operation at the same time the cooperative was formed. It presently generates about 60 kwh per month, and its maximum daily capacity is 6 kwh. Since this is, after all, a home generating system that is dependent on the sun, things did not at first go as planned, and we had power outages many times a day. The experience of these power outages showed us well just how far our use of electricity exceeds our actual needs, and at the same time how our daily lives are founded upon a high-consumption energy system. The prerequisite for our shift to a new energy system is that we divorce ourselves from the "mass production, mass consumption, disposable" society.

ENEKYO will now proceed with not only photovoltaic generation, but research on fuel cells as well, while at the same time making proposals for a new energy system to help phase out nuclear power.

FUKUMOTO Takao





IAEA Seminar Held in Aomori

IAEA held a seminar for Asian journalists in Aomori-city on 25 and 26 of October. Governor Kitamura of Aomori called the seminar to avert citizens' criticism of the construction of Rokkasho nuclear fuel cycle facility complex. But even the paper which represents the voice of the power industries reported that journalists from Asia and from within the prefecture were less than satisfied and felt the lectures just repeated the monotonous message that the radiological risk is very small.

Local anti-nuke groups prepared a series of materials in English and explained to the participants of the seminar the risks of the Rokkasho nuclear fuel cycle facility complex and the criticism within Aomori Prefecture.

Nuclear Fuel Cargo Loaded with Explosive Materials !

A Tokyo-based group working against nuclear power has uncovered the fact that gunpowder, poisonous materials and flammable gas have been loaded on to a ship which is carrying nuclear fuel materials such as uranium, and is now cruising around the world. This fact was discovered from cargo unloading reports from the Ohi Wharf in the Port of Tokyo, which were submitted to the local fire station. The group obtained these documents under the Freedom of Information Act. The group has expressed its fear that although the materials aboard are stored separately, they could still give rise to a grave accident.

No-HLW Regulation Rejected by Okayama Pref

About 300,000 signatures demanding the enactment of a law prohibiting the introduction of high-level radioactive waste into Okayama Prefecture was submitted to the prefectural government of Okayama on November 5 but was rejected by the Liberal Democratic Party and Democratic Socialist Party majority. Some fear that a disposal site for high-level radioactive waste is to be built in that prefecture.

Joint-research Agreement Reached with China on HLW Disposal

Early in November, JAIF (Japan Atomic Industrial Forum, Inc.) announced that it had reached a basic agreement for cooperative research on the disposal of high-level radioactive waste with CNEIC (China Nuclear Energy Industry Corp). An underground research facility will be built in a research institute in Taiyuan, Shanxi province. A series of tests which have been refused by Horonobe town in Hokkaido and Kamaishi city in Iwate Prefecture will be carried out there instead.

Engineers to visit China Assist with N-Power Plant

Three engineers are to be sent to China to give the Chinese technical guidance for the operation of Qinshan 1 reactor, FEPC (The Federation of Electric Power Companies) decided on October 17. This was in

response to a request from China in early August. ANRE (Agency of Natural Resources and Energy) will also send two additional engineers in early December.

Qinshan nuclear power plant is a PWR with an output of 300MWe. Though it was built in China, it is a "patchwork power plant" composed of imported parts from foreign companies, including a pressure vessel made by Mitsubishi Heavy Industries (MHI), which throws some doubt on its safety.

Takahama 2 Changes Damaged Plugs

The regular inspection of Kansai Electric Power Co.'s Takahama 2 (PWR, 780MWe), 46% of whose steam generator tubes were found to be damaged, has been prolonged, delaying the resumption of operation. The delay is due to the work of changing the plugs used in the damaged tubes, since defects were found in similar plugs used in some reactors in the U.S.

The council of adjoining Kyoto Prefecture on October 5 adopted a statement in which it requests the power company to change the whole steam generator.

Hitachi & Bechtel Revise Contract

The technical tie-up agreement on nuclear plant construction between Hitachi Ltd. and Bechtel Co. of the United States was recently revised. In the original agreement concluded in 1980 Bechtel was to be the sole supplier of technology, but the agreement was revised so that Hitachi could also supply technology. Under the revised agreement, Hitachi is going to provide technology for protecting pipes from stress corrosion cracking (SCC). The new agreement also stipulates that Bechtel will conduct sales promotion of Hitachi's nuclear reactor-related products in the United States.

Mass Protest Against N-Waste Dump in Korea

About 10,000 villagers, including 3,000 high school students, from Anmyon Island, 85 miles southwest of Seoul, South Korea, on Nov. 8 staged a mass riot against the planned low and intermediate level nuclear waste repository to be constructed on the island. It was the biggest anti-nuclear protest ever in South Korea, and ended in victory, with the government announcing the cancellation of the plan. The government went so far as to fire the Minister of Science & Technology, Chung Kun Mo and the island's police chief.

This is the second time the government has had to cancel plans to construct a nuclear waste dump due to public protest.

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NUKE INFO TOKYO is a bi-monthly newsletter which aims to provide foreign friends with up-to-date information on the Japanese nuclear industry, as well as on the movements against this industry in Japan. Please write to us for subscription (subscription rate: supporting subscriber \$40/year, subscriber \$20/year). We would also appreciate receiving information and newsletters from groups abroad in exchange for this newsletter.

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