EXHIBIT 1

ITEM 4a: FREQUENCY

THIS STATION IS DESIGNED TO OPERATE ON ONE OF 600 CHANNELS SPACED AT 50 KHZ INTERVALS IN THE 420-450 MHZ BAND, WITH ONE OF THESE BANDWIDTHS (ITEM 4G) AND CORRESPONDING MODULATING SIGNAL (ITEM 4F).

EXHIBIT 2

ITEM 7:

OPERATIONS UNDER THIS LICENSE WERE CONDUCTED FOR THE PURPOSE OF TEST AND EVALUATION OF A FUTURE AIRBORNE EARLY WARNING RADAR SOLID STATE MODULE ANTENNA. TO PROVIDE FOR SYSTEM INTEGRATION REQUIREMENTS, AND TO ASSESS OVERALL PERFORMANCE ON GROUND BEFORE FLIGHT. THE PROJECT INITIALLY WAS AN ADVANCED DEVELOPMENT PROGRAM CALLED THE GRUMMAN CONFORMAL RADAR PROGRAM, LATER, IT WAS FUNDED BY U.S. NAVY UNDER CONTRACT AND BECAME KNOWN AS WING ARRAY DEMONSTATOR.

MODIFICATION OF STATION **KS2XDR** IS NECESSARY TO MEET THE PRESENT AND ANY FUTURE CONTRACTUAL REQUIREMENTS.

AN **UPDATED** ENVIORNMENTAL IMPACT STUDY IS INCLUDED TO FULFIL REQUIREMENTS SET FORTH BY THE COMMISSION.

CURRENT U.S. NAVY CONTRACT # is **N62269-84-C-0371**

ENVIRONMENTAL IMPACT STATEMENT FOR CONFORMAL RADAR TRANSMITTER

The ground area covered by the Conformal Radar beam can be divided into four distinct sections, see accompanying sketch:

1. "Near Field" extending from west face of Plant 14 to 45 feet westward of Plant 14.
2. "Near Field" extending from 45 feet west of Plant 14 to 300 feet west of Plant 14.
3. "Far Field" extending from 300 feet west of Plant 14 to horizon.
4. "Sidelobe and backlobe" extending from antenna room to horizon in all directions except front of antenna.

Area 1 from west face of Plant 14 to 45 feet west of Plant 14 and extending from 218^0 to 308^0 is in the near field of the antenna (see accompanying sketch), however the beam into this direction will be blocked by antenna room shielding and absorber material of at least 60 dB attenuation. Probing of this area will confirm that this area is safe for human exposure at all times.

Area 2 from 45 feet west of Plant 14 to 300 feet west of Plant 14 and extending from 218^0 to 308^0 is in the near field of the antenna (see detail in accompanying sketch). The energy intensity and distribution in the near field is not predictable by calculation with formulae, because in this area the energy beam is not fully formed.

Upon completion of the transmitter installation and prior to turn on, the area will be cleared of all humans. The transmitter will be turned on and the area will be probed by safety personnel with appropriate test equipment.

In case energy levels greater than those allowed by ANSI C95.1-1982 are detected, deflection screens and absorber materials will be installed in the approprite locations of the antenna beam to provide a safe level of electromagnetic energy in the entire area 2.

The area will be probed again and above procedures repeated until the entire area 2 is safe for human exposure at all times.

Area 3 from 300 feet west of Plant 14 to horizon and extending from 218^0 to 308^0 is in the far field of the antenna (see accompanying sketch), the beam in this area is well defind and calculated energy densities can be made according to the following formula:

Energy density = $\frac{\text{Peak transmit power X Antenna gain X Duty factor}}{4\pi \text{ (Range to measuring Point)}^2}$

$$Ed = \frac{P_t \times G_t \times DF}{4\pi (R^2)}$$

for $P_t = 64$ KW peak

$G_t = 316$

$DF = 0.12$

$R = 300ft = 300 (12 \times 2.54) = 9144$ cm

$$Ed = \frac{64 \times 10^3 (316)(0.12)}{12.56 (83.61 \times 10^6)} = \frac{2430 \times 10^3}{1.05 \times 10^9} = \frac{2300}{\quad} \times 10^{-6} \frac{\text{Watt}}{\text{cm}^2}$$

$$= 2.3 \frac{\text{mW}}{\text{cm}^2}$$

double

The energy density of 2.3 mW/cm^2 is approximately of that permitted by ANSI C95.1-1982 which for this operating frequency is 1.4 mW/cm^2. the ANSI C95.1-1982 spec is for a continuous exposure over a 6 minute interval at this level and for the case of a scanning system the peak values of energy may exceed this level as long as the average value is not exceeded.

The proposed transmitter system is a scanning type with dwell time on any given point of no more than 10% (0.1) of total time, therefore an additional safety margin of 10:1 is accrued.

Area 4 extends from 0° to 218° and from 308° to 360° with range from 5 feet to horizon. This area is in the sidelobes and backlobes of the antenna with at least 60 dB attenuation from absorber material and screening provided by the antenna room walls.

$$\text{Energy density} = \frac{P_t \times G_t \times DF \times \frac{\text{ATTENUATION}}{1}}{4\pi (R^2)}$$

for

$P_t = 64$ KW

$G = 1$

$DF = 0.12$

$R = 5$ feet $= 5\,(12) \times 2.54 = 152.4$ cm

Attenuation $= 10^{-6}$

$$Ed = \frac{64 \times 10^3\ (1)\ (0.12)(1 \times 10^{-6})}{12.56\ (152.4)^2} = \frac{7.7 \times 10^{-3}\ \text{Watt}}{291.7 \times 10^3\ \text{cm}^2}$$

Energy desity in sidelobes and backlobes is 0.026×10^{-3} mW/cm^2, which is well below ANSI C95.1-1982 specification and therefore no problem.

Upon completion of transmitter installation the entire 360° around the antenna will be probed by safety personnel to verify that the area is safe for human exposure, before humans will be allowed into the area.

If field probing of the entire surroundings shows that any area is exposed to energy greater than the CODE the radar duty cycle (pulse width and pulse repetition rate) will be adjusted downward until the entire surrounding is safe.