



140th Wing Safety

Monthly Safety Memo

March 2016

Special points of interest:

- Electrical Safety Advice
- Effects of Electrical Current
- Hazards of Wearable Technology



Wearable technology (smart watches) is becoming more prevalent and rightfully so. However, the technology can have adverse effects due to the nature of work within the profession of arms.

Personnel who work with electro-explosive devices (EED) must be aware of the increased hazard these watches present.

The safe separation distance for modern mobile emitters (unless specifically tested by AFSEC/SEW) is 10 feet regardless of configuration. This includes smart watches!

Contact us if you have any questions or comments!

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Electrical Safety Advice

- 1) Ensure all electrical work is done by a competent electrician.
- 2) Don't use electrical surge protectors for high power loads.
- 3) Don't series-connect surge protectors or extension cords.
- 4) Don't use multiple plug adapters with multiple electrical cords.
- 5) Report, replace, or dispose of frayed-broken electrical wires, as appropriate.
- 6) Don't run extension cords through windows, walls, floors, doorways or similar openings.
- 7) Ensure personnel are protected from live electrical exposure and contact electrician immediately to guard live electrical parts.
- 8) Don't block electrical panels with objects (e.g. boxes, furniture, forklifts, etc.).
- 9) Lock and Tag-out hazardous energy while performing maintenance, servicing, or inspection (see AFI 91-203 Ch. 21).
- 10) When in doubt or you just have a question, contact your installation safety office.

Effects of Electrical Current On The Human Body

- Below 1 milliamperes—Generally not perceptible
- 1 milliamperes—Faint tingle
- 5 milliamperes—Slight shock felt; not painful but disturbing. Average individual can let go. Strong involuntary reactions can lead to other injuries
- 6-25 milliamperes—Painful shock, loss of muscular control
- 50-150 milliamperes—Extreme pain, respiratory arrest, severe muscular contractions. Death is possible.
- 1,000-4,300 milliamperes—Rhythmic pumping action of the heart ceases. Muscular contraction and nerve damage occur; death likely.
- 10,000 milliamperes—Cardiac arrest, severe burns; death probable