

# Japan BGN level information of residential area

TFRWS #17

13<sup>th</sup> Jan 2021

JASIC

# Japan BGN level of low ambient noise level area

- Previous information about BGN level in Japan. (TFRWS-08-05)
  - ✓ Low ambient noise level : 38~39dB
- Additional information about BGN level of residential area
  - ✓ We Conducted a measure of our living area. (10 min LAeq)
    - Residential area : 34.0~42.9dB(LAeq), 28.9~39.0dB(L50)
    - Parking area of Convenience store : 45.6dB(LAeq), 38.5dB(L50)
- Summary
  - ✓ Japan has residential area's that BGN level is really quiet.
  - ✓ In this area especially night time, RWS need the low sound level.
  - ✓ Japan proposal of Low level :  
“at least 10dB lower than the normal level but lower limit shall be more than 40dB(A)”

# Information of Japan BGN level at TFRWS #8

## BGN level of "Low level" usage situation ( TFRWS-08-05 )

- In TFRA-04-11, there are sentences about the usage situations of 3 different sound level modes. The situations are defined as follows.

Low level : Quiet times (e.g. during 10 pm to 5 am)  
 Quiet area  
 Normal level : Normal traffic hours (e.g. during 5 am to 10 pm)  
 High level : Very loud time and/or very loud place

These sentences were deleted from present draft of new regulation.  
 But TF still have common understanding.

- Based on the above background, the followings are appropriate BGN levels when 3 different sound level modes are used. (All values are  $L_{Aeq}$  )

High	BGN level of "High level" : 65dB -
Normal	BGN level of "Normal level": 40 - 65 dB
Low	BGN level of "Low level" : - 40 dB

a	Time	Number of measurement	Averaged $L_{Aeq}$ (dB)
Urban	Day	108	44
	Night	25	38
Suburban	Day	41	43
	Night	25	38
Local city	Day	24	45
	Night	9	39
Rural	Day	11	43
	Night	5	38

Measurement results of road transportation area (Outside)

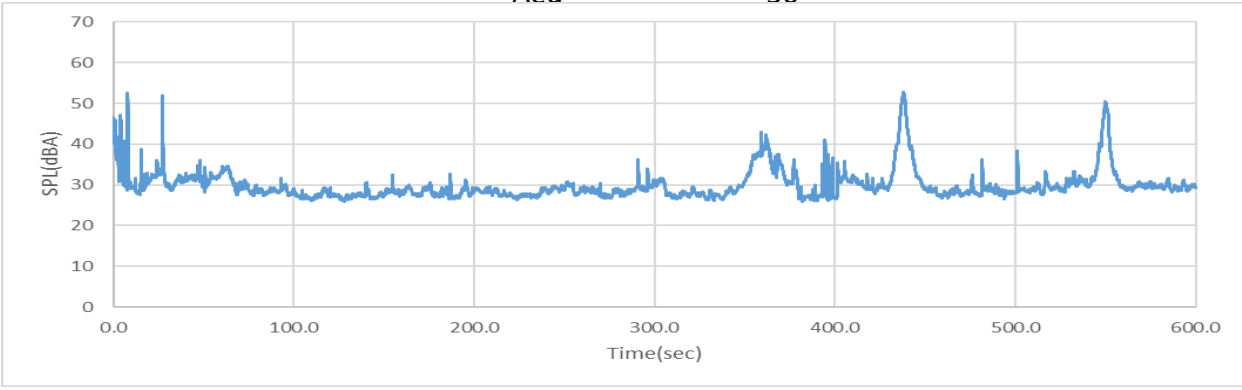
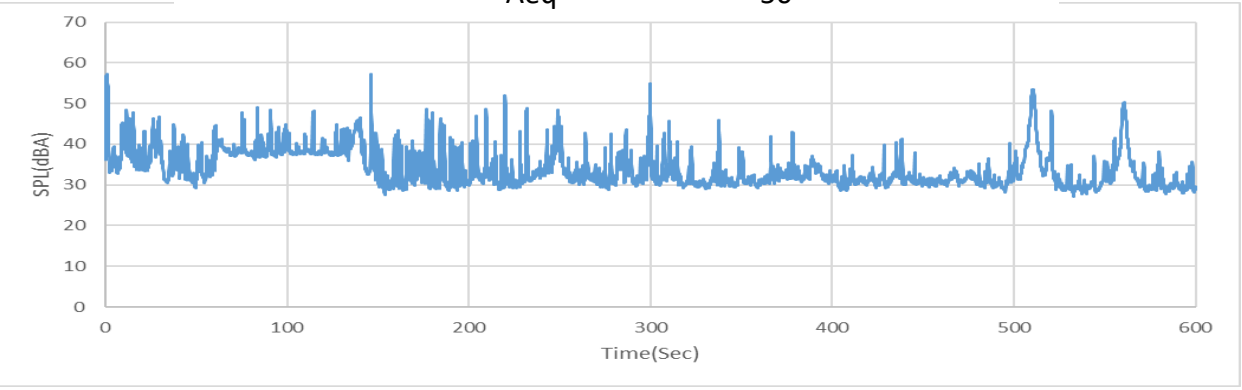
Category of area	Time	Number of measurement	Averaged $L_{Aeq}$ (dB)	Standard deviation	
Detached housing area	Urban	Day	108	44	2.9
		Night	25	38	3.4
	Suburban	Day	41	43	2.8
		Night	25	38	3.1
	Local city	Day	24	45	3.9
		Night	9	39	2.8
High-rise housing area	Urban	Day	11	43	3.6
		Night	5	38	2.0
	Suburban	Day	40	49	2.5
		Night	18	43	3.6
Commercial area	Day	17	45	2.4	
Industrial establishment area	Day	5	42	2.8	
Local shopping area	Day	2	62	—	
Busy shopping street	Day	14	63	10.0	
Restaurant district	Day	38	66	3.7	
	Day	13	71	4.8	
	Night	11	66	3.2	

The expected use of the "Low level" is about 40dB

# Residential area ( Tochigi/Utsunomiya city )

Time : 2PM  
BGN level :  $L_{Aeq}=37.8\text{dB}$ ,  $L_{50}=32.4\text{dB}$

Time : 8PM  
BGN level :  $L_{Aeq}=34.0\text{dB}$ ,  $L_{50}=28.9\text{dB}$



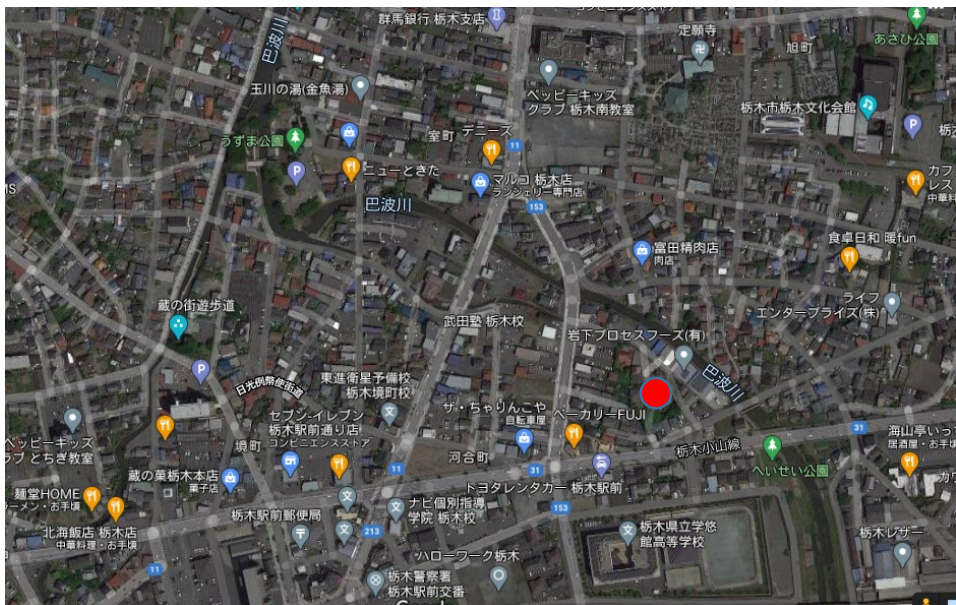
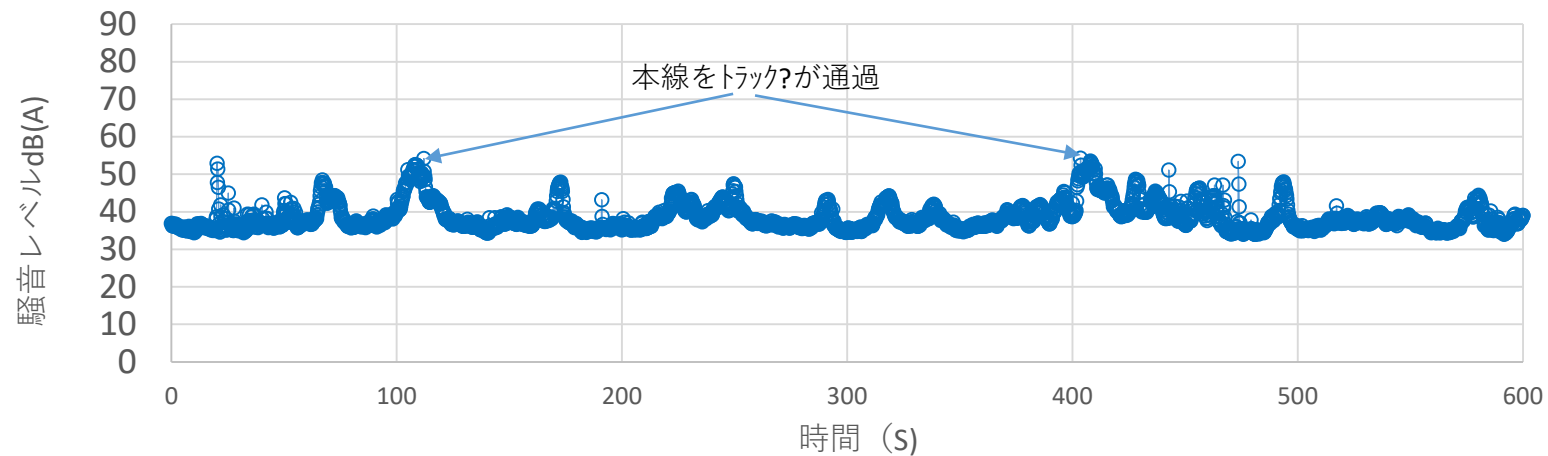
(Measuring time : 10min)



# Residential area ( Tochi/Tochigi city )

Time : 9PM

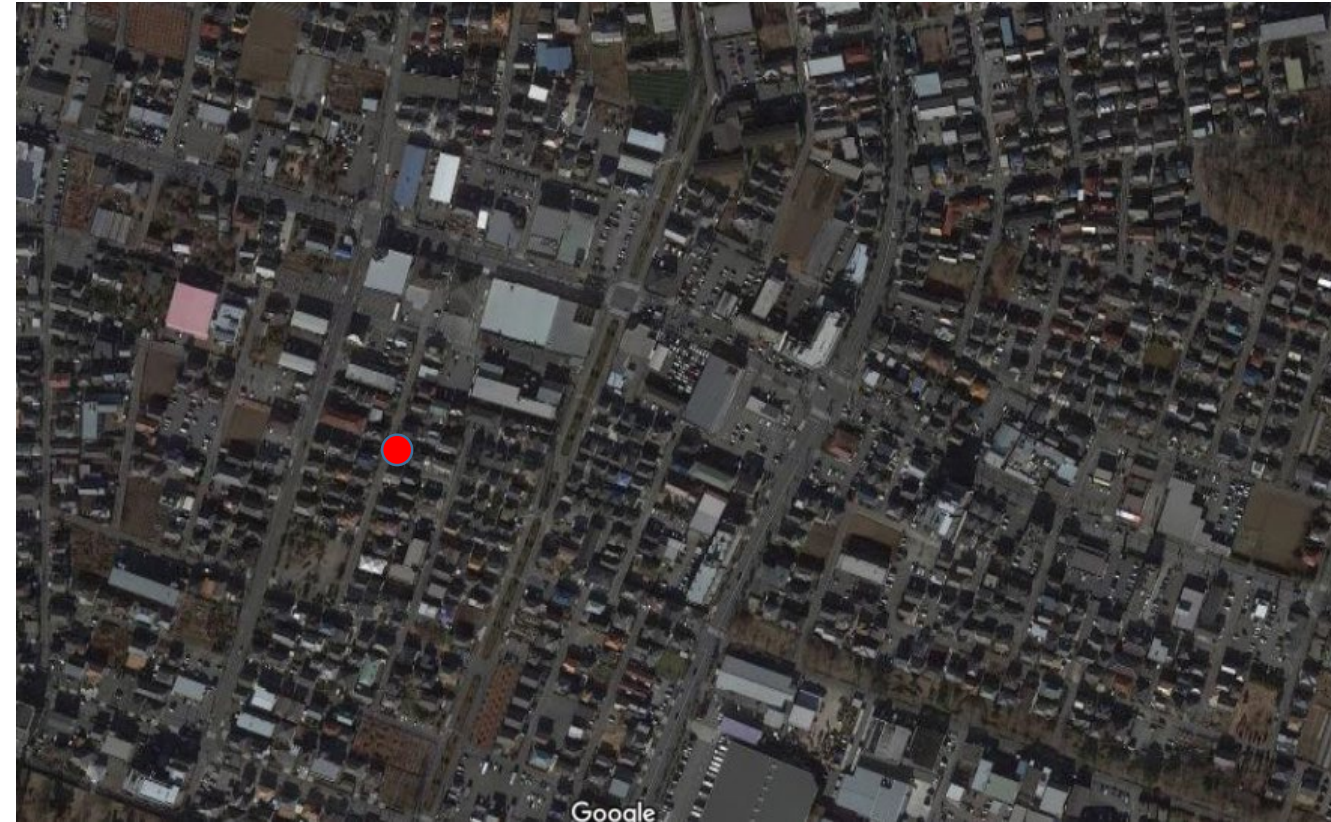
BGN level :  $L_{Aeq}=40.9\text{dB}$  (Measuring time : 10min)



# Residential area ( Tokyo/Ome city )

Time : 12AM / 8PM

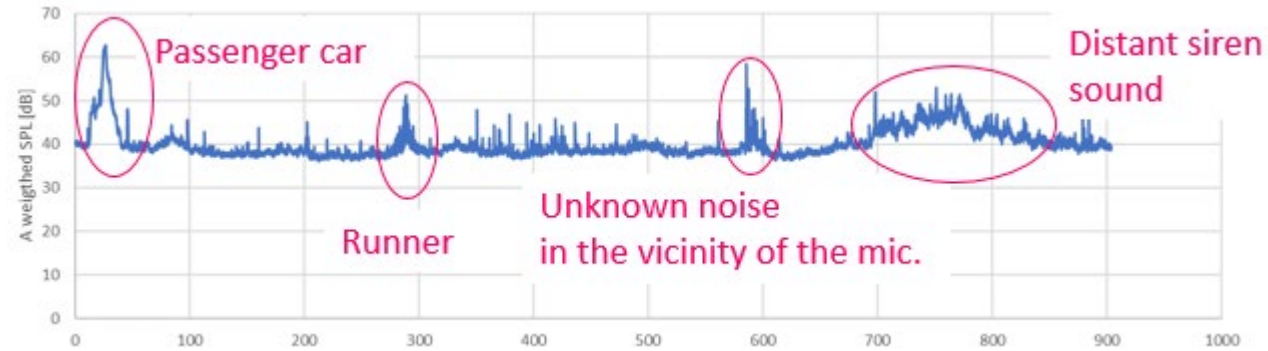
BGN level :  $L_{Aeq}$ =36.6dB / 38.8dB, (Measuring time : 10min)



# Residential area ( Tokyo/Chofu city )

Time : 11AM

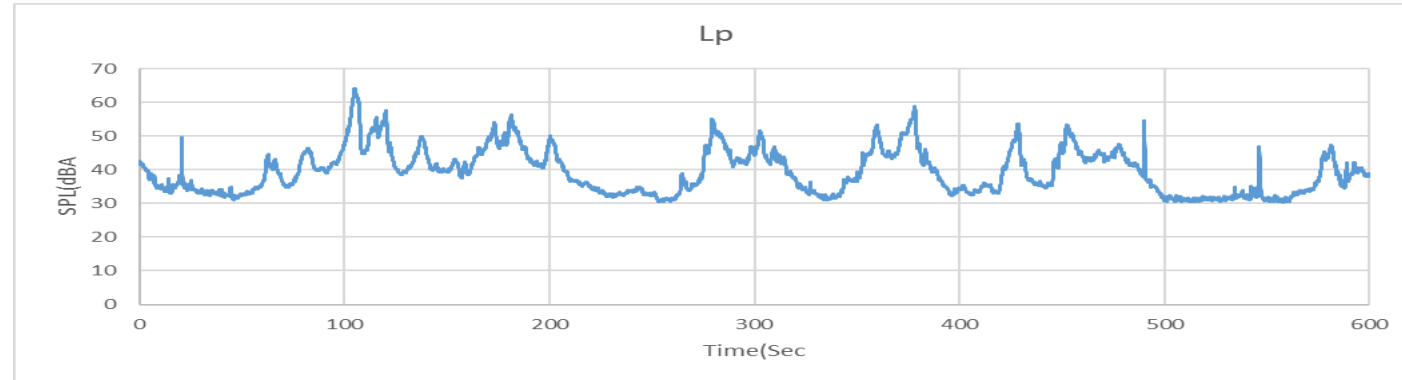
BGN level :  $L_{Aeq}=42.9\text{dB}$ ,  $L_{50}=39.0\text{dB}$  (Measuring time : 10min)



# Convenience store ( Tochigi/Haga )

Time : 10PM

BGN level :  $L_{Aeq}=45.6\text{dB}$ ,  $L_{50}=38.5\text{dB}$  (Measuring time : 10min)





# Situation of the Convenience store ( Near Tokyo area )

Almost the Convenience store has signboard, “Please be quiet”.

