



1 Introduction

This document contains interference analysis summaries for channels 43 and 63 performed by a 3rd party broadcast engineering consultant. This document also contains an estimate of RF signal levels at the U.S./Mexico boarder from Qualcomm's proposed transmitters.

2 Channel 43/63 interference discussion

As part of Qualcomm's spectrum investigation and network design prior to submitting the application for experimental license 0536-EX-ST-2006, the services of duTreil, Lundin & Rackley, Inc (<http://www.dlr.com>) were utilized to complete interference analysis studies for each affected TV channel.

The OET-69 interference analysis showing 0% interference provided by duTreil for TV channels 43 and 63. In addition to the OET-69 analysis for channel 43, duTreil also performed a LPTV interference analysis that is also found in this document

The email dialog and associated TV contour curves are attached to this document. The excerpts from the OET-69 discussion for channel 43 and 63 have been copied below for reference.

duTreil Interference email excerpts:

"Channel 43 : There is no contour overlap between the proposed KSKT-CA DTV operation and SDBX43. There is no contour overlap between the KSKT-CA analog operation and SDBX43. There is contour overlap from SDBX43 with KBOP-CA license and proposed operations for (Ch.43, San Diego, CA). The interference study shows no new interference (ie, 0 people, 0.0%) from SDBX43 to the KBOP-CA license and application service areas. There is no contour overlap between KCAL-DT and SDBX43."

"Channel 63 : There is contour overlap between K63EN and stations SDBA63 and SDBX63. There is no overlap between K63EN and SDBE63. The interference study shows no interference caused to K63EN (ie, 0 people, 0%) from SDBA63 and SDBX63."

3 Mexico Interference Consideration

In the following table, Qualcomm calculated the expected power values at the U.S./Mexico border using the RF spectrum planning software tool "Comstudy". The table below summarizes the predicted received power levels for a 9m receiver located along the border.

The results indicate that the proposed Qualcomm transmitters will not be detectable in Mexico and therefore will not cause interference to any Mexican TV stations.

Antenna Location	A	E	X
Source ERP (W)	80	80	150
Approximate Distance (miles)	25	25	25
Field Strength at Mexico Boarder	<15 dBu	<15 dBu	<15 dBu
dBm at border	<-100 dBm	<-100 dBm	<-100 dBm



4 Channel 43 LPTV Interference analysis

From: Bob du Treil Jr. [mailto:bobjr@dlr.com]
Sent: Saturday, September 23, 2006 7:40 AM
To: Forrester, John; Winters, Kevin
Subject: RE: FCC File # 0536-EX-ST-2006 [Reference Number: 4563]

John and Kevin,

We conducted an interference analysis for the Channel 43/44 facility that will be located at Building X. We used the Building X parameters as outlined in the specifications you sent. The interference analysis was based on use of the FCC low power analysis tool for analog and digital.

We ran two studies: one for the assumed digital station on Channel 43 and another on Channel 44. We specified a "stringent" emission mask in both cases.

I note that, when the station under study is digital, as is the case here, the FCC interference analysis routine does not use contour overlap as the basis for determining which stations are studied under the Longley-Rice procedure. The program simply searches for all stations within the required culling distances and conducts a Longley-Rice interference analysis to each of the stations. As a result over 50 LPTV and full service stations were examined by the software in each of the two studies.

The results for both the Channel 43 and 44 studies indicate that no interference (zero) will be caused to any other stations. Presumably the FCC will find the same results.

Please let me know if there is anything additional we should do.

-Bob

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DLR:3510.7626



5 Channel 43 Interference Analysis

Forrester, John

From: John Lundin [john@dlr.com]
Sent: Wednesday, September 06, 2006 12:38 PM
To: Forrester, John; McCarthy, Jennifer
Cc: Winters, Kevin; Bob du Treil Jr.
Subject: FW: UVM Interference Analysis Re-synch and du Treil future / Ch.43
Attachments: SDBX4342.pdf; SDBX4343.pdf; SDBX4344.pdf

John : This report concerns channel 43 at the 1 proposed MediaFLO site. We will refer to the proposed MediaFLO operation at Building X as SDBX43.

We have used the FCC database to determine the assignments requiring protection on channels 42, 43 and 44. The assignments include TV, DTV, LPTV, LPTV-DTV and STA operations. We have also used the Mexico TV and DTV assignments. Attached are maps showing the protected contours for the other assignments and the interfering contours from the proposed MediaFLO station. An expanded scale has been provided in some cases. Where appropriate, interference calculations have been made using the OET-69 program, a 1 kilometer grid, 1 kilometer terrain increment, and 2000 Census.

Channel 42 : There is contour overlap from the proposed MediaFLO station with proposed DTV operation of Class A TV station KBOP-CA for channel 42 at San Diego, CA (BSFDTL-20060630CSW). The interference study shows new interference to 2 people (0.0001%) from SDBX43 to proposed KBOP-CA DTV service.

Channel 43 : There is no contour overlap between the proposed KSKT-CA DTV operation and SDBX43. There is no contour overlap between the KSKT-CA analog operation and SDBX43. There is contour overlap from SDBX43 with KBOP-CA license and proposed operations for (Ch.43, San Diego, CA). The interference study shows no new interference (ie, 0 people, 0.0%) from SDBX43 to the KBOP-CA license and application service areas. There is no contour overlap between KCAL-DT and SDBX43.

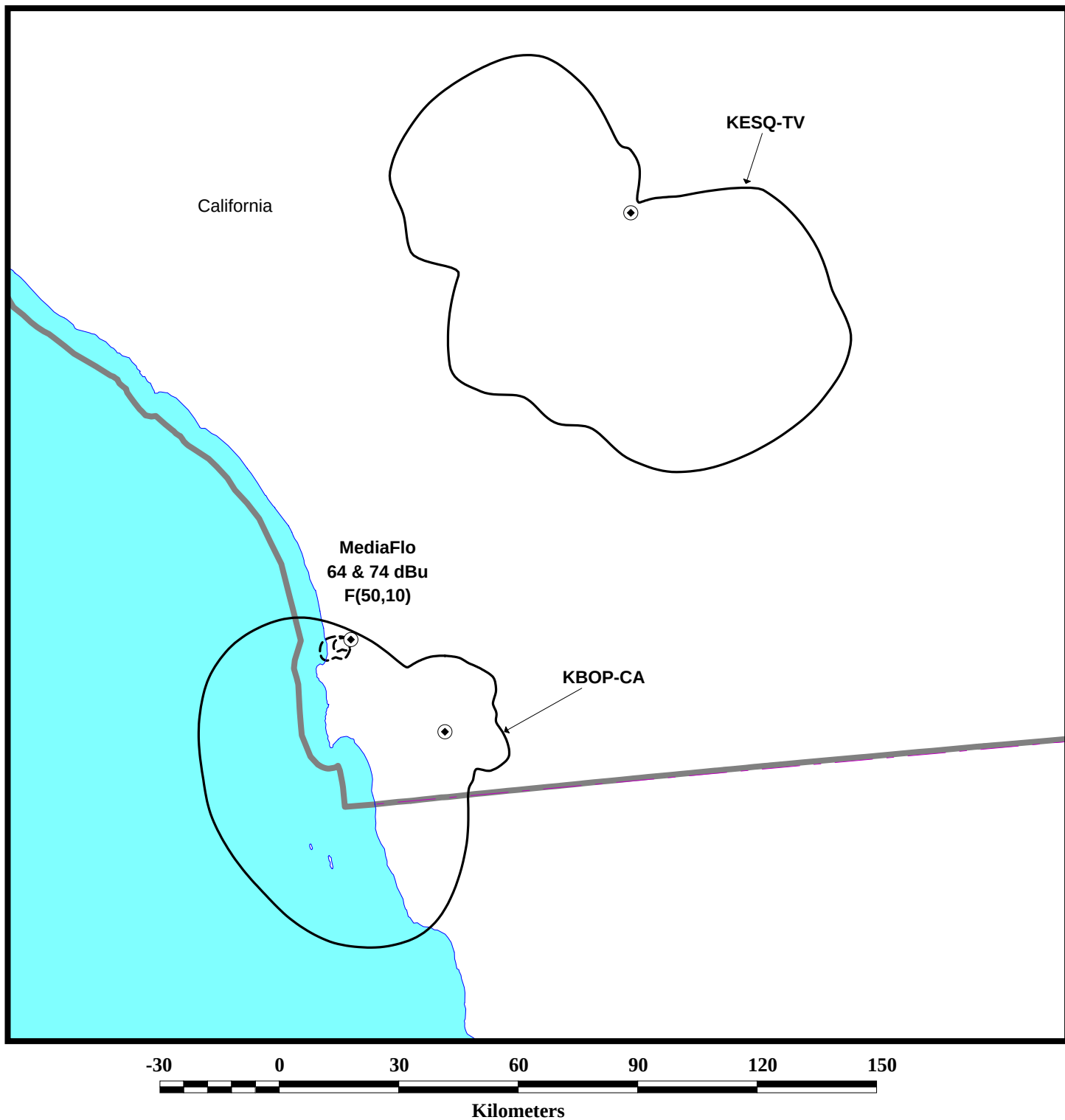
Channel 44 : There is no contour overlap between the proposed MediaFLO station and other known assignments on channel 44 (ie, no interference calculations).

If there are questions or need for additional information, please communicate.

Best wishes

John Lundin

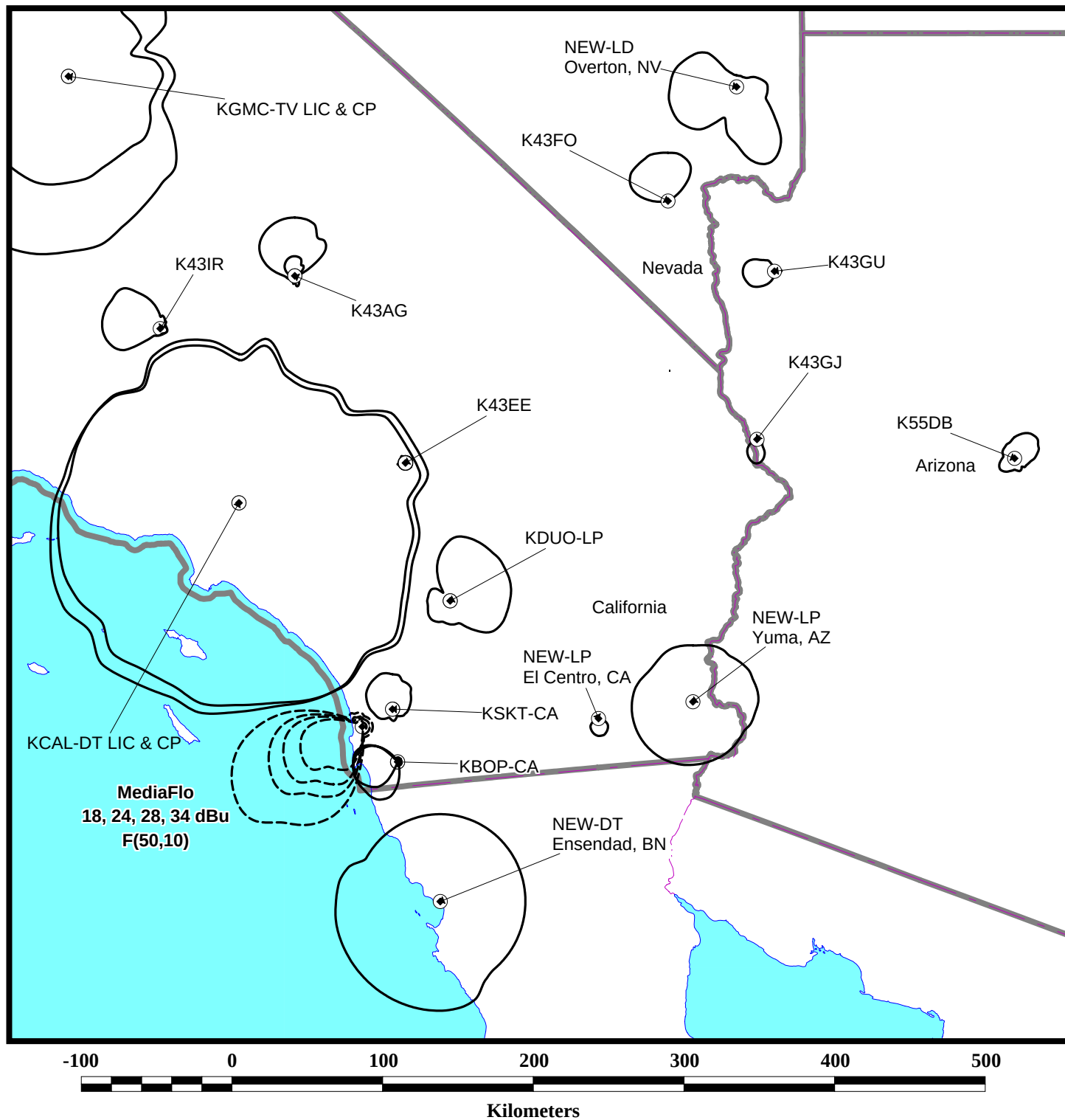
dlr:3510.7626



PREDICTED CONTOURS

CHANNEL 42

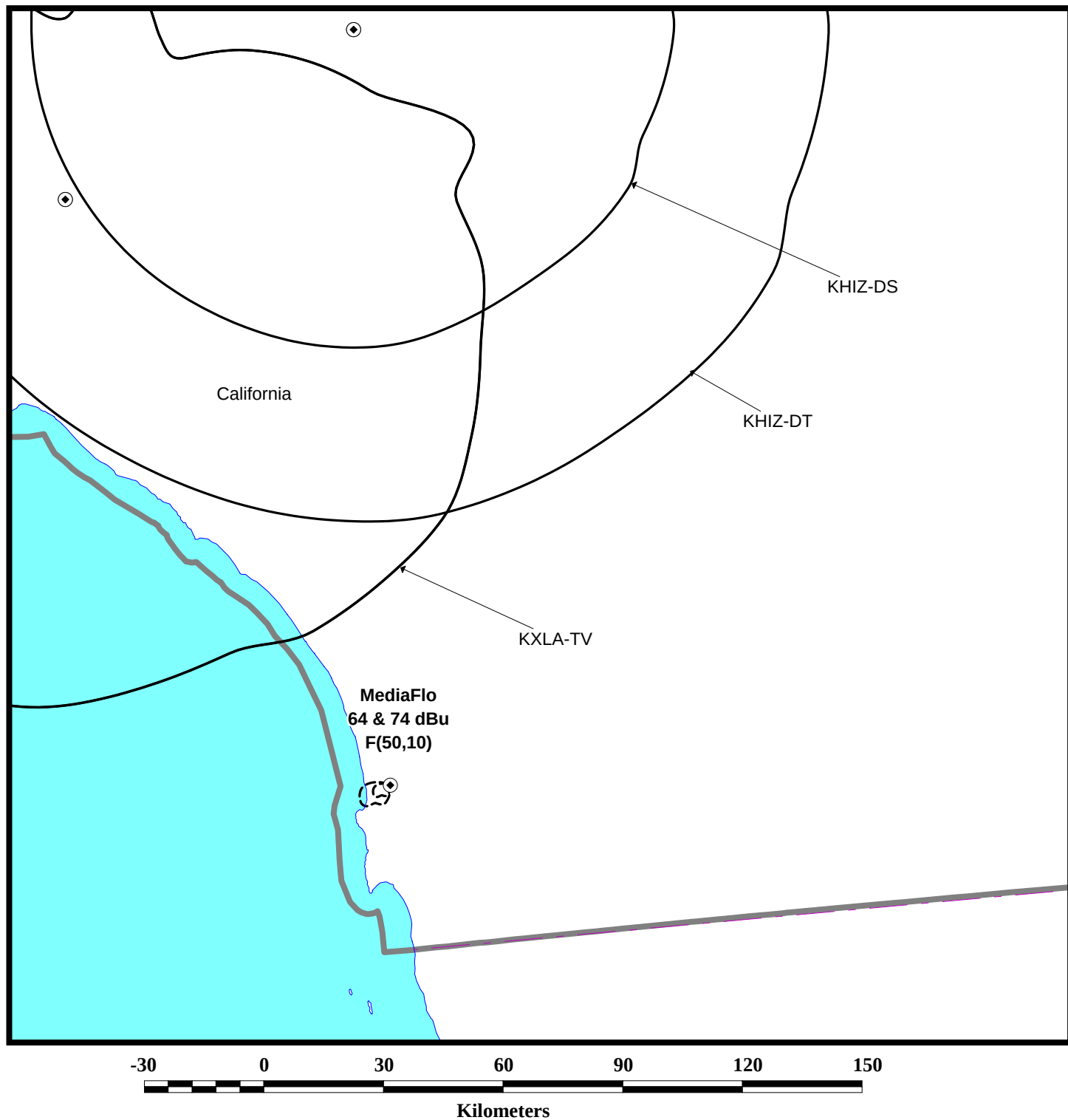
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED CONTOURS

CHANNEL 43

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED CONTOURS

CHANNEL 44

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



6 Channel 63 Interference Analysis

Forrester, John

From: Oates, Jim
Sent: Thursday, July 13, 2006 2:47 PM
To: Forrester, John
Subject: FW: RE: New studies for WCDMA/UBM project / Channel 63
Attachments: SD6362.pdf; SD6362EX.pdf; SD6363.pdf; SD6363EX.pdf; SD6364.pdf

Info for CH62 and CH63

From: Kevin Winters [mailto:kwinters@qualcomm.com]
Sent: Friday, June 30, 2006 9:51 AM
To: Oates, Jim
Subject: Fwd: RE: New studies for WCDMA/UBM project / Channel 63

good news coming in.
kw

Subject: RE: New studies for WCDMA/UBM project / Channel 63
Date: Fri, 30 Jun 2006 10:49:38 -0400
From: "John Lundin" <john@dlr.com>
To: "Jennifer McCarthy" <mccarthy@qualcomm.com>,
"David Dickmann" <Dave@dlr.com>, "Bob du Treil Jr." <bobjr@dlr.com>,
"Charles Cooper" <Charles@dlr.com>,
"Kevin Winters" <kwinters@qualcomm.com>

Jennifer & Kevin : We will be reporting on each channel separately. This report concerns channel 63 at the 3 sites described in the email below. We will refer to the MediaFLO operation at Building A as SDBA63. Similarly, the other 2 MediaFLO operations will be referred to as SDBE63 and SDBX63.

We have used the FCC database to determine the assignments requiring protection on channels 62, 63 and 64. The assignments include TV, DTV, LPTV, LPTV-DTV and STA operations as shown in the database. We have also considered Mexico TV and DTV assignments. Attached are maps for channels 62, 63 and 64 showing the protected contours for the other assignments and the interfering contours from the 3 proposed MediaFLO stations.

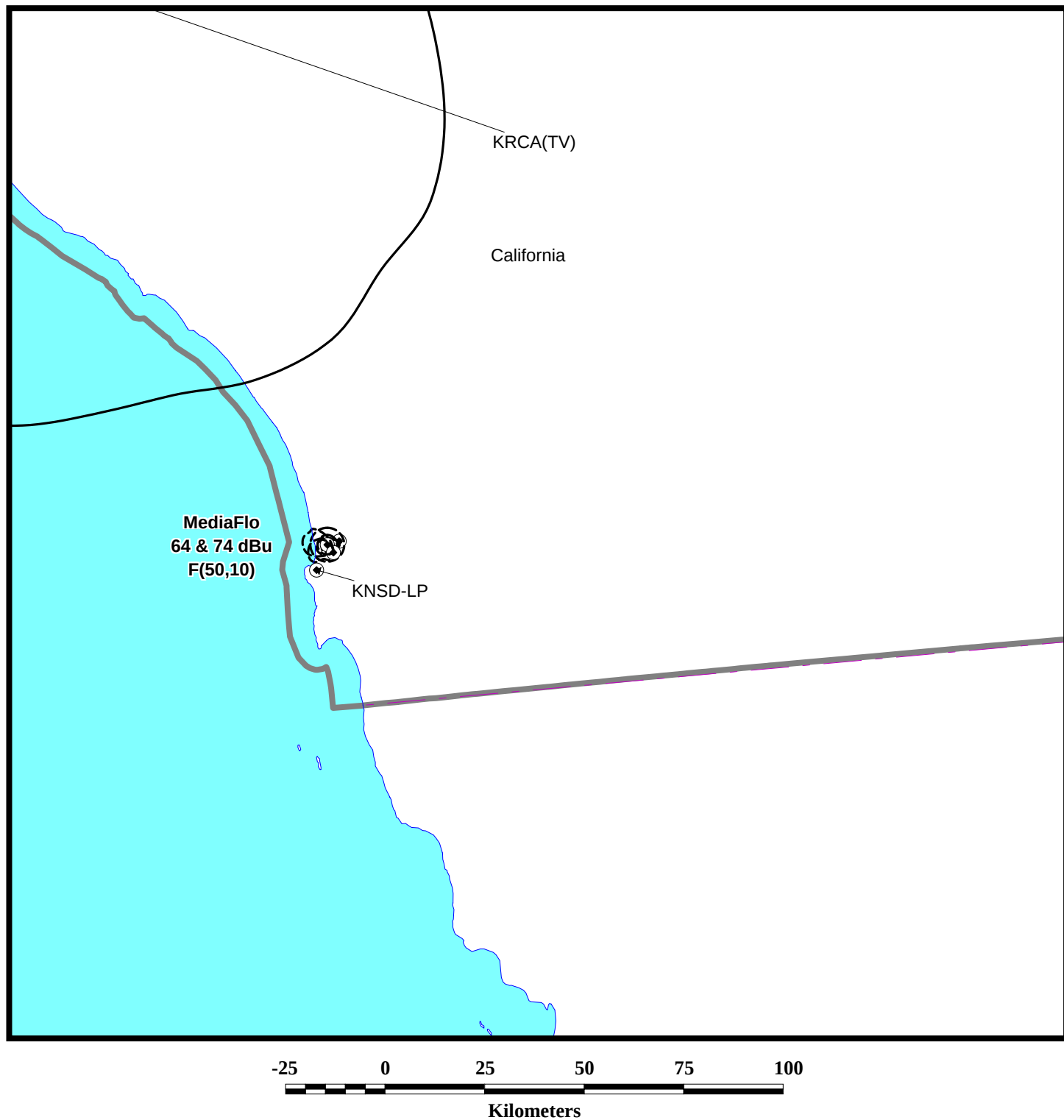
Channel 62 : There is no contour overlap from the 3 MediaFLO stations with other stations on channel 62. No interference calculations have been made on this channel.

Channel 63 : There is contour overlap between K63EN and stations SDBA63 and SDBX63. There is no overlap between K63EN and SDBE63. The interference study shows no interference caused to K63EN (ie, 0 people, 0%) from SDBA63 and SDBX63.

Channel 64 : There is no contour overlap from the 3 MediaFLO stations with other stations on channel 64. No interference calculations have been made on this channel.

If there are questions or need for additional information, please communicate.
Best wishes
John Lundin

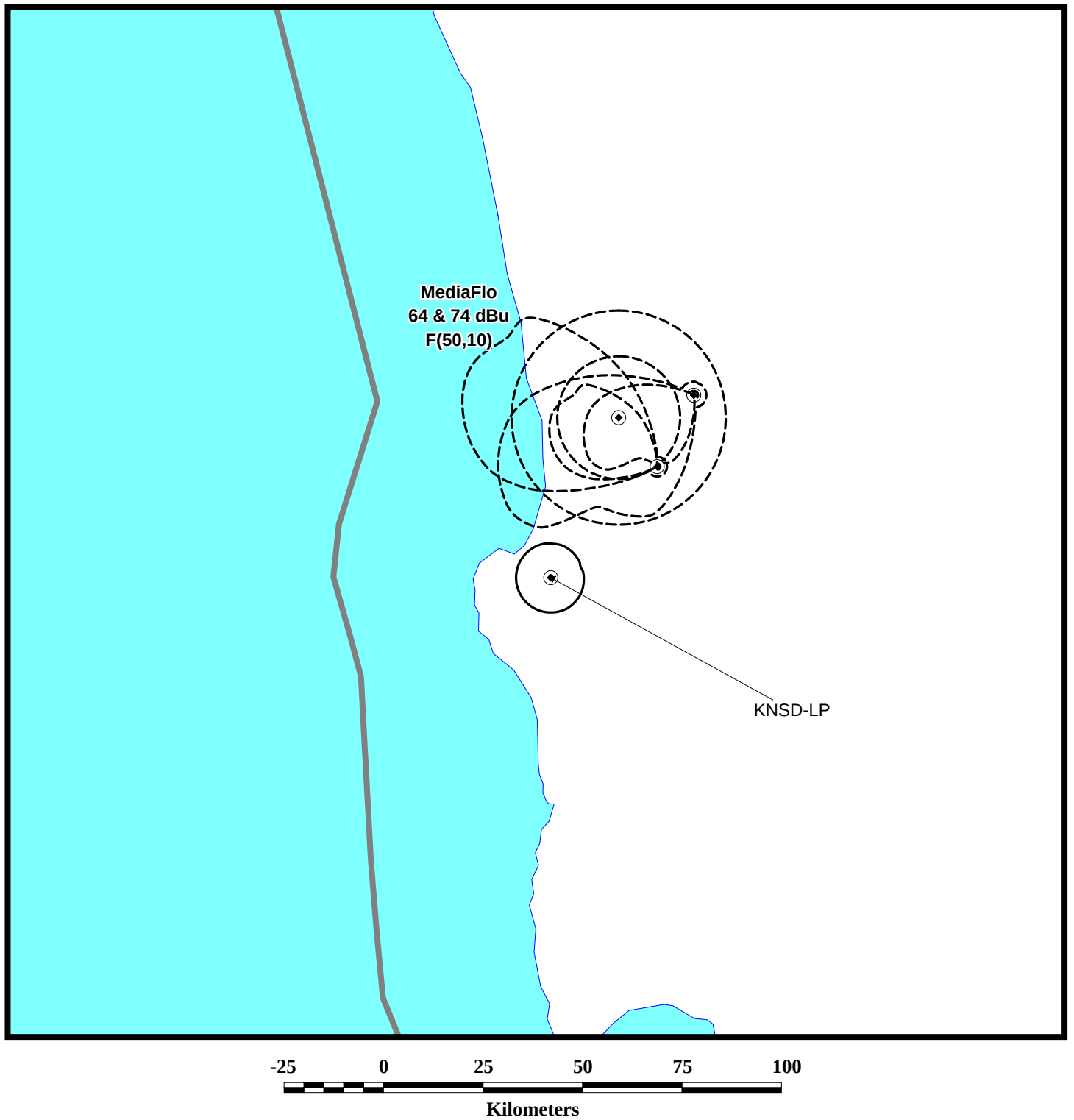
7/13/2006



PREDICTED CONTOURS

CHANNEL 62

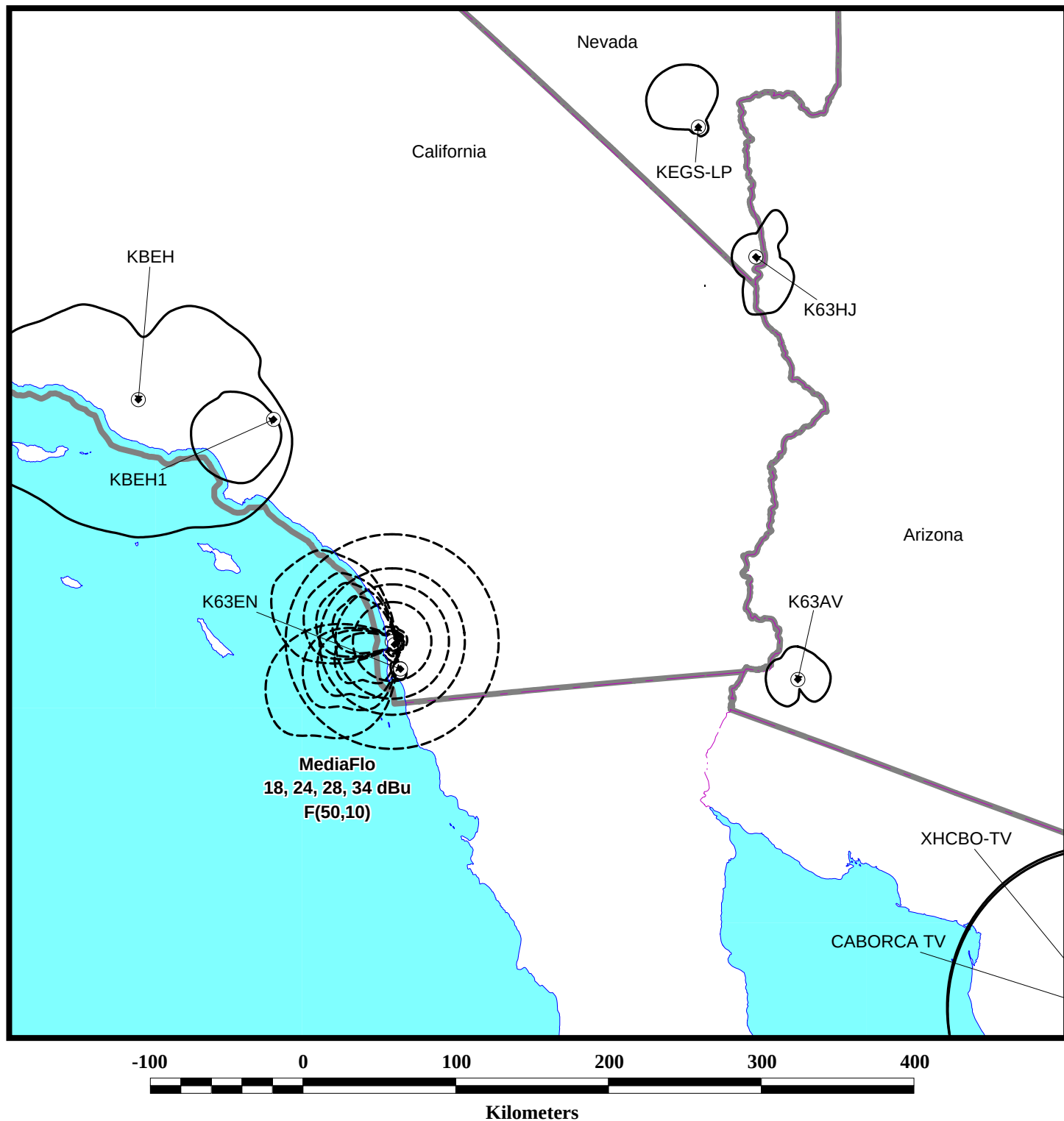
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED CONTOURS

CHANNEL 62

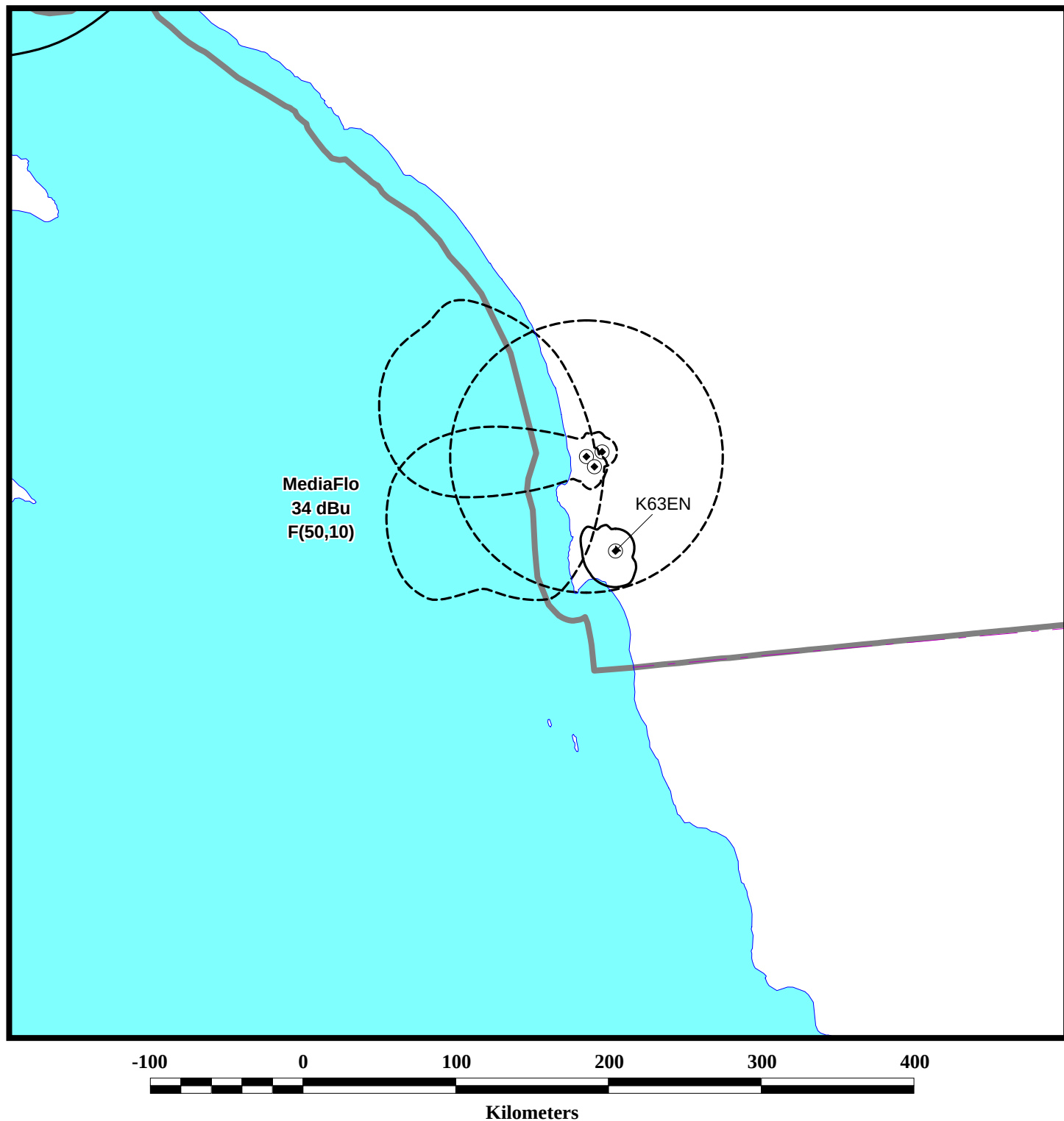
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED CONTOURS

CHANNEL 63

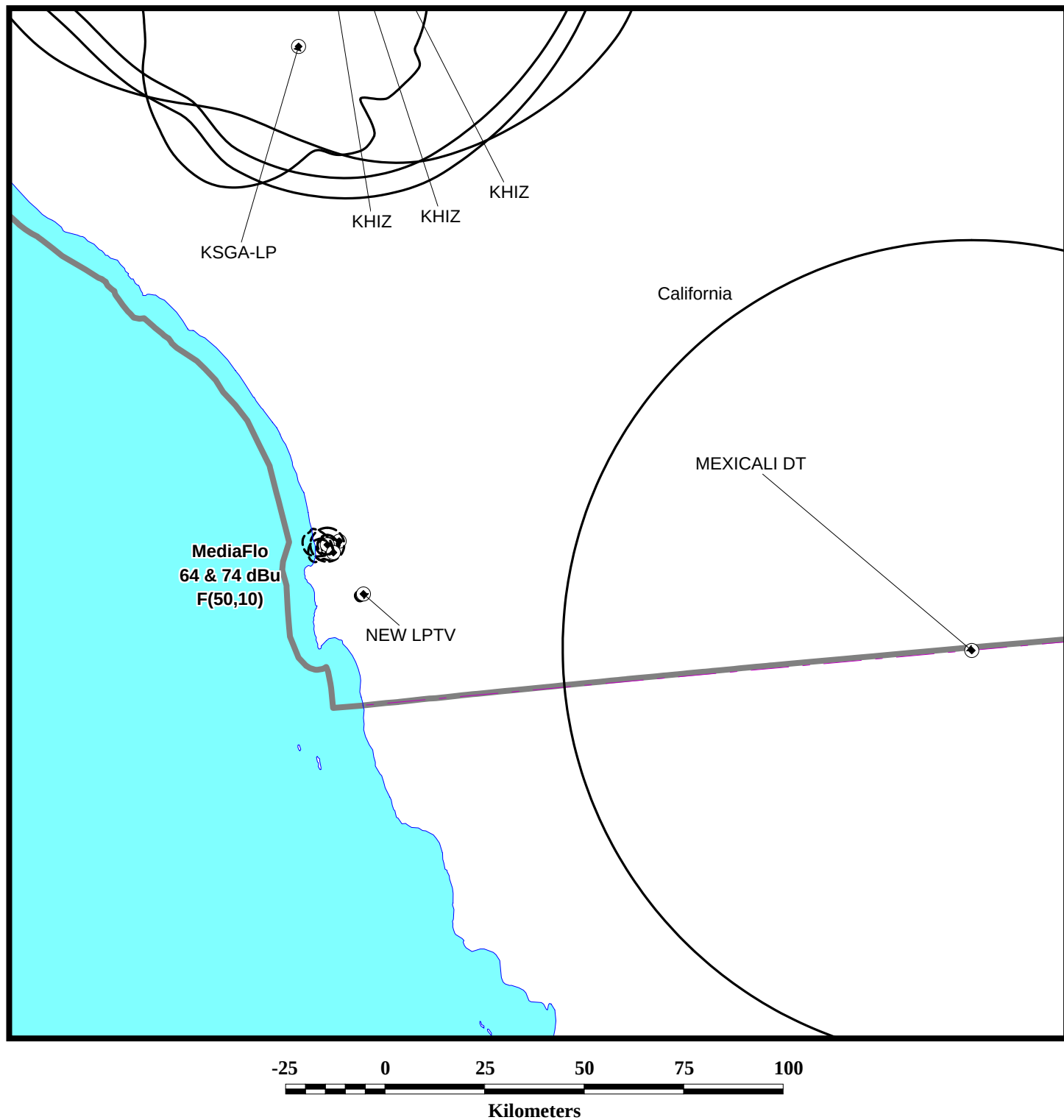
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED CONTOURS

CHANNEL 63

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED CONTOURS

CHANNEL 64

du Treil, Lundin & Rackley, Inc. Sarasota, Florida