

# Exhibit 1

Engineering Statement in support of  
FCC FORM 340  
APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL  
NONCOMMERCIAL EDUCATIONAL BROADCAST STATION  
(For a New Station)

**Introduction:**

This is an application by Hurao, Inc. (the Applicant) for a new NCE FM Radio Station serving the community of Agana, Guam.

The proposed facility's 60 dBu service contour encompasses a total land area of 541.3 km<sup>2</sup> and contains 154,805 persons based on the US Census year 2000 block level data. See Exhibit 1B.

The proposed facility does not provide coverage to sufficient first and second service NCE population to qualify for a 307(b) preference.

The site is more than 320 km from an international border.

This proposal will be implemented on a proposed tower, ASR #1256782 in Barrigada Heights, Guam. The tower will be built and owned by Guam Educational Telecommunications Corporation.

This proposal is clear of all TV-6 facilities based on 73.207 spacing requirements. See Exhibit 16.

The proposed facility is in compliance with 47 C.F.R. Section 1.1306 with regards to radio-frequency electromagnetic exposure. See Exhibit 22.

This application was prepared using GLOBE 30-arc-second terrain data.

The closest FCC Monitoring Station is Waipahu, Hawaii, which is sufficiently spaced from Guam (well over 1000 km) to ensure that there will be no interference. The proposal is sufficiently distant from all facilities mentioned in 73.1030(a) & (b). Therefore this application complies with the notification requirements of 73.1030.

Joseph M. DiPietro, P.E.  
RFEngineers, Inc.  
October 2007

## Section VII Engineering Data:

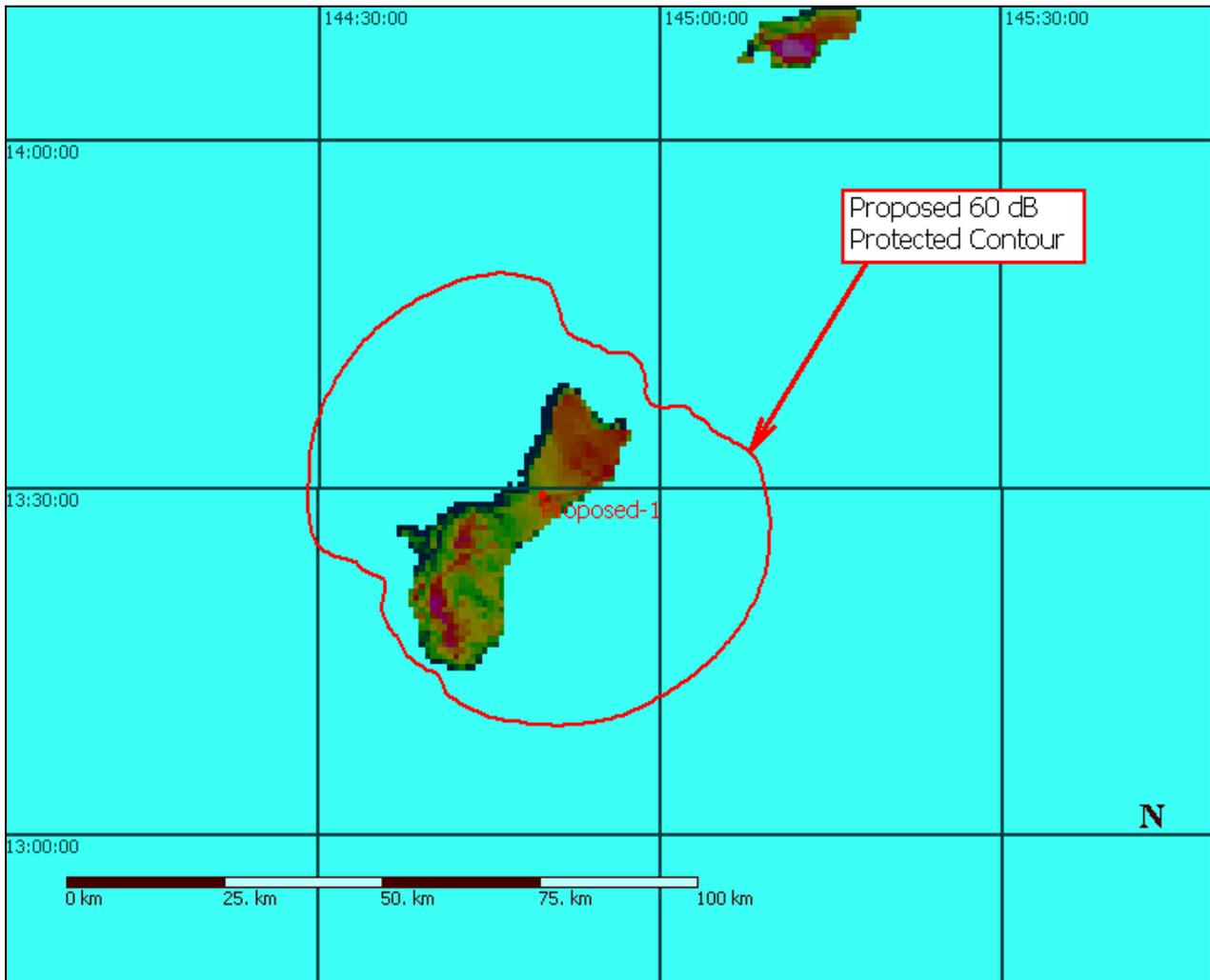
### Tech Box Data:

1. Channel 211
2. Class C3
3. Antenna Location Coordinates
  - 13° 29' 22" N
  - 144° 49' 46" E
4. Proposed Assignment Coordinates, Not Applicable
5. Antenna Structure Registration, 1256782
6. Overall Tower Height, 48 meters AGL
7. Radiation Center Height, 230 meters (H)                      230 meters (V) AMSL
8. Radiation Center Height, 30 meters (H)                      30 meters (V) AGL
9. Radiation Center Height, 189 meter (H)                      189 meter (V) HAAT
10. ERP, 4.0 kW (H)                      4.0 kW (V)
11. Maximum ERP if beamtilt used, Not Applicable
12. Directional Antenna, No
13. Main Studio Location, Yes, see Exhibit 13.
14. Community Coverage, Yes, See Exhibit 13.
15. Interference, Yes.
  - a) Section 73.509, Checked. See Exhibits 16, Stations and Proposals requiring investigation.
  - b) Section 73.207, Checked. Clear of all domestic and International stations and authorizations.
  - c) Section 73.213, Not Checked. Not Applicable.
  - d) Section 73.215, Not Checked. Not Applicable
  - e) Section 73.525, Checked. See Exhibit 16.
16. Reserved Channel above 220, Not Applicable
17. International Border, Yes
18. NEPA, Yes. Operation of this facility will not have a significant environmental impact. The proposed tower is being built by Guam Educational Telecommunications Corporation. With the exception of the RF contribution by the applicant, responsibility for NEPA compliance is assumed to be that of the tower owner. To the best knowledge of the Applicant:
  - a) The proposed structure is not located in an officially designated wilderness area or wildlife preserve.
  - b) The proposed structure does not threaten the existence or habitat of endangered species.
  - c) The proposed structure will not involve high intensity white lighting in a residential neighborhood.
  - d) The proposed structure will not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or are eligible for listing.
  - e) The proposed structure does not affect Indian religious sites.
  - f) The site is not located in a flood plain.
  - g) Nothing is proposed that would require significant changes in surface features such as wetland fill, deforestation or water diversion.
  - h) This proposal complies with the FCC established guidelines regarding exposure to RF electromagnetic fields, See Exhibit 22.
19. Community of License Change, Not Applicable.

## Exhibit 1B 60dBu Contour Area and Population.

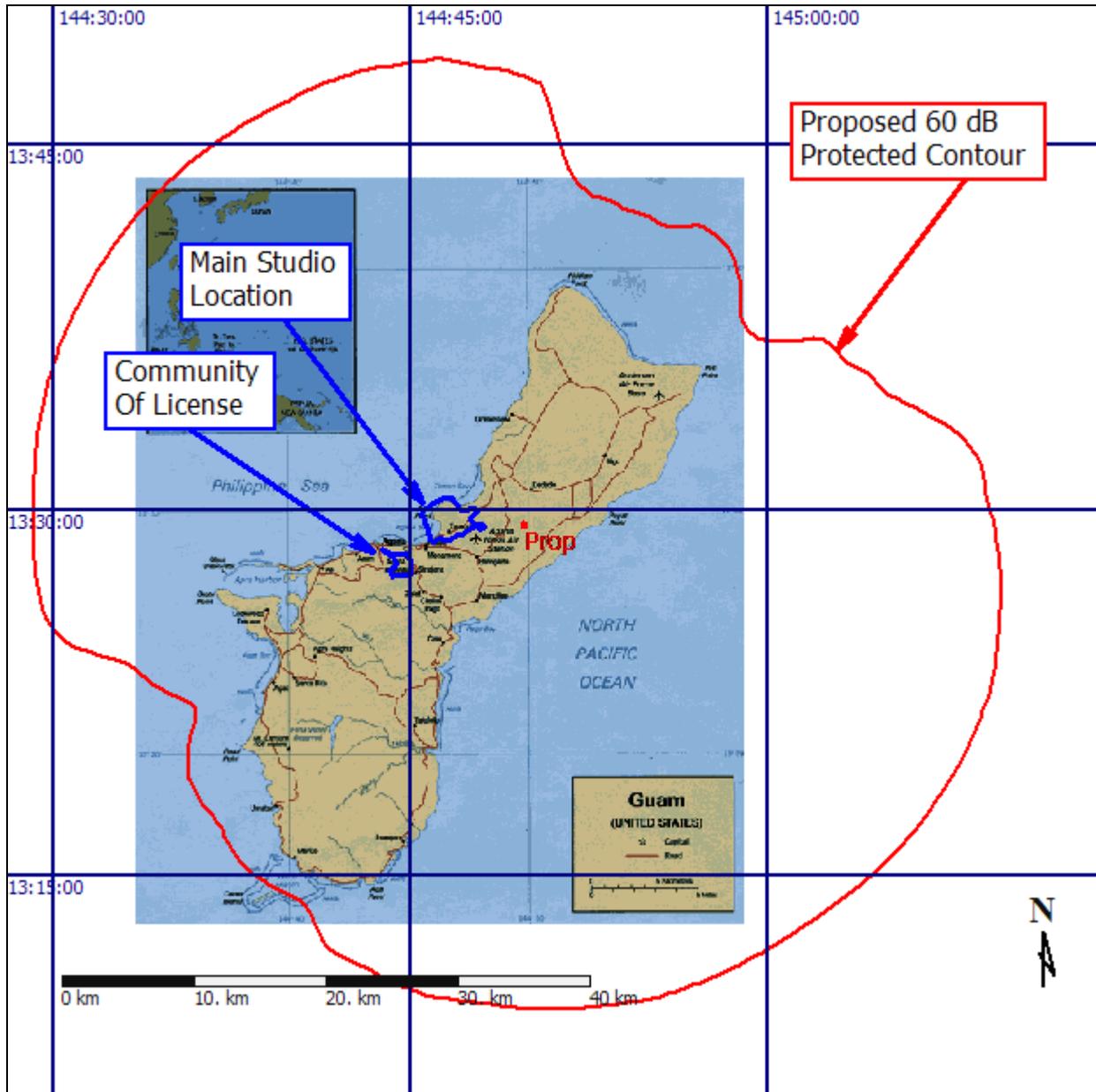
The proposed facility's 60 dBu service contour encompasses a total land area of 541.3 km<sup>2</sup> and contains 154,805 persons based on the US Census year 2000 block level data. The total area was adjusted by 3136.3 km<sup>2</sup> to compensate for the Pacific Ocean, a portion of which lies within the proposed site's 60 dB Contour.

The contour was created using the methods and procedures described in 47 C.F.R. Section 73.313(c). The area was calculated using a spline integration in one-degree increments. The population was calculated by testing each US Census defined population point in the region with a point-in-polygon method. The population was summed for each point within the 60dBu polygon using data from the 2000 US Census.



# Exhibit 13

## Main Studio & Community of License



Main Studio: Tamuning, Guam  
Community of License: Agaña, Guam

**Exhibit 16**  
**Stations and Proposals Requiring Investigation**

There are no tv6 stations on the island. There are no IF, co-channel, 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> adjacent FM stations relative to the proposal.

## **Exhibit 22**

### **RF Exposure**

The Applicant will cooperate with all site users, managers and owners with regard to the cessation of operation or the reduction of operating power, whenever it is necessary to comply with the FCC Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation.

The modeled contribution to the RF environment, 2-meters above the ground, by the proposed facility is less than 6.0 uW/cm<sup>2</sup>, or 3.0%, of the maximum permitted value for general public exposure (0.6% of the occupational exposure level). This result was obtained using the FCC's FM Model computer program.

The following parameters were used to calculate the exposure level:

Horizontal ERP 4.0 kW

Vertical ERP 4.0 kW

Antenna Radiation Center Height AGL 48 meters

Test Height, 2 meters AGL

Antenna Type 2-Bay Rototiller, 0.76 wavelength spacing.

There are no occupied tall structures within 50 meters of the tower. The ground does not rise significantly around the tower.

Since the modeled contribution to the RF environment by proposed facility is less than 5% of the permitted level for public exposure this application is excluded from routine evaluation. See 1.1307(b)(3)(i).

Based on this information the proposed facility is in compliance with 47 C.F.R. Section 1.1306 with regards to radio-frequency electromagnetic exposure.

RF Exposure Analysis Performed by:

Joseph M. DiPietro, P.E.

RFEngineers, Inc.

05 October 2007