



EMP Triage Assessment™ by Instant Access Networks, LLC

IAN, LLC provides a quick business continuity assessment of electromagnetic pulse (EMP) on critical infrastructure. IAN has evaluated facilities that include production facilities, data centers, communications networks, government and mobile facilities.

The EMP Triage Assessment™ for protection from manmade and natural EMP includes:

Site visit:

- 1) Two days of site visits by 4 experts (manmade and natural EMP, test techniques, utilities, system integration)
- 2) Physical testing of one sample building, factory or network facility
- 3) Meeting with key facilities operators, engineers and business leaders
- 4) Quick meeting of local utilities facilities

Report:

- 1) Overview of vulnerabilities
- 2) Test results mapped against IAN 4 level EMP protection range
- 3) Recommendations for mitigation

Client requirements:

- 1) Sign-off by CEO
- 2) All meetings of outside utilities arranged to occur during the two day visit

Cost: \$30,000 plus travel and lodging

The results can be integrated into your continuity of operations plan meeting recommendations of NFPA 1600, the fire code for business continuity that covers scenarios for EMP events.

An overall design approach to business continuity will require different levels of protection depending on the importance of the system element being protected and its vulnerability. Instant Access Networks, LLC devised the following way to show ranges of protection that may be relevant to various elements (power, data, communications) in a 4 level system-wide protection method where level three meets or exceeds various MIL SPECS for EMP and TEMPEST requirements:

IAN LEVEL	Base Shield	Compare to MIL SPEC 188-125		
		1HHz- 10 MHz (ea 20 dB is a factor of 10)	10 MHz-1GHz	1GHz-10GHz (-10 series only)
EMP 4	140 dB	60dB above MIL SPEC to 1KHz	140 dB (60 dB above MIL SPEC)	140 dB
EMP 3	100 dB	20dB above MIL SPEC to 1KHz	100 dB (20 dB above MIL SPEC)	100 dB
EMP 2	60 dB	20dB below MIL SPEC to 1KHz	60 dB (20 dB below MIL SPEC)	60 dB
EMP 1	30 dB	50dB below MIL SPEC to 1MHz	30 dB (50 dB below MIL SPEC)	30 dB

IAN and its staff also make use of industry consultants that have led the field in EMP and systems integration research, development and operations. They include:

- Dr George Baker, James Madison University Institute for Infrastructure and Information Assurance (Cyber and EMP Security)
- John Kappenman, Storm Analysis Consultants (Space Weather and Utility Assessments)
- Dave Fromme, SARA Inc (Testing)
- Bill Kaewert, SENS, Inc (Generator Power Assessments)

Since EMP can be caused by natural events such as a geomagnetic storms or manmade causes (such as pulse generators, EMP pipe bombs and ordinance, and nuclear blast), IAN assessments will cover all of these contingencies in its assessments.

In addition to a facility or enterprise assessment, IAN can also provide an introduction to the EMP threat and its mitigation in a one or two day series of meetings at a client facility with two staff. This includes an overview of EMP and its impact on the facility and its community. This normally includes corporate staff, business partners and community leaders. IAN also can show how infrastructure protection can be funded with outside grants and investment.

For a free download of the 2010 fire code for business continuity, NFPA 1600, see: <http://www.nfpa.org/assets/files/PDF/NFPA16002010.pdf>. For the EMP Commission reports see: www.empcommission.org. For the National Academy of Sciences reports on space weather see www.NAP.edu. Additional information can be found in the white papers section of www.stop-EMP.com.

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