

BEFORE THE

**Federal Communications Commission**

WASHINGTON, D. C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Amendment of	)	
Section 73.606(b)	)	MM Docket No. <u>93-142</u>
Table of Allotments,	)	RM-8208
TV Broadcast Stations	)	
(Willits, California)	)	

To: Chief, Allocations Branch  
Mass Media Bureau

COMMENTS OF GROUP W

Group W Television, Inc.(Cal.), licensee of Station KPIX, Channel 5, San Francisco, California (hereinafter "Group W"), submits the following comments in opposition to the proposed deletion of Channel 11, Willits, California, set forth in Notice of Proposed Rulemaking, DA 93-534, released May 27, 1993 in the above-referenced matter.

The proposed rulemaking, instituted at the request of KNTV, Inc., the licensee of KNTV(TV), Channel 11, San Jose, California,<sup>1/</sup> proposes the deletion of the Channel 11 allocation at Willits, California in order to permit KNTV to relocate its transmitter to an unspecified site somewhere to

<sup>1/</sup> San Jose is part of the San Francisco-Oakland-San Jose television market. See 47 C.F.R. § 76.51(a). In addition, Arbitron treats KNTV as the ABC affiliate serving the Salinas-Monterey Television ADI (which is immediately south of the San Francisco-Oakland-San Jose ADI).

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the north of its present site. In Group W's view, the rulemaking is premature and ill-advised. The deletion of an existing channel assignment is generally not favored by the Commission, particularly where other less drastic measures may be available to resolve the site problems perceived to require attention. An existing channel deletion is an extraordinary measure to be undertaken only where no other less drastic measures are available.

As reflected throughout the Notice, however, the need for such drastic action has not been demonstrated. It is precisely for this reason that the proposal is characterized as "provisional," subject to the receipt of further justification and information from KNTV. The several points on which further information has been requested from KNTV go to the very heart of the rulemaking. The burden is clearly on KNTV to justify its proposal through the submission of specific and detailed information concerning such fundamental matters as the site to which it would relocate, whether relocation to an acceptable site meeting present spacing requirements is realistically possible and the extent to which other less drastic engineering measures (such as a specific short spacing waiver or a Willits' site restriction) are available alternatives. Group W reserves the right to comment further following its analysis of whatever information is filed by KNTV.

Group W's preliminary engineering analysis shows that the channel deletion cannot be justified and would have substantial adverse consequences. As shown in the attached Engineering Statement prepared, inter alia, for Group W, the Channel 11 allotment at Willits holds the promise of providing a second local television service to a substantial area of Northern California. No other existing channel allotment (VHF or UHF) has the potential to serve this overall area. Furthermore, the availability of a substitute channel is at this point questionable in view of the pending ATV allotment proceeding.<sup>2/</sup>

In contrast to the potentially serious consequences of a channel deletion, no actual need has been demonstrated for such drastic action. As a broadcaster also operating in the seismically unstable San Francisco Bay Area, Group W appreciates KNTV's concerns over the stability of its present site. However, it has not been shown that this site is more prone to further earthquake activity than other sites in the Bay Area. Indeed, in the opinion of one expert, the present KNTV site may be one of the more safer areas in terms of future earthquake activity. See Engineering Statement, p.3. Several other transmitting

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<sup>2/</sup> On the other hand, while the Channel 11 allocation at Willits has been frozen pending completion of the ATV proceeding, it appears unlikely that this allocation will actually be used for ATV purposes in view of the FCC's pending UHF proposals and, in any event, the existing utilization of Channel 11 at San Jose. See Engineering Statement, p.2.

facilities are also located on the site which further suggests that it is not an inappropriate site. See Engineering Statement, p.5.

Nor has KNTV adequately explored the possibility of strengthening its tower at the present site, as well as a relocation to a site which would not require the deletion of the Channel 11. Willits allotment. See Engineering

know whether a substitute channel can be made available. Any deletion of Channel 11 premised on the availability of a substitute channel can only be considered after the ATV allotment plan for the overall San Francisco Bay area is finalized. At the minimum, if not terminated, this proceeding should be stayed pending that action.

Respectfully submitted,

GROUP W TELEVISION, INC. (CAL.)

*Stephen A. Hildebrandt PLL*

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(202) 857-5155

*[Signature]*

**JOINT ENGINEERING EXHIBIT**  
**TV STATIONS KPIX,**  
**KGO-TV, AND KBHK-TV**  
**SAN FRANCISCO, CALIFORNIA**  
**ENGINEERING EXHIBIT IN SUPPORT OF**  
**COMMENTS TO**  
**MM DOCKET 93-142**

**July 16, 1993**



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

**MM DOCKET 93-142 COMMENTS  
PROPOSED DELETION OF CHANNEL 11 ALLOCATION  
WILLITS, CALIFORNIA**

**STATEMENT OF DANE E. ERICKSEN, CONSULTING ENGINEER**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been jointly retained by Group W Television, Inc. (Cal.), licensee of TV Station KPIX, Channel 5, San Francisco; by KGO Television, Inc., licensee of Station KGO-TV, Channel 7, San Francisco; and by UTV of San Francisco, Inc., licensee of Station KBHK-TV, Channel 44, San Francisco, to review the engineering issues raised in MM Docket 93-142.

**MM DOCKET 93-142**

In response to a Petition for Rule Making ("Petition") filed by Granite Broadcasting Corporation ("Granite"), licensee of TV Station KNTV, Channel 11, San Jose, California, to amend the TV Table of Allotments by deleting the vacant allocation for Channel 11 at Willits, California, the Commission issued the instant Notice of Proposed Rule Making. Granite argued that deletion of the Channel 11 allocation for Willits was necessary to allow it to relocate KNTV from its present site at Loma Prieta, a 1,156-meter peak 25 kilometers south of San Jose, California. Granite argued that the Loma Prieta site is so seismological unsafe that it must vacate that site, and relocate to some seismologically safer site on the San Francisco Peninsula. Granite claimed that no relocation to the south of its present site would be possible because of terrain obstruction problems to its city of license. Granite argued that deletion of the vacant Channel 11 allocation for Willits, or the substitution of a UHF television channel, would be in the public interest because the Willits allocation is unavailable for application as a result of the current freeze on the filing of applications for new TV stations within 304.9 kilometers of San Francisco, one of the advanced television (ATV) freeze cities.

**THE EFFECT OF DELETING CHANNEL 11 FROM WILLITS**

As shown by the attached Figure 1, Willits is presently served only by a single TV station, KFWU, Channel 8, Fort Bragg, California. This station operates as a satellite of Station KRCR-TV, Channel 7, Redding, California. The area in which the KFWU signal is the only predicted Grade B television signal encompasses 5,362 square kilometers.

It is apparent from this map that the Willits area and most of Mendocino County receives only one television signal. Channel 11 would provide the second television service to the Willits area. The region where Channel 11 would provide the second service is bounded by the Grade B contours of Stations KVIQ-TV on Channel 6 in Eureka, KRCR-TV and KIXE-TV on Channels 7 and 9 in Redding, KHSL-TV on Channel 12 in Chico, and KFTY-TV on Channel 50 in Santa Rosa.



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PROPOSED DELETION OF CHANNEL 11 ALLOCATION  
WILLITS, CALIFORNIA**

Figure 1 shows by dotted lines the hypothetical Grade B contours of all presently unassigned channels, assuming that they would operate with a height of 610 meters above average terrain and a maximum effective radiated power of 5,000 kW, all these channels being UHF. It will be noted that, apart from Channel 11, only Channel 22 could provide an additional service to the southern portion of the region. Even at maximum facilities, Channel 22 would not place even a Grade B signal over the city of Willits. The following TV stations or allocations were used in preparing Figure 1:

<u>Station</u>	<u>Channel</u>	<u>City of License</u>
KAEF	23	Arcata
KIEM-TV	3	Eureka
KVIQ-TV	6	Eureka
KEET	13	Eureka
KBVU	29	Eureka
KRCR-TV	7	Redding
KIXE-TV	9	Redding
KHSL-TV	12	Chico
Allocation	18	Chico
KCPM	24	Chico
Allocation	46	Chico
KCVU	30	Paradise
Allocation	28	Oroville
KFTY-TV	50	Santa Rosa
Allocation	62	Santa Rosa
KRCB-TV	22	Cotati
KWOK	68	Novato
KFWU	8	Fort Bragg

Deletion of the Channel 11 allocation at Willits would not free up use of Channel 11 at San Francisco for ATV transmissions due to the precluding effect of KNTV, even if VHF channels were to be used for ATV at San Francisco. The proposed ATV-to-NTSC co-channel minimum spacing is 184 kilometers,<sup>1</sup> whereas KNTV at its present site is only 89 kilometers from San Francisco. Thus it is clear that the presence of NTSC Channel 11 at San Jose would preclude the use of that channel for ATV service at San Francisco.

<sup>1</sup> Second Further Notice of Proposed Rule Making to MM Docket 87-268, August 14, 1992, at Paragraph 28.



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BAY AREA SEISMIC CONSIDERATIONS

In its Petition, Granite submitted a 16-page exhibit by Richard E. Hammond purporting to demonstrate that Loma Prieta is so unstable as to force KNTV to vacate that site for a more seismologically stable site. The declaration by Mr. Hammond starts off by stating that he is an attorney and that he has "...no formal academic training or field experience as a geologist, a seismologist, or a seismic engineer. Therefore, I am not, nor by executing this Declaration do I purport to be, an expert in the subjects of geology, seismology, or seismic engineering."

Dr. C.B. Crouse, P.E., of the consulting engineering firm of Dames and Moore, has been retained under my direction, to provide expert analysis concerning the seismic stability of the San Francisco Peninsula in general and Loma Prieta in particular. As documented by Exhibit 1 to Attachment A, Dr. Crouse's professional and academic qualification show him to be a recognized expert in the field of seismology and structures.

Dr. Crouse's engineering exhibit, Attachment A, demonstrates that, contrary to the conclusions reached by Mr. Hammond, the Loma Prieta site is now probably one of the *safest* areas in the greater San Francisco Bay Area (as identified by Granite's Exhibit E4) because the 1989 Loma Prieta earthquake released the built-up stress in the Sargent fault. Indeed, Dr. Crouse's report shows that if KNTV moved to a site on the San Francisco Peninsula, it would be *increasing* its chances of suffering earthquake damage, not decreasing those chances.

To prove that separation from the Loma Prieta earthquake epicenter is no indicator of the ability of a broadcast tower to escape earthquake damage, we have prepared the attached map, Figure 2, showing the locations of several Bay Area broadcast stations that suffered tower structural damage during the 1989 Loma Prieta earthquake. We have additionally shown the location of the Cypress portion of Interstate 880, the Bay Bridge, and the Marina District in San Francisco, all of which suffered severe structural damage in the 1989 earthquake. It should be noted that the Sutro tower is missing from the figure; it suffered no structural damage during the 1989 Loma Prieta earthquake. We believe this is because of the conservative design of the tower and the installation of non-conducting guy wires on the three antenna stacks at the top of the platform level. These antenna guy wires ensure that the antenna stacks are not subject to resonating

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WILLITS, CALIFORNIA**

**THE CHANNEL 11 WILLITS ALLOCATION DOES NOT PRECLUDE  
A SITE RELOCATION BY KNTV**

The attached map, Figure 3, shows that there is a large area in which KNTV could relocate without causing any short spacings to existing stations, applications, or allocations (including Willits). Contrary to the claim made by Granite, KNTV could be relocated to the south without significant terrain obstruction to its city of license. For example, if KNTV relocated 8 kilometers to the southeast, at or near the site now used by TV Station KSBW, Channel 8, Salinas, it could continue to place a predicted City Grade signal over all of San Jose if it operated with a center of radiation height comparable to that of KSBW.

The attached Figure 4 shows the extent of the City Grade 77 dBu contour of an omnidirectional Channel 11 station at the KSBW site, making reasonable assumptions as to the transmitting facilities: effective radiated power of 172 kW and effective height of 1,201 meters AMSL, 440 meters AGL, and 871 meters above average terrain, using the standard FCC F(50,50) curves. These hypothetical facilities would represent the allowable effective radiated power for a side-

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PROPOSED DELETION OF CHANNEL 11 ALLOCATION  
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Jose would be possible from the KSBW site. Thus, Granite's engineer is mistaken in his claim that any relocation of the KNTV tower would have to be to the north in order to overcome "geographic and topographic factors."<sup>3</sup>

**FEASIBILITY OF AN EARTHQUAKE RESISTANT TOWER AT KNTV'S EXISTING SITE**

We have additionally retained the services of Mr. Madison Batt, P.E., of TRA, a consulting firm that specializes in tower engineering and inspection. Mr. Batt's engineering exhibit, Attachment B, indicates that it would be feasible to modify the existing KNTV tower to withstand the Upper Level Earthquake (ULE) shaking identified by Dr. Crouse as likely to occur at Loma Prieta over the next 30 years. Mr. Batt concludes that the reason the KNTV tower and antenna suffered structural damage from the 1989 Loma Prieta earthquake was because the tower base was (and continues to be) bolted directly to its concrete foundation, rather than having a pinned base. Mr. Batt concludes that the tower could be modified to a pinned base easily and economically in order to improve its resistance to earthquakes.

Although it may not be clear from the Petition, Loma Prieta is a *principal* communications site for the San Jose area, with the transmitting facilities for two television stations (KNTV and Station KLXV-TV, Channel 65, San Jose), a TV Booster station (KTEH-1), an LPTV station (K25AC), an ITFS station (WHR453, operating on the A Group ITFS channels), four FM stations (KKUP, Channel 218B1, Cupertino; KUFY, Channel 233B, Gilroy; KSRI, Channel 256B, Santa Cruz; and KBAY, Channel 262B, San Jose), and a large number of point-to-point microwave stations and land mobile stations. Photographs of the Loma Prieta communications site are shown in the attached Figure 7. To our knowledge none of these stations has applied to relocate from Loma Prieta due to earthquake hazard.

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appropriate subroutines that actually compute the loss. The parameter extractor processes the terrain profile to derive the information needed for the initial mode selection. These parameters include radio horizon distances, effective antenna heights, and path angular distances. Refractive effects of the earth's atmosphere are accounted for by using an effective earth radius at heights below 1,000 meters and the Central Radio Propagation Laboratory exponential reference atmosphere at greater heights. Using the radio horizon distances calculated by the parameter extractor, the initial mode selection is made based on whether the given path is within the horizon or beyond it. The final determination of propagation mode is based on a number of parameters such as Fresnel clearance. There are nine different propagation modes considered by TIREM.

Engineering exhibits relying on TIREM have been accepted by TV Branch, most notably the September 11, 1989, Petition for Reconsideration filed by Community Television of Southern California, Inc., appealing the denial of Community's request for a waiver of the ATV freeze, to allow Community to apply to build a new TV station on the vacant Channel 39\* allocation for Bakersfield, California. As a result of the extensive TIREM-based calculations supplied in the Petition for Reconsideration, the Commission reversed its decision and granted a waiver of the ATV freeze to allow Community to file for Bakersfield.

<sup>3</sup> Granite Petition, Exhibit E, Page 1, third paragraph.



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**SUMMARY OF FINDINGS**

1. The areas surrounding Willits, California, is presently served by only one TV station.
2. Deletion of Channel 11 at Willits would not free up use of that channel for ATV transmissions at San Francisco because of the precluding effect of the continued NTSC operation of KNTV on Channel 11 in San Jose.
3. Relocating from Loma Prieta would probably increase the earthquake risk to KNTV, certainly not decrease it.
4. It is feasible to modify the existing tower at Loma Prieta to make it less likely to suffer damage in the unlikely event of another earthquake.
5. There is at least one suitable site to which KNTV could move and meet all existing FCC requirements.

**CONCLUSION**

Based on the studies reported above, it is my considered professional opinion that there is no demonstrated technical basis to delete the Channel 11 allotment at Willits, California.

**LIST OF FIGURES**

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. Map showing predicted Grade B signals in the vicinity of Willits, California
2. Map showing locations of earthquake-damaged Bay Area broadcast towers
3. Map showing KNTV allocation conditions
4. Map showing predicted City Grade coverage over all of San Jose from KSBW site
5. Terrain profiles from KSBW site to San Jose
6. Terrain-sensitive coverage map showing actual City Grade coverage from KSBW site
7. Photographs of Loma Prieta communications site.

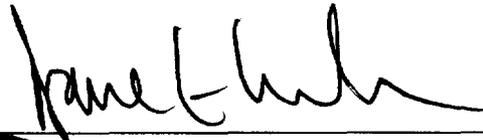


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WILLITS, CALIFORNIA

The following exhibits were commissioned by Hammett & Edison, Inc. and are incorporated into these Docket 93-142 comments:

EXHIBIT 1: Engineering Statement of Dr. C.B. Crouse, P.E.

EXHIBIT 2: Engineering Statement of Madison Batt, P.E.



Dane E. Ericksen, P.E.

July 16, 1993



AFFIDAVIT

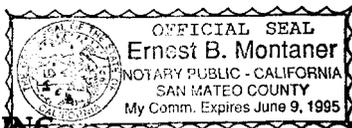
State of California |  
County of San Mateo | ss:

Dane E. Ericksen, being first duly sworn upon oath, deposes and says:

1. That he is a qualified Registered Professional Engineer, holds California Registration No. E-11654 which expires on September 30, 1996, and is employed by the firm of Hammett & Edison, Inc., Consulting Engineers, with offices located near the city of San Francisco, California,
2. That he graduated from California State University, Chico, in 1970, with a Bachelor of Science Degree in Electrical Engineering, was an employee of the Field Operations Bureau of the Federal Communications Commission from 1970 to 1982, with specialization in the areas of FM and television broadcast stations and cable television systems, and has been associated with the firm of Hammett & Edison, Inc., since October 1982,
3. That the firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Group W Television, Inc. (Cal.), licensee of TV Station KPIX, Channel 5, San Francisco; by KGO Television, Inc., licensee of Station KGO-TV, Channel 7, San Francisco; and by UTV of San Francisco, Inc., licensee of Station KBHK-TV, Channel 44, San Francisco, to review the engineering issues raised in MM Docket 93-142,
4. That such engineering work has been carried out by him or under his direction and that the results thereof are attached hereto and form a part of this affidavit, and
5. That the foregoing statement and the report regarding the aforementioned engineering work are true and correct of his own knowledge except such statements made therein on information and belief and, as to such statements, he believes them to be true.

Dane E. Ericksen, P.E.

Subscribed and sworn to before me this 16th day of July, 1993



HAMMETT & EDISON, INC.  
CONSULTING ENGINEERS  
SAN FRANCISCO

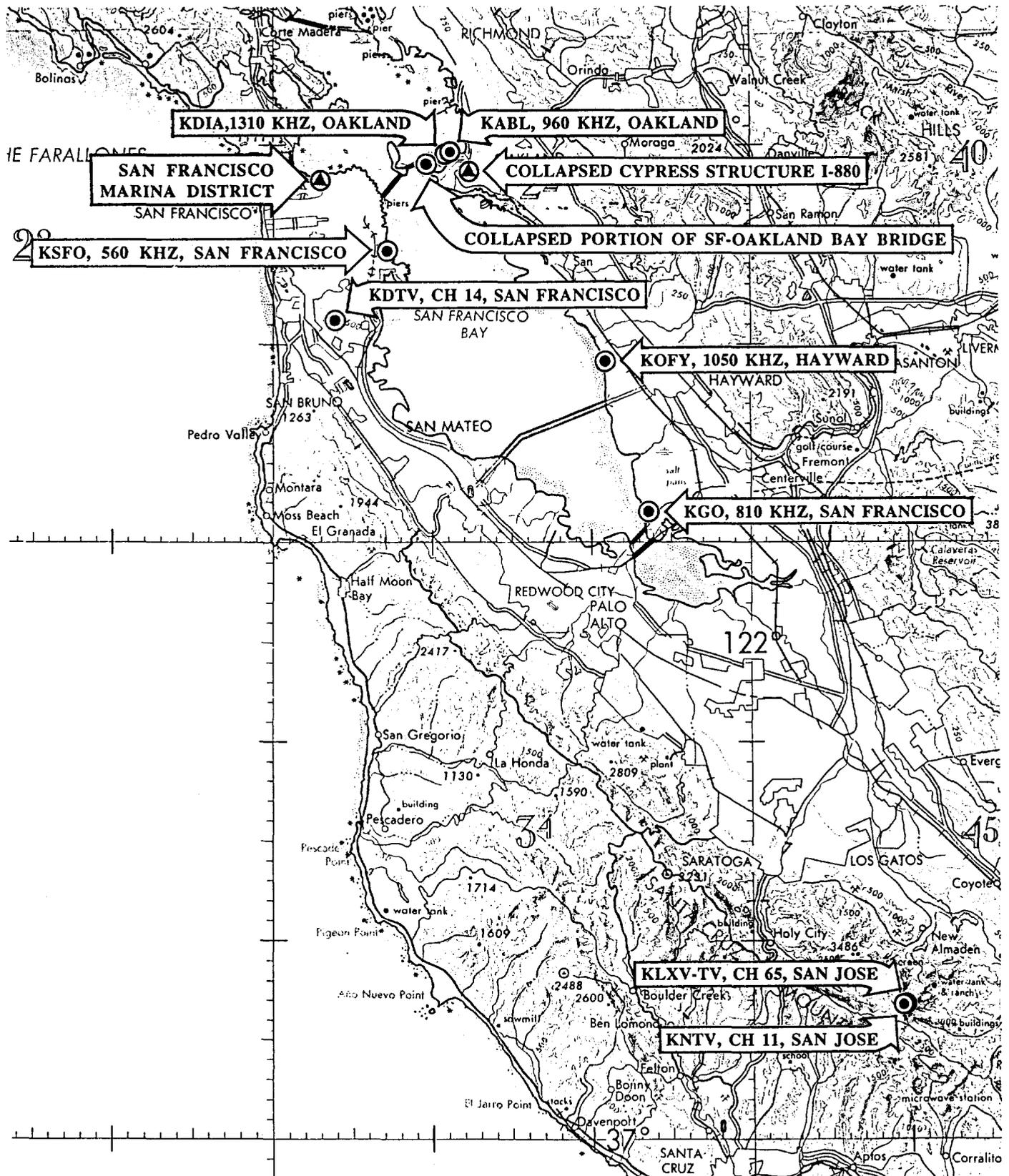
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WILLITS, CALIFORNIA

GRADE B CONTOURS OF OTHER ALLOCATED CHANNELS AROUND WILLITS



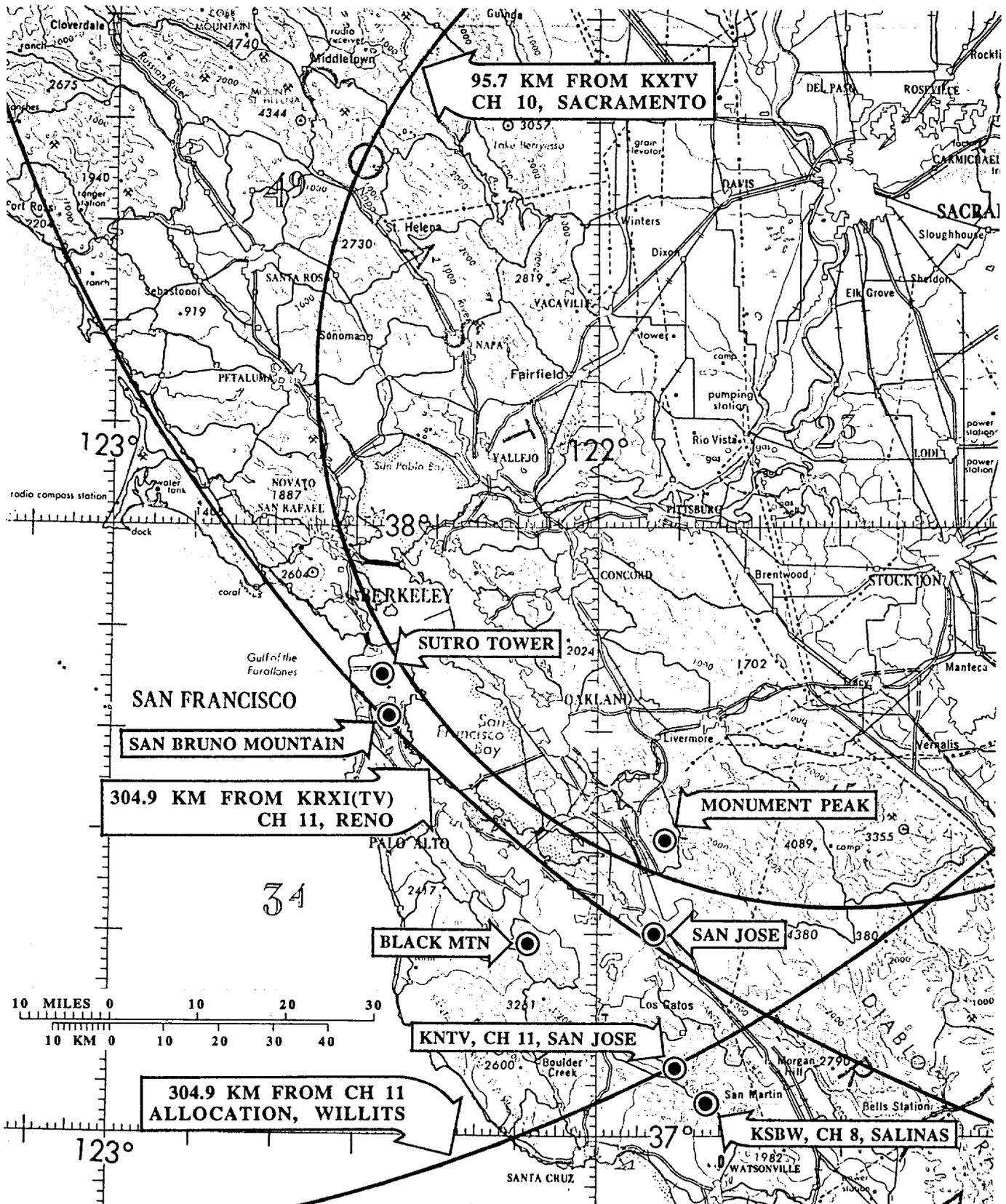
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 WILLITS, CALIFORNIA**

**LOCATIONS OF MAJOR STRUCTURES DAMAGED IN 1989 LOMA PRIETA EARTHQUAKE**



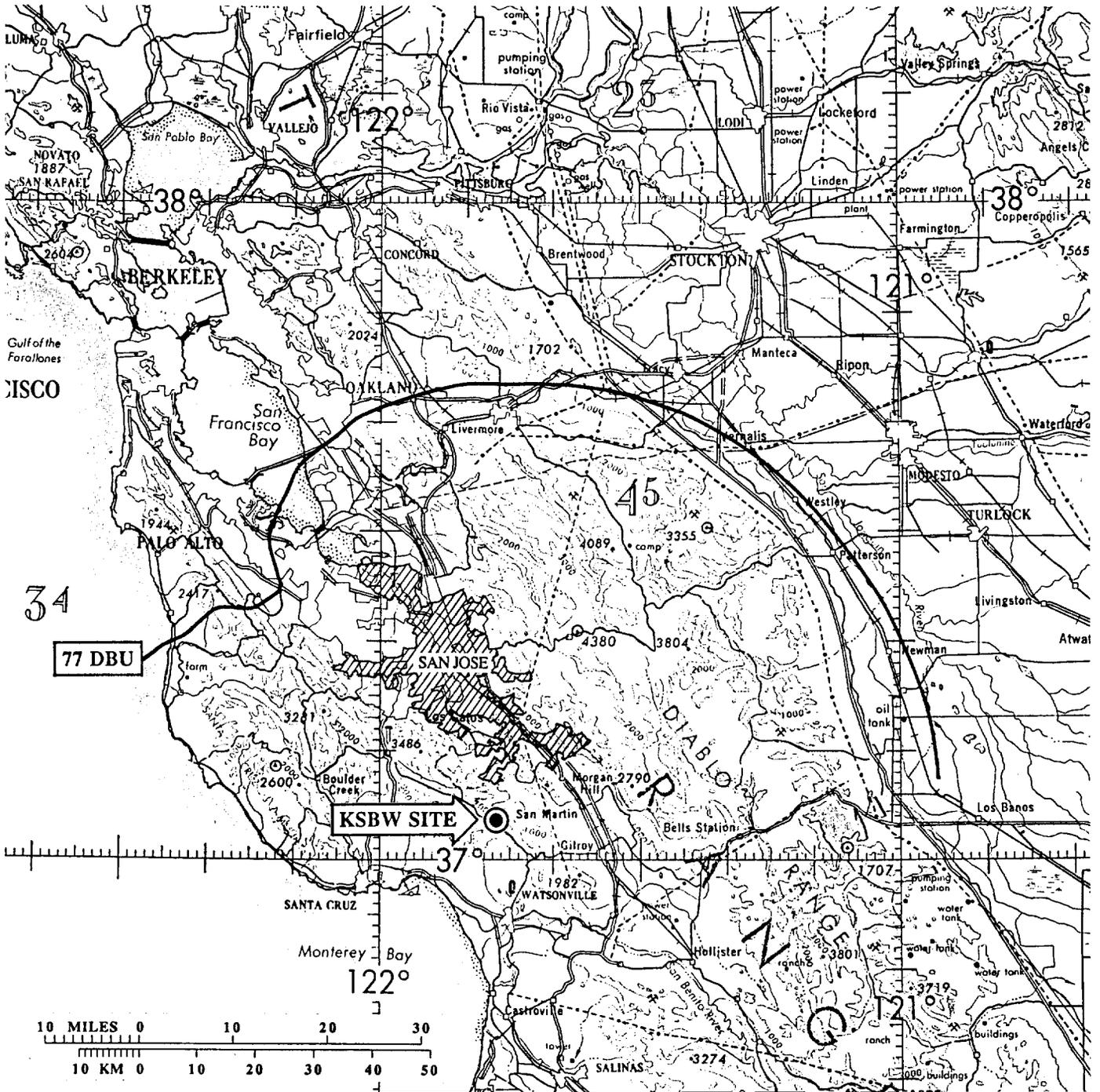
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WILLITS, CALIFORNIA**

**KNTV ALLOCATION CONDITIONS**



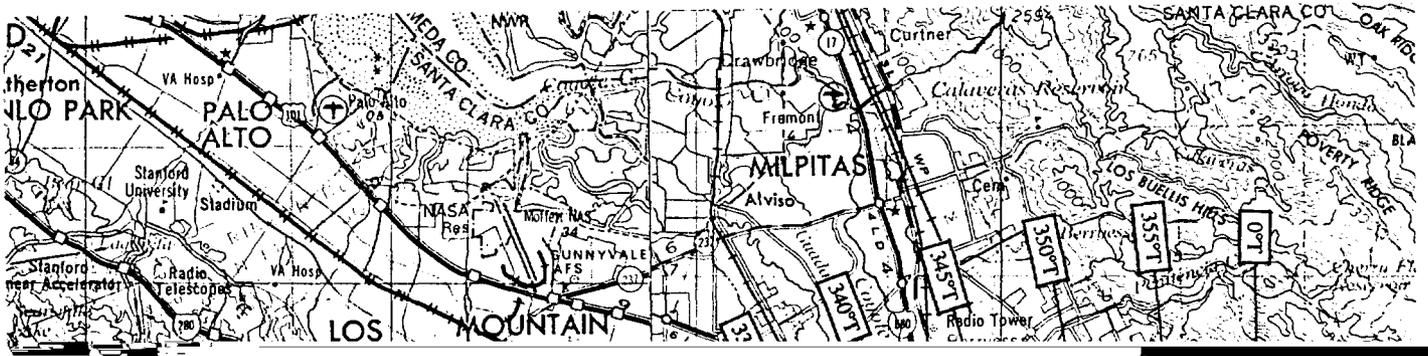
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WILLITS, CALIFORNIA

CITY GRADE COVERAGE OF SAN JOSE FROM KSBW TOWER



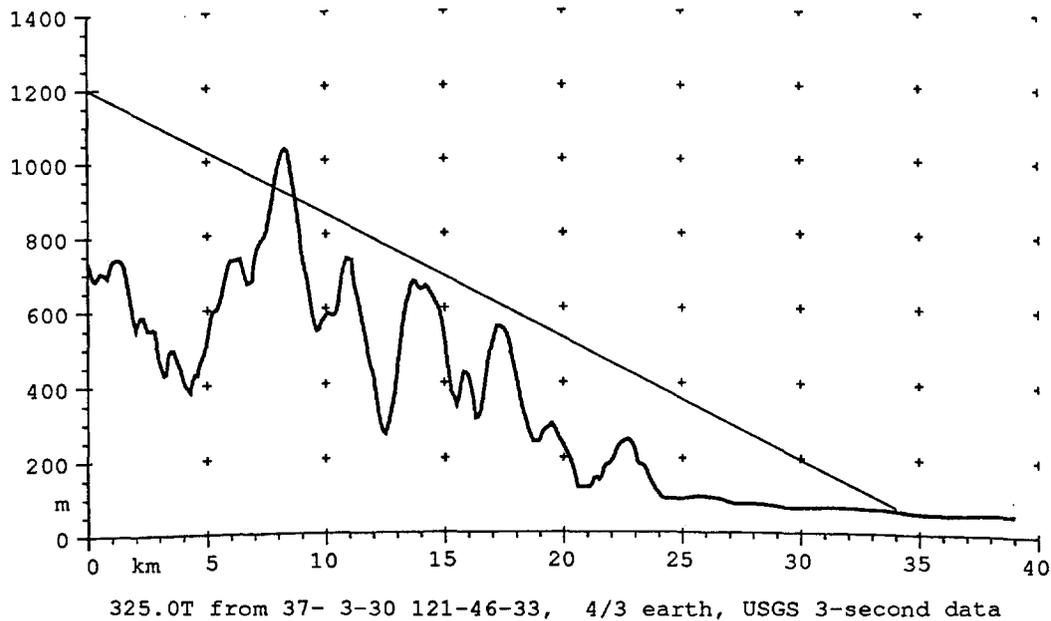
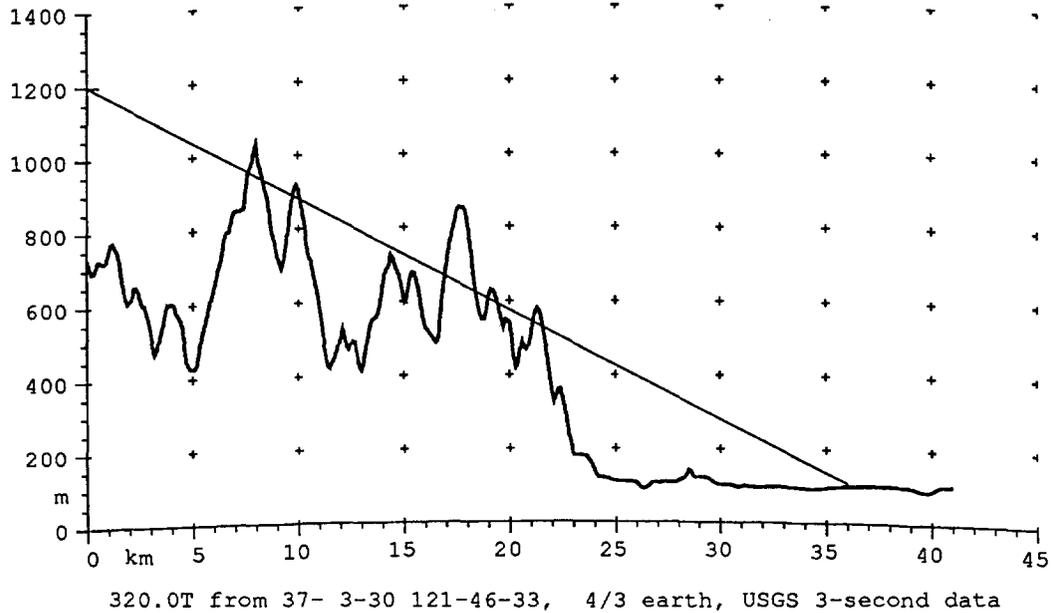
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RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



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PROPOSED DELETION OF CHANNEL 11 ALLOCATION  
WILLITS, CALIFORNIA

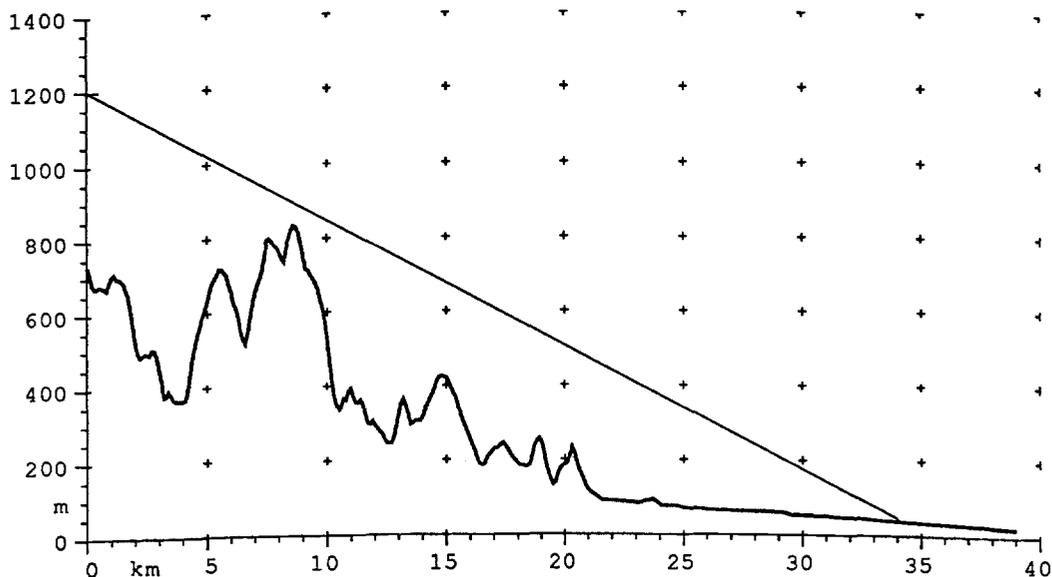
320°T AND 325°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



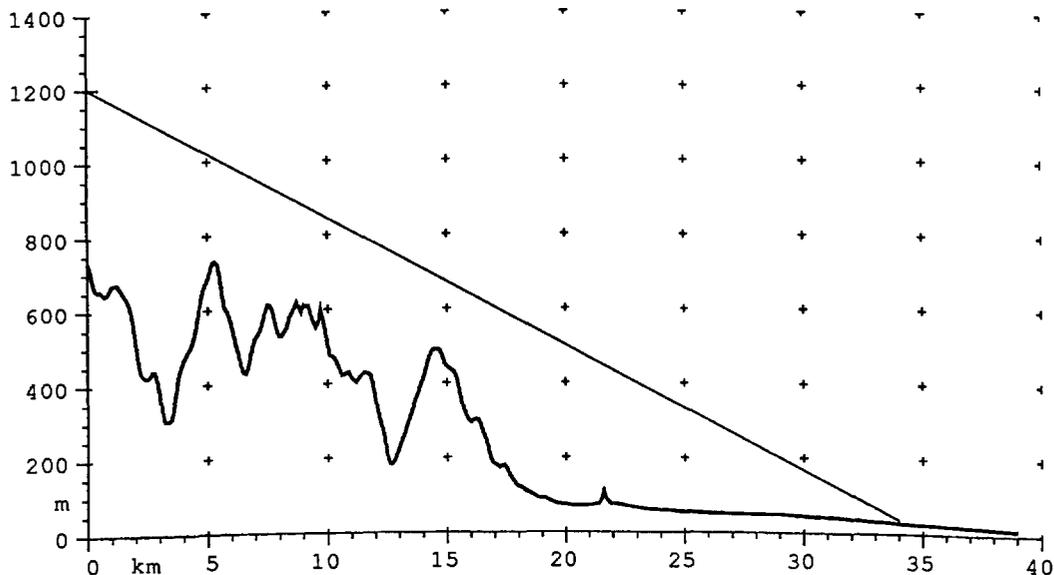
Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.

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330°T AND 335°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



330.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data

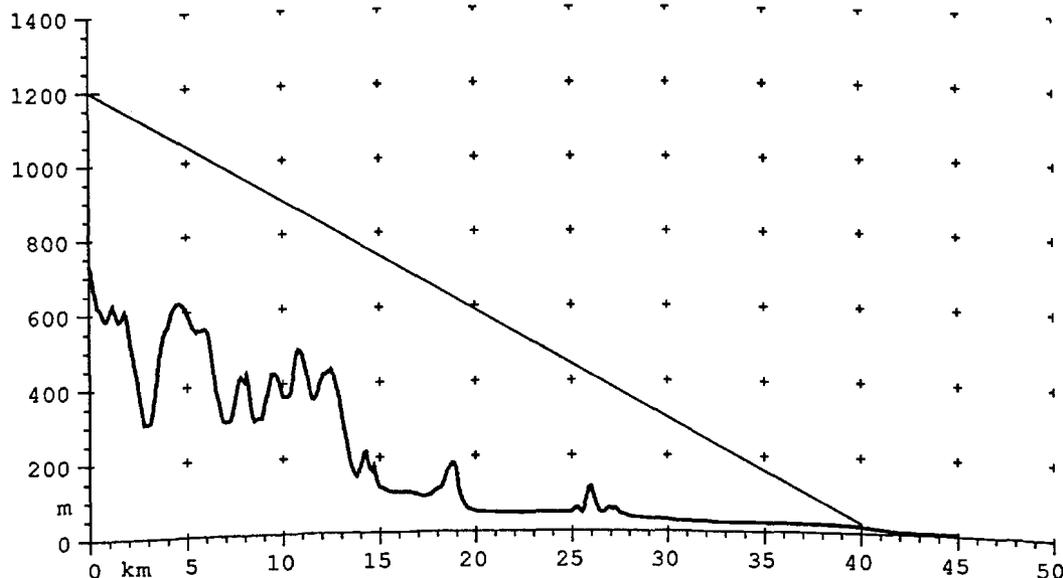
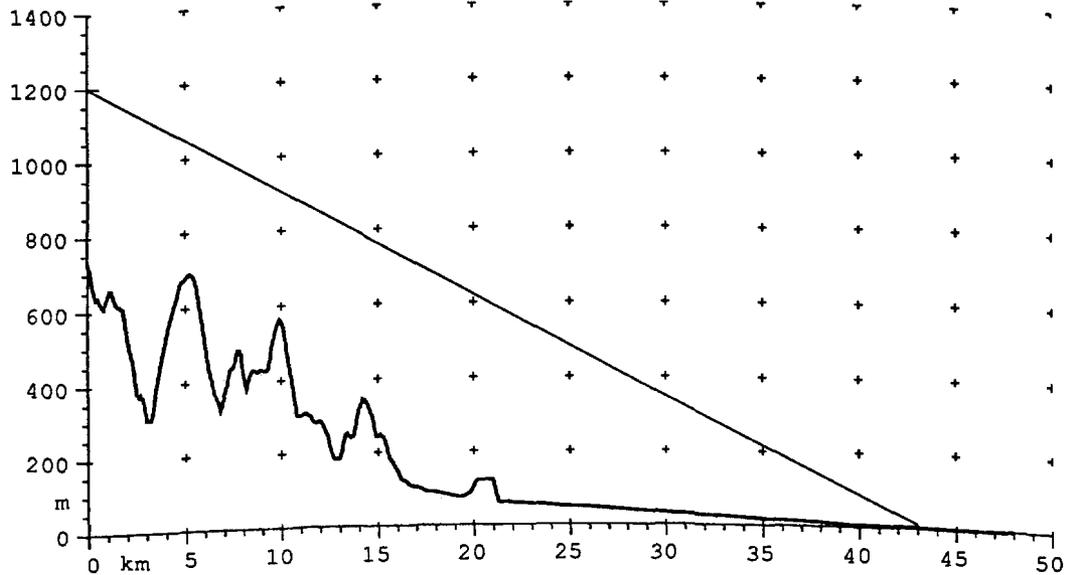


335.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data

Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.

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WILLITS, CALIFORNIA

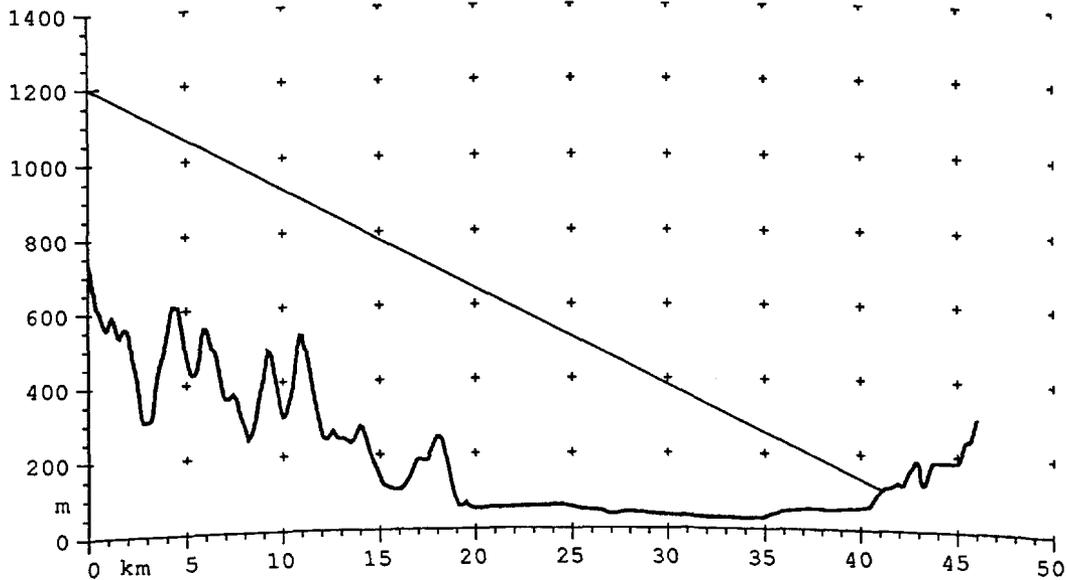
340°T AND 345°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



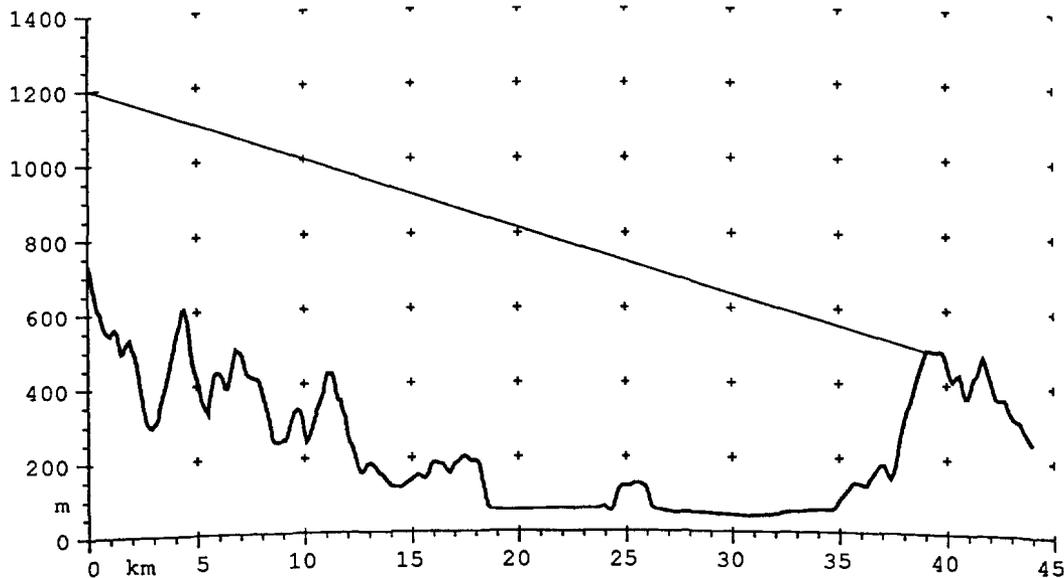
Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.

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WILLITS, CALIFORNIA

350°T AND 355°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



350.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data

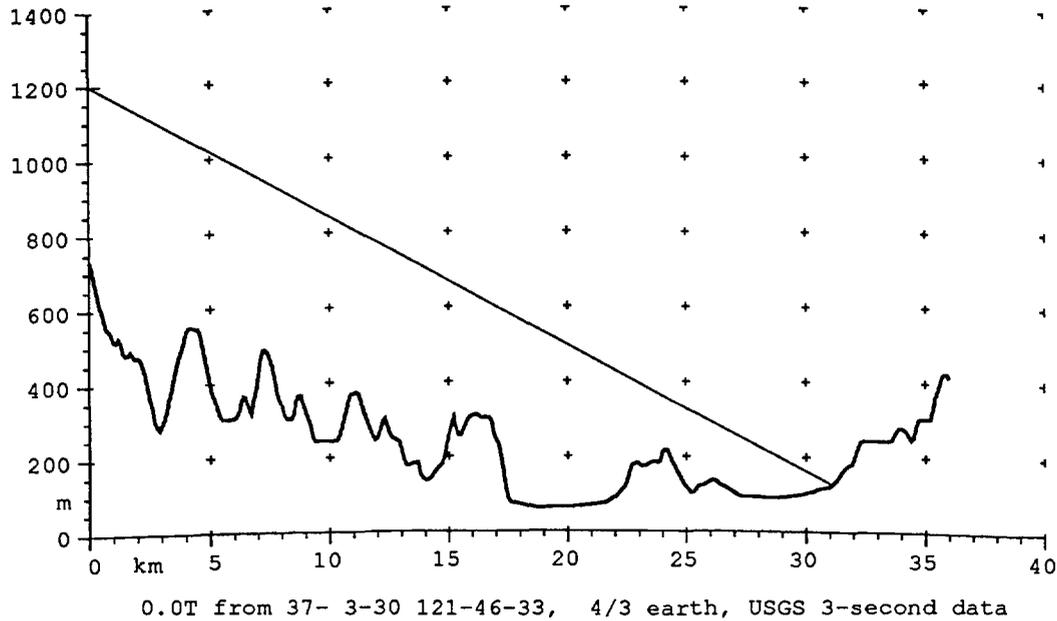


355.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data

Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.

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0°T RADIAL FROM KSBW SITE TO SAN JOSE, CALIFORNIA



Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.

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TERRAIN-SENSITIVE COVERAGE OF SAN JOSE  
FOR KNTV AT KSBW SITE

