

Headquarters U.S. Air Force

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Mass Notification Systems



03 August 2005

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Introduction

- **J-34/ Security Engineering Working Group**
- **AFCESA Technical Report, *Mass Notification Systems*, May 2002 (draft)**
- **UFC 4-010-01, *DOD Minimum Antiterrorism Standards for Buildings*, July 2002**
- **UFC 4-021-01, *Design and O&M: Mass Notification Systems*, December 2002**
 - **2005 Revision In Progress**



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Definition

- **Mass Notification: The capability to provide real-time information to all building occupants or personnel in the immediate vicinity of a building during emergency situations.**
 - **All DOD components are required to provide MNS.**
 - **Includes leased, temporary, expeditionary, permanent structures**
 - **On- or off-DOD installations**



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Implementation

- **New Inhabited Buildings (includes new primary gathering and new billeting): required as of FY2004 construction program**
- **Existing Primary Gathering: required as of FY2004 when exceeding 50% replacement value**
- **Existing Billeting: required as of FY2004 when exceeding 50% replacement value**



Building Types

Building Types defined in UFC 4-010-01:

	Billeting	MFH	All Other Buildings
No special requirements	<11 sleeping (unaccompanied)	<13 family units	<11 DoD occupants or population density $\leq 1\text{-person}/40\text{-m}^2$ (or 1430-ft ²)
Inhabited	≥ 11 sleeping (unaccompanied)	≥ 13 family units	$11 \leq$ DoD occupants <50 and population density $> 1\text{-person}/40\text{-m}^2$ (or 1430-ft ²)
			≥ 50 DoD occupants and population density $> 1\text{-person}/40\text{-m}^2$ (or 1430-ft ²)

//// = Primary Gathering Building



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Types of MNS

- **Individual Building System**
 - **Autonomous Control Unit**
 - **Notification Network**
 - **Intelligibility/Audio Intensity**
 - **Local Operating Consoles**

- **Giant Voice System**

- **Telephone Alerting System**

- **Base-wide control system**

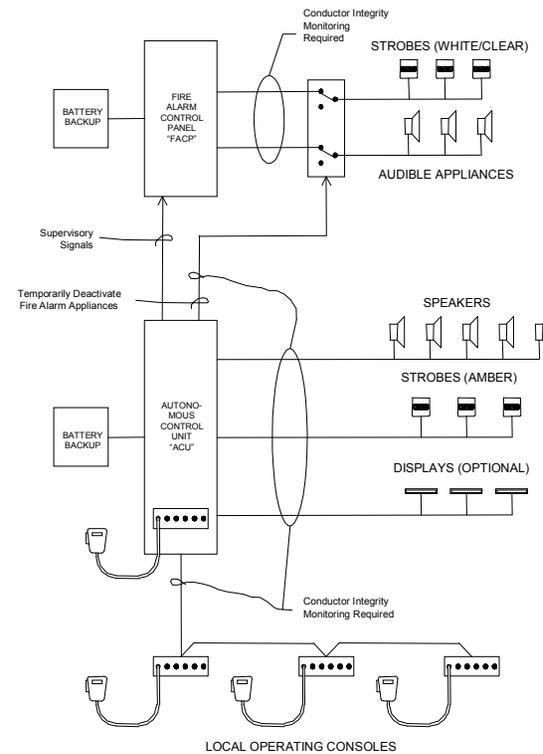
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MNS Designs

- Separate FACP and MNS
- Not for Navy use



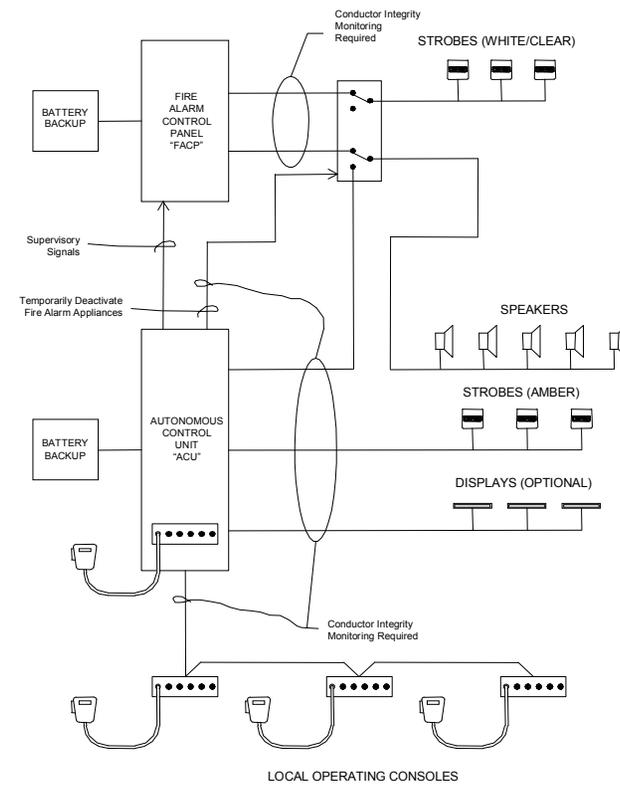
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MNS Designs

- Separate FACP and MNS
- Shared Speakers
- Not for Navy use



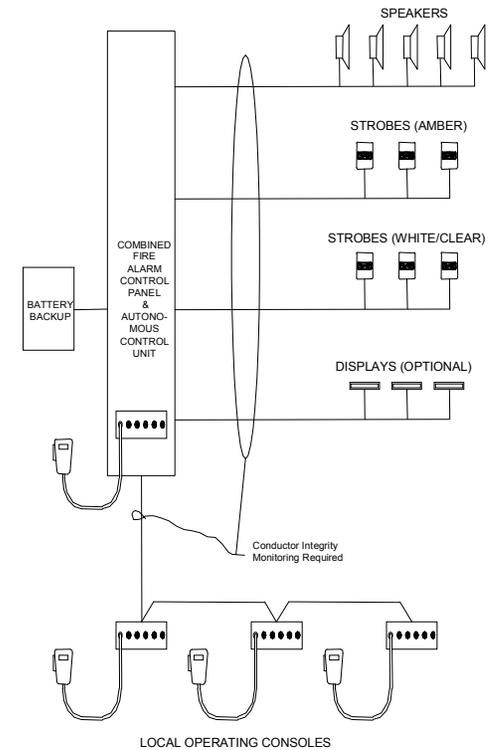
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MNS Designs

- Combination FACP and MNS
- Not for Navy use

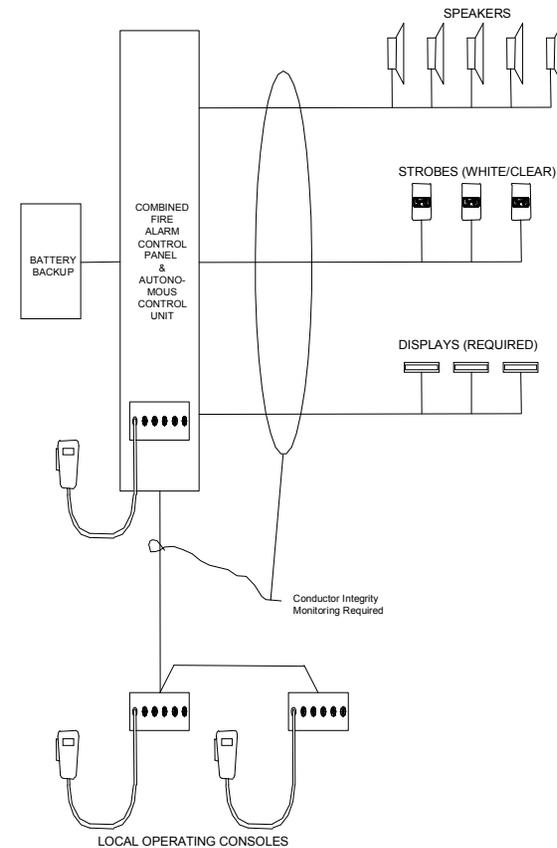




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MNS Designs

- Combination FACP and MNS
- Navy Only



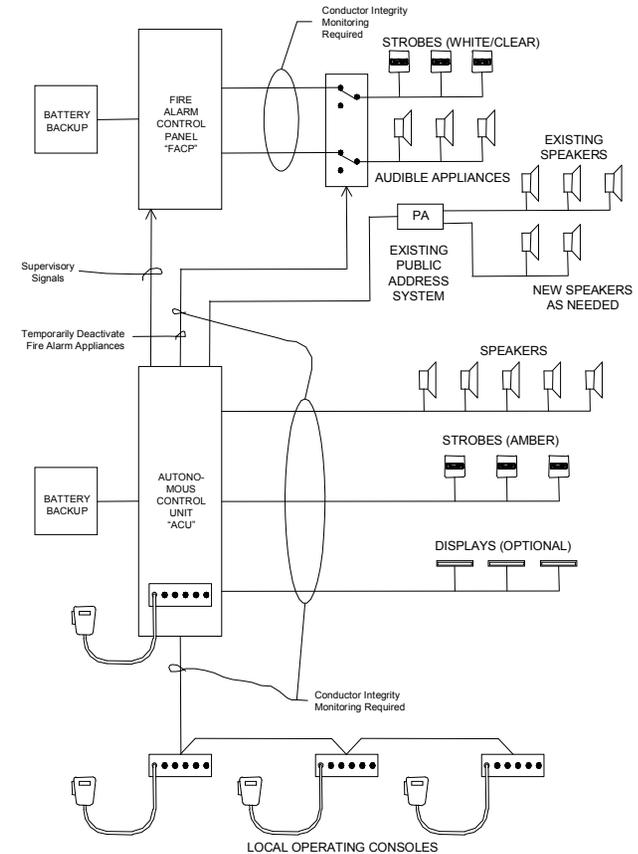
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MNS Designs

- Separate FACP and MNS
- Use Existing PA System
- Not for Navy use



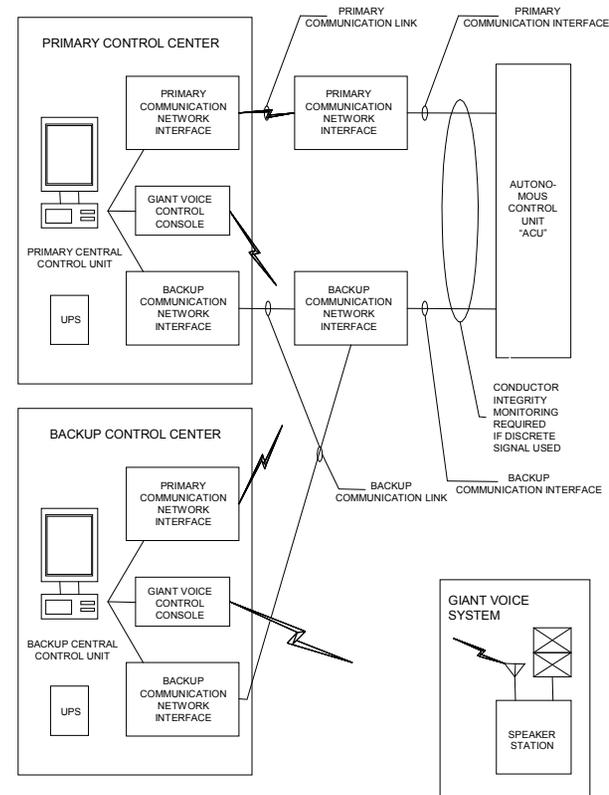
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MNS Designs

■ Optional Base-wide System





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NFPA 72

- **2003: AF for DoD requested assistance from NFPA in preparing “consensus prepared criteria” for mass notification**
- **NFPA 72 Alarm Code[®] Technical Correlation Committee (TCC) was designated to complete the request**
 - **NFPA 72[®] is in revision, next edition is due June 2006**
- **The NFPA 72 TCC prepared a public proposal in the name of the TCC and designated it as Annex G**



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NFPA 72 (cont.)

- **July 2005: Report on Proposals published on NFPA web site. The 11 NFPA 72 Technical Committees reviewed and posted written responses. Proposed Annex G affects at least five of the technical committees**
- **Public is strongly encouraged to comment on the TC actions, NLT 05 Sep 2005 (www.NFPA.org)**
- **The eleven technical committees will meet 24-29 October to provide written response to comments**
- **Consensus voting for the 2006 edition NFPA 72 at NFPA Annual Meeting, 4-9 Jun 2006**

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Hot Issues

- **Single Strobe or Dual White/Amber Strobe**
- **Access/control of Local Operating Consoles**
- **Combination fire alarm - MNS panels**
- **Battery Life - 24/15, 24/30-60, 72**
- **NFPA 72 TC actions/UL listings**
- **Base-wide control systems**
- **Modular Structures**
- **Outdoor Coverage – vicinity of buildings**
- **Reorganizations of MNS UFC**
- **New UFGS**

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Typical Systems

- Wheelock (OEM)
 - Distributors/Installers: Monaco, Simplex-Grinnell, Tyco Safety Products, others

EMNA
Emergency Mass
Notification Appliance



(Pictures includes: RSSPA-24MC/ E70-24MCW-FW and backboxes 5 and ISP-2)



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Typical Systems

- **Monaco (Distributor/Installer)**
 - **D21 Fire Reporting MNS**



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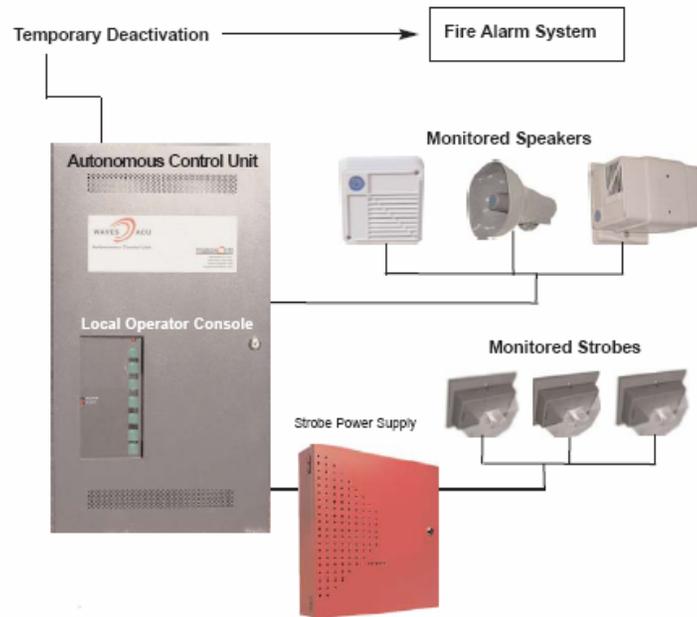
Typical Systems

■ MadahCom Waves (OEM & Distributor/Installer)

WAVES Autonomous Control Unit - ACU-117
Models - ACU-117-25, ACU-117-50 & ACU-117-100



Operates as a Stand-alone Building System or as part of WAVES
Base-wide Mass Notification System (MNS)/Personnel Alerting System (PAS)



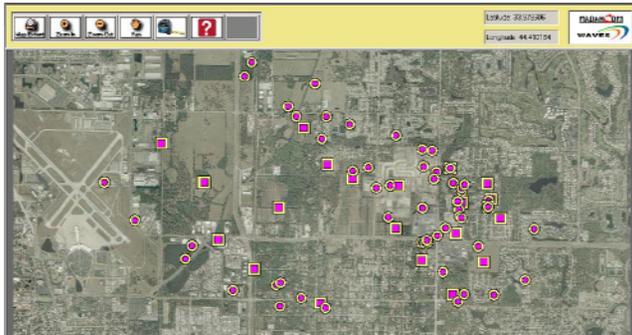
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Typical Systems

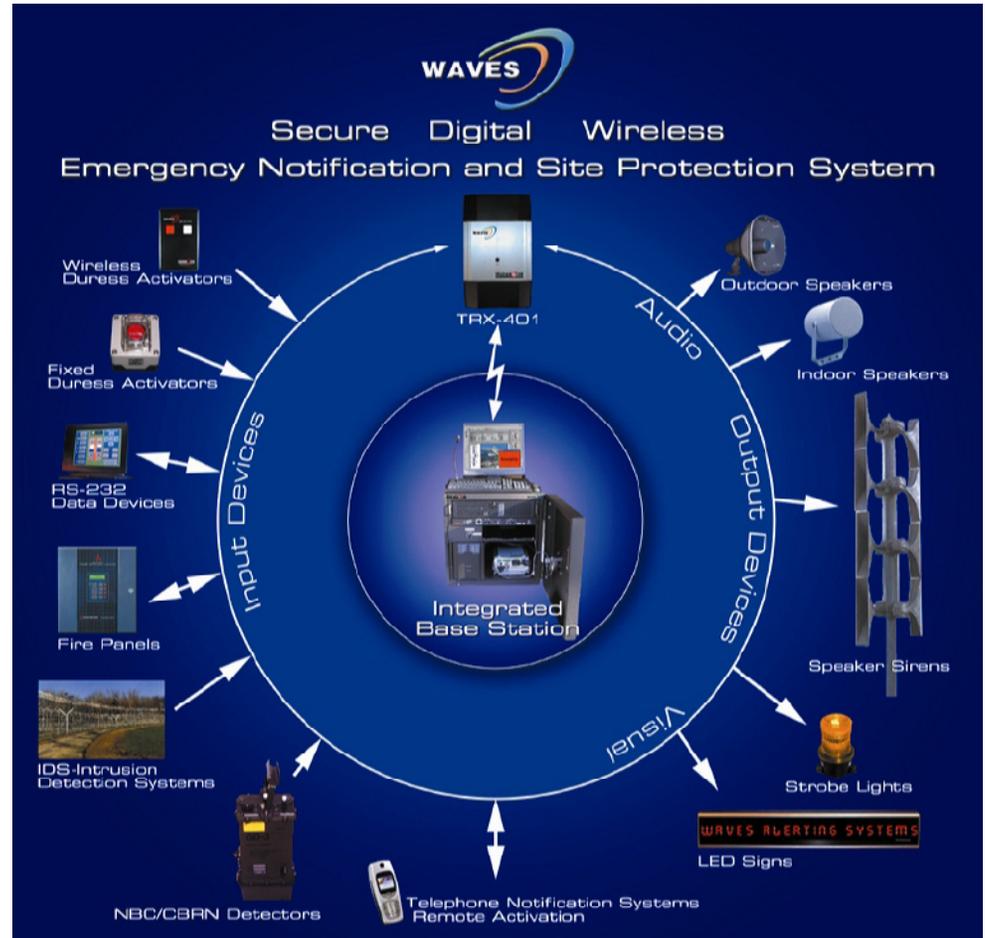
■ MadahCom WAVES® (base-wide system)



Dual Monitor GIS Map Interface



TACWAVES™ Portable Alerting System



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