

go far out from the sun [in their explorations],” he said, “we will probably use RTGs.”²

At JPL, where Truscello and Stapfer were involved in the rescheduled Galileo and Solar-Polar missions, more caveats are expressed about the future of the RTGs. RTGs were a must for space explorations away from the sun—and would be used on Solar-Polar because the spacecraft on that mission would go all the way out to Jupiter, using the planet’s gravity for a slingshot effect, before swinging back into orbit around the poles of the sun. But Stapfer cautioned: “The big problem with RTGs is the cost, and the days of big, costly space missions may be numbered. RTGs are a big chunk of the cost of a mission.” Moreover, RTG fuel costs were low in the past because DOE assumed most of these costs; soon the user would have to pay the full costs of the fuel. On the hopeful side, Stapfer said that RTGs could fit in with the future approaches to mission design. “To save costs the idea now is to design spacecraft for multiple missions. RTGs look good for this approach. You don’t have to do a lot of redesign of them.”³

The RTG people at Teledyne, however, who had lost out in the later space missions, were less optimistic about the future of RTGs in space. They were confident that terrestrial applications had a better future than space applications. “There are really only two commercial firms in the RTG business anymore,” according to Linkous. “GE has all the space RTG work, and we [Teledyne] essentially have all the terrestrial RTGs. GE picked up the bigger contracts for space RTGs, but I really feel our future is better developing the terrestrial ones NASA put half of its budget into the shuttle in trying to capture the public eye for the future. I’m in favor of the shuttle program, but I think it may take a lot away from a deep space exploration program that would need RTGs.”⁴

Carpenter, now working for a private aerospace firm, saw future possibilities for space RTGs mostly in defense applications. He acknowledged there were frustrations in getting the military to move on missions; the LES mission came about, he reported, because of one Air Force colonel who was enthusiastic and wanted to see it through. Although LES flew in 1976 and there have been no defense missions using RTGs since then, Carpenter maintained that the great future for space RTGs was with the military, particularly when the civilian attitude toward nuclear matters was considered. “The military traditionally feel they