"1" because it followed a trajectory that brought it to Jupiter before Voyager 2's arrival.

Carl Sagan, among others, hoped for significant information from Jupiter and anticipated that "abundant biota" might be found in the planet's clouds. At the time of launch, a space journal referred to the mission as "running a planetary post pattern": Voyager would "'run straight' for Jupiter, then head toward Saturn, then fly toward Uranus and, finally, streak into the solar system's end zone—beyond the leading edge of the solar system." The impressive tour would fly by Jupiter, rendezvous with Saturn's rings and make close-up observations of eleven of the two planets' twenty-four satellites. Ballistics of the trajectory of Voyager 1 called for it to use Jupiter's gravity to sling it toward Saturn—thereby saving almost three years in flight time. Voyager 2 would use Saturn's gravity to accelerate and change its course toward Uranus and possibly on to Neptune.[45]

In their distant travels, the Voyagers, even more than the Vikings, had to be able to run themselves. Communication time to Jupiter and back is 80 minutes, and to Saturn and back, about twice that amount. The Voyagers were able to transmit 115,200 bits of data per second from Jupiter and 44,600 bits per second from Saturn.[46] So again, the RTGs powered versatile and complex instruments, including independent computer brains, and thereby insured the success of a mission to the edge of the solar system.

The planetary encounters elicited rapt attention from space scientists and considerable interest from the general public. As with the Vikings, information came to a central control center at JPL and from there to an eagerly awaiting audience at the Von Karman Auditorium. Mark Washburn documented impressions of the encounter with Jupiter in early 1979 as the atmosphere of the planet was revealed in vivid color:

> There had never been anything like it. For two weeks in late February and early March, 1979, Voyager I plunged through the Jovian system, shattering theories and changing forever the way in which earthlings look at the universe. The high-tech, soberly scientific Voyager mission turned into something different, something more—it was an interplanetary freak show, an expedition to the other side of the looking glass, where the Merry Prankster Imaging Team provided the pictures