

**WPHS-FM  
89.1 MHz  
Warren Consolidated Schools  
Warren, Michigan**

Exhibit – 18

73.509 - Contour Overlap Requirements

**WEMU-FM Ypsilanti, Michigan**

WPHS is Co-channel with WEMU in Ypsilanti, Michigan. WEMU is a class B1 station. Exhibit – 18A shows the coverage predictions for the two stations opposing contours. There is a **pre-existing overlap** of the 40dBu contour of WEMU onto the 60dBu contour of WPHS. The condition occurred when WEMU installed new facilities (see BLED-19920109KA & BMPED-19900330IA). This condition was unknown to WPHS until this study. For the purposes of this application, this condition is considered to be grandfathered.

In this application, we propose no additional expansion in the general direction of WEMU. A very small amount of the radius will occur. For this condition, we request a waiver of section 73.509. This area overlap is very small.

There is no further overlap in opposing contours. Also note, since the HAAT of WPHS in the direction the direction of WEMU is less than 30 meters and that contours shown assume a minimum of HAAT of 30 meters, the contours of WPHS are the maximum worst case condition. The actual contour will be somewhat reduced.

**WDTR-FM (88.9 MHz) Imlay City, Michigan & WPHS-FM**

WDTR-FM is first adjacent relative to WPHS. Exhibit – 18B shows the opposing contours. Although the two stations are closely spaced, there is no overlap in opposing contours.

**WBLD – FM (89.3 MHz) Orchard Lake, Michigan & WHFR-FM (89.3 MHz)  
Dearborn, Michigan**

WPHS is first adjacent with WBLD –FM & WHFR-FM. Exhibit – 18B shows the coverage predictions for the two stations opposing contours. There is no overlap in opposing contours.

**WAHS – FM (89.5 MHz) Auburn Hills, Michigan**

WPHS is second adjacent with WAHS in Auburn Hills, Michigan. WAHS is a Class A station. Exhibit – 18C shows the coverage predictions for the two stations opposing contours. There is no overlap in opposing contours.

**WOVI-FM (89.5 MHz) Novi, Michigan**

WPHS is second adjacent with WOVI in Novi, Michigan. WOVI is a Class A station. Exhibit – 18C shows the coverage predictions for the two stations opposing contours. There is no overlap in opposing contours.

**WDTE-FM (88.5 MHz) St. Clair Shores, Michigan**

WPHS is third adjacent with the proposed application for WDTE. WDTE has a concurrent application for a new construction permit. Exhibit – 18D shows the coverage predictions for the two stations opposing contours. The two applications are **mutually exclusive**, WDTE and WPHS herein. There is some third adjacent overlap of the contours for both stations that is shown in Exhibit - 18D.

**Third adjacent waiver request**

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. This technology has been in place for many years and has by and large displaced older technology receivers. However, some older technology receivers may still exist and may still experience this problem. .

Therefore, a waiver of the third adjacent rules (§73.509) are requested so that both stations can operate as shown in this application. We are requesting to operate short spaced with WDTE.

A working agreement has been successfully negotiated between Ed Czelada of WDTE and Keith Fraley representing WPHS. There is an agreement to accept the application for WDTE provided only that the application provided herein is approved. See the application file for WDTE: BPED - 20160208ACC

EXHIBIT – 18E

10.7 MHz (10.6 MHz & 10.8 MHz)  
INTERMEDIATE FREQUENCY INTERFERENCE  
Section 73.207(b)(1)

This section concerns station(s) separated by 10.6 MHz or 10.8 MHz

A search for a station with a frequency of 100.1 MHz and 100.3 MHz revealed no conflicting station(s) within the range indicated in 73.207.

The nearest station on one of these two frequencies is WNIC in Detroit, Michigan on 100.3 MHz. WNIC transmitter site is located 27.42 KM from the WPHS proposed transmitter site. WNIC is a Class B station. In this case, the minimum required separation is 14 KM for Class A to Class B station separation.

In any case, there are no stations within the minimum separation area.



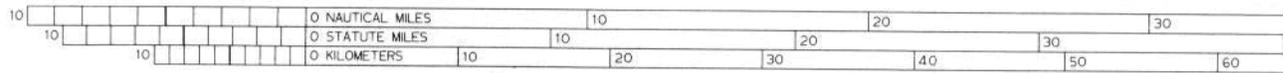


Exhibit - 18B  
73.509

WPHS-FM  
89.1 FM Warren, MI  
Warren Consolidated Schools

WBLD-FM, WDTR-FM & WHFR-FM  
First Adjacent  
Keith Fraley

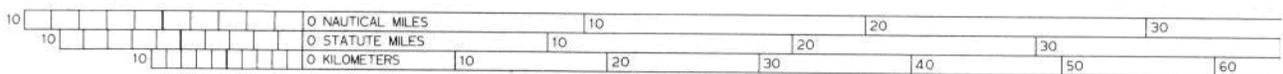


Exhibit - 18C

WPHS-FM  
89.1 FM Warren, MI  
Warren Consolidated Schools

WOVI-FM, WAHS-FM  
Second Adjacent

73.509

Keith Fraley

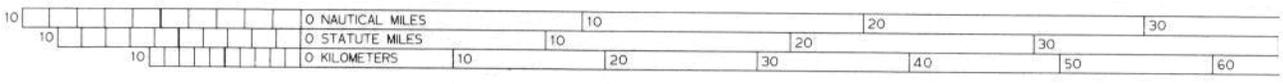
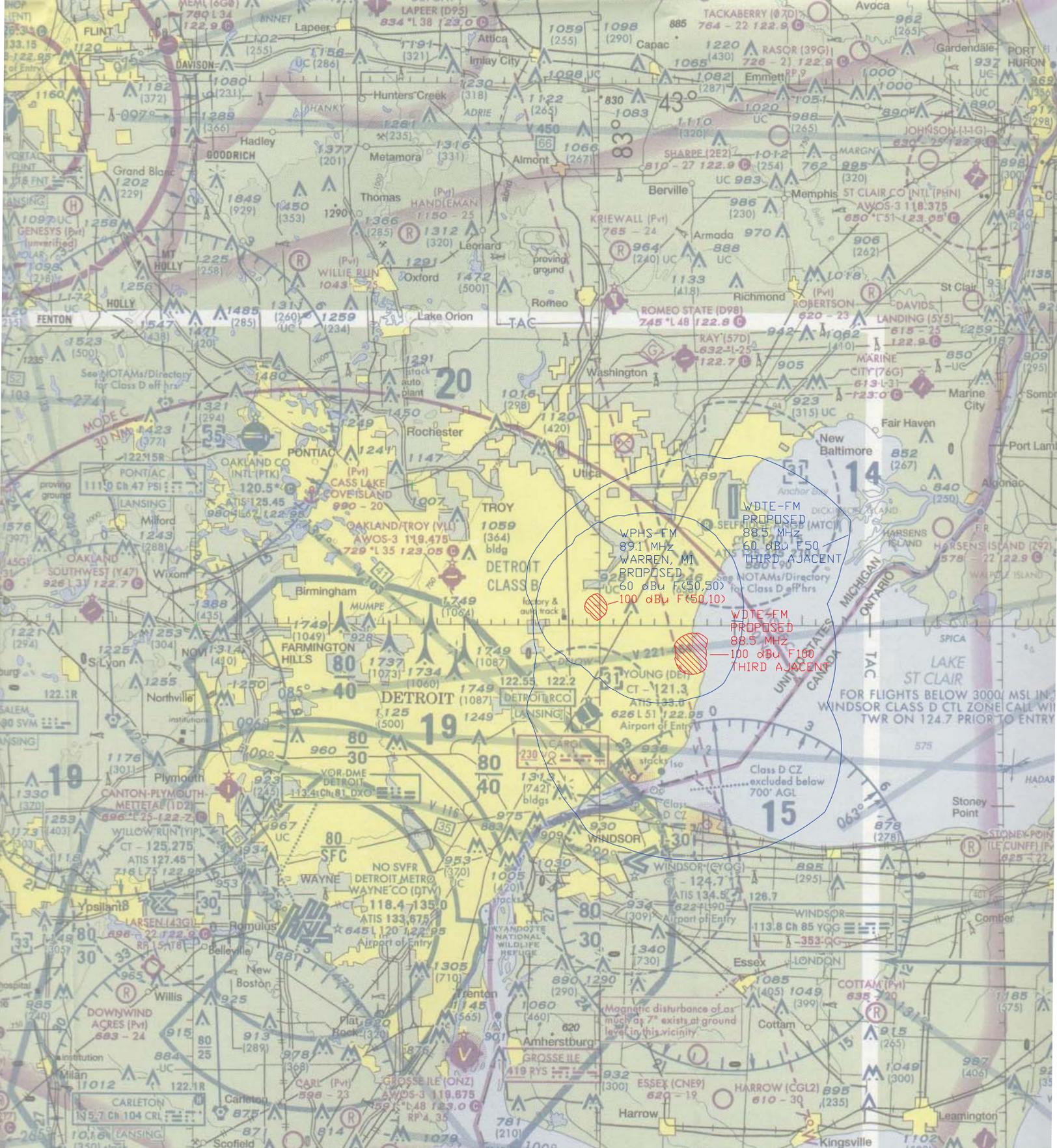


Exhibit - 18D

WPHS-FM  
89.1 FM Warren, MI  
Warren Consolidated Schools

WDTE-FM  
Third Adjacent  
Keith Fraley

73.509