Rebuild the nation's productive industries!

A national reconstruction program is needed, to stop a spiraling collapse in the physical economy. By Robert Gallagher.

The ongoing collapse of the paper economy has created a situation in which, without immediate emergency measures to prevent it, we can expect an even faster rate of decline in the real, physical economy than that which is presently occurring. Without emergency measures, we will quickly be propelled into a depression even more devastating than the Great Depression of the thirties.

The positive element in the present crisis is that it does away with, once and for all, any illusions about the reality of a "Reagan recovery." Not only did this recovery not exist, but over the past eight years the American economy has suffered rapid deterioration as basic industry has been shut down and infrastructure left to rot. While there has been some defense build-up, here too, the pace has not been in any way adequate to the challenge before us.

Lyndon LaRouche has proposed a series of measures which must be taken in the immediate future, to turn around the situation. Cumulatively, these measures can create a climate in which we in the United States can rapidly assimilate new technologies into the economy, from the space program and the Strategic Defense Initiative. In this way the productivity of the work force can be increased. Yet, even with such an increase in productivity, the tasks before us seem awesome.

As a nation, the United States has the advantage of the experiences of the 1939-43 World War II mobilization and the 1960s Apollo program to show how an economy could leap forward, when the proper investment climate was coupled with a national mission that was a stimulus to the rapid development of new technologies and their assimilation throughout the economy.

Unfortunately, the problems we face today are far more serious than the ones we faced in the past. The United States has sunk into a hedonistic culture, and is in an advanced state of moral, as well as physical, decline.

The report below identifies critical federal government programs and policies in areas from financial reorganization, to defense and economic infrastructure, that can drive the rebuilding of basic industry and agriculture. We cannot wait until the 1988 elections to adopt measures to halt economic collapse. These federal programs must form the kernel of a bipartisan program for economic recovery and national reconstruction—now. Since we now face simultaneous crises in the economy, public health, and national defense, these are areas which must play a central role in national reconstruction.

Emergency measures

The key features of a bipartisan national economic reconstruction program are:

1) A return to the credit policies established by Treasury Secretary Alexander Hamilton to foster industry;

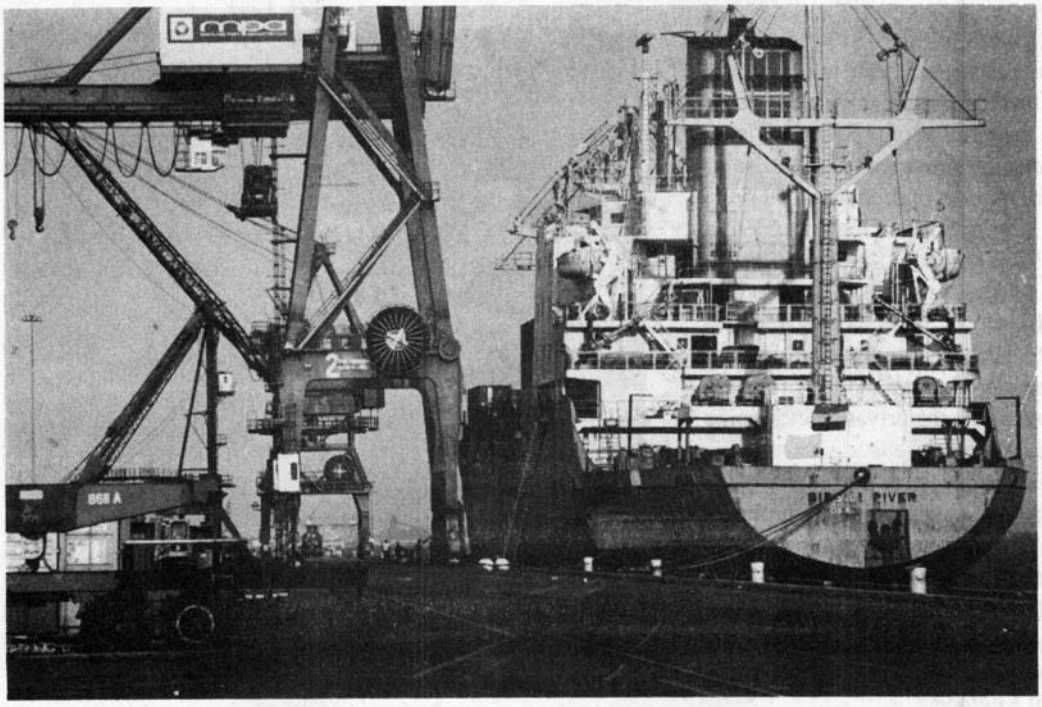
2) Deployment of a strategic defense;

3) A declaration of war on the epidemic of the Acquired Immune Deficiency Syndrome (AIDS), and the establishment of of a "Biological Strategic Defense Initiative" to fight it;

4) Development of essential national economic infrastructure, such as water resources; and

5) The establishment of a commitment and timetable for the colonization and industrialization of the Moon and Mars.

These programs will spur the economy forward in every



Suzanne Klebe

Reconstruction of the ports and other infrastructure of the United States is key to a real economic recovery. Shown here is a Liberian container ship taking on cargo in the port of Baltimore.

area of productive industry. If everything is done right, the economy should take off like a rocket within months of enactment of this program.

There is an urgent need now, that President Reagan enact a series of emergency measures. He should declare a National Economic Emergency, a National Defense Emergency, and a National Health Emergency. He can invoke emergency powers under existing legislation, such as the Defense Production Act, to terminate the independence of the Federal Reserve System, and reform it into a new National Bank. This Bank will serve as the means of establishing a two-tier credit system, so that plentiful credit, at low interest rates, can be made available for investment in mining, manufacturing, construction, agriculture, and other productive industries, while setting the interest rate for investment in non-productive areas or non-necessary overhead so high as to make it unprofitable to invest in those areas relative to productive investment. As Lyndon LaRouche recently wrote:

> The President must submit bills to the Congress, as provided in our federal Constitution, authorizing issues of U.S. Treasury currency-notes. We shall require about $4 trillion of issue of such notes over the first two years, in batches of about $1 trillion each. The new issue of currency will not be spent by government; it will be loaned, at Federal Reserve rates of between 1% and 2%, to farms, industries, public utilities, and as capital improvement loans to federal, state, and local agencies. In the main, the loans will be limited to loans for production capital and capital improvements in the production and physical distribution of physical goods.

The improved climate for investment in productive industry, will set off a capital investment boom in agriculture, manufacturing, and other vital areas of the real economy. The program will force through the retooling and rebuilding of our basic economic infrastructure.

Expanding the productive labor force

How, given the present state of collapse of the physical economy, can the U.S. deploy a strategic defense, launch a war on AIDS, rebuild our basic economic infrastructure, and launch a mission to colonize and industrialize the Moon and Mars, all at the same time? Do we have the industrial capacity and labor force to accomplish all these tasks?

These initiatives will reopen every factory, every steel plant, every mine shut down in the last 20 years of economic decline, even out-of-date machine shops, to get American industry moving again.

To provide the necessary productive labor, the unemployed, the misemployed, the underemployed, will be offered employment in productive industry to boost the percentage of the labor force employed as production workers in construction, mining, manufacturing, and utilities and as scientists and engineers in industrial research and development, from the present abysmal 20% toward 50%. Over the years ahead, much of the existing labor force will transfer out of service industries and into employment in construction and manufacturing. This amounts to transferring approximately 30 million persons into higher-paying, productive jobs over the next decade—more than doubling the size of

the productive labor force.

In the past, the nation has shown itself able to double the size of the productive labor force in a relatively short period of time. From 1938 to 1943, the number of productive workers engaged in manufacturing industries jumped from 7,478,000 to 15,147,000. The number of production workers employed in durable goods industries more than doubled in the years 1939-43, from 3,895,000 to 9,548,000.

A principal problem in shifting millions of people into other forms of employment today will be the logistics required to accomplish the task, such as assembling necessary equipment, or training the new productive workers for their new jobs. How much and how fast is the private sector going to respond to the need to expedite this?

If we left the matter of the logistics for reorganizing the economy entirely up to the private sector, we would probably be fortunate if as many as a few million persons transferred into productive industries in the near term. There is, however, an additional existing logistical infrastructure available that not only can be deployed, but must be, to get certain aspects of the program implemented, namely, the U.S. Army, especially the Army Corps of Engineers.

The Army can provide the logistics required to organize the many federal projects discussed below which will employ huge numbers of people, such as the North American Water and Power Alliance (NAWAPA), the construction of ground-based anti-missile missile systems, etc.

Military operations themselves are 90% logistics: organizing an army, producing its weapons and supplies and transporting everything to the front, are all based on an enormous logistical network.

How fast can individual workers be trained for work in productive industry? In the way that these sorts of projects would be done right now, they require plenty of various types of relatively low-skilled labor: construction laborers, assembly-line workers, etc. Youth can be recruited into working on federal projects in a way analogous to the CCC camps of the 1930s.

While on these jobs, the new industrial workers will be trained in the evenings as carpenters, mechanics, equipment operators, and machinists because these skills will be needed immediately. A few months (or weeks) after initial employment in productive industry, many workers can become apprentice carpenters, mechanics, equipment operators, or machinists.

Boosting productivity

This program will increase the average productivity of the labor force in three ways:

1) *By more than doubling the percentage of the labor force employed in productive industry, the average productivity of the labor force as a whole will increase by approximately the same factor.*

Conversely, the present massive shutdown of basic industry has created a massive overhead burden on the remaining industrial workforce.

Stuart Lewis

A successful recovery program will require raising the productive powers of labor, through education and training—not the kind of slave labor shown here, where a child is a migrant farmworker in Virginia.

2) The program will spur capital investment, increasing the capital intensity of the economy—the amount of capital equipment available per industrial operative—and thus increasing his power to accomplish work.

In the first few years of the reconstruction program, we will unfortunately have to rely on the level of technology that exists in industry today. The nation must pull itself up by its "bootstraps." Nonetheless, because the programs will send the entire economy into a capital investment boom in the basic industrial sectors of mining, manufacturing, construction, and utilities, their very initiation will increase capital intensity and productivity.

3) *Technology developed previously but not yet implemented, will be driven into the economy, further boosting productivity.*

The process of getting production started again, and of setting definite goals to achieve, will, as it did during the World War II build-up and the Apollo program, place more advanced technologies sitting "on the shelf" and waiting for introduction into industry, within reach of the industrial operative, boosting productivity a few years down the line. The national commitment to the goals outlined here, will set the proper investment climate, for implementation of new technologies.

The most rapid possible application of laser and plasma processes to basic industry will occur, including laser ma-

chining, and laser and plasma industrial chemistry. To free up as much skilled productive labor as possible for the enormous labor demand this program will produce, we will embark on the most rapid possible extension of computerized industrial-process control throughout basic industry.

The following examples are meant to illustrate the sort of productivity gains that will occur.

If we simply bring on line the 100 gigawatts of nuclear electric power that is in various stages of construction, we will achieve an enormous productivity gain. With nuclear technology, the power output per electrical utilities production worker is 10 times more than in coal-fired power production, because nuclear does not require the hundreds of coal miners required to fuel a conventional power plant (see *EIR*, June 20, 1986).

Great productivity gains in basic industry will come from the introduction of laser and plasma processes in materials processing. One laser-based process already developed and in the pilot-plant stage of implementation, the Atomic Vapor Laser Isotope Separation (AVLIS) process for the separation of uranium fuel for nuclear power reactors, is over 30 times more efficient than the conventional "Gaseous Diffusion" process now in use (see *EIR Quarterly Economic Report*, 1st Quarter 1987).

Enormous productivity gains and investment savings can be achieved with plasma metals and materials processing, which can come on line within a few years. This technology will increase output per man-hour tenfold, in steelmaking, aluminum reduction, cement production, and other basic industries (see *EIR Quarterly Economic Report*, Oct. 15, 1985).

The example of the Apollo program

The Apollo program provides an example in miniature of how the kind of program outlined here, sends the economy into a capital investment boom. The Apollo program and the earlier missile build-up played the role of a driving economic process that cheapened the cost of production throughout industry, and by achieving set national goals, forced the economy as a whole forward, toward capital investment in more advanced technology.

The impact on the civilian economy of the aerospace programs launched following Sputnik were immediate and dramatic. New orders for capital goods boomed during the 1959-69 defense-aerospace build-up for the first time since World War II. By contrast, from 1950-57, annual new orders for capital goods in non-defense industries actually declined by about 8%. By 1958, the decline was 18%. The following decade of the space program, however, saw an explosive growth in capital goods spending in constant dollars from $103 billion in 1959 to $234 billion in 1969, an increase of 127%! (See **Figure 1.**) While annual new orders for capital goods in aerospace almost doubled from 1958 to 1967 (92% growth), this growth in aerospace provoked a faster acceleration of investment in non-defense industries as a whole.

The period of 1958-68, when U.S. defense and aerospace spending grew at the highest rate in the postwar period, also coincides with the period of the greatest postwar price stability. From 1959-69, the average annual percentage of change in wholesale prices was 1.1% per year. From 1950-57, the rate was 2.4%, and from 1970-80 the average annual percentage of change was 9.3% per year. Increases in inflation correlate with cuts in investment in defense and space exploration.

The economy in the postwar years has been healthier when the proportion of national resources committed to defense and aerospace is greater. These are the industries that under conventional wisdom, do not contribute to national wealth! When these industries are cut back, inflation is set off, as if upon command.

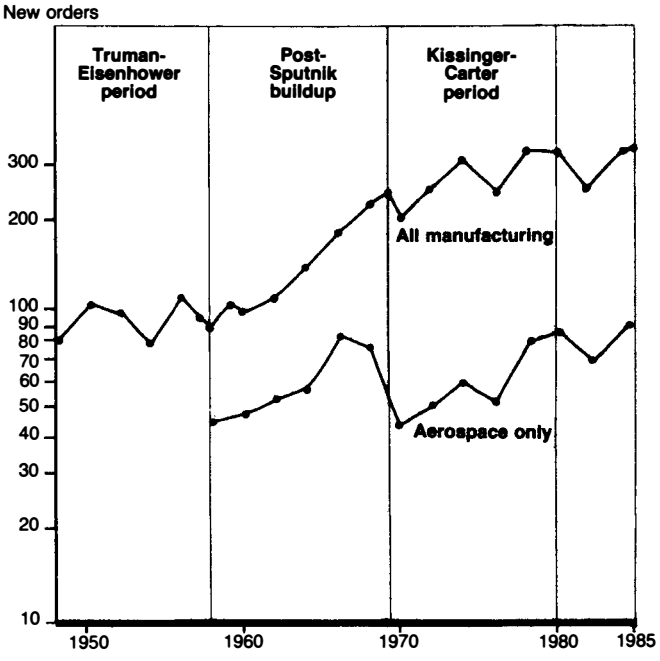
We present below an outline of some of the initiatives that must be carried out in specific areas and which will have a profound economic impact. Sources for most of the detailed statistics are back issues of *EIR Quarterly Economic Reports*.

1. Defense Policy

Rebuilding our national defense requires rebuilding our basic industries, such as steel, machine tools, and shipbuilding. The result will be to retool our basic industries for civilian production.

FIGURE 1

Orders for capital goods boomed during Apollo Program



Source: *EIR Quarterly Economic Report*, 4th Quarter 1986.

a. Shipbuilding. Deployment of a strategic defense over the next five to ten years will require a tremendous build-up in naval shipbuilding capability. Dozens of ballistic-missile submarines will be required within five to ten years as *basing stations for x-ray lasers* and other equipment that would be "popped up" into space to defend the U.S. and its allies in the event of a Russian ballistic-missile attack.

At the present time, construction of a single nuclear submarine requires approximately five years or more. Our present capacity is less than one submarine per year. Construction of the needed submarine bases for SDI hardware must begin immediately if they are to be ready in sufficient quantity when SDI systems are ready for deployment. Closed shipyards must be reopened and operating ones must be expanded.

There is an additional urgent demand on Naval shipbuilding capacity. An urgent feature of strategic defense is deployment of an adequate *anti-submarine warfare* (ASW) capability, both to detect and—in the event of war—destroy Russian ballistic-missile carrying submarines before they can launch their deadly cargo, and to destroy Russian attack submarines that would target U.S. and Allied shipping and naval task forces.

U.S. anti-submarine warfare capability is presently abysmal. As of 1984, the U.S. had 95 ASW attack submarines to defend against Russia's fleet of 385 submarines—90 Russian ballistic-missile carrying subs, 67 cruise-missile carrying subs, and 228 attack submarines (see **Table 1**). The U.S. fleet of attack submarines must expand by hundreds of ships, so that there is at least one U.S. attack submarine for every Russian attack or ballistic-missile or cruise-missile carrying submarine. Existing ships must be replaced or modernized. The fleet of ASW patrol aircraft must also be expanded.

In addition, *the fleet as a whole must be expanded to provide global coverage*. In the recent Persian Gulf crisis, the U.S. Navy was put in the position of concentrating the Mediterranean and Atlantic fleets in the area of the Middle East. This exposed a weak flank of NATO.

As of 1984, the Russian fleet was composed of 791 major surface combatants, while the U.S. fleet was comprised of only 352 (Table 1), and Reagan administration planning called for adding only 90 more. (Major surface combatants include battleships, aircraft carriers, submarines, cruisers, destroyers, frigates and corvettes.)

It would seem reasonable that the U.S. fleet of major combatants should be roughly twice the size of the Russian fleet (or four times its present size) in order to protect shipping, and keep vital sea lanes open.

The civilian merchant marine is another area that requires expansion. The merchant marine constitutes our military sealift capability in reserve. As of 1984, the U.S. Merchant Marine was comprised of about 5,600 ships, with a total dead-weight tonnage of about 18.5 million tons; the Russian Merchant Marine consisted of 8,280 ships, with a tonnage of 23.4 million tons. As a result of the decline in our Merchant Marine, U.S. exports are presently carried from our ports by foreign-flagged vessels.

b. Construction. These demands for shipbuilding, together with the special needs of strategic defense and anti-submarine warfare, greatly exceed the capacity of operating shipbuilding facilities, even if opened 24 hours a day. Thus, one demand on the construction sector will be the *expansion of shipbuilding capacity*.

Expansion of existing yards will be the easiest to accomplish, but must be supplemented by the construction of new yards, or the rebuilding of older, decommissioned ones, such as the Brooklyn or Philadelphia Navy Yards.

All yards must also be modernized. This modernization, as well as the new expansion of capacity, will call for installation of the most advanced machine-tool capabilities.

The naval demands on the construction industry will be dwarfed by the needs for *early deployment of the first phase of a strategic defense* for the United States and Europe. With the Russians poised to establish a national ABM system with rapidly deployable ABM radars and interceptors, coordinated with their national network of phased-array radars, we must place whatever we can in the way of their drive toward an invincible preemptive strike capability.

Presently, nothing prevents Russia from conducting a "Pearl Harbor"-type attack that would destroy the nation's capital, communications systems, industry and the bulk of U.S. military forces. *A crash program to construct ABM radars and ABM missile interceptors* around the country,

TABLE 1
U.S. and Soviet navies, 1984

	U.S.S.R.	U.S.
Battleships	0	4*
Aircraft carriers		
VTOL & helicopter	4	12
Attack	0	13
Submarines		
Ballistic-missile	90	32
Cruise-missile	67	0
Attack	228	95
Cruisers	44	27
Destroyers	84	89
Frigates	177	80
Corvettes	104	0
Total major combatants	791	352
Total minor combatants	785	82
Total combatants	1,576	434

** Built in World War II but ordered out of mothballs by the President.*

Source: *EIR Quarterly Economic Report*, April 15, 1985

TABLE 2a

Total U.S. and Soviet military aircraft forces, 1984

	U.S.S.R.	U.S.	U.S.S.R.–U.S.
Heavy and medium bombers	303	297	6
Interceptors	1,210	282	928
Strategic surveillance	14	45	−31
Total land-based tactical	**7,418**	**4,787**	**2,631**
Fighter/attack	5,460	2,900	2,560
Theater bombers	423	198	225
Reconnaissance/surveillance	585	292	293
Helicopter gunships	950	1,397	−447
Total naval aircraft	**1,085**	**1,295**	**−210**
ASW	480	508	−28
Carrier-based	170	296	−126
Shore-based	310	212	98
Other carrier-based	60	787	−727
Other shore-based	545	0	545
Military airlift			
Strategic	305	329	−24
Tactical	525	520	5
Helicopters	3,650	5,098	−1,448
Total aircraft	**14,510**	**12,653**	**1,857**

Source: *EIR Quarterly Economic Report*, 2nd Quarter 1986

TOTAL 2b

Soviet and U.S. military aircraft newer than 10 years old, deployed 1975-84

	U.S.S.R.	U.S.	U.S.S.R.–U.S.
Heavy and medium bombers	148	0	148
Interceptors	575	36	539
Strategic surveillance	5	0	25
Total land-based tactical	**5,070**	**2,041**	**3,029**
Fighter/attack	3,955	1,362	2,593
Theater bombers	0	0	0
Reconnaissance/surveillance	285	37	248
Helicopter gunships	830	642	188
Total naval	**455**	**390**	**65**
ASW	200	99	101
Carrier-based	(50)	(99)	
Shore-based	(150)	(0)	
Other carrier-based	60	291	−231
Other shore-based	195	0	195
Military airlift			
Strategic	240	259	−19
Tactical	140	80	60
Helicopters	2,300	572	1,728
Total	**8,933**	**3,408**	**5,525**
Percent total aircraft	62	27	

Source: *EIR Quarterly Economic Report*, 2nd Quarter 1986

must be launched immediately, to eliminate the certainty with which Russian strategic planners can plot a preemptive strike today. The U.S. will require as many as ten phased-array radars of the Krasnoyarsk type. Interceptor sites must be constructed to protect every concentration of industry or population and every military base and command center.

c. Military Aerospace. Obviously, this program will put tremendous demands upon the aerospace industry, which must build the ABM rockets, design the radars, and supply the reconnaissance aircraft necessary for the anti-submarine warfare effort.

At the same time, we must build an air defense system around the United States. It's an open secret that a Soviet bomber, armed with nuclear weapons, could fly along certain routes from Russia to Kansas without being detected until the bombs begin to go off.

Part of the technology for air defense is similar to that for ground-based anti-missile missile ABM systems. Anti-aircraft missiles that can shoot down supersonic jets at long ranges, can also shoot down some ballistic missiles, as can the Russian SA-5 dual-purpose ABM and anti-aircraft missile. They require similar radar systems. In addition, we must rebuild the U.S. force of interceptor aircraft.

In 1984 we had zero anti-aircraft
282 interceptor aircraft against a Soviet strategic bomber force of 303. In the same year, the Russians had about 10,000 anti-aircraft missile launchers and 1,210 interceptor aircraft deployed against a U.S. force of 297 strategic bombers.

In addition to air defense, Russia leads in overall air power. As of 1984, it deployed 14,500 principal military aircraft compared to the U.S. force of 12,600 aircraft (see **Table 2a**). But if we compare the numbers of aircraft less than 10 years old (those deployed between 1975 and 1984), Russia has an overwhelming, approximately 3 to 1 advantage. As of 1984, 9,000 Russian military aircraft (about 62% of their fleet) were less than 10 years old; for the United States, only 3,400 (less than 27% of the fleet) were that new (see **Table 2b**).

In addition to these demands upon the aerospace industry,

the first phase of planned SDI deployment will require the manufacture of what compared to today's capabilities, will be a tremendous number of early warning and reconnaissance satellites capable of tracking Russian ballistic missiles in flight and other tasks. (As of 1980, a single early-warning satellite, in geosynchronous orbit over the Indian Ocean, was stationed to warn us of a Soviet launch of its ICBM force.) In addition to satellites, several space stations dedicated to military functions, or joint civilian-military operations, must also be deployed in space.

Military satellites and space stations must be placed in orbit, without threatening the timetable for deploying civilian space stations and initiating the Moon-Mars mission. This requires rebuilding our space launch capability after the series of disasters of 1986. The *EIR Quarterly Report* for the Second Quarter of 1986 outlined the preliminary steps that must be taken to do this. By the early 1990s, early deployment of a space-based strategic defense, combined with other defense, NASA and commercial needs, will require a launch capability equivalent to a space shuttle fleet of 12-15 vehicles. Given that assembly of launch vehicles requires years, the rebuilding of our national launch capability must begin immediately.

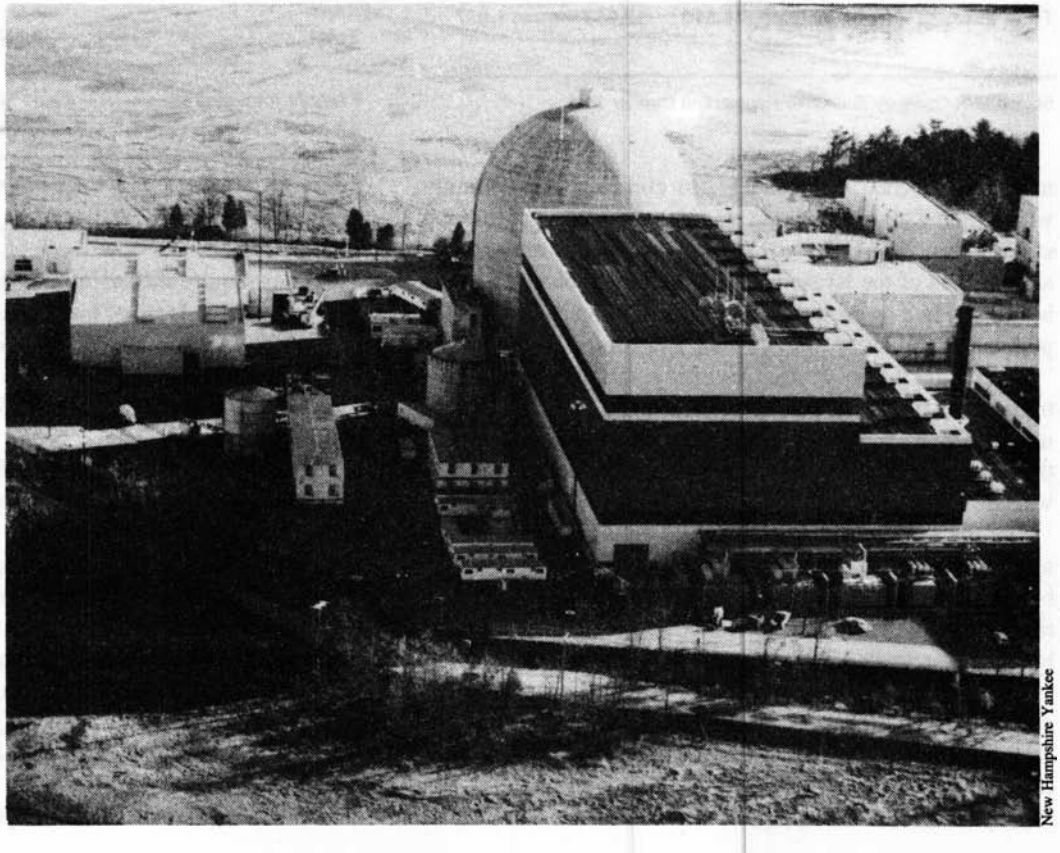
d. Materials Production. With the exception of iron ore, nickel, and tungsten, we import over 90% of all strategic materials we use (see **Table 3a**). These imported materials are absolutely indispenable for weapons systems, such as the MX missile (see **Table 3b**). Plasma-based minerals processing may provide the solution to this problem. Military sponsorship of this technology will speed its introduction into the civilian economy.

Two plasma processes can reportedly be applied to reduce low-grade aluminum, chromium, and titanium ores prevalent in the United States, and can enable us to reduce low-grade iron ore as well, to thus reduce our dependency on imported iron ore, as well as strategic materials.

In 1983, the United States imported about 300,000 tons of titania concentrate (impure titanium oxide). With a plasma process known as "magnetic separation," 3.5 million tons of titania resources can be made available in just two counties of Washington state, in addition to 4.3 million tons of aluminum and 3.9 million tons of iron metal resources there. These mixed ores cannot be economically mined with existing methods.

2. National Health Policy

It is presently estimated that 4 to 5 million people in the United States are infected with Human Immunodeficiency Virus (HIV), and will probably die over the next ten years from Acquired Immune Deficiency Syndrome (AIDS). Those infected are largely in the 20-40-year age bracket. That is, they are either about to enter the labor force, or are in an age



New Hampshire Yankee

The nuclear power plant at Seabrook, New Hampshire

TABLE 3a

U.S. reliance on imports of strategic minerals (1979)

(% of consumption)

Material	Imports
Aluminum ore	93
Beryllium (beryl)	100
Chromium	90
Cobalt	90
Columbium	100
Iron ore	29
Manganese	98
Nickel	77
Titanium (rutile)	100
Tantalum	96
Tungsten	59

Source: *EIR Quarterly Economic Report*, October 15, 1985

TABLE 3b

Material requirements for one MX missile and silo

(indicated units)

Material	Tons
Aluminum	10,000
Beryllium	24
Chromium	2,500
Titanium	150
Steel	890,000

Source: *EIR Quarterly Economic Report*, October 15, 1985

bracket that covers almost half of any individual's years as an active member of the labor force. The loss of such a large percentage of the labor force will be a tremendous blow against our national economic mobilization potential. Treatment of the infected individuals will be a tremendous burden for the economy to carry.

The costs of treating a single case of terminal AIDS is an average of $100,000 per patient. If the five million persons presently estimated to be infected in the United States must be treated in the conventional way, this will impose a cost of $500 billion upon the economy.

Three immediate foci of national health policy must be established:

- To prevent any other citizens from becoming infected with this deadly virus.
- To develop means of treatment for HIV infection to postpone or prevent the onset of the AIDS syndrome, reduce the contagiousness of those infected, and thereby prolong their lives and enable them to perform a productive role within the labor force.
- To implement known, and develop new means of preventing the onset of aging, to extend the productive life of uninfected members of the labor force.

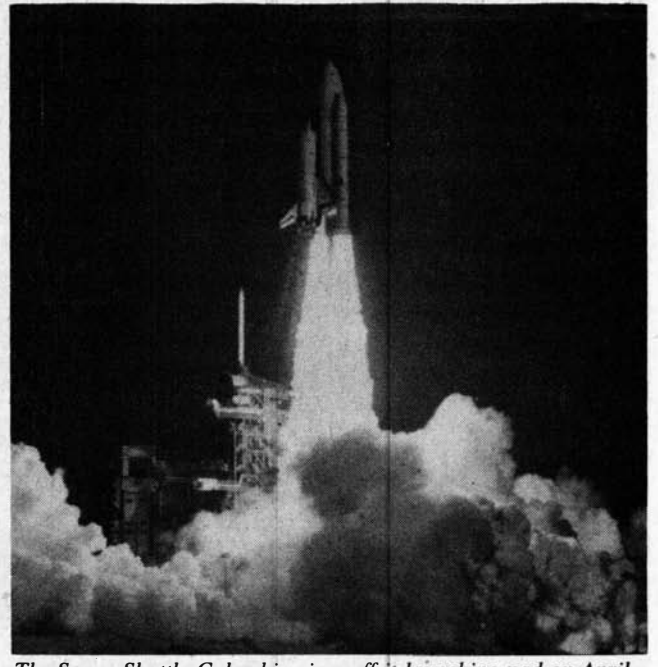
AIDS is the most dangerous aspect of an overall health emergency, in which euthanasia—the deliberate murder of the elderly and the disabled—is being advanced as a means of cost-cutting.

At present, national health policy officials are not taking the required steps to prevent further spread of infection with the AIDS virus. The President must enact a series of measures aimed at improving the public health generally, preventing the spread of this disease and developing methods of treatment. The measures will primarily affect the construction industry.

a. A nationwide hospital construction program must be launched with federal aid to the states to carry it out. AIDS patients will receive the best and most aggressive medical care possible. Saving or prolonging as many lives as we can will teach us much about how to conquer this disease.

b. Everyone must be tested. The President will instruct the Surgeon General to place infection with Human Immunodeficiency Virus on the list of reportable infectious diseases.

If HIV-infection is detected early enough, it may be possible to extend the life of the infected individual. Those found



The Space Shuttle Columbia rises off it launching pad on April 12, 1981.

to be contagious must be isolated from the uninfected population, through home quarantine and transfer to employment that involves no or little contact with the uninfected.

c. A nationwide program to expand medical and nursing schools will be established. Right now, we lack the skilled personnel required to fight the pandemic.

d. Public health will be upgraded across the board. The President will recommend to Congress to aid states seeking to improve basic public health conditions, respecting sanitation, water, etc., above and beyond that outlined below under "Infrastructure."

3. Agriculture

Together with emergency measures to revive American industry, it is necessary to reverse the shameful practice in which the United States is bankrupting its own farmers while importing food from countries in Ibero-America. The very countries which are exporting this food to the United States are failing to feed their own populations.

The present bankruptcy of the American farmer has come about because the farmer has been encouraged to borrow—on the basis of the speculative appreciation of real estate—to make up the shortfall between the prices he is paid and his actual cost of production.

The farmer has been forced to rely upon an aging farm infrastructure. While the auto industry itself is rapidly collapsing, that associated portion of the industry which used to produce farm machinery is virtually shut down.

The inability of farmers to replace their increasingly obsolescent farm machinery, coupled with the failure of the federal and state governments to maintain irrigation water sources, with large-scale irrigation projects such as the proposed North American Water and Power Alliance, underly the collapse in productivity of American food production.

Two steps in the emergency reconstruction program will intervene to revive American farming.

1) Plentiful low-interest rate credits will enable operating farms to roll over existing usurious debts, refinancing them at low interest rates. This will go a long way toward reducing the operating costs of the traditional American family farm.

2) Furthermore, the President must establish a government policy to pay farmers at least the cost of production for their products (so-called parity pricing).

These actions, combined with the redevelopment of our basic industries, will reestablish the farm-equipment industry within the United States.

What can be done to restore the farm production bankrupted in the past eight years of high interest rates? The government could offer to sell bankrupt farms back to the original owners, or their immediate family at an equitable price with no downpayment required to obtain credit.

4. Infrastructure

a. Water resources. The nation's agriculture presently

Philip Ulanowsky

Modern farm equipment: a bale selector/stacker

suffers from a shortage of water for irrigation. Our cities' supplies of clean water are also inadequate. This shortage stems from the lack of development of the water resources of North America as a whole.

Most of the fresh water resources of North America originate in Canada, and flow north. This resource is at present mostly unusable by the United States, Canada, or Mexico. Therefore, the President should negotiate with Canada and Mexico a treaty of cooperation to develop the water resources of North America according to the design known as the North American Water and Power Alliance (NAWAPA).

Construction of a network of canals criss-crossing Canada, the United States, and Mexico, can begin shortly thereafter. These canals will deliver irrigation water throughout the North American continent to cities and farms. Electric power will be generated by hydroelectric dams, constructed at locations where significant water gradients occur within the network.

b. Nuclear energy. As a result of the improvement in the investment climate, and the lowering of interest rates for productive investment to 1-2%, electric power utilities will be able to complete construction of the approximately 100 gigawatts of nuclear power plants under construction or being planned in 1981, when President Reagan took office. These approximately 100 plants could be placed on line within five years.

To expedite the construction of nuclear power plants, *the President should establish an independent board of physicists and engineers to conduct a review of the regulations of the Nuclear Regulatory Commission* (NRC), and present recommendations for streamlining certification of nuclear plants without compromising safety.

The present stagnation of our nation's power grid has overpriced the cost of energy to industry, the citizen, and the military, and is part and parcel of the state of national emergency in defense and in the economy. By executive order, the President will terminate the independence of the NRC and instruct it to implement the recommendations of the independent board.

Second, presently operating nuclear power plants are threatened with shutdown because they have no space in which to store spent fuel, and because there is no operating facility to send it for reprocessing to separate the usable uranium fuel (over 90% of "spent fuel") from other radioactive isotopes formed within it. Former President Carter's arbitrary ruling shutting down the Barnwell, S.C. nuclear fuel reprocessing plant should be rescinded, and the Secretary of Energy should be instructed to either purchase the plant, or provide sufficient but reasonable aid to Barnwell's owners so that the plant can open expeditiously to process spent fuel. These measures will greatly improve productivity in the electric power production industry, since output per production worker is approximately ten times higher at nuclear plants than at fossil-fuel fired power plants.

c. Oil resources. We are presently dependent on foreign sources of oil. Rather than an across-the-board oil tax, presently under discussion as a revenue-enhancing measure, what is needed is a protective tariff which would encourage the domestic production of oil. Such a tariff should impose an oil import tax, in order to make the price of imported oil equal to the cost of producing it domestically, plus a reasonable profit.

d. Transportation. A national railroad grid for the movement of troops and supplies in the event of war, and for handling the commerce of revived industries, does not presently exist. The steel and railroad industries must be encouraged to make use of the low-interest rate credit available, to build as rapidly as possible just such a network, for reasons of national security, as well as the movement of industrial goods. While the present collapse of mass transit and freight-handling capacity must be immediately addressed, we must plan for the future. Proper tax and credit policies should encourage rapid development of advanced transportation systems. We should build networks of high-speed and/or magnetically levitated trains for passenger transit between major urban centers.

e. Space transportation and industrialization: the industrialization of the Moon and colonization of Mars. While we deal with the immediate crisis, we must simultaneously act to build the economy of the future. Bipartisan support for a program to industrialize the Moon and colonize Mars has emerged in the past 18 months.

Last year, the National Commission on Space chaired by former NASA Administrator Thomas Paine, called for the establishment of a manned base on the planet Mars within 40 years. Earlier, Lyndon H. LaRouche called for the building of a science city on Mars within the same time frame.

A national mission appropriate to our time, as the Apollo program was in its day, would set the national goal of establishing a permanent colony on Mars, of approximately 250,000 persons, by about the year A.D. 2029, and intermediate goals would establish colonies on the Moon and develop its natural resources.

It has been estimated that an on-site population of roughly a quarter of a million persons is required to provide the labor force to support a permanent Mars colony, establishing Mars as a distinct "continent" within the human economy (see *EIR Quarterly Economic Report,* First Quarter 1987). Establishing a permanent Mars colony, will require as an intermediate goal developing the Moon as another "continent" within the economy. Like Mars, though earlier, it will engage in commerce with Earth, as the American colonies did with Europe after they were established in the 16th and 17th centuries.

This program will establish the infrastructure that is the basis for the economy of the future. The development of space transportion will revolutionize many industries, such as metals production, energy production, chemicals, building materials, and other industries.