EDITORIAL

Lyndon LaRouche's Four Laws for Productivity

Nov. 24—LaRouche's Four Laws constitute one unified policy directed to the increase of human productivity.

Consider, for one central example, the unified international space program of the near future, in which a revived NASA will integrate its efforts with the leading role of China; with a revived Russian program based on the needed revival of Russian science; with Europe; and with many other countries just now beginning to look towards space. And soon, this world space-program will extend itself to incorporate the industrialization of the Moon, as the great Krafft Ehricke had forecast. Soon, scientific, engineering, and industrial activities on the Moon, will constitute a unique and irreplaceable part of the whole space program,— no longer only a world space program, but one already incorporating near-earth space as well.

Not only that: the crash program for fusion power which is LaRouche's Fourth Law, will itself be integrated within the world-wide space program. Human exploration of the Solar system requires fusion power, which in turn means that fusion power must be designed into the whole effort from the very beginning,—recall, for example, how all the features of the obsolete space system we have used up to this point, have all been shaped by the characteristics of the chemical propulsion systems used.

Study of the German, Russian, and U.S. ballistic-missile programs of the 20th Century, which preceded and laid the basis for the subsequent space programs, shows us history's largest-scale vertical and horizontal integration of the efforts of many thousands of people across numerous scientific, engineering and industrial disciplines and areas. And the required seamlessly integrated design, engineering, production, and testing, were all fundamentally based on new physical principles. They all culminated in a unique system,—never before seen,—incredibly complex, constituting thousands of parts, yet intolerant of even a single failure.

Official website of S.P. Korolov, RSC Energia

Cosmonauts V.F. Bykovsky (right) and V.V. Tereshkova, the first woman in space (left), welcomed after their flight by S.P. Korolov (center) and Yuri A. Gagarin.

When the missile program transitioned over into the space program,— when mankind first stepped out into space beginning with the Soviets' launch of Sputnik in 1957,— the required

scale and complexity required of the unified space effort, expanded beyond recognition, even when compared with the prior ballistic-missile revolution. For example, Boris Chertok, in his pioneering, first-person, four-volume history of the Soviet space program, wrote:

> I dare say that Korolyov [S.P. Korolyov, the greatest leader of the Soviet program] was perhaps the first to understand that space technology required a new organization.... For Korolyov, his deputies, and close associates, this gigantic new system came about because of a broad view of space technology, by combining fundamental research, applied science, specific design, production, launches, flight, and flight control, rather than from specific spacecraft. This single-cycle setup began to operate in 1959 and 1960. The mastery of this cycle by hundreds and later by many thousands of scientists and specialists, made it possible for humankind to begin the Space Age in the 20th century.

Top engineers and designers were to be seen in deep discussions with machinists on many of the shop floors; those engineers, in turn, regularly deliberated in committees, and in more intimate settings, with the most renowned leaders of theoretical science. The horizontal integration through dozens of institutes and factories was just as intense. It is amazing that this could ever happen under the Soviets' central-planning system,— that had required the hard school of World War II as a prerequisite,— but that is another story. But it all began to fall apart after a huge, tragic accident in 1960, and then the British Empire Thatcherite agents gutted everything that was left of Soviet science in the 1990s.

For the space program of the near future, what is needed is the Hamilton/LaRouche credit system, centered and steered by a National Bank, which is a flexible, universal system which supports all parts of this massively intricate chain of production, from top to bottom and from end to end, and which incorporates within itself what the late Charles de Gaulle called "indicative planning." And of course, we're not just talking about space travel here, but every color and flavor of increased human productivity.

Our most recent experience of this, is the means by which Franklin Roosevelt's application of Hamilton's credit system made the United States the Arsenal of Democracy for World War II, and the greatest economic power, by far, ever seen in the world. Loaning instant, low-interest money on contracts from the top to the bottom of the hierarchy of defense production, Roosevelt's system enabled this massive structure to "turn on a dime." To "turn on a dime" towards brand-new, just-introduced higher levels of science and technology. Just what we need now,— and what we must get through LaRouche's Four Laws