

WPHS-FM
89.1 MHz
Warren Consolidated Schools
Warren, Michigan

EXHIBIT – 21
International Borders (Canada)
US – Canadian Agreement

WPHS is located 18 km from the US/Canadian Border. WPHS occupies an allocation listed in table B of the US – Canadian Working Agreement at channel 206A in Warren, Michigan. The designation *12 is assigned indicating a short spaced limitation of 2kW with antenna HAAT of 30.5 meters. The proposed facilities differ from this agreement. Therefore, this application needs to be forward to the Canadian authorities.

This proposal is short spaced with a new station in Chatham Ontario on 89.3 MHz (first adjacent) and CIMX-FM on 89.7 MHz (second adjacent) in Windsor Ontario. The interference zones have been plotted in Exhibit-21A to Exhibit -21D of this exhibit in accordance to the US – Canadian Working Agreement. These contour plots overlay a map (Detroit Aeronautical Sectional) for which the contrast has been reduced to better show contour lines.

New Chatham Station Operation:

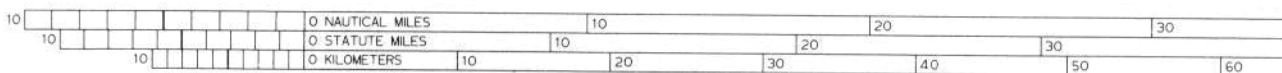
In the Case of the New Chatham Station Operation, there is one interference zone. Exhibit –21A shows the interference zone (in blue) that will be received by WPHS to the west and cause by the New Chatham Station Operation to the east as defined in the US – Canadian Working Agreement. In the US – Canadian Agreement, the Chatham allocation (207B) has the short spaced designation of *12 which is limited to 40kW with an HAAT of 122 meters. The plotted contour assumes the actual conditions of the New Chatham Station Operation (using an ERP of 16.7 kW with an HAAT of 133m). All of the interference received by WPHS is contained within the US border as indicated in Exhibit-21A. There is no interference caused to or from the New Chatham Station Operation within Canadian territory. Though not applicable to the US – Canadian Working Agreement, the plot on Exhibit – 21B was done using the rules in section 73.509. In this case, there is no prohibited overlap as indicated in the US rules.

CIMX-FM:

In the case of CIMX-FM 88.7 MHz (second adjacent), there will be an interference zone caused to CIMX-FM 88.7 MHz near the WPHS transmitter site as defined in the US – Canadian Working Agreement shown in red. Interference received from CIMX to WPHS is shown in blue. The overlap is shown in Exhibit -21C. This zone is entirely within US territory. Again there is no interference caused to or from the CIMX within Canadian territory. Though not applicable to the US – Canadian Working Agreement, the plot on Exhibit – 21D was done using the rules in section 73.509. Notice there is a very small area of interference received from WPHS to CIMX-FM (relative to 73.509) within US territory.

The actual interference should be minimum in both cases. Due to advancements in receiver technology in recent years, the actual adjacent channel interference received will be minimized. Most consumer electronics, such as home stereo receivers, automobile receivers and most portable receivers use digital syntheses, which is referenced to a quartz crystal. This eliminates problems such as AFC (Automatic Frequency Control) capture that was present in most older technology receivers. However, some older technology receivers may still exist and experience this problem. However for the most part, newer technology receivers have mostly replaced them.

We are requesting to operate short spaced with these two stations. We are requesting this application be referred to the Canadian authorities for review and concurrence to any action by the FCC.



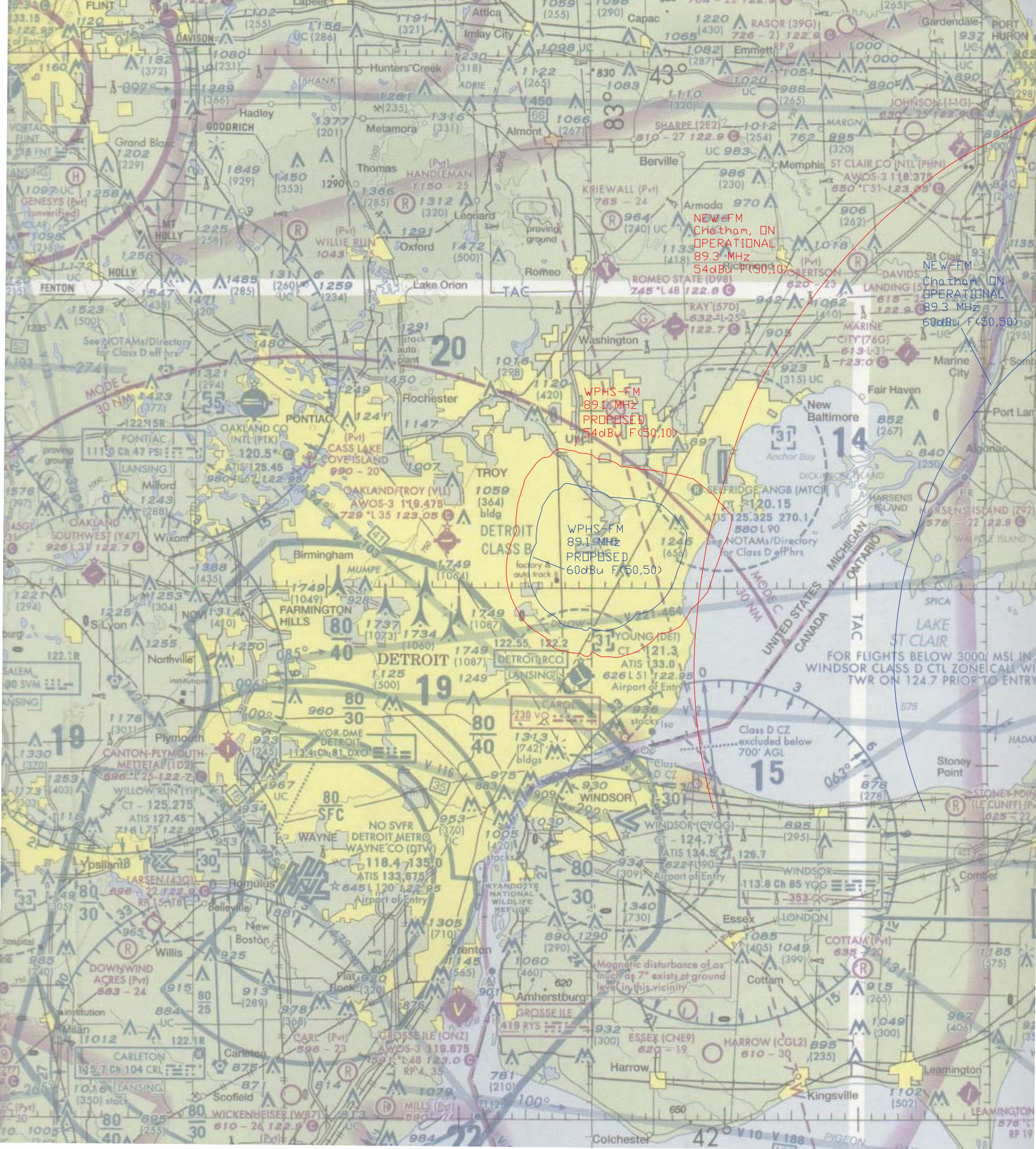


Exhibit - 21A

WPBS-FM
89.1 FM Warren, MI
Warren Consolidated Schools

NEW-FM 89.3 Mhz, First Adjacent
Chatham, ON

73.509

Keith Fraley

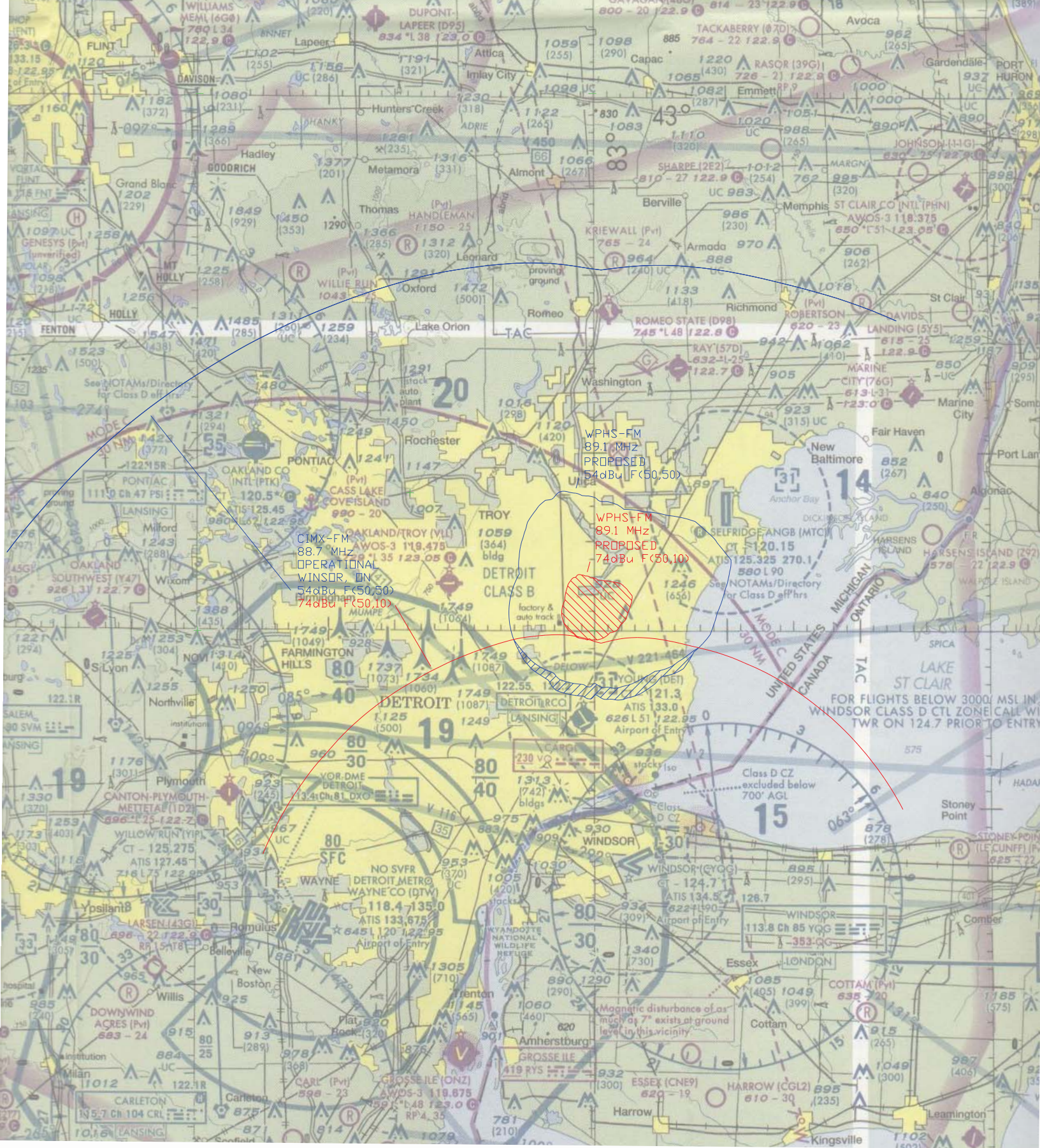


Exhibit - 21A

WPHS-FM
89.1 FM Warren, MI
Warren Consolidated Schools

CIMX-FM Second Adjacent
Windsor, ON

US - Canadian Working Agreement

Keith Fraley

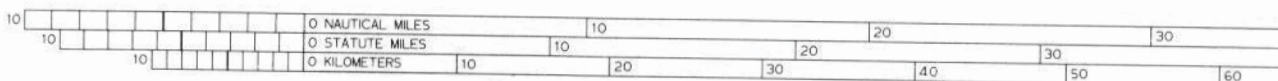
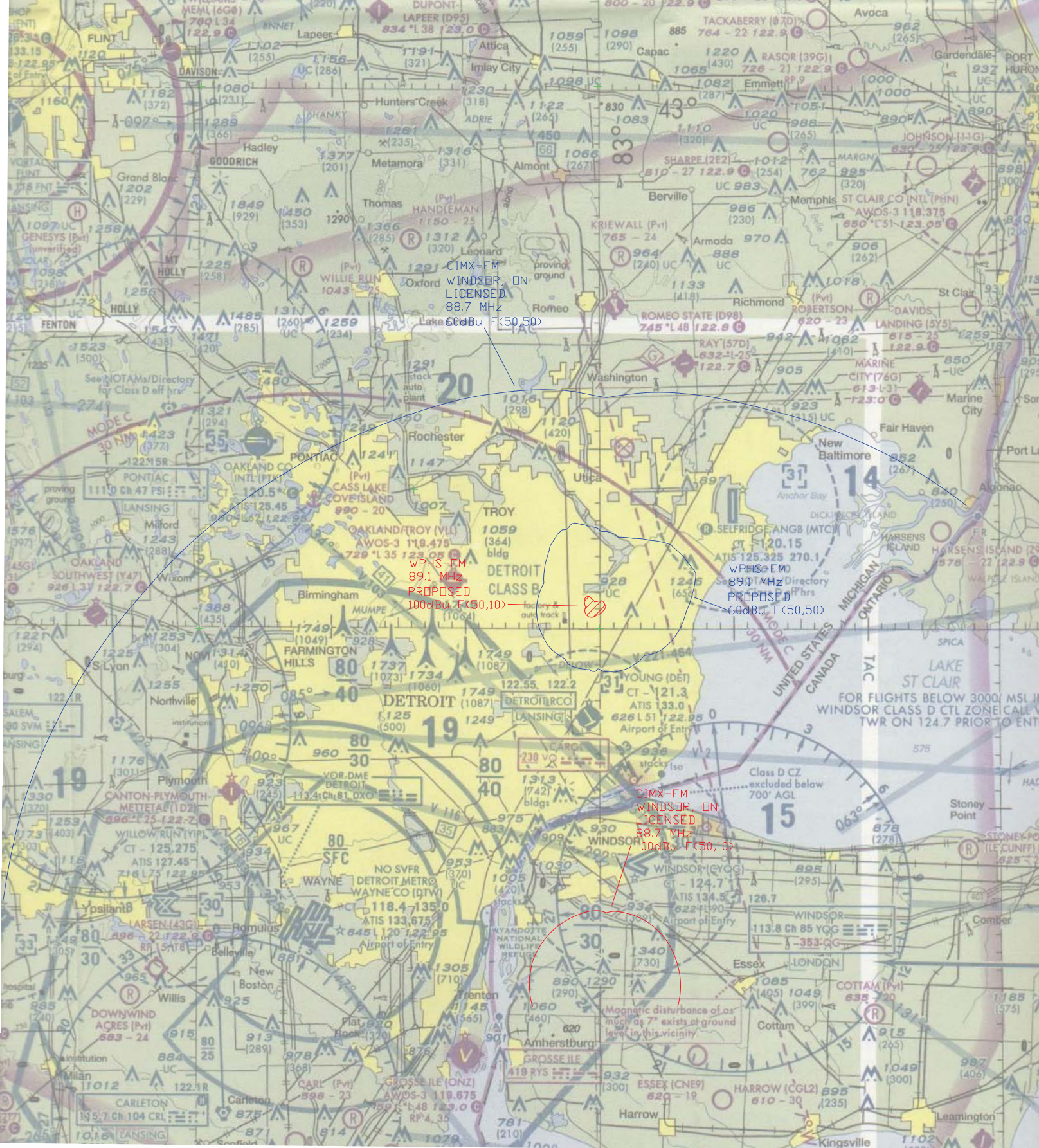


Exhibit - 21A

WPHS-FM
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CIMX-FM Second Adjacent
Windsor, ON