

Dated: September 17, 2003

Subject: Addendum No. 6 to Request for Proposal (RFP) No. JSL-71703 dated August 15, 2003 for Technology Development of Mars Landing Radar Antenna Array

The following inquiry has been submitted to JPL for clarification.

Below Question and Answer are numbered sequentially from Addendum 4.

Question 19

We understand that the flight model incorporates 128 elements in a 0.5-0.65m diameter. We assume a dense hexagonal "honeycomb" arrangement for this array. Would it therefore make sense for the 16-element prototype to use the same density as the 128-element array instead of restricting the size to 15cm diameter?

Answer 19

The assumption of a honeycomb arrangement is not a correct assumption, as this implies a periodicity in the placement of array elements. To reduce sidelobes, the placement of elements in the array will be random, to within the packing density of the individual elements. If a periodic structure is necessary for the mechanical design of the array, then it is possible to assume that the placement of array elements will be located on that structure with small, wavelength scale perturbations to the crossing points of the structure.

JPL has revised Exhibit I to the Specimen Contract. Exhibit 1, Mars Landing Radar Antenna Array Functional Requirements Document, Version 1.2, dated September 17, 2003 includes a revised paragraph 2.1.