

Exhibit 2: Description of Government Project

Lockheed Martin NE&SS has a contract with the US Navy (Naval Sea Systems Command) to develop a new radar for area defense and theater ballistic missile defense. The contract number is N00024-99-9-5386 and it is entitled "High Power Discrimination Radar". The program/radar also goes by the names "Navy Theater Wide (NTW) Block II" and "SPY – 1E".

The radar will include four solid-state phased array antennas with T/R (transmitter/receive) modules behind each radiating element. The initial phase of the contract will result in the fabrication and test of a small, prototype antenna and prototype versions of the receiver, exciter, and signal processor. It is this prototype radar for which a license modification is being requested.

The license, as it stands, was obtained when Lockheed Martin Internal Research and Development (IRAD) funding was being applied to development of the same radar. The modification to the license is required due to changes in the radar requirements.

In parallel with the contract, there is also development, on IRAD, of variants to the contracted radar for related applications. The license is requested to cover the variants also.

Exhibit 3: Method of determining necessary Bandwidth

The necessary bandwidth was determined using the appropriate method from Annex J of the NTIA manual: "Guidance for Determination of Necessary Bandwidth".

$$B = \frac{1.79}{\sqrt{t_r t}} + 2B_c$$

Where:

t_r is the rise time in microseconds

t is the subpulse width in microseconds

B_c is the frequency modulation in MHz

Exhibit 4: Modulating signal Item 4 (A) & (F)

Source A (AUT) 2700-6000 MHz, Source B 2700-6000 MHz, Source C 2700-6000 MHz
Modulating signal, complete, info: Pulse Width 100-1700 μ s. PRF 0.5-64 kHz 25% max. duty.