

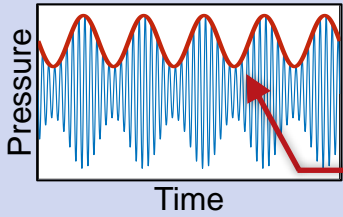


Background



Purpose

Proposal for a helicopter sound source detection technique based on amplitude modulated sound



Utilize **amplitude modulation sound** characteristic of helicopter operation sound

Detection by conventional radar and camera

- Large, heavy weight
- High power consumption

Microphone detection using amplitude modulated sound

- Small, lightweight
- low power consumption

Contents

Characteristics of amplitude modulated sound

Focus on specific low modulation frequency bands

Magnitude of Modulation U^2/Hz

Modulation Frequency Hz

Proposed detection algorithm

Extract peaks of helicopter amplitude modulation sound

Magnitude of Modulation U^2/Hz

Modulation Freq. Hz

Modulation Freq. Hz

verification experiment

Confirmation of helicopter source detection in mixture of drone and environmental noise

Modulation Freq. Hz

Distance m

Magnitude of Modulation U^2/Hz