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Author: *Kovalenko, Yuriy (Paris)*
Title: RUSSIAN-FRENCH SPACE FLIGHT CON-
CLUDED; FURTHER COLLABORATION PLANNED
Primary Source: *Izvestiya, August 10,
1992, No. 180 (23754), p. 1, cols. 3-4*

Extract: The Russian-French orbital flight ended in complete success, announced project director Alain Labart at the French National Space Research Center (CNES) when the joint crew had returned to Earth.

In particular, the French remarked that during the two-week flight, nine of ten planned research programs and experiments were carried out. Commenting on the flight, they stressed, not without surprise, the excellent work of the Russian space technology, including the "Mir" space station.

As a whole, judging by the amount of coverage, the flight was followed with much greater attention in France than in our Homeland. A special communications session was set up for President F. Mitterand. He had a long conversation with Michel Tognini, during which he spoke in favor of further cooperation between Paris and Moscow in this area.

The space odyssey was continuing when Paris announced that by the year 2000, four more French cosmonauts were fly aboard Russian craft. The first is scheduled for early 1994. For each space ticket, the French will pay the same amount as for this flight: 73.2 million francs.

What goals does France set for participating in joint programs and flights? Primarily, they are learning to live in weightlessness, indicated Hubert Curien, Minister of Space Research and Exploitation. Also, exceptionally important scientific experiments will be performed in flight. Moreover, cosmonauts, according to the minister, will acquire 'construction' skills. More in-depth study of the human body under extreme conditions is underway.

Finally, France and Russia are preparing a joint program to study the planet Mars. The minister also expressed his hope that an astronomical observatory would be created on the Moon early in the next century.

The Russians possess unique experience in the human inhabitation of space, Curien stresses, but now the cost of space stations and delivery systems are so great that Russia, Europe and the United States simply must join forces. Russia, the minister said, has been invited to participate in European space programs, and in particular, in work on the development of the Hermes reusable spacecraft. This participation is of tremendous importance for Europe from the scientific, technical, economic and political standpoint.
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Author: *Stefashin, Oleg (Karaganda)*
Title: PROBLEM OF NUCLEAR WASTE DISPOSAL
IN KAZAKHSTAN
Primary Source: *Izvestiya, August 10,
1992, No. 180 (23754), p. 1, cols. 3-6*

Extract: In Kazakhstan, for lack of special burial grounds, spontaneous radioactive waste dumps have begun to grow.

Here's what V. Slavgorodskiy, Head of the Ministry of Ecology and Bioresources' Radiation Ecology Administration, stated at a scientific-practical seminar on problems of radioecology and radiation safety:

"Radiation conditions in the republic are very alarming, and they are continuing to deteriorate. Whereas before we experienced practically no problems with radioactive waste disposal -- we trucked it to Chelyabinsk, Krasnoyarsk, or Zagorsk -- now we don't know what to do with it. Russia refuses to take hazardous cargo, and we don't have any of our own so-called burial grounds."

Kazakhstan's only radioactive waste disposal facility is located near Alma-Ata, and belongs to the Institute of Nuclear Physics. But it was built in violation of one of the two main safety conditions -- water impermeability -- and in scientists' opinion, cannot be actively used. Naturally, enterprises, deprived of the ability to eliminate contaminated waste on their own, are dumping it wherever they please, and special services do not always manage to detect it.

According to data from the Radiation Ecology Administration, the republic, where the largest radioactive materials mining enterprises are located, has already accumulated contaminated waste with a total power of over 200,000 curies. This is nearly 70 times over the design standard, and as you can easily guess, could at any moment cause a disruption of the ecological equilibrium.

The government of Kazakhstan cannot be said to have accepted this situation. According to L. Artsev, a chief specialist at the republic's State Economic Committee, the Ministry of Ecology and Bioresources has developed another program to build nuclear waste disposal facilities. It has been approved by the Cabinet of Ministers, but whether it will be implemented is unclear.
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Author: *Yakov, Valeriy*
 Title: RUMORS OF POSSIBLE FAILURE OF CHERNOBYL "SARCOPHAGUS" CALLED BASELESS
 Primary Source: *Izvestiya, August 10, 1992, No. 180 (23754), p. 2, cols. 1-3*

Entire Text: In recent days, television and information agencies have stirred up public opinion with a report that a catastrophic situation is developing at the Chernobyl NPP (ChAES): the "Covered Facility" (popularly called the "Sarcophagus") is actively failing and threatens a powerful radioactive emission. We asked knowledgeable experts with firsthand information about Chernobyl to comment on this information.

We should begin by saying that the information on the explosive situation at the

NPP did not appear on its own, but belongs to specific authors -- Yu. Shcherbak, director of the Ministry of Chernobyl and V. Shcherbin, director of the "Covered Facility." Their alarming statements were the cause of the new agitation over the Chernobyl matter.

In the opinion of Academician Spartak Belyayev, deputy director of the Institute of Atomic Energy imeni Kurchatov, the Ukrainian specialists' alarming statements were most probably provoked by political factors and are conjectural in nature. Their aim was less to draw attention to the "Cover" problem than to their own persons.

As for the actual situation at the plant, the group of research specialists from the Institute imeni Kurchatov, who have worked at the "Covered Facility" practically all these years, assert that no serious changes that would give cause for such threatening statements have occurred.

I also succeeded in contacting the Chairman of the Ukrainian State Committee for Nuclear and Radiation Safety, Nikolay Shteynberg, who also confirmed that nothing unexpected had occurred or was occurring at ChAES. The problem of the Sarcophagus, of course, requires attention; there are plenty of problems that remain unsolved, but as of today, there is no special cause for extraordinary alarms.
(SNAP 921020)

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Author: *Kovalenko, Yuriy (Paris)*
 Title: "RED MERCURY" HOAX SOUNDS OUT WESTERN NUCLEAR MARKET
 Primary Source: *Izvestiya, August 10, 1992, No. 180 (23754), p. 3, cols. 6-8*

Extract: Recently, reports of a new substance, "red mercury," which has supposedly enabled a breakthrough in nuclear technology, have been appearing more and more frequently in the pages of the Western press.

Some assert that it was prepared by scientists of the former Soviet Union. Other scientists are convinced that it is a mirage. Still others think the discussion concerns merely an isotope of mercury that is used to enrich uranium. Whatever it is, both journalists and special services of Western nations are trying to guess the

"riddle of "red mercury."

The searches of reporters in France have been more productive. Paul Januchevski (obviously, the former Pavel Yanushevskiy), a native of the Soviet Union, a chemist by trade, and director of the "Cofrachimie" company, located in a Paris suburb, asserts that he is the French representative of two Ukrainian centers where "red mercury" is produced. According to him, this is an "extremely strategic substance, 98 percent of which is used for military purposes." It acts as a catalyst in a nuclear reaction, and can also be used for military purposes, including missile guidance systems. Paul Januchevski is offering clients a kilogram of "red mercury" for half a million dollars.

"Red mercury" does not exist. It is only a hoax, guesses the Director of the National Defense Resources Council in Washington, Thomas Cochran. Its purpose is to sound out the nuclear market, find necessary substances and preparations, and is a cover for various operations. Every time the subject of "red mercury" has come up, a deal has been concluded to purchase and sell uranium or heavy water in Italy, Switzerland, Germany, Norway, and other countries.

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Author: *Alekseyeva, E. (Krasnodar)*
 Title: PESTICIDE CONTAMINATION IN KRASNODAR KRAY BLAMED FOR HEALTH CRISIS
 Primary Source: *Meditsinskaya gazeta, August 7, 1992, No. 62 (5287), p. 11, cols. 1-3*

Extract: The pesticide Chernobyl -- that's what scientists call Kuban among themselves. The chemical burden per hectare of arable land in Krasnodar Kray averages five times higher than values for Russia as a whole. As a result, the kray exceeds Russian statistics for oncological diseases. The question of preserving the gene pool is acute. Scientists claim that in 10 or 15 years there will no longer be a concept of a 'healthy child' or 'healthy person' here, and the native population is degenerating. Doctors have begun to address the problem with the most vulnerable point, the mother-

fetus-child system. By dint of enormous efforts, a Kray Clinical Scientific Methodological Mother and Child Center has been established in Krasnodar.

Kuban has long been considered a granary and health resort for all Russia. Meanwhile, in private documents and at conferences and symposia on environmental protection it has long been placed in a zone of ecological disaster, and scientists call Krasnodar Kray the 'pesticide Chernobyl.'

In view of the toxic and marked cumulative effect of pesticides using Spearman's rank correlation, researchers have established that the correlation coefficient between hemorrhage and the level of pesticide burden is 0.5, between anemia and the pesticide burden 0.8, and between gestoses and the burden 0.9. All this indicates a definite relationship between the level of pesticide burden and gynecological morbidity.

"In the past ten years, over 15,000 children under the age of one have died in Krasnodar Kray," explains Docent L. Nikulin, deputy director of the Pediatrics Center. "The city of Krasnodar accounts for a fifth of them. But the worst thing is that at least 70 percent of the children could have been saved. What are the reasons for this low work efficiency? There's the poverty of our health care, there are physician errors, and there are artificially broken ties between practical health care and researchers. The Mother and Child Center is a real step to combine the forces of researchers and practitioners in solving the kray's biggest problem. It will develop and introduce new diagnostic, therapeutic, and rehabilitation technologies. And this is quite realistic."

A program of ecological protection of pregnant women and children under the age of one has been developed in the kray. Its essence lies in preserving the gene pool from ecological debauchery, or at least protecting the children. Workers here propose to create an industry of ecologically clean nutrition for children, with rigid control of product quality, and to furnish it to pregnant women and children under the age of one. Such a program must be adopted at the governmental level; all proposals are supported by doctors in the ecological disaster areas. Otherwise, well, the doc-

tors have their impartial prognosis. And to avoid accusing them of prejudice, we'll cite some figures.

The natural population growth rate in 1990 was 0.1 per thousand. In 1991, it was off the bottom of the scale. It was found that instead of a natural growth rate, there was a natural loss of -0.12. This is one of the lowest growth figures for all of Russia.

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Title: NUCLEAR AND PUBLIC HEALTH SITUATION OF CHELYABINSK-65

Primary Source: *Meditsinskaya gazeta*, August 7, 1992, No. 62 (5287), p. 15, col. 1

Extract: For forty years, plutonium for nuclear weapons has been produced [in Chelyabinsk-26] in the South Urals. Three nuclear disasters have turned this site into an ecological disaster area, one of the most radioactively contaminated places on Earth. In the "Hiroshima-Nagasaki-Chernobyl" world classification of nuclear disasters, this area has been fodder for journalists and 'greens.' The radiation background within the city limits does not exceed the norm. Nevertheless, if it is compared to other closed cities with similar plants, the overall morbidity is fifty percent higher, with oncological diseases 150 percent higher, diabetes mellitus 100 percent higher, and congenital anomalies encountered 80 percent more often. The past leaves its mark. The village of Muslyukovo is still one of the region's sore points. At the river, a dosimeter reads 823 micro-roentgens per hour, about 40 times higher than the norm. According to all current radiation safety regulations, the people should have been immediately evacuated.

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Author: *Leskov, Sergey*

Title: ACCELERATOR COMPLEX IN PROTIVINO LANGUISHES UNDER INADEQUATE FUNDING

Primary Source: *Izvestiya*, August 11, 1992, No. 181 (23755), p. 2, cols. 3-7

Extract: In the city of Protvino, a new accelerator and storage complex (UNK) is under construction. Its technological features permit unique experiments that are impossible in principle on any other installation in the world. According to plans, the Protvino UNK should become operational in 1993. But in 1992, financing was cut back to one-fourth of the previous year's level. Work at the site has nearly stopped. And it's even more vexing since the tunnel is practically complete -- 22 kilometers have been dug, and only finishing and surface work remain. If the present level of financing is continued, estimates are that the facility is not likely to be completed this century.

Nineteen Russian academicians have sent a letter on the accelerator's fate to the Russian government. A group of Nobel laureates and leaders of the European Center for Nuclear Research (CERN) tried to draw the attention of the country's leaders to UNK's importance. In March, a hitherto unprecedented high commission came to Protvino: Nechayev, Shorin, Mikhaylov, Saltykov. And they also delivered an opinion on UNK's importance. But as before, no result, no concrete financing can be won.

Observing our budgetary impoverishment, Western researchers are trying to somehow save the project, which is important for all the world's science. A group of American specialists headed by world-renowned Professor P. Schlein [?] recently came to Protvino. He made a paradoxical suggestion: modify the UNK project to give it the parameters of a supercollider. The project could be completed by 1997, and would take \$400 million, mostly from the Americans. The idea is very enticing. But it's best to be realistic: all Professor Schlein's prestige probably won't be enough to convince the U.S. government to abandon a series of national projects to transfer funds to Protvino.

Funds are being allocated to support science in the country, and they're not small. But they are being distributed by the principle of putative fairness: so as not to offend anyone. But world experience tells us it would be worthwhile to set priorities. Today, all the world's authori-

ties agree that not finding the funds for a unique proton accelerator is tantamount to abandoning space flight or halting cancer research. Meanwhile, rich industrialists from Taiwan are coming to Protvino on August 12 to found a joint venture with our tunnelers. While we look for funding, the workers are already being forced against their wills to convert to filling foreign orders.
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Author: *Manucharova, Yevgeniya*
Title: MACHINE FOR BIOFIELD TREATMENT OF MEDICAL DISORDERS INVENTED
Primary Source: *Izvestiya, August 11, 1992, No. 181 (23755), p. 2, cols. 3-7*

Extract: We have received a TASS report that at a certain Moscow research institute (until recently strictly secret) has invented a "super machine equal in effectiveness to a thousand faith healers." It treats headaches, and even diseases that were considered difficult or impossible to treat until now, such as epilepsy.

The effect is based on replacing the body's information field: positive information storage devices transfer it to the person, changing his emotions, behavior, and character for the better. Timid and shy people can become self-assured, and those inclined to depression receive toughness.

The Ostankino evening channel showed part of the machine and its antenna, as well as a woman whose headache passed as soon as the machine was turned on. The research institute that developed the super healer prefers to retain its secrecy for now. Even so, we will hope that the designers give us a more detailed report on their new medical experiment.

Behind the development of the apparatus is long work by many scientists in the most varied fields. It's nothing new for physicists, psychologists, chemists, physiologists, and sociologists to study

the environment's effect on man. This has been especially important for people forced to work in extreme, stressful conditions. And such professions are legion: polar explorers, test pilots, cosmonauts, mountain climbers, geologists (especially those who prospect for magnetic ores). Scientists had to understand just what is harmful in the hostile outdoor environment. They measured the body's reactions to various types of waves (acoustic, light, thermal), simulated them in laboratories, and created new ones: those that neutralize the environment's perniciousness.

Physicists and physiologists also performed measurements of biological currents while hypnotherapists and faith healers were at work. For example, Dzhuna [Davitashvili] applies her healing hands in massage, and the instruments record her bio-currents, the change in their state and the condition of the patient, and so on. The measurements made it possible to reproduce the currents. And (what's important!) to amplify them.

In principle, the machine can surpass Dzhuna in some ways (precisely recorded ones), and can reproduce some of her actions. But when they tell of the possibilities of duplicating her effects, physiologists express doubt that the mechanism will surpass the living person, especially since the body is not fully understood.
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