

**Mutual Aid Box Alarm System – Illinois  
Communications – MABAS ALERTING/COVERAGE**

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Subject:	MABAS Alerting/Coverage
Functional Area:	Communications
Category:	Policy
Approved :	MABAS Executive Board

**Purpose:**

To specify recommended paging tone formats and coverage areas for the MABAS radio alerting system.

**Responsibility:**

This policy applies to all MABAS member divisions and their dispatch centers.

**Accountability:**

Enforcement of this specific policy rests initially with the Co-Chairs of the MABAS Telecommunications, Communications, and Dispatch Centers committee, then the MABAS CEO, followed by the MABAS President, 1<sup>st</sup> Vice President and 2<sup>nd</sup> Vice President.

**Reporting Requirement:**

There is no routine reporting requirement for this policy.

**Background:**

MABAS has used a standard two-tone sequential radio alerting system since the early 1970s. This system is simply comprised of paging encoders at MABAS Division dispatch centers that transmit specific paging tones on the IFERN (154.265 MHz) frequency and radio receivers that decode and alert when the proper tone code is received.

Paging encoders have variable encoding formats. Some receivers fail to properly decode when shortened paging tone formats are used.

MABAS Divisions can cover large geographical areas and may dispatch alarms that include departments in adjacent Divisions. Improperly positioned, or under designed, base radios may fail to effectively cover geographic areas where alerting is necessary.

**Policy:**

The MABAS Telecommunications, Communications and Dispatch Committee hereby establishes the following policy:

1. Paging encoders should be programmed for a two-tone sequential paging format using the timing for Tone A of 1.5 seconds with the timing for Tone B of 3.5 seconds with no delay between tones. Tone A is 1082.0 Hz and Tone B is 701.0 Hz.

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2. MABAS Divisions are encouraged to conduct tests with member departments, and departments they dispatch from neighboring Divisions, to ensure the transmit signal is adequate to open alert radios. An acceptable engineering standard is to provide 95% mobile coverage throughout the desired coverage area. If deficiencies are found, the base radio system should be re-engineered and application for license modifications, if necessary, be processed so that both primary and back-up dispatch centers effectively cover their service areas.

**Conclusion:**

Transmission of alerting signals using proper tones, timing formats and signal strengths will ensure that all agencies due on a specific alarm are properly notified of a MABAS box alarm event.

Approved by the MABAS Executive Board on 10/16/2002.