

Some of the thirteen experiments to be performed involved celestial mechanics, meteoroid astronomy, asteroid detection and Jovian-radiation belt examination. The four SNAP-19 generators had to provide at least 120 watts of continuous electrical power throughout the mission, which would vary between 645 and 795 days depending upon the specific day and hour of launch.<sup>26</sup>

The launch of Pioneer 10 went relatively unnoticed by the public, but interest heightened considerably as the Jupiter fly-by occurred twenty-two months after the mission began. Hall recalled vividly the ten days at Ames in December 1973 when Pioneer 10 encountered the planet Jupiter. The press was there every day, along with a gathering of very interested space scientists. One of the great unknowns was the strength of the radiation field that would be encountered. "I thought the radiation problem had been oversold," said Hall, "but those readings really got high. The press knew we were getting very concerned. We prepared a release every day."

Dix also was present at Ames to watch the data coming in. In his view, "Pioneer was the most successful spacecraft ever flown." Pioneer survived the radiation around Jupiter and continued to perform its experiments perfectly. A concern early in the mission had been that asteroids would penetrate the sealed capsules as the vehicle passed through the Asteroid Belt, but that problem never materialized.

Headlines in the San Francisco Bay area papers proclaimed "Pioneer Makes It." The public, perhaps not as excited as space specialists about radiation hazards, saw pictures of that distant planet taken by special photo equipment.<sup>27</sup> Space journals, too, gave extensive coverage to the triumph of Pioneer 10 and the survival of its payload, the RTGs, in the severe radiation environment near Jupiter. They noted, also, that Pioneer 10 was the first man-made object to leave the solar system.<sup>28</sup>

After the success of Pioneer 10, Pioneer 11 (enroute) was retargeted onto a path that would take it by Saturn as well as Jupiter. Arrival at Jupiter was scheduled for 2 or 3 December 1974, and arrival at Saturn about 5 September 1979.<sup>29</sup> On the arrival at Jupiter, space reporters mentioned that Pioneer came through the zone of peak radiation danger in better shape than the earlier Pioneer. The spacecraft had survived "worst case conditions" and there was a note of great expectancy in the reports that the functioning vehicle and its scientific equipment were continuing on a course to the first space encounter