

180 Day Written Report Concerning Operation Under Special Temporary Authority
WNYZ-LD CH 6 ATSC 3.0 Operation With Ancillary/Supplementary Audio Service
Prepared September 20, 2022

Sound of Long Island, Inc. (“SOL”), licensee of LPTV station WNYZ-LD Channel 6, New York, New York, Facility ID 56043, was authorized FM6 operation on 87.75 MHz by a letter dated March 23, 2022 from Barbara A. Kreisman, Chief, Video Division of the FCC Media Bureau, LMS file number 0000184381. In that letter, 90 day and 180 day written reports are requested and this document is believed to be fully responsive to that request.

SOL has been operating its analog audio service on a frequency of 87.75 MHz as authorized. SOL acknowledges that the STA authorization is based on the concept of non-interference to any other licensed user. It is also understood that any interference or limitation to the WNYZ-LD video service is impermissible.

From the inception of WNYZ ATSC 3.0 and FM6 operation, the station has transmitted one 24 hour a day Korean language video program, synchronized audio and video content, and a separate Korean Language audio program on the FM signal. The video program content is observed at the transmitter site on a SiliconDust ATSC 3.0 tuner and the programming can be satisfactorily viewed on consumer receiving equipment.

Interference to or from other licensed users. SOL, as of the date of this 180 day report, has received no reports of interference to any other facility by WNYZ-LD and SOL has observed no interference to the WNYZ-LD service.

Interference between the WNYZ-LD audio and video services. No interference between the WNYZ-LD audio or video services has been experienced or reported by viewers. Interference to the ATSC 3.0 signal from the analog audio signal has been investigated with great deliberation including monitoring of the video signal right at the transmitter site while turning the audio signal on and off. This on/off testing showed no change to the video

and no change in MER as displayed on the exciter. The field tests also employed on/off testing and no impact to the video signal was detected.

With regard to the requirement that the audio and video coverage must reach similar populations the following is stated. WNYZ-LD utilizes transmission equipment furnished by SYES which includes all RF transmission equipment of SYES manufacture along with combiner, filtering and mask filter manufactured by Com-Tech. The RF power output of the video and analog transmitters is equal and the combined RF output is fed through a single transmission line and into a broadband circularly polarized antenna system providing 3 kW ERP for both the video and analog services. It is recognized that field strength measurements conducted in the New York city market area are subject to multipath reflections and building attenuation. With that understood, correlation of the video and aural service quality were quite good. Off air video measurements were also made, at the same locations as the WNYZ measurements, on the signal of CH 3 full service station WJLP(TV) for purposes of comparing the viewability of the ATSC 1.0 and ATSC 3.0 signals. The comparison between the tabulated ATSC 1.0 and ATSC 3.0 signal's ability to deliver a picture seems to suggest a clear public interest benefit associated with the ATSC 3.0 system.

A six page field report, dated June 7, 2022, was attached to the 90 day report and is attached here for ease of reference. This over-the-air survey of WNYZ reception, demonstrates that the video signal can be received over a wide area of the major lobe in the borough of Queens, New York City, on a simple, horizontally polarized, limited gain, Omni antenna mounted on the roof of a vehicle.

Also attached is a map depicting the DTV and FM coverage contours as prescribed by applicable FCC rules for LPTV DTV and FM services.

WNYZ-LD
New York, NY
Channel 6 ATSC 3.0

90 Day Report

June 2022

Hungry Wolf Electronics

Field measurements were performed on the signals of WNYZ-LD, New York, NY, channel 6 ATSC 3.0, and the associated FM6 audio signal on 87.75 MHz pursuant to the requirements of the STA grant letter dated March 23, 2022. The measurements were made on June 6, 2022.

Measurements were made at 15 locations on Long Island in the major lobe of the signal. Measurements were made at convenient stopping places in this urban area. The measurements were made using a Stellar Labs 30-2435 horizontally polarized antenna mounted 1.5' above a vehicle roof, about 7' above ground. The received signal was fed through a splitter to a SiliconDust HDHomerun Flex 4K Developer tuner and a Signal Hound SA44B spectrum analyzer. The FM6 audio was also monitored on the vehicle radio.

At each location the TV signal strength and quality as reported by the SiliconDust tuner was recorded with the FM6 transmitter on and again with it off. The FM6 signal strength as seen on the spectrum analyzer using 10 kHz resolution bandwidth and maximum hold was also recorded. The FM6 audio quality as observed on the vehicle radio was noted.

The noise floor as observed on the spectrum analyzer varied around -85 dBm

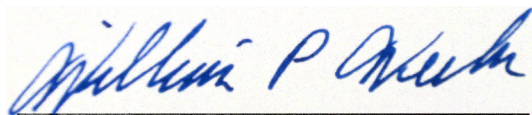
No impairment to the channel 6 video from the FM6 signal was observed at any location.

Near location 13 the signal observed with the Stellar Labs antenna was compared with that from a dipole antenna set to the length for channel 6 and oriented for maximum signal, the dipole was elevated to 10' above ground. The dipole antenna yielded 15 dB greater signal level.

At each location the signal of WJLP(DT), Middletown Township, NJ, RF channel 3, as reported by the SiliconDust tuner, was recorded. WNYZ is 3kW ERP. 213M AMSL. WJLP is 26.5 kW ERP at 354.4M AMSL and several miles west of WNYZ. The ATSC 3.0 transmissions of WNYZ were decoded more often by this tuner. A table of these results is attached.

A table of the results by location is attached to this report, along with a map showing the locations. The locations are numbered in the order in which they were visited.

The field measurements described here were performed by me, and are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, reading "William P. Weeks". The signature is written in a cursive style and is positioned above a horizontal line.

William P. Weeks

June 7, 2022



Stella Labs antenna on vehicle

WNYZ-LD
NEW YORK, NY
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FM On							FM Off				
Location	Latitude	West Longitude	Distance Miles	TV Signal Strength, dBm	TV Signal Quality, MER, dB	TV Symbol Quality %	TV Signal Strength, dBm	TV Signal Quality, MER, dB	TV Symbol Quality %	FM audio quality	FM Signal Strength dBm
1	40.66457	73.78535	10.07	-67	10.5	0	-68	11.3	0	ok	-69.9
2	40.67715	73.82718	7.79	-73	13	100	-74	11	100	good	-85
3	40.68518	73.86202	6.06	-73	13	0	-72	13	0	good	-85
4	40.68749	73.87183	5.59	-70	17	100	-69	20	100	fair	-71
5	40.68338	73.88649	5.33	-72	15	100	-72	16	100	good	-71
6	40.68886	73.90855	4.44	-69	16	100	-69	15	100	fair	-80
7	40.69646	73.89452	4.35	-62	16	100	-65	20	100	good	-75
8	40.70222	73.88204	4.48	-63	18	100	-63	22	100	good	-79
9	40.71112	73.85408	5.31	-60	17	100	-62	17	100	good	-77
10	40.72215	73.84013	5.69	-68	22	100	-68	22	100	good	-87
11	40.7323	73.85698	4.66	-63	15	100	-69	19	100	good	-76
12	40.74823	73.85935	4.41	-65	14	50	-69	15	50	good	-71
13	40.75615	73.84354	5.28	-54	23	100	-56	25	100	good	-62
14	40.76208	73.82013	6.54	-61	17	100	-67	19	100	good	-67
15	40.76366	73.78953	8.14	-68	17	100	-71	18	50	good	-73

WNYZ-LD
NEW YORK, NY
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WNYZ

Location	Latitude	West Longitude	Distance Miles	FM On			FM Off		WJLP (RF3, V33)	
				TV Signal Strength, dBm	TV Signal Quality, MER, dB	TV Symbol Quality %	TV Signal Strength, dBm	TV Signal Quality, MER, dB	TV Signal Strength, dBm	TV Signal Quality
1	40.66457	73.78535	10.07	-67	10.5	0	-68	11.3	-66	17
2	40.67715	73.82718	7.79	-73	13	100	-74	11	-70	no picture
3	40.68518	73.86202	6.06	-73	13	0	-72	13	-69	no picture
4	40.68749	73.87183	5.59	-70	17	100	-69	20	-69	no picture
5	40.68338	73.88649	5.33	-72	15	100	-72	16	-70	no picture
6	40.68886	73.90855	4.44	-69	16	100	-69	15	-62	no picture
7	40.69646	73.89452	4.35	-62	16	100	-65	20	-57	no picture
8	40.70222	73.88204	4.48	-63	18	100	-63	22	-56	no picture
9	40.71112	73.85408	5.31	-60	17	100	-62	17	-60	no picture
10	40.72215	73.84013	5.69	-68	22	100	-68	22	-70	no picture
11	40.7323	73.85698	4.66	-63	15	100	-69	19	-69	no picture
12	40.74823	73.85935	4.41	-65	14	50	-69	15	-66	no picture
13	40.75615	73.84354	5.28	-54	23	100	-56	25	-60	19
14	40.76208	73.82013	6.54	-61	17	100	-67	19	-60	no picture
15	40.76366	73.78953	8.14	-68	17	100	-71	18	-64	no picture

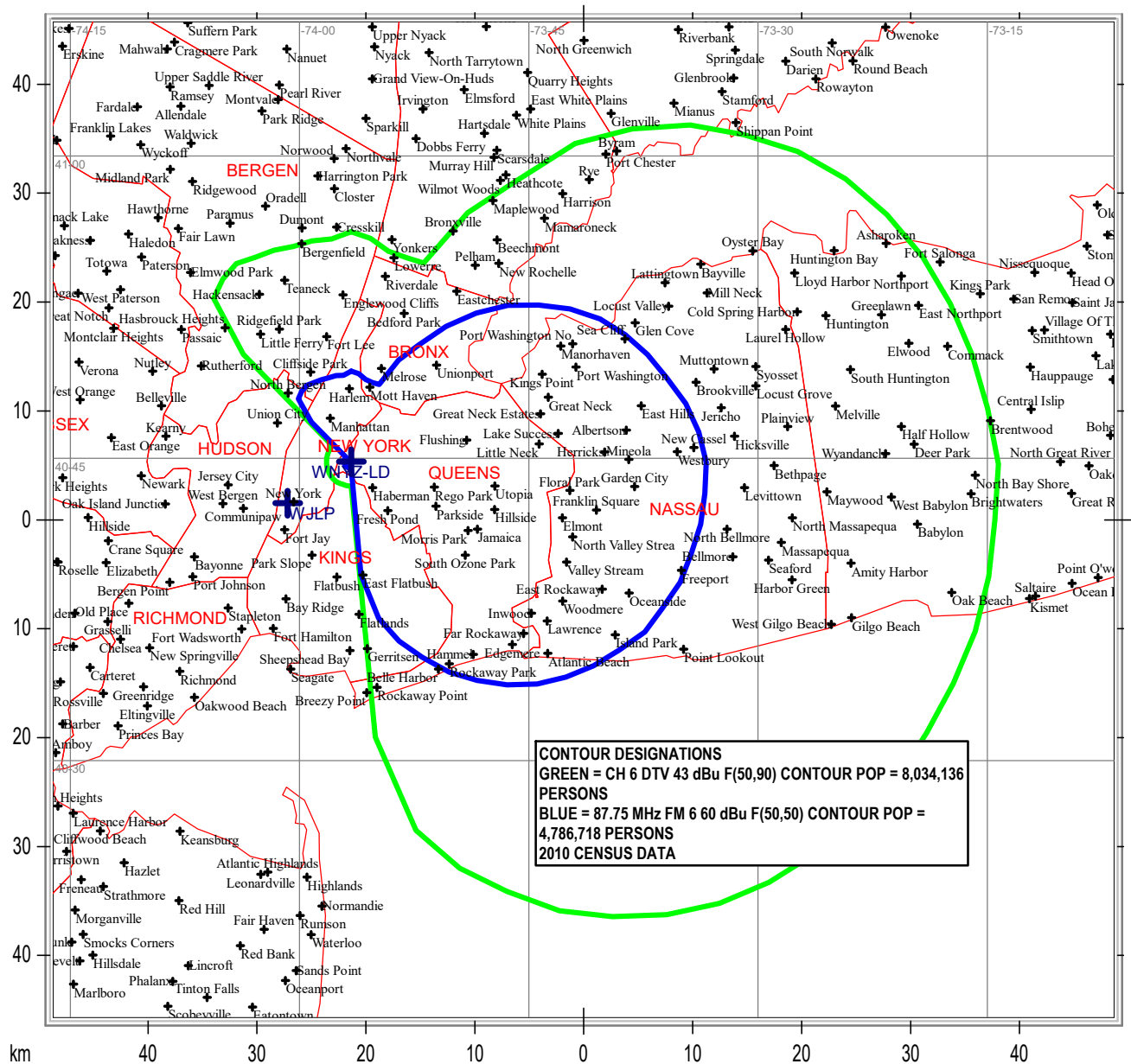
WNYZ-LD New York, NY

90 Day Report Locator Map

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WNYZ-LD CH 6 FM6 STA 3 kW MAX DA ERP RC 213 M AMSL NEW YORK, NY



Communications Technologies, Inc. Medford, New Jersey

County Borders Lat/Lon Grid