

B. W. St. Clair

TECHNICAL EXHIBIT FOR AMENDMENT

AMENDMENT TO DISPLACEMENT APPLICATION

KSKT-CA, Facility ID 58927, San Marcos, CA

FCC FILE NUMBER: BDISDTA-20100520ACC

BLUE SKIES BROADCASTING CORPORATION

Amendment in response to 30 day deficiency letter. This amendment is filed in response to 30 day letter 1800E3-RLG, dated June 20, 2014. The letter stated that Mexican authorities had objected to the subject application because they found that the application "...would cause interference to analog channel 21 in Tijuana, B. C."

This amendment will deal solely with that claim of interference by presenting the actual facts of the situation in the Tijuana area and thereby demonstrating the lack of such interference.

This amendment filing revises no aspect of the underlying application (BDISDTL-20100520ACC). It does add the within exhibit to the application. No technical changes are made in the proposal.

Interference assertion with respect to channel 21. The assertion of possible interference to a receiver tuned to a channel fifteen channels (on channel 21) below the applicant's proposed operating channel (channel 36) derives from image frequency relationships that had been a concern principally during the NTSC television days. The mechanism was that the TV superheterodyne receiver, when receiving a given channel, might also be affected by certain other channels, among them +14 and +15 channels above the desired channel. The operation of the superheterodyne receiver is such that the +14 and +15 channels would appear as "image frequency" noise elements in the 6 MHz wide IF band as it passed through the IF amplifier on its way to the detector. With the development of digital broadcasting, this so-called "taboo" relationship became of somewhat less concern because of more robust digital signals; however, analog receivers, if not particularly selective, could still suffer from it on infrequent occasions. The engineering principles are well understood by virtually all RF engineers and they have designed systems with it in mind.

Claim of channel 21 TV broadcast station(s) licensed to Tijuana, BN. As we understand it, the Mexican objection is based on the belief that there is a channel 21 operating in Tijuana with which the instant proposal will interfere via the mechanism described above. Accordingly, some research was performed with the following findings:

1. There is a TV station licensed to Tijuana, BN, which was, until early 2013, operating in analog mode on channel 21. This station is XHTIT-TV. This facility is now operating on channel 29DT and uses a PSIP (virtual channel) of 21. This virtual channel is merely a data element in the broadcast signal which allows the station to be *reported* as channel 21, despite the fact that it is actually transmitting on channel 29, with all receivers operating on channel 29 when tuned to this station. Accordingly, this facility is no longer a concern.

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2. There is, according to the FCC database, an analog channel 21 translator (or onchannel booster) licensed to the Rosarito Beach community, BN. The callsign is also XHTIT-TV. An investigation was done by persons visiting the site shown in the database as 32° 22' 48" North Latitude, 117° 04' 16" West Longitude. A satellite photo of this site from *Google Earth* is as shown in the attached exhibit materials; it is near the intersection of *Donato Guerra* and *Santos Degollato* streets, about two blocks north of *Parque Reforma*. The FCC record shows the antenna height to be 41 meters above sea level, which, based on the site, would be not less than 20 meters (65 feet) above ground level. Two photographs of the site taken from ground level are attached. No towers nor TV transmitting antennas are to be seen near the area. Finally, a spectrum analysis of the frequency range including the entire width of TV channel 21 was performed near the site and yielded a graph as shown. This graph indicates the bandwidth of channel 21 to be populated by nothing more than noise floor. According to the people on site, the spectrum analysis was performed on two different days with the same result. Accordingly, it is believed that there is no channel 21 being broadcast from or anywhere within the vicinity of the site of record.

Given that the main channel from Tijuana is now operating on channel 29DT, it is believed that a translator or booster may no longer be needed on channel 21 analog and may have either shut down or is changing to channel 29DT also. There are no records available to confirm this. It is a certainty, however, that there is no channel 21 operating in the area as of the dates of measurement and site inspection.

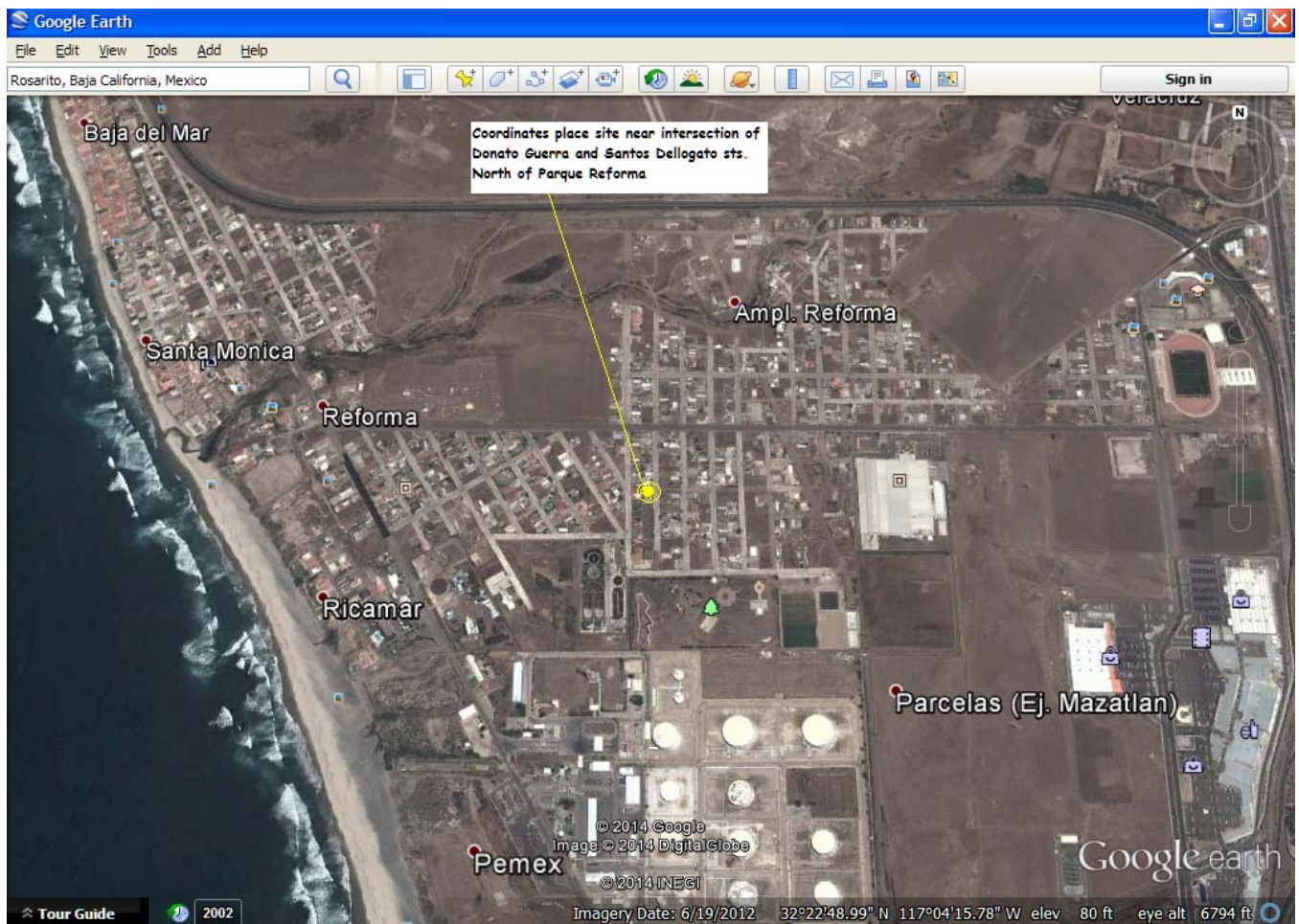
Amendment request for reconsideration based on field observations. Based on the findings in this exhibit, the applicant respectfully requests that the basis for objection be reexamined and that the objection, if deemed now obsolete, be withdrawn and a favorable finding for the within application be sent back to the US FCC's International Bureau for forwarding to its Media Bureau for grant of the within application.

Attachments:

1. Satellite photo of Rosarito Beach Site
2. Photograph #1 of the area
3. Photograph #2 of the area
4. Spectrum analysis graph A of channel 21 bandwidth
5. Spectrum analysis graph B of channel 21 bandwidth

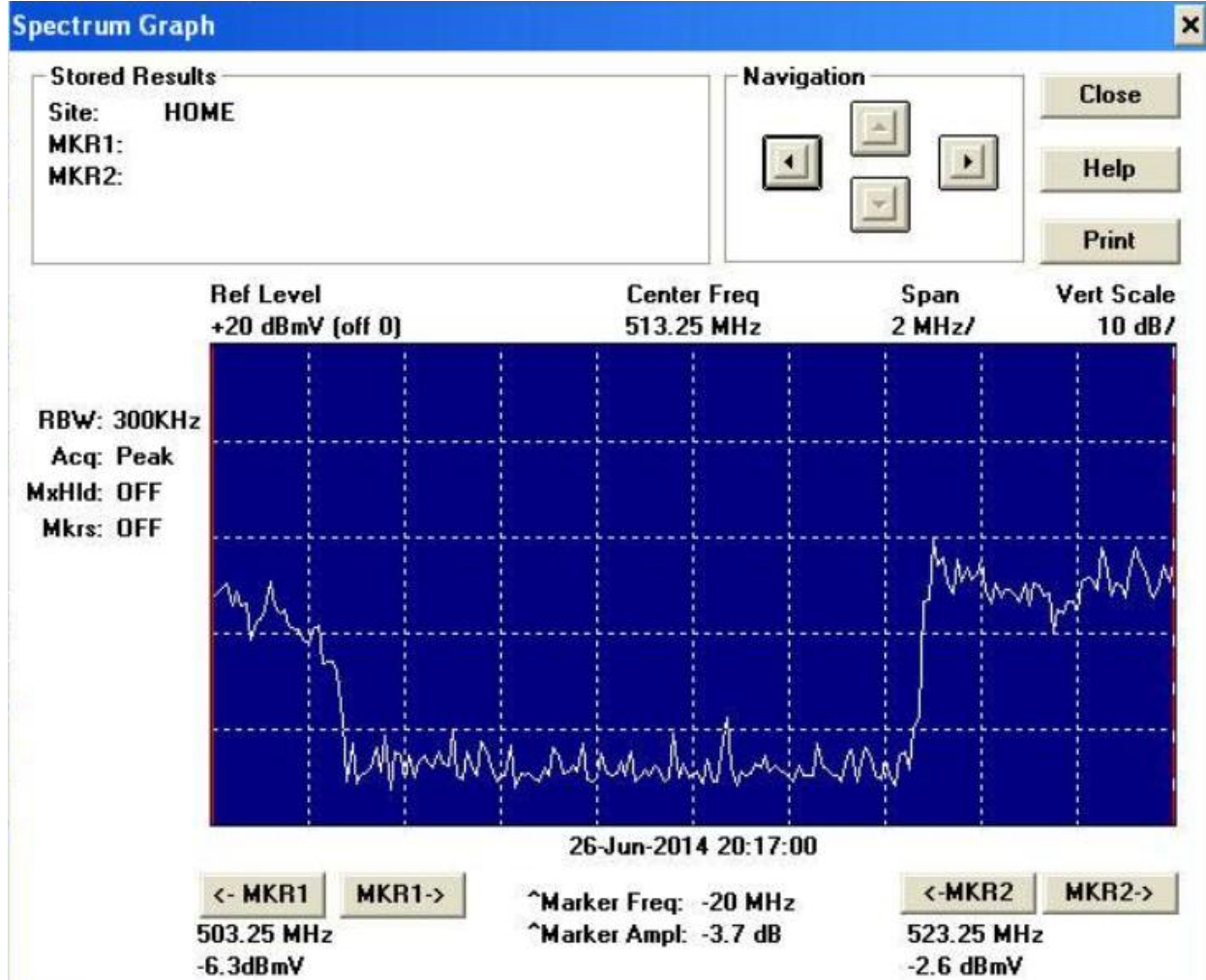
Respectfully submitted,

James R. McDonald
July 8, 2014









Stored Results

Site: HOME

MKR1:

MKR2:

CH 21

Navigation



Close

Help

Print

Ref Level

+8 dBmV (off 0)

Center Freq

513.25 MHz

Span

2 MHz/

Vert Scale

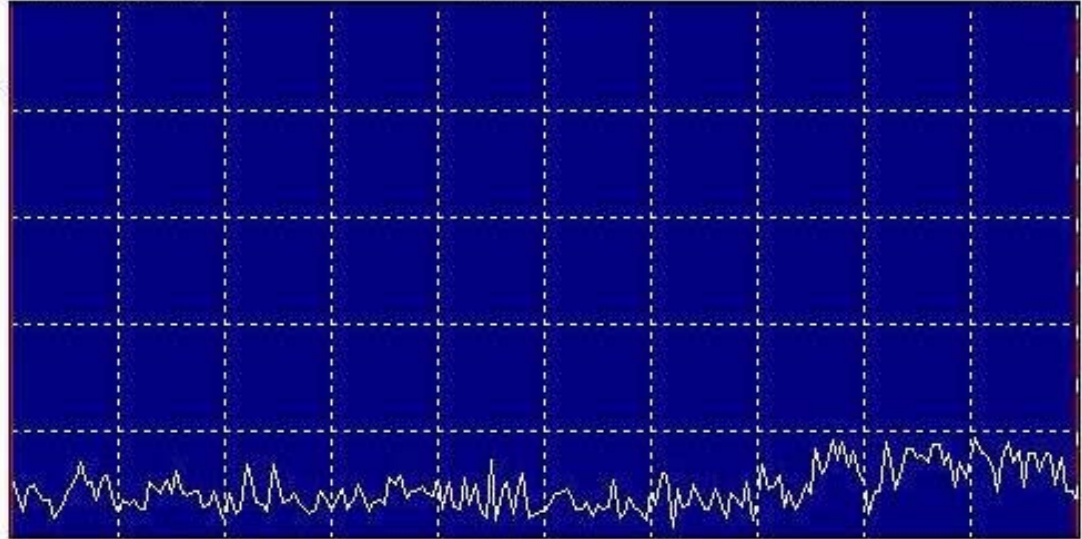
10 dB/

RBW: 300KHz

Acq: Peak

MxHid: OFF

Mkrs: OFF



04-Jul-2014 10:03:00

<- MKR1

MKR1->

^Marker Freq: -20 MHz

<-MKR2

MKR2->