EXHIBIT 1 FCC FORM 442 ITEM 4g

The bandwidth required by this radar was determined using the Mason-Zimmerman approximation as described in ECAC-HDBK-94-089-2 published 10/94. The parameters that yielded the highest necessary bandwidth are:

pulse width

50uS

rise time

0.5uS

fall time

0.5uS

compression ratio 30000:1

EXHIBIT 2 FCC FORM 442 ITEM 7

Northrop Grumman Corporation is required, under Defense Advanced Research Projects Agency contract # MDA972-98-C-0014 to demonstrate advanced radar technology essential to the Discoverer II program. This demonstration requires Northrop Grumman to produce and test experimental radar hardware. The DARPA contract representative is Dr. Allan Steinhardt, (703) 696-2331.