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JPRS L/8826

20 December 1979

Worldwide Report

NUCLEAR DEVELOPMENT AND PROLIFERATION

(FOUO 7/79)

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WORLDWIDE REPORT
NUCLEAR DEVELOPMENT AND PROLIFERATION
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CONTENTS

PAGE

WORLDWIDE AFFAIRS

Atlantic Explosion Raises Fears of South African Nuclear Potential (Harold Jackson; THE GUARDIAN, 27 Oct 79)	1
Pym Advocates NATO Acquisition of Nuclear Weapons (Clare Hollingworth; THE GUARDIAN, 29 Oct 79)	4
Swedish Defense Institute Says USSR Explodes Nuclear Device (REUTER, 5 Oct 79)	5

LATIN AMERICA

ARGENTINA

FRG Contract Heralds Beginning of Vast Nuclear Industry (Martin F. Yriart; LA OPINION, 3 Oct 79)	6
---	---

MEXICO

Briefs First Nuclear Plant	8
-------------------------------	---

WEST EUROPE

INTERNATIONAL AFFAIRS

FRG-France Nuclear Cooperation Problems Explored (Ulrich Steger; WIRTSCHAFTSWOCHE, 1 Oct 79)	9
---	---

- a -

[III - WW - 141 FOUO]

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CONTENTS (Continued)	Page
FRANCE	
Minister of Industry Interviewed on Nuclear Policy (Andre Giraud Interview; LE NOUVEL OBSERVATEUR, 8 Oct 79)	12
Biographical Information on Uranium Engineer Anne Duthilleul (LE NOUVEL OBSERVATEUR, 8 Oct 79)	20
Biographical Information on EDF's Le Marechal (LE NOUVEL OBSERVATEUR, 1 Oct 79)	21
Briefs EURODIF To Sue Iran	22
UNITED KINGDOM	
Defense Ministry Decides on Tridents as Independent Nuclear Deterrent (David Fairhall; THE GUARDIAN, 1 Nov 79)	23

- b -

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WORLDWIDE AFFAIRS

ATLANTIC EXPLOSION RAISES FEARS OF SOUTH AFRICAN NUCLEAR POTENTIAL

LD291501 London THE GUARDIAN in English 27 Oct 79 p 17 LD

[Harold Jackson dispatch: "The Bang That Almost Went Unheard"]

[Text] Washington--The American Government was caught badly on the hop in two ways by the reports of an atomic explosion in the south Atlantic. In the first place the evidence was enigmatic at best in that only one set of the world-wide network of instruments responded on September 22 and there did not seem to be any confirmation from other sources. In the second place, the BAC television network got hold of this nugget and made it public long before the State Department was ready to go on record. The experts of the National Security Council and the Pentagon were still trying to piece together the bits of the puzzle.

The result was the extremely cautious formal statement issued late on Thursday night which pushed official language to its furthest limits of uncertainty. There was, the world was told, "an indication suggesting the possibility" of a small nuclear test somewhere in an area roughly the size of China. The name of South Africa was not mentioned.

The United States has long been concerned that Pretoria was actively engaged in developing an atomic weapon and had three of its embassy officials thrown out for spying in April. No one in Washington ever confirmed, of course, that that was what they were doing but the prime minister, Mr Botha, alleged that a concealed camera under the co-pilots seat in the American ambassador's plane had been used to photograph "some of our most sensitive installations."

The most sensitive installation likely to have been of interest to America is only 15 miles from the South African capital--the nuclear research plant at Valindaba and its associated uranium enrichment facility at Pelindaba nearby. The ostensible purpose is to produce the fuel for the two French reactors which were bought three years ago and are due to come into operation generating electricity next year. Originally the fuel was going to be supplied by the U.S. but the deal was cancelled because of South Africa's refusal to sign the nuclear non-proliferation treaty.

The reason the South Africans would not sign, by their own account, was that the Valindaba plant had discovered a new and secret way of enriching uranium. The treaty's requirement for international supervision of all nuclear installations could mean that this commercially valuable process would be stolen by unscrupulous rivals. It never sounded very convincing to Washington and the suspicion grew that Valindaba was in the business of turning out weapons grade uranium.

1

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This belief was not simply based on ingrained scepticism but on solid evidence from a fairly unlikely source--the Soviet Union. In August 1977 the Americans had been alerted by the Kremlin that a South African nuclear test was imminent. A Russian spy satellite had spotted an apparent test site in the Kalahari desert. The Americans conducted their own satellite reconnaissance which confirmed the Soviet findings and a frenzy of diplomatic activity ensued. On August 22 the French foreign minister issued a public warning that a South African test would have "serious consequences," a warning apparently taken sufficiently seriously for the test to be abandoned.

But no one thought that was the end of the matter, not least because of a speech by the South African finance minister, Mr Owen Horwood. In spite of the government's efforts to damp down the issue, Mr Horwood told a rally of the party faithful on August 30, 1977 that the country would develop a bomb if it seemed necessary. "If we wish to do things with our nuclear potential, we will jolly well do so according to our own decisions and our own judgement. American cannot pressure us. We will not allow it."

So the facilities which America has deployed around the world to detect nuclear explosions have also been trained on the south Atlantic and the Indian Ocean. There is a wide variety of alternative instruments and the one possibility that does not seem to have been considered is that they would produce different answers.

The prime method of surveillance is the network of military observation satellites constantly circling the globe. As was plainly demonstrated during the Kalahari flap, both superpowers cooperate in pooling their information when the issue is of equally vital concern to each. These satellites can not only make visual observation but are also equipped with radiation detectors. To back up this system, and to serve both as a confirmation and a cross-reference, there are a number of acoustical and seismic monitoring stations around the globe, some of them planted on the sea bed. Finally there are the U-2 high-flying reconnaissance aircraft--still flying after nearly 30 years-- which patrol on a 24-hour basis. One version of the plane, known as the HASU-2, is used to monitor the high air samples near its maximum ceiling of 80,000 feet. It is equipped with special filters which enable it to collect the radioactive debris inevitably thrown out by any atomic explosion.

In the case of this latest episode the problem seems to arise because only one set of instruments recorded anything that might be associated with a nuclear test. The past month has apparently been spent in trying to find either clearer readings from the other monitors or reliable evidence from what are being called "human sources"--spies to anyone else.

The swift South African denial is not regarded as evidence by anyone. Pretoria was bound to make it whatever the facts: The eruption of a South African atomic device on the international scene at this stage of history will have totally unpredictable effects on Southern Africa. More cogent in assessing the probability is an official assessment by the Central Intelligence Agency, revealed "by mistake" 18 months ago, that South Africa "could advance with a nuclear weapons programme if seriously threatened." That report was written in September 1974 and the evidence available suggests that Pretoria has not been sitting on its hands in the past five years.

An even more sinister possibility is raised by the CIA document and by its later statements. The agency concluded in the document that the Israelis had built atomic weapons at that time--in 1974--and two years later expressed its belief that they then had between 10 and 20 warheads.

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In a world of almost universal hostility one of the few nations which has maintained close ties with South Africa has been Israel. There have been persistent, though totally unconfirmed allegations that the two nations have cooperated in atomic research. The description of the explosion on September 22 is that it was "a nuclear device," a phrase commonly used to denote something less than a workable weapon. This, for example, was the way the Indian test was described.

So the nasty thought is around that two countries deeply involved in two of the world's most intractable trouble spots may have decided that this was the time to get together for their mutual wellbeing. It is not a happy prospect for the rest of us.

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WORLDWIDE AFFAIRS

PYM ADVOCATES NATO ACQUISITION OF NUCLEAR WEAPONS

LD291309 London THE GUARDIAN in English 29 Oct 79 p 6 LD

[Report by Clare Hollingworth: "Pym in Lead To Keep NATO Teeth Sharp"]

[Text] Mr Pym, defence secretary, is taking the lead among European members of NATO to acquire nuclear weapons to counter the SS-20 missile and the Backfire bomber which the Russians have already deployed. It would be "highly irresponsible and dangerous," Mr Pym said yesterday, for members of the Atlantic alliance to continue ostrich-like to bury their heads in the sand in the face of Russian growth in nuclear capacity.

The minister emphasised the need for NATO powers to maintain their nuclear deterrence capability. To forgo modernisation of their theatre nuclear weapons, as suggested by President Brezhnev, would mean that "we should soon be in a position of unacceptable weakness," he said. Mr Pym, who was speaking to university students in Nottingham, said that introduction by the Russians since the mid-1970s of the supersonic Backfires swing-wing bomber and the new mobile SS-20 missile "had given rise to very real concern for us."

The SS-20 has the capability of delivering three nuclear warheads very accurately on widely separated targets--say, the Houses of Parliament, the RAF station at Cottesmore, Leicestershire, and Grimsby Docks. But because they lack the range to cross the Atlantic the SS-20 and the Backfire are not included in the SALT I agreement on limitation of strategic arms.

Russian deployment, Mr Pym said, was in sharp contrast to NATO's. NATO had not deployed any comparable new systems since introduction of the F-111s (bombers) in the late 1960s and the British Vulcan bombers, which were even older and due to be phased out in the early 1980s. Mr Pym assured his youthful audience he was not a warmonger, and said that Mr. Brezhnev's "use of highly selective statistics in his recent speech--cannot obscure the real and formidable growth in Soviet nuclear capability."

Referring to NATO's plans to improve theatre nuclear weapons in Europe, the minister emphasised "we are not intending, nor is it necessary, to match each Soviet deployment, system for system." But to maintain capability and flexibility NATO had to have nuclear weapons capable of striking the Soviet Union in a situation in which the only alternative would be to resort to strategic forces.

Mr Pym did not add that the Americans would be most reluctant to launch strategic missiles which would render their own cities vulnerable to Russian missiles.

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SWEDISH DEFENSE INSTITUTE SAYS USSR EXPLODES NUCLEAR DEVICE

WA051250 London REUTER in English 1139 GMT 5 Oct 79 WA

[Text] Stockholm, Oct 5, REUTER--The Soviet Union exploded a nuclear device last night in an area away from its usual test sites, the Swedish National Defense Institute said today.

The blast, east of the Ural Mountains near the Ob River, could be part of an earth-moving project, Dr Ola Dahlman, head of the institute's seismic department, said.

It was the sixth Soviet nuclear explosion this year outside normal test sites and could indicate increased Soviet use of atomic explosions for engineering purposes, Dr Dahlman said.

"But one can never be certain. Military and civil explosions look the same on our instruments," he said.

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ARGENTINA

FRG CONTRACT HERALDS BEGINNING OF VAST NUCLEAR INDUSTRY

Buenos Aires LA OPINION in Spanish 3 Oct 79 p 13

[Article by Martin F. Yriart: "The Argentine Nuclear Industry"]

[Text] A shift in the orientation and the expectations of the incipient nuclear industry sector is, prima facie, the immediate consequence of the decision to choose for the Atucha II nuclear power plant the pressure vessel system developed in Germany. The decision was made by the Executive Power on the eve of the trip of President Jorge Rafael Videla to Japan, following the recommendation of the National Atomic Energy Commission (CNEA) and the advice of an ad hoc interministerial commission which unanimously ratified the CNEA suggestion.

The decision, which in itself was not unexpected, nevertheless surprised those who usually keep up with the subject because the drafting and signing of the corresponding decree was done in the greatest secrecy, and the most widespread conjectures outside the CNEA were that the recent visit of the foreign trade minister of Canada and the announced visit of his colleague of state participations of Italy, jointly with the insistence of the Argentine private enterprises that Atomic Energy of Canada Ltd and its European associates restate their position vis-a-vis the CNEA and make a new offer, would cause the final decision about Atucha II to be postponed at least until the return of President Videla from Japan.

In the closing portions of the address delivered at the headquarters of the CNEA in Nunez last Monday, Castro Madero spoke to the industrialists in terms that can be interpreted as a tacit admission that this sector, whose most significant, though incipient, development was due in large measure to the possibilities of participating in the Embalse works and supplies and whose growth expectations basically hinged on the accessibility which the Canadian system offers, must make an effort to adapt, keeping in mind that the pressure vessel system imposes limitations in scale in some aspects and calls for a new effort to absorb technology and productive capacity.

6

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In Monday's address, however, Castro Madero hastened to point out that with the award of the power plant to the German KWU company, the participation of the national sector in the work and supplies (which is almost the same as the Canadian offer on a percentage basis) will represent contracts and purchases for \$811 million, that is to say, almost \$200 million more than if the Canadian system had been chosen. Castro Madero also insisted that many components to be acquired for the two systems are comparable, or merely require slight modifications. And as to those which perforce must be imported, he emphasized that various concerns in different countries are able to provide them.

From the industrial and management standpoint, Decree No 2441 always left something in doubt which might possibly be clarified in the course of the final negotiation between the KWU and the CNEA. On several occasions during the past few months, the CNEA had expressed the intention of setting up two joint enterprises with the successful bidders of the Atucha II power plant. One would be in charge of managing the project and, in particular, of letting the subcontracts. Its role would be that of the "industrial architect" that puts in place the pieces of the jigsaw puzzle delivered by the main contractor and the subcontractors.

The other was an engineering concern. The latter is explicitly contemplated in Article 2 of Decree No 2441. On the other hand, there is no reference to the former. Castro Madero, however, stated in Monday's address that the Atucha II nuclear power plant would be "jointly" built by the KWU and the CNEA.

The subject of the management concern touches on a point which the CNEA has considered vital since 1976, and which is its adaptation to the rules of the game of "nuclear business" that make necessary a substantial modification of the juridical and administrative system of what was a predominantly academic institution and control organization until a short time ago, and which now is in the process of becoming a vast nuclear enterprise which exploits mineral deposits, manufactures fuel and other supplies, builds power plants and generates energy.

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7

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MEXICO

BRIEFS

FIRST NUCLEAR PLANT--Mexico City, 27 Oct--The Federal Electricity Commission (CFE) has announced that Mexico will inaugurate its first nuclear plant in 1982. The plant is being built in Laguna Verde, Veracruz State, and will generate 650,000 kilowatts with an investment of over 25 billion pesos (about \$1.1 billion). The Laguna Verde nuclear plant will be equipped with the most advanced security measures to prevent accidents such as those that have occurred in the United States, CFE Director Hugo Cervantes del Rio reported. [Mexico City PRELA in Spanish to PRELA Havana 1726 GMT 27 Oct 79 PA]

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FRG-FRANCE NUCLEAR COOPERATION PROBLEMS EXPLORED

Duesseldorf WIRTSCHAFTSWOCHE in German 1 Oct 79 pp 18,20

[Article by SPD Bundestag Deputy Ulrich Steger: "Friction Between Bonn and Paris"]

[Text] Lately, the German-French nuclear friendship has cooled considerably. SPD Bundestag Deputy Ulrich Steger examines the problems which have marred cooperation between the two countries in the field of nuclear technology.

Within the framework of conditions governing energy policy considerable differences in strategy exist between Bonn and Paris. The policy of the FRG aims at energy conservation, the use of coal and new energy technologies. In this scheme nuclear power is expected to supply the unfilled power demand. In contrast, France relies unilaterally on nuclear power. More than 50 percent of all power is expected to be supplied by nuclear power plants to replace the use of oil (partly even for electric heating) as early as in 1985. Within the same time span the first commercial breeder reactor "Superphoenix" in Malville in the borough of Creys is expected to come on line followed immediately thereafter by others. This is surely a high-risk strategy--whose cost may partly have to be borne also by the FRG Republic in the form of deliveries arising from the Montanunion agreement.

Of course, in France there is opposition to nuclear power estimated to include a good quarter to close to a third of the entire population. That the opposition was hitherto unable to exert its influence is due--according to the NEW YORK TIMES--to the centralist and authoritarian administrative system prevailing in that country with power concentrated in the hands of the technocratic elite, people who have all attended the same school, know each other personally and are convinced of the correctness of the course they have embarked on.

By establishing a Nuclear Power Commission an instrument was created which has arrogated to itself the jurisdiction over all aspects of nuclear power (including security and licensing) and all capacities (industry included)

9
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and developed it into an "unstoppable bureaucratic bulldozer" (NEW YORK TIMES).

The endeavor by France to change the 1957 Euratom agreement aiming only at a "renationalization of the nuclear fuel policy" poses a special problem for the FRG. But according to the NEUE ZUERCHER ZEITUNG "it is clear that the changes in the clause governing supply desired by France would affect the entire Euratom agreement by analogous interpretations." According to the Swiss paper "France wishes to strengthen its special position with regard to the nuclear fuel policy by insisting on national premises and prerogatives, break out of the limits imposed by EEC constraints and derive economic and political advantages from its privileged position in commercializing know-how in the nuclear fuel cycle."

This may mean advantages in the export of nuclear power plants where the French today are already miles removed from the constraints imposed by European solidarity whenever large orders are involved which become an object of domestic nuclear controversy in the FRG. Here the burden of the oversized and technologically obsolete French uranium enrichment plants may be playing a role, just like the efforts by the French to gain advantage over its neighbours (and competitors) by making use of their special relationship with former colonies such as Niger or Gabon with their rich uranium deposits.

But the French wishes for revision may really turn into a touchy issue once they start intruding into the realm of international policy. In his declaration to the National Assembly on 15 December of last year Minister of Foreign Affairs Jean Francois Poncet left no doubt that in implementing and applying the Euratom agreement in the future the nations possessing nuclear weapons must be given special consideration.

This puts the nondiscrimination clause towards nonnuclear states contained in the nonproliferation treaty into jeopardy for the FRG not only on a European but on a worldwide scale, because the application of the Euratom agreement in relations with the United States and at the INFCE Conference* is a strong supportive argument and represents a model of a tool by which the misuse of the peaceful application of nuclear power for nuclear weapons production can be prevented by controls and multinational cooperation. The French tactics with respect to "thermal recycling" (recycling plutonium resulting from the reprocessing of fuel elements in light water reactors) or the French opposition to the British-German-Dutch gas centrifuge development, which they call especially proliferation-prone (suitable for

* International Nuclear Fuel Cycle Evaluation Conference, working groups from 50 nations, meeting currently in Vienna, which on the initiative of the United States President Jimmy Carter are expected to find out how nuclear arms proliferation can be prevented by the peaceful use of nuclear power.

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transmission), raises fears that in reality the French want to invalidate the equal rights of--at least European--states in the peaceful use of nuclear power in order to gain privileges for the states possessing nuclear weapons.

To the existing conflicts can be added the rejecting attitude of France toward Federal Chancellor Helmut Schmidt's initiative to improve and standardize reactor safety procedures by international agreements. Paris is of the opinion that such agreements could lead to a moratorium. In addition, the French claim that reactor safety is exclusively each state's internal business and not subject to external control. Worthy of mention are further the quarrels about the parliamentary inquiry into the disposal agreements of German power supply enterprises with the Cap de la Hague reprocessing plant or the protracted negotiations on the return of the plutonium recovered there.

Small wonder then, things being what they are, that in German-French cooperation there is considerable friction also at lower levels. For example, the French are adamant in their insistence that the cooperation in breeder reactor technology implies only the pooling of joint (systems-) know-how but not the transfer of know-how about breeder reactors or the production of breeder fuel elements or their reprocessing. On the other hand they exhibit almost no interest in the other agreed-upon cooperation on the high-temperature reactor.

Therefore, it appears that the situation is developing in a direction which speaks for rethinking German-French nuclear cooperation and leaving illusions aside. When the differences in strategies involving energy and foreign economic and military policies between France and the FRG are as great as they are in the nuclear energy field then a sober reexamination is called for to determine where common interests for continued cooperation still exist in this special area. On the other hand closer cooperation in the field of nuclear power might easily be possible with countries such as Great Britain pursuing policies similar to Bonn's.

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11
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FRANCE

MINISTER OF INDUSTRY INTERVIEWED ON NUCLEAR POLICY

Paris LE NOUVEL OBSERVATEUR in French 8 Oct 79 pp 48-50

[Interview with Andre Giraud, Minister of Industry, by Josette Alia--date and place not given]

[Text]--One should be wary of Andre Giraud. He has Viking blue eyes and the Norman frame, but was born in the Bordeaux region. He is the energy tsar, the atomic dictator, the man who is going to straighten out industry with an iron hand, leaving his velvet gloves on the coat stand. But he adores children's films and he spends his leisure painting. In short, he pursues diverse activities, and enjoy this. As a student at the Ecole Polytechnique, he used to play rugby and do parachute jumping (at the same time as Massu). As a senior official, he always detested the slow proceedings and red tape of administration. As minister of industry, he sets aside professional politics and dreams of being a company head. Could he be a future prime minister? "The question is irrelevant," he answers in a tone which has suddenly turned icy, whereas just a moment before, he had been laughing heartily.

Andre Giraud had first dedicated himself to the oil sector at a time, 1947 when France had neither oil nor an oil policy. So why did he choose oil after an honorable mention in math he received at a competitive examination? He liked literature. But his father, vice-principal of the Bordeaux High School, decided that Andre was good in math, so he would become an engineer. At that time, no arguments were permitted. So he joined the Ecole Polytechnique, naturally leaving as head of his class in 1944. He was 19 years old. France was in a post-war period, with rationing in import licences, and poverty in all sectors and primarily in energy. Is that why he then chose the Ecole des Mines, and later the Ecole Superieure du Petrole? At that time there were already quite a few

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people who believed, that we had to "fight like dogs" to make France independent in the energy sector. In 1949, he went to Texas, where he remained for a year. It was a shock, the discovery of another world, the fascination for American technology, abundance and industry. We must, yes, indeed we must catch up with them. A crusade was started.

1950-1970: Twenty years of oil. Guillaumat (the "pope," the power behind the throne), Giraud and a few others worked silently, almost secretly on their great goal: France should have its national oil, because oil will one day become more rare in the world and will become a powerful means by which the countries who have it will put pressure on the ones who do not. "It was obvious, since the Mosaddeq affair. Then it all happened inescapably." Then the heavy blow of 1962 fell: loss of Algerian oil. "At that point we had to begin again from zero." But a new beginning was made; for Giraud believes that oil is one of the great political weapons. The proof of this was that in May 1968, at the time of the revolution and barricades, people were fighting in the streets, singing and arguing with joy. But as for Andre Giraud, he was not amused. He can understand: his son was a student. Well, society was changing. But it was also the country falling to the distaff, and he didn't like that. At the Fuel Department, where he was the all powerful boss, he put his system in order. Road transportation was still in operation. Gas distributors can be convinced by arousing competition, by sending a few tank trucks to Paris. At the Champs-Elysees demonstration, Malreaux and Debre sang the Marseillaise. Was it to be civil war? No? It would be a great weekend spree. The gas pumps were open once again! The weather was fine! Paris drove off to the countryside. The revolution died down. Finally, the real power rested with the Fuel Department.

1970: The nature of the energy has changed. It is now called nuclear, and Giraud is certain that it is the only form of energy which could take over with the threat of rarer oil he foresees, fears and expects. He takes over the management of the Atomic Energy Commission, entering the nuclear field like someone joining a religious order; But a crusading monk: to revive the CEA (Atomic Energy Commission) that all believe to be in its death throes, he worked hard, made decisions, separated research and industry; he also made man enemies. Oh, the results were not disputed; in his hands, the CEA became a real power, a key point to power. The French nuclear

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program is one of the most structured and important in the whole world. Giraud imposes his image: vigor and humor. For controversy is mounting in the nuclear sector. And the technocrat who rendered accounts to no one, the expert who only accepted discussions at symposia, was suddenly faced with something which had been part neither of his plans nor calculations: public opinion, and with the matter of fissures in the power stations a demanding, implacable and increasingly well informed public opinion (see the article by Michel Bosquet on p 54). First of all, he was irritated, revealing a vulnerability that was little known. Then he reconsidered and speaks. But not, as will be apparent, without some hesitation.

[Question] "You have been the oil man, then the nuclear energy man. What will the next technological leap, the next mutation be?"

[Answer] "In my opinion, informatics and micro-informatics are much more important than oil and nuclear devices, which only produce energy, whereas informatics is going to induce a total transformation of society: why should one continue to work in offices if the same thing can be done at home, on a computer terminal or a telecopying unit? Why should one be burdened with bills, coins or even checks when electronic money, with punched cards, is almost completely perfected? There are not just material changes: informatics is going to change our ways of thinking, our concepts. It represents a sort of amplification, an extension of human intelligence. Already our children do not calculate in the same manner as we do, they do not know the same things as we do. And things will be moving very fast: the public does not measure at all the extent of the phenomenon, but familiarization has already taken place. People have become used to pocket calculators, to computers. At this very moment, a law is being voted upon which would tend to accept as proof a recording on a magnetic tape! And no one stands up to oppose it. And yet these are the real political problems."

[Question] "Do you see any danger in it?"

[Answer] "Yes. Informatics can obviously be a tool of political domination, or simply insure the cultural imperialism of those who "are in the know!" But it may also restore a more direct communication between the powers and the citizens: telematics reviving the Greek Agora! A dream. In any case it should make it possible to succeed where other sciences have failed: put them on the public square, inform the citizens question them, make it possible for them to evaluate the usefulness or lack of usefulness of any technical advance. The stunning achievements of genetics for example will not be long in posing serious moral and ethical problems. This time one should not take the wrong turning on the way to reconciling public opinion and science."

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[Question] "This was a step which was not taken in the nuclear sector?"

[Answer] "No, indeed it was not done. And that's a pity."

[Question] "Why?"

[Answer] "I believe that at the beginning men working in the nuclear field were so proud of their work that they shut themselves up in their ivory tower. Then they were opposed, attacked, sometimes very unjustly and harshly. Then they had a moment of reflection, and really their project deserved a defense. Obviously, it might have been better to adopt a different approach: inform, consult. Since this was not done, it aroused blind fear, the fear of the unknown. The mystery. Therein lies the whole problem: how can this fear be dissipated?"

[Question] "For 8 years you were the head of the Atomic Energy Commission. Why did you not do this at that time?"

[Answer] "If you can provide me with a good solution for thorough information on nuclear energy, I am prepared to adopt it. But how? The technical data are so complex that it is impossible to communicate them. Then how could one get any idea on the subject? In principle, experts are consulted. For my part, not being omniscient, not being versed in metallurgy, electronics, or the rest, I acquired an idea of the real and potential risk from people whom I believed were credible and whose credibility I trusted at all times. Then I was able to take the responsibility. But what about the public? How do you think they would manage to make any sense when some scientists are accusing others? How would they be able to judge between cranks and others? The only thing it is possible to do today is to work seriously, and then convince people that the nuclear sector is in the hands of reliable people, who can be trusted. This assumes that the important data can be checked."

[Question] "Did you see the "China Syndrome"?"

[Answer] "No."

[Question] "Were you afraid during the Three Mile Island accident?"

[Answer] "I could not understand why they were losing their heads there, in view of the technical elements which reached us. I began to worry when they began talking of that blasted hydrogen bubble, on Sunday, because that was something abnormal, something unexpected. But in the final analysis, the interpretation had been exaggerated, the tiny bubble did not pose any danger."

[Question] "In that case what was alarming was not the bubble, but the errors committed by the American experts. How can one refrain from thinking about it, now when people are talking of dangerous fissures in the steel of two reactors? This time, in France..."

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[Answer] "This phenomenon has been known and studied for months. All the sections in charge of safety established a report stating formally that the loading of these reactors posed no hazards. If this phenomenon, which, by the way, is superficial, were to be aggravated, its evolution could be followed over several years. I have therefore no reason to refuse today approval for loading."

[Question] "Why should everything be centered around the nuclear sector? One could also practice self-control, and even, why not, change one's lifestyle?"

[Answer] "Actually, if a change in lifestyle were really accepted (although, in my opinion, the French people are not prepared for this), we could dispense with some of our energy. But at that time, I would stand up to ask: what energy would it be better for us to give up? Well, it would certainly not be nuclear energy, which is most sure and least dangerous. Yes, the least dangerous: in normal operation, the radioactivity around the power stations is at an extremely low level. In case of normal operation, the whole design provides for the radioactivity to remain inside the building. And it does remain inside. On the other hand, with fuel... Take the example of the Nogent power station, near Paris. With the same lifestyle, either nuclear electricity is used, which does not affect the population, or one must accept the fact that a million tons of fuel oil, or a million and a half tons of coal, more must be burnt in the Parisian homes. There you are, you can calculate yourself the number of cancers this pollution will induce. Now I ask you which is the decision requiring more courage, which is the one which makes a dangerous sacrifice to fashion?"

[Question] "So after all, nuclear energy is completely safe?"

[Answer] "I never said it was completely safe! I tell you that it is a risk comparable with all the other risks which our society faces today. No human activity is totally safe."

[Question] "Nevertheless, it's a pity there should be no more oil. It was so practical."

[Answer] "Yes, but that's all over. We are heading, with ups and downs, towards a situation of increasingly rare oil. This is a fact, and those who state that there is no problem, or no more problems, are thoughtless."

[Question] "What is the concrete meaning of "rarefied oil"? What are the critical thresholds? The possible ruptures?"

[Answer] "I do not believe there will be a sudden rupture, but rather a continuous dwindling of the role of oil in our production of energy. It should be retained only in indispensable areas, for instance petroleum chemistry and motor oils, about 30 percent of our annual consumption."

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[Question] "And this could be done without any problems, without upheavals? Without any crisis?"

[Answer] "The crisis may arise at any moment. You only need some kind of serious political situation somewhere. Look at Iran...but, finally let us assume that everyone behaves. Let us assume that the producing and consuming countries agree, that energy conservation be reinforced, that alternative sources of energy be sought actively, and also that no political blunders be made. In that case there may be a certain alleviation of the pressure and even (perhaps) adjustment with the other sources of energy."

[Question] "And when would this link up take place? In 5 years, in 10 years?"

[Answer] "No important decision could bear fruit in less than 5 years. A period of 5 years would be needed to implement a new petroleum production, 5 to 10 years for coal or bituminous schists; the nuclear programs launched today will only start their production in 6 to 10 years; we will have to wait 10 years to modify the consumption of the automobile fleet and 25 years to reorganize the property. Solar energy cannot be included in the forecasts because the fundamental research in this area has not yet been adequately developed. Conclusion: We would need a lot of peace in the early eighties!"

[Question] "But what are you doing with regard to these 5 years?"

[Answer] "We are doing our utmost to relax the oil tension: There has recently been a serious progress in the discussion between consumers. Among others, the United States are going to suppress the \$5.00 subsidy, and speculation at Rotterdam has been, I will not say controlled, but kept at bay. The important thing is to loosen the hold very quickly, so that it does not strangle us!"

[Question] "Have you the means to achieve this? Do you feel more powerful as a minister, than when you were head of the CEA, for instance?"

[Answer] "The situation is totally different. At the CEA, it was hard at first: 32,000 persons to reallocate, to distribute in a different way. When I left, there were 25,000 persons left, and no one had been dismissed. But in some way, it was also simpler: I had boundaries within which I had to act. Whereas the functioning of the government in a ministerial position is extremely complex. Many administrative complications are often useless: I do not believe in finicky controls; they are stupid and ineffective. But everybody, citizens as well as state, is more or less responsible for this situation. When I joined this ministry, I wanted to begin oil prospecting in the north of France. I pestered the administrations constantly, and they did what they could, but I was able to obtain the prospecting permit only 14 months later. And they say the minister is all powerful!"

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[Question] "Does that discourage you?"

[Answer] "No, it irritates me. I get hopping mad when I see the amount of time and energy one has to consume to surmount ridiculous details and reduce to some extent the evils of contralization."

[Question] "How do you relax? At the cinema?"

[Answer] "I go to the movies with my daughter, to see children's films. I adore that. Or I see reruns of old films on TV."

[Question] "You are into painting too. What kind of painting?"

[Answer] "Well...yes, I do paint."

[Question] "On the whole, you are not deeply interested in politics. You never held a really political post...."

[Answer] "I did in 1969, when I became (the decision had to be made in 5 minutes) head of the cabinet of Olivier Guichard, then minister for national education. We had to apply the law of orientation in higher teaching. It was no doubt, not the most difficult, but the most acrobatic moment of my career: the whole administrative machine was upside down, we had no means of action-not even directories nor organizational charts. I took up my post at 11 one morning. Who did I have to see in that place? Fortunately, the secretary knew. At 3 p.m. they told me the Ecole Normale Superieure was occupied. The next morning, it was the Vincennes University..."

[Question] "Then you became again a senior civil servant. With relief?"

[Answer] "I would not say that. When you have a responsibility, whatever it may be, you have to accept it. And then, it is very useful to change one's activity: at the CEA, I had laid down a rule by which a deputy never replaced his boss, that made people move, created new teams, broke the routine. It is really suicidal to accept routine, in our modern society. But to answer your question: what is the difference between the post of senior civil servant and of a minister? I would say that the two are political: at the CEA, it was particularly international politics; at the Fuel Department, it was internal politics. That was apparent in May, 1968...What is the difference, is that the Minister has two additional responsibilities: that of defining what the French want and that of explaining to the French what the government is doing. Not easy to speak and be heard by all, when during one's whole life one has used a more elliptic speech, with people who were technical or high officials. I am trying, it can be learned. At least, I hope so..."

[Question] "What embarrasses you most in your new situation of political person? Is it public controversy?"

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[Answer] "I do not like to be taken to task by someone whom I do not know and with whom I cannot have a direct explanation. I have not managed to get used to this yet."

[Question] "After all, you give the impression that you would like to manage the Ministry Industry as though you were a company director, that you would like to send your officials to the fields, or rather to the coal mines, in the Chinese fashion, and recruit private P.-D.G. (Chairmen and General Directors) as high officials, as they do in America. Am I mistaken?"

[Answer] "Not altogether. This administration should be equipped materially and intellectually to react as a head of company in the face of industry. The industrialists should have as conversation partners here people who can achieve a synthesis of their interests and not specialist, however competent they may be. Well, about appointing P.-D.G. from private companies? I am quite prepared to do so, I have even done it. But at the higher level, people from the private sector cost a lot, too much. Beyond the financial means of the public sector. Too bad!"

[Question] "Do you see yourself in the role of a prime minister?"

[Answer] "The question is not relevant!"

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BIOGRAPHICAL INFORMATION ON URANIUM ENGINEER ANNE DUTHILLEUL

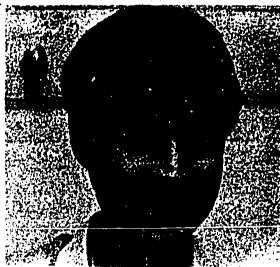
Paris LE NOUVEL OBSERVATEUR in French 8 Oct 79 p 60

[Article: "Anne Duthilleul, 26, Mining Engineer"]

[Text] Something metal and very heavy, mouse-gray. From Canada to South Africa everyone is searching for it with the same greedy fever as the old cowboys of the goldrush. It is uranium, uranium with which nuclear powerplants are heated.... In our country, the director-in-chief of operations for uranium prospecting is a woman, and young into the bargain: Anne Duthilleul, 26, polytechnique major, one of the "eggheads" of the Department of Raw Materials at the Ministry of Industry.

Do you remember Miss Chopinet, who by placing first in polytechnique competitive examination in 1972 jumped over a male threshold? This is she, married now, established, too--and well. With her piercing brown eyes she supervises all French mining searches, particularly searches for uranium in Herault, Vendee, Haul-Vienne or abroad. All requests for exploitation permits pass through her hands. Anne Duthilleul is, then, one of the key elements in French nuclear policy. And she is proud of it: "I favor nuclear energy for reasons of energy independence."

On weekends, after having worked all week for "national independence," this practicing Catholic is writing a work on freedom based on an old text of Saint Thomas entitled "Concerning Evil" together with her husband and a cousin (a Dominican)....



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20

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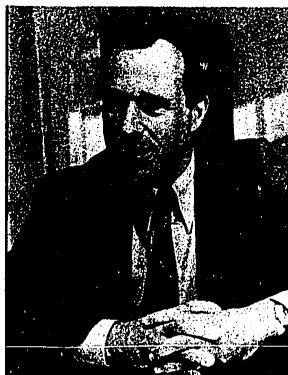
BIOGRAPHICAL INFORMATION ON EDF'S LE MARECHAL

Paris LE NOUVEL OBSERVATEUR in French 1 Oct 79 p 64

[Article: "Tanneguy Le Marechal, 40, Department Head at the EDF"]

[Text] Who makes the (civil) nuclear policy of France? Andre Giraud, the minister of industry. Of course, it is not he who decides on the setting up of power stations in Brittany or the Parisian Basin. It is a Polytechnique graduate in a red tie who works in Office 725 of one of the directorships of the EDF [French Electric Power Company]. None of the opponents of nuclear power know his name, and yet Tanneguy Le Marechal, who is new to this post, is in the process of creating the France that the "ecologists" do not want, by exploring and marking sites where new "Super Phoenixes" will be erected.

If you see him strolling in your district with topographical maps, surveyors and engineers, heaven help you...! Probably a nuclear powerplant is coming to your area. In any case, Tanneguy Le Marechal will not acknowledge responsibility: "I'm not the one who makes the decisions," he says, and he is right. The head of the Sites-Environment-Information Department at EDF, this man, who has been in house for nearly 20 years, is limited to advising the decision-makers. They listen to him. And in 10 years no one will be able to say that the nuclear France of tomorrow was born of an unknown father.



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21

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BRIEFS

EURODIF TO SUE IRAN--EURODIF (European Company for Uranium Enrichment) is going to sue Iran. The reason: Teheran has never paid the 500 million francs owed for work done on its behalf by the Tricastin nuclear [uranium enrichment] plant. [Paris PARIS MATCH in French 16 Nov 79 p 70]

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UNITED KINGDOM

DEFENSE MINISTRY DECIDES ON TRIDENTS AS INDEPENDENT NUCLEAR DETERRENT

LD011129 London THE GUARDIAN in English 1 Nov 79 p 1 LD

[David Fairhall report: "UK Ready To Buy Trident Missiles"]

[Text] A firm decision has been taken at the Ministry of Defence that Britain's independent nuclear deterrent should be replaced in the 1990's by a fleet of five submarines carrying American Trident missiles fitted with British warheads.

A recommendation will be submitted next week to a special cabinet sub-committee, chaired by Mrs Thatcher, which is expected to endorse the plan. The hope is that the Trident's purchase, a direct successor to the Polaris missile deal but not on such favorable terms, can then be finalised with President Carter during Mrs Thatcher's visit to Washington in December.

The plan is to have the first of the new submarines in service by the mid-1990s, with a fleet of five boats eventually replacing the Royal Navy's present fleet of four Polaris submarines so as to have at least two boats on patrol at any time. Each of them will probably carry 16 Trident missiles, which are three-stage ballistic rockets with a range of 7,000 kilometres, currently under development for the US Navy.

The Aldermaston atomic weapons [division] will be asked to develop a new warhead carrying MIRV's (Multiple Independently Targetable Re-entry Vehicles) on which some design work has already been done. It is not clear whether the British warhead would have as an option Manoeuvrable Re-entry Vehicles (MARVs) as planned for the American Trident I, but either design would presumably require a major testing programme.

The cost of the new deterrent force can hardly be less than 4,000 million pounds, since the last authoritative estimate of such a replacement, prepared by Ian Smart of the Royal Institute of International Affairs, suggested that it might cost nearly 3,000 million pounds in 1976.

The Pentagon seems to have made a reasonable preliminary offer for the Trident sale, in terms of the proportion of development costs the British missiles would carry, but there would be no question of repeating the generous terms on which the Polaris system was handed over in the wake of the embarrassing Skybolt cancellation.

Although the Ministry of Defence proposal has been approved by the Joint Chiefs of Staff under the chairmanship of Admiral Sir Terence Lewin, as chief of the defence staff, both the Army and the RAF are known to have some reservations about the prospect of spending perhaps 10 percent of our defence budget on a deterrent force during the peak four or five years of its development.

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They would probably have been a lot more restive had this expenditure not fallen beyond even the long term, 10-year costing period. The submarines will not be under construction until the early 1990s. None of the projects currently being pursued by the generals and air marshals, such as Rhine Army's new main battle tank or the RAF's Harrier-Jaguar replacement, will therefore be directly affected.

But if Mrs Thatcher and her ministers do endorse the Trident plan next week, its public debate is likely to be vigorous both in Parliament, where the defence secretary, Mr Francis Pym, has already promised a debate, and in the US Congress.

The government is bound to be challenged as to why Britain still needs an "independent" nuclear deterrent, why the deterrent force should consist of much cheaper nuclear-armed cruise missiles of the kind we are in any case proposing to have based in this country--owned and operated by the Americans--as part of the collective plan to modernise NATO's so-called theatre nuclear weapons.

The vast amounts of money saved, some will argue, would buy conventional forces giving far more real "independence" and freedom of manoeuvre in NATO than nuclear weapons that would only be used as a last, suicidal resort.

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END