

**Mutual Aid Box Alarm System – Illinois  
Communications – TRANSMIT POWER LIMITATIONS**

Index # C-01-06.03

Adopted: 10/16/2002

Revised:

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Subject: Transmit Power Limitation  
Functional Area: Communications  
Category: Policy  
  
Approved : MABAS Executive Board

**Purpose:**

To encourage all MABAS members and other Fire Departments to limit radio transmit power on fireground operations frequencies.

**Responsibility:**

This policy applies to all MABAS member agencies. It is encouraged that all fire departments and related emergency response organizations throughout Illinois adopt the procedures set forth herein.

**Accountability:**

Proper operation of radio equipment within the authority of FCC radio licenses is the responsibility of every fire department and, therefore, compliance with this guideline ultimately rests with each Fire Chief. Enforcement of radio rules is the responsibility of the Federal Communications Commission (FCC). Enforcement of this specific guideline as it relates to MABAS 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:**

Many fire department mobile radios have the ability to transmit at radio frequency power levels up to 110 watts. High transmit power levels may be desirable or necessary for communications with dispatch, hospitals or other mobile units at great distances. These higher power levels are not generally necessary for operations at fireground and other emergency incident scenes that cover very small geographic areas. In fact, for example, base station or high power mobile operations could cause harmful interference to low power portable radios operating on the interior of a working structure fire.

Use of lower power levels on fireground frequencies also allows the reuse of those frequencies at incidents in neighboring jurisdictions without causing harmful interference.

Many newer radios have the ability to program various output power levels by frequency or mode. Fire departments have also installed secondary low power "fireground" radios into staff and command vehicles for use on fireground frequencies at emergency scenes.

**Policy:**

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

1. Operations on fireground frequencies should be limited to ten (10) watts.

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2. The use of base radios, including low power portable radios utilizing fixed (base station) antennas is strongly discouraged.
3. Fire departments are encouraged to inventory their mobile radio equipment and, if possible, modify these units for low power operation on all fireground radio frequencies.

**Conclusion:**

The elimination of high power transmissions and transmissions from fixed antenna sites on fireground frequencies will improve the safety of operations at fires and other emergencies. Low power fireground transmissions will also facilitate the reuse of fireground frequencies at multiple incidents without unnecessary interference.

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