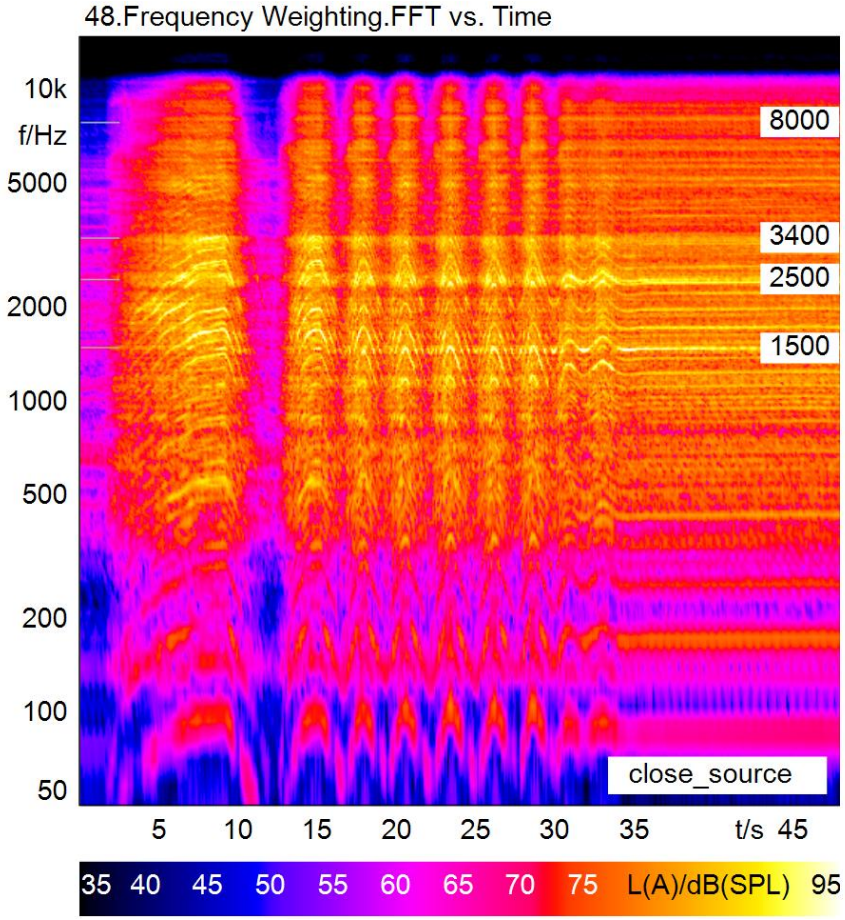
HEAD acoustics

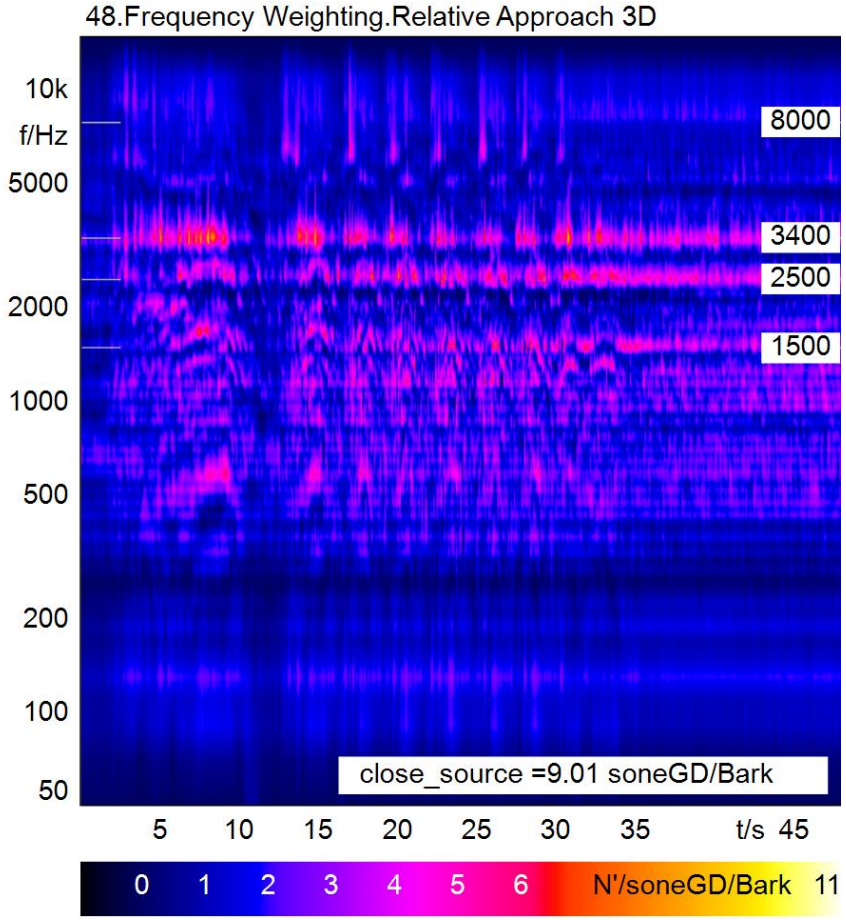
ANALYSIS WITH ARTEMIS SUITE FOR FOTON

Xujian.Wang

Analysis with ArtemiS SUITE

原始工况噪声





- 数据工况主要包括加速、tip in/out 和稳态三个阶段

1）以上是FFT与HEAD 专利算法 Relative Approach colormap效果对比，通过Relative Approach 算法更与主观相匹配；

2）通过对比，Relative Approach更能识别特征频率，如分别为1500，2500，3400 和 8000Hz。

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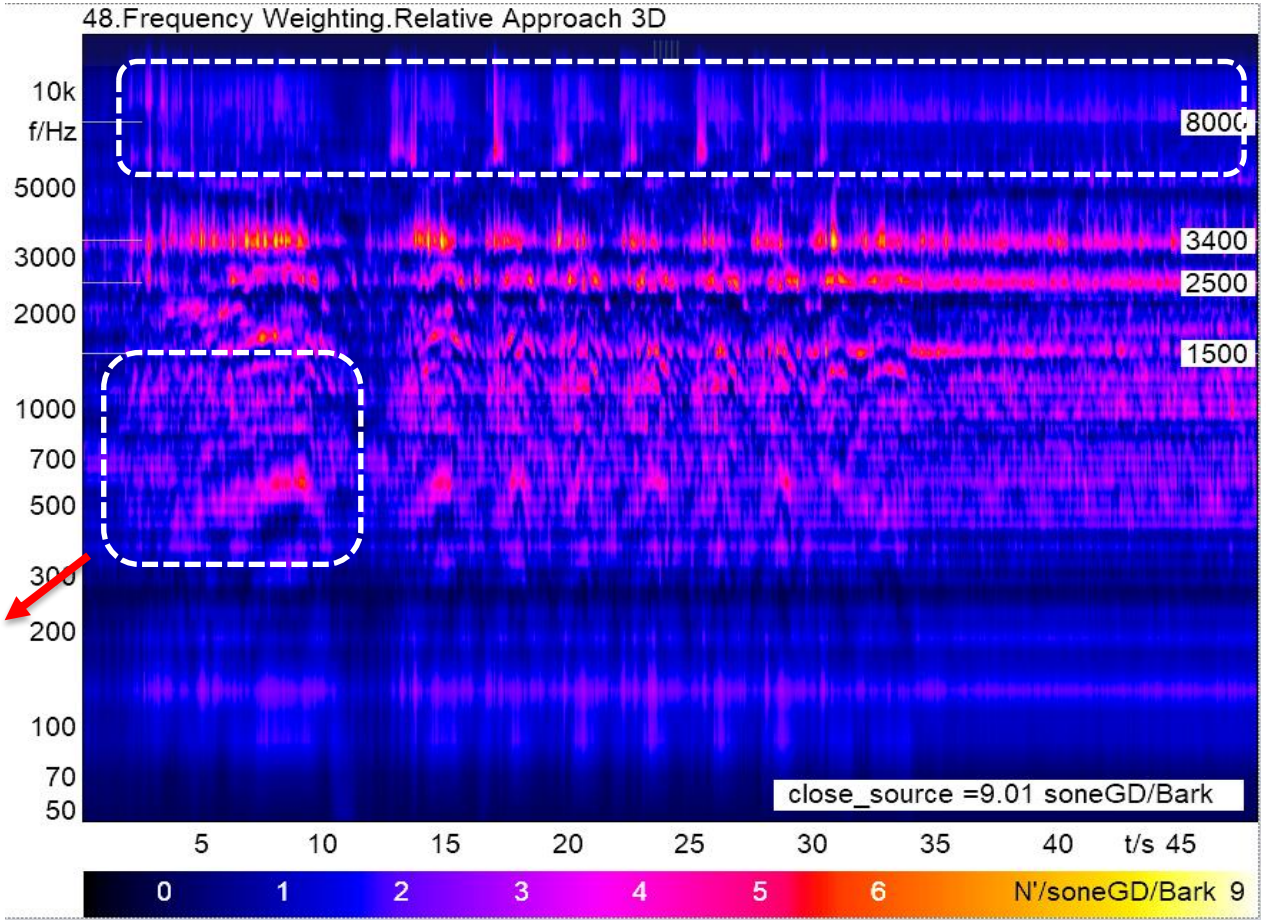

不同工况下的宽频声

不同工况下的单频声

加速工况

- 数据工况主要包括加速、tip in/out 和稳态三个阶段

1）以上是FFT与HEAD 专利算法 Relative Approach colormap效果对比，通过Relative Approach 算法更与主观相匹配；

2）通过对比，Relative Approach更能识别特征频率，如分别为1500，2500，3400 和 8000Hz。

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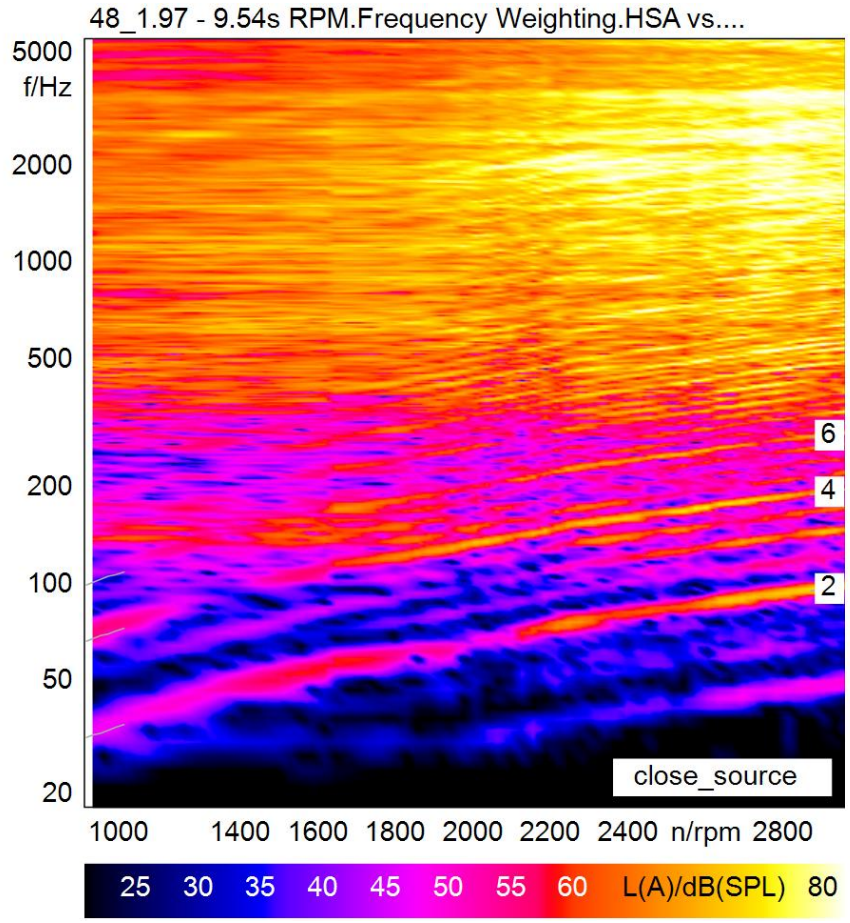
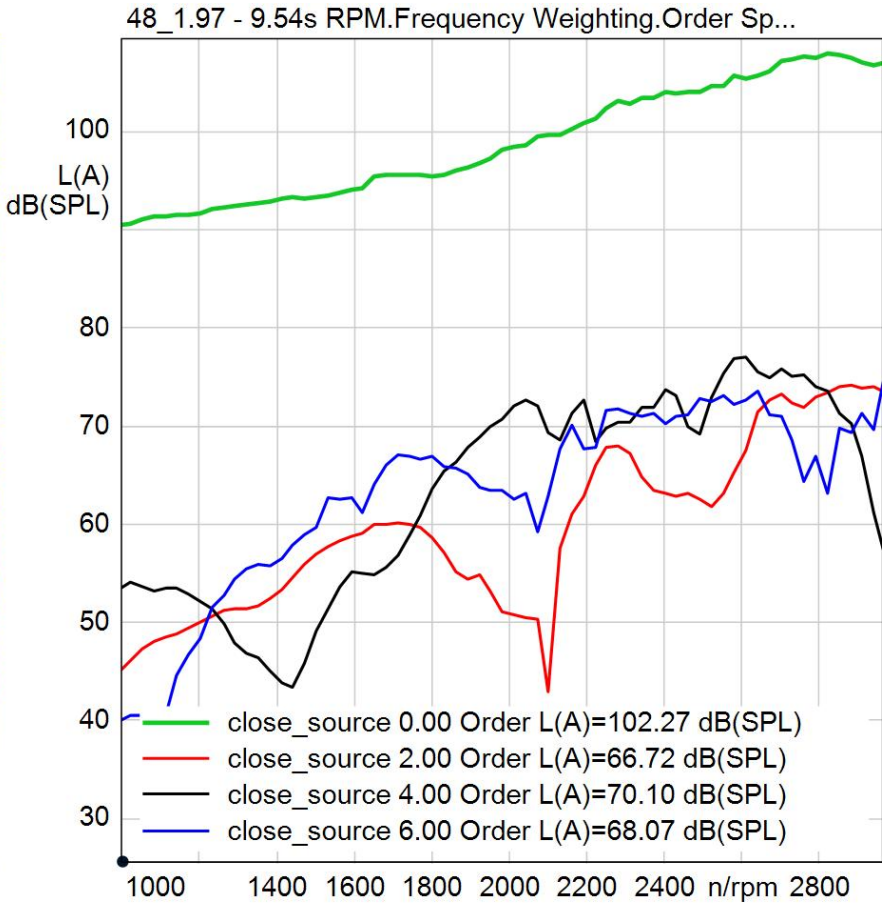
加速工况噪声





- 加速工况

1）通过加速转速提取运用HAS算法可清晰得到2，4和6阶的主阶次贡献3D和2D；

2）3D与2D结合体现不同转速下对应的不同阶次贡献。

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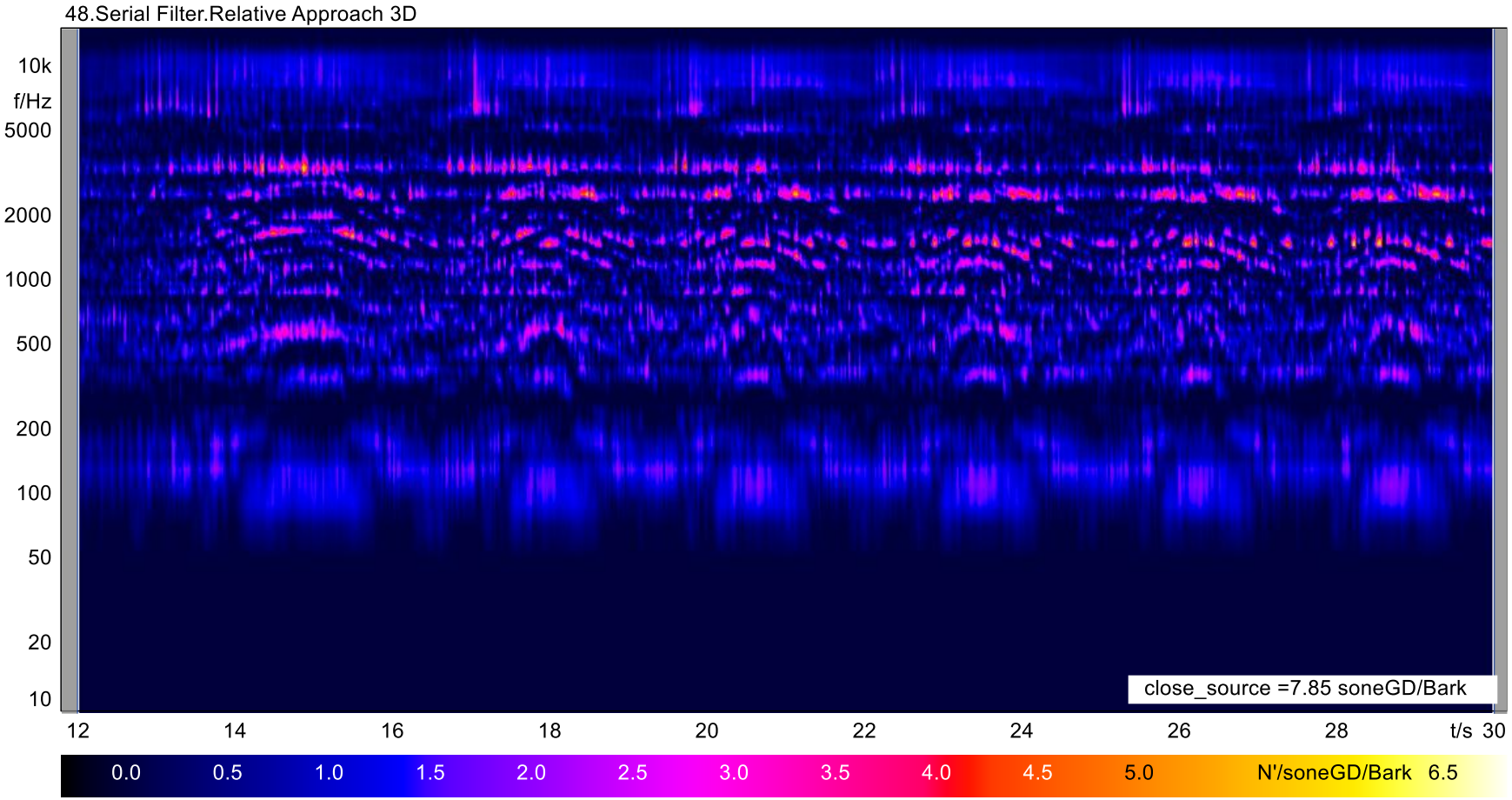
Tip in/out 噪声



- Tip in/out工况

  该工况既存在有2500，3400Hz的单频又有8000的宽频声；

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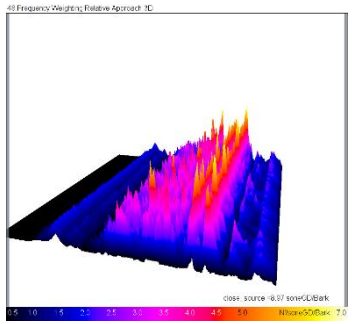
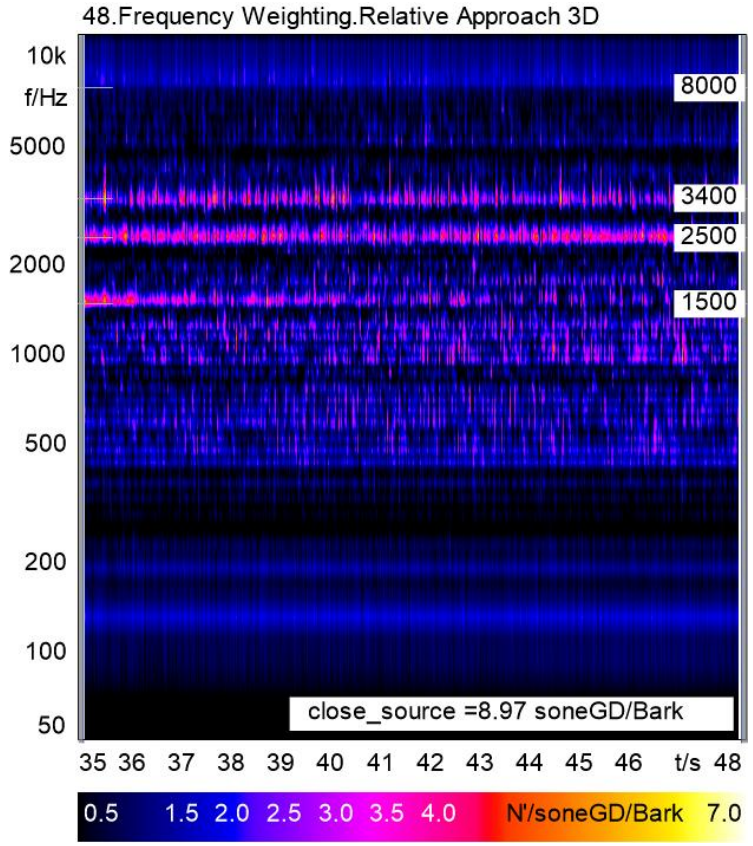
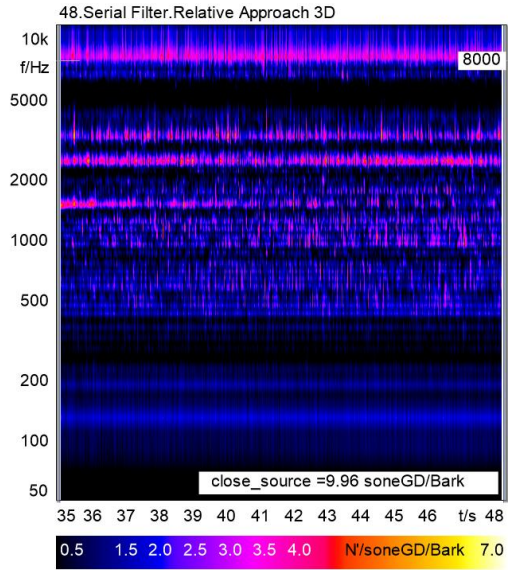
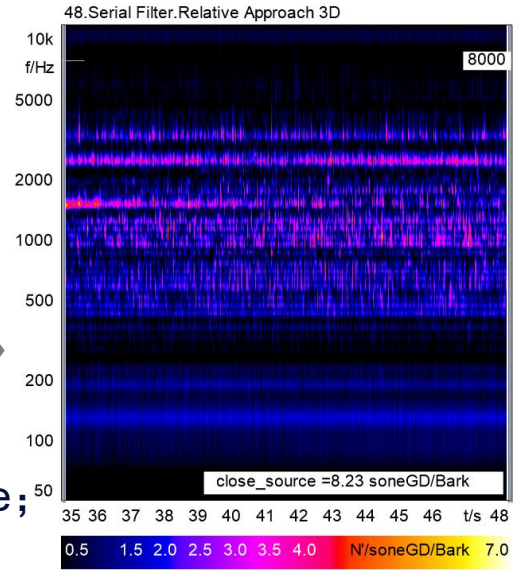
原稳态工况噪声







8000Hz滤波加强



8000Hz滤波减弱

- 用Relative Approach值衡量噪声（或异响标准）

  1) 原稳态工况噪声3D计算出来的值8.97 sone，滤波之后为8.32sone；即可通过该值的大小来衡量8000Hz宽频噪声是否存在。

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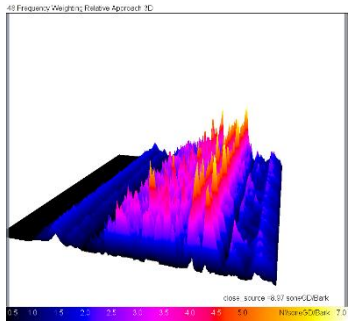
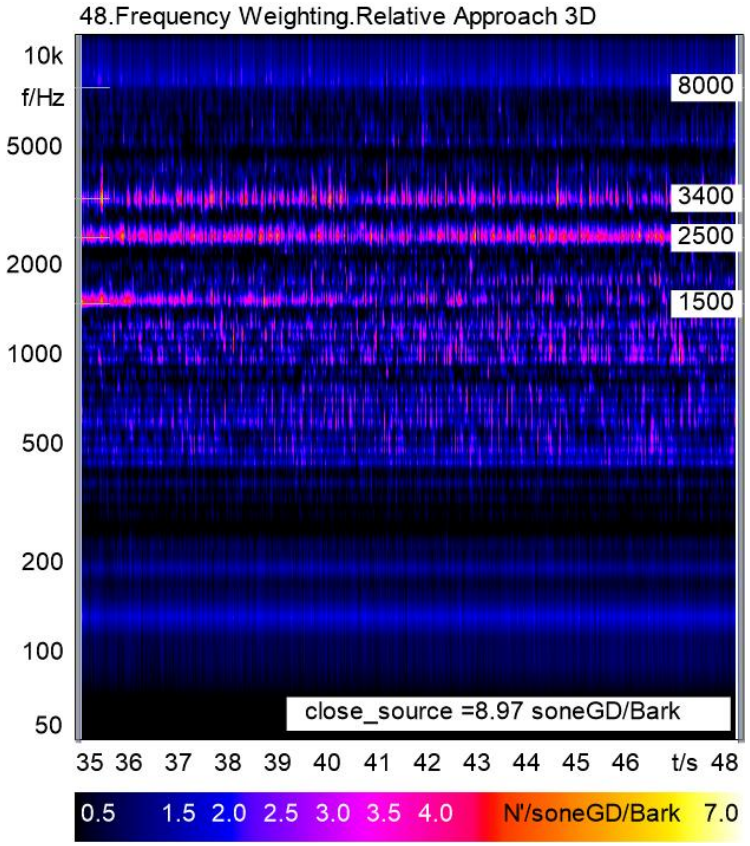
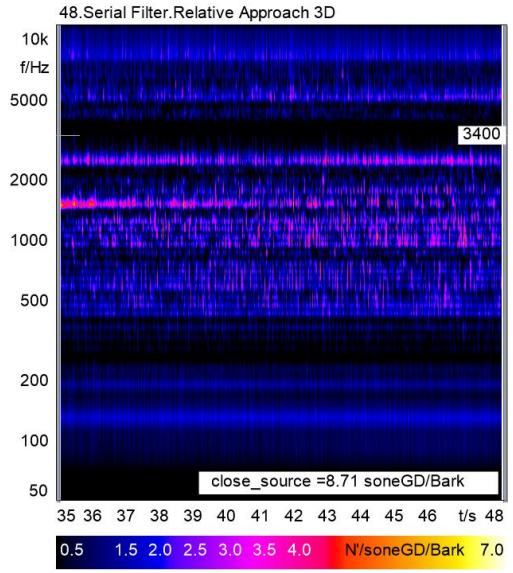
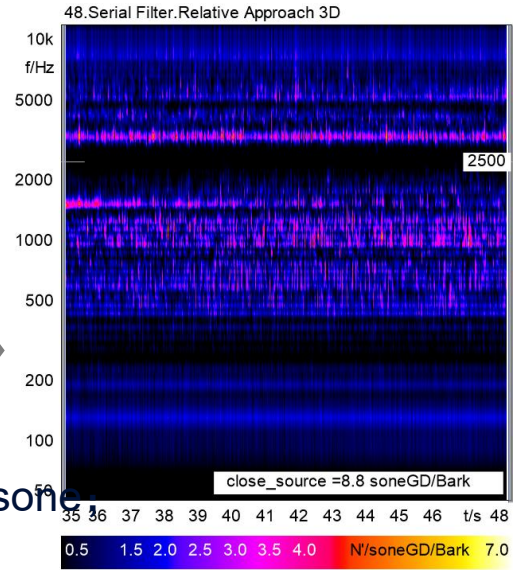
原稳态工况噪声







3400Hz滤波减弱



2500Hz滤波减弱

- 用Relative Approach值衡量噪声（或异响标准）

  1) 原稳态工况噪声3D计算出来的值8.97 sone，滤波之后为8.71/8.8sone，即可通过该值的大小来衡量3400和2500Hz噪声是否存在。

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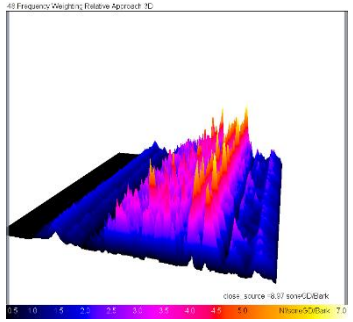
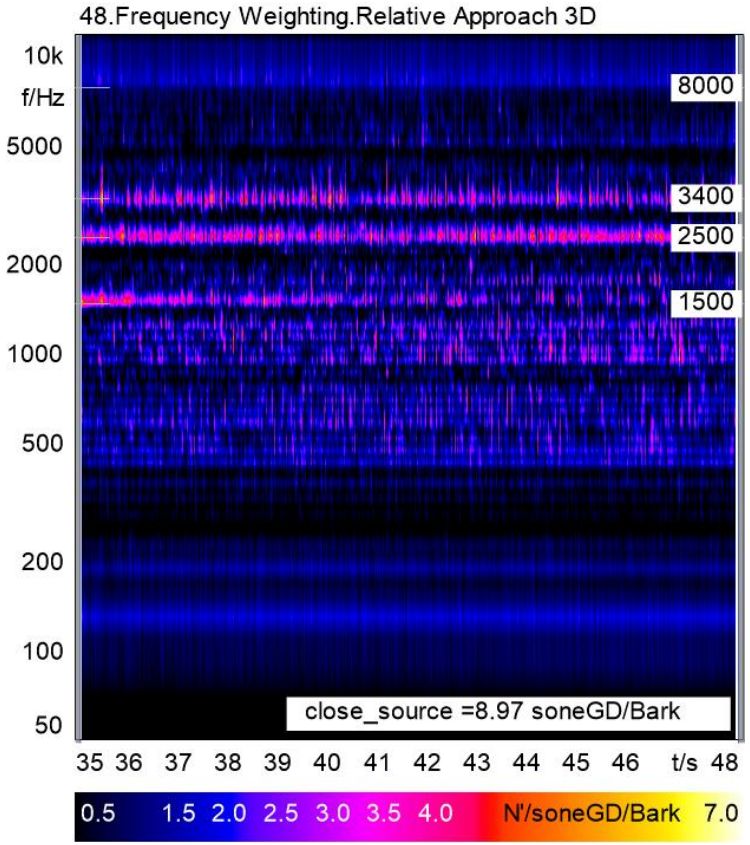
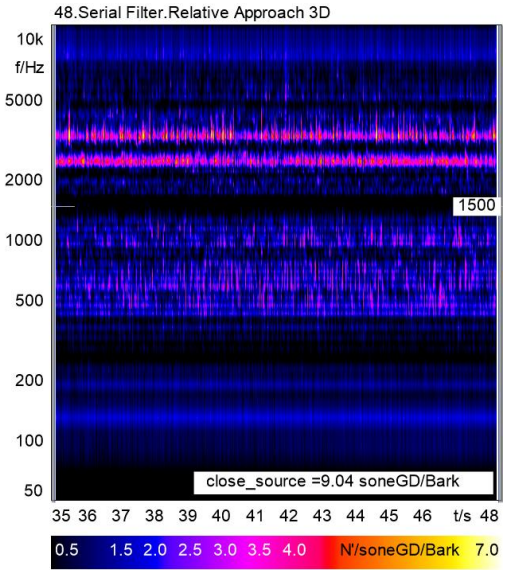
原稳态工况噪声

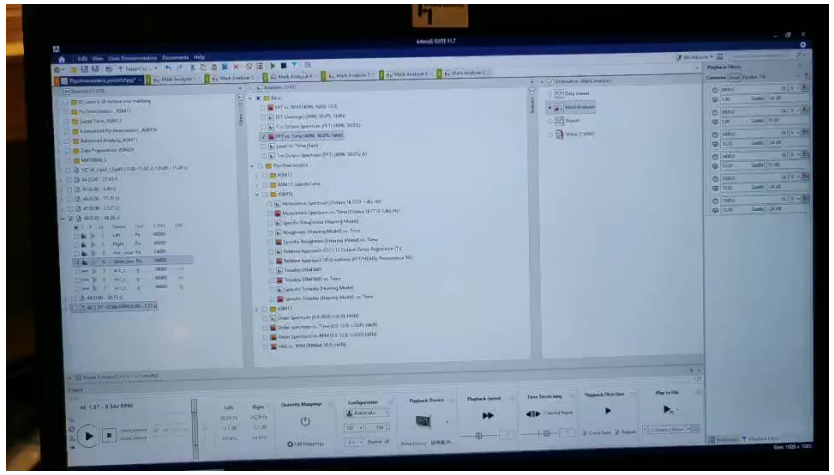






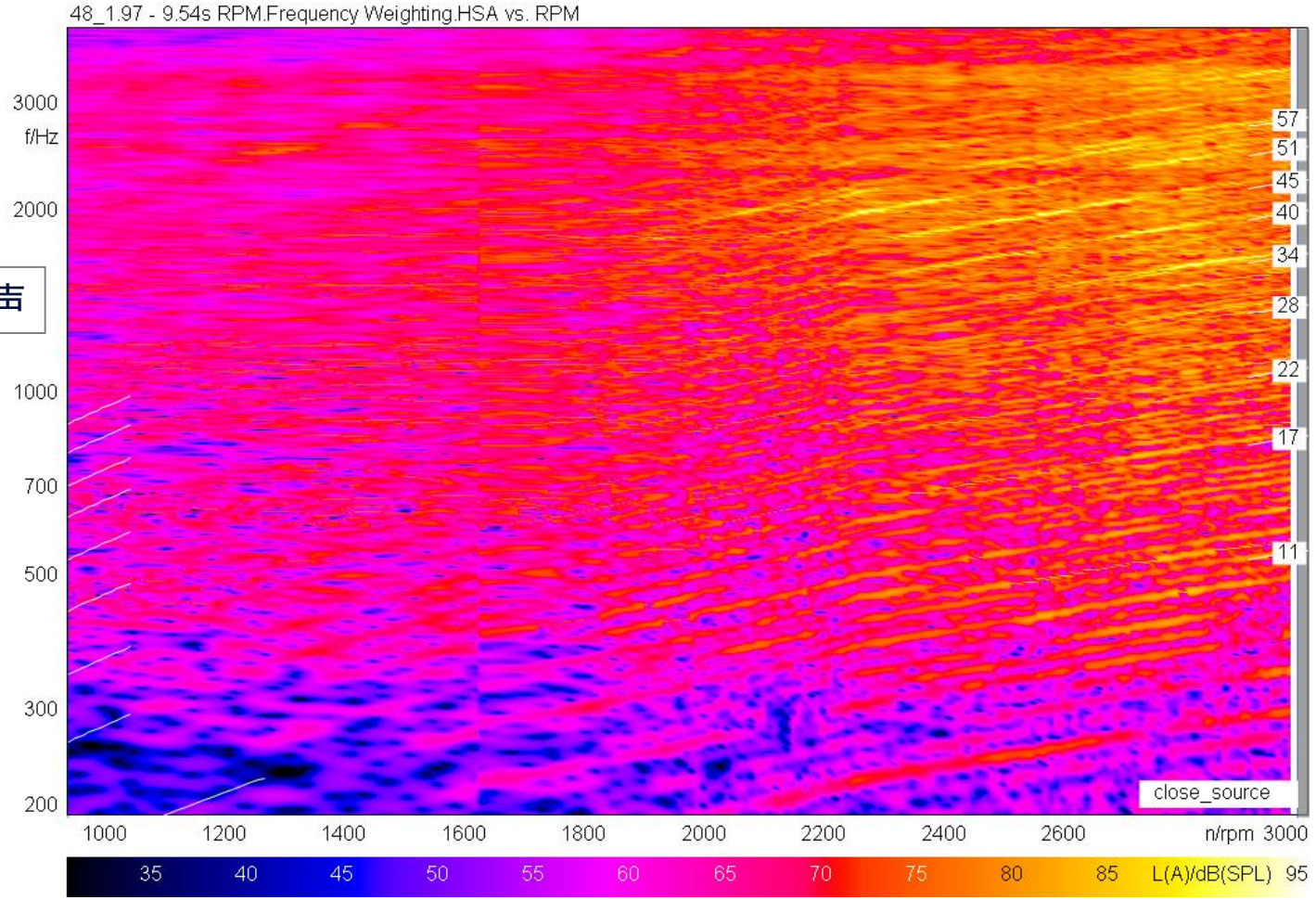
1500Hz滤波减弱

高级回放滤波模块Video



Analysis with ArtemiS SUITE

原加速工况阶次噪声



Analysis with ArtemiS SUITE

原加速工况阶次噪声/滤波之后