

# BMETS Newsletter

October 2007

<http://www.BMETS.org>

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## THE PRESIDENT'S THOUGHTS

I would like to thank Brian for his help in getting the word out to the members for our September meeting. We had a great turnout and Paul did a great job with the prizes, input and discussion.

I spoke with Dan Freedman at Howard Community College and was told the program is alive and doing better. There are several more students this year and he appreciates our help and input. I would like to get BMETS to offer a scholarship and continue to push for support from the Clinical Engineering Departments to offer part time positions with some benefits to those students that are good candidates for such a program. Thanks to all who went to the High Schools, you did make a difference, we just need to keep doing it and we are going to keep doing it as a team. Great job to all and to all the members - remember this is YOUR BMETS, the leadership just helps steer the ship.

Rob Bain President.  
CBET, President, BMETS  
president@bmets.org



**Rob Bain**

### BMETS Web Page Statistics

Sep 2007

Total Hits: 17053; Hits per Day (Max): 1289; Hits per Day (Avg): 568

Aug 2007

Total Hits: 19325; Hits per Day (Max): 1671; Hits per Day (Avg): 623

Jul 2007

Total Hits: 19214; Hits per Day (Max): 1114; Hits per Day (Avg): 619

## THE VICE PRESIDENT'S QUILL

Here we are once again October the second meeting of another great year of vendors, opportunities and best of all Networking with our fellow B.M.E.T.S. As the Chairman of the Membership committee it is my duty to remind all of you that dues are coming up for renewal. The cost of the membership has not changed, but we have added some additional benefits for those serving our country in the Military. Active duty, Reserved, National Guard if your serving your membership is free. The California Society announced this summer that they were offering "Free Memberships" to active duty and Reserves and National Guard. So, afar careful discussion with the Membership committee it was agreed upon unanimously.

Ok, now on to the good stuff, October's meeting will be Medrad featuring some Radiology information. Disappointedly, I will not be able to attend.



**Chris Jones, Sr.**

That is all from the Vice President.

Best regards;

Christopher L. Jones, Sr. MCP CPACS Assoc.  
Vice President



**Roy Leake**

I am still looking forward to having some volunteers on our Newsletter Committee. If you are interested or if you just have comments or information you think should be in/out of the newsletter, please feel free to email me at [secretary@bmets.org](mailto:secretary@bmets.org) using the subject line "Newsletter". I would greatly appreciate your feedback on our Newsletter!

## THE SECRETARY'S SPIEL

I discovered that there are not many members that look at the BMETS Web Page regularly. That means they depend on this newsletter to have the information they need each month. I put more information in this newsletter. Let me know if it is enough information.

Roy Leake, CBET  
BMETS Secretary

# CELL PHONES CAN TRIGGER MEDICAL EQUIPMENT FAILURE

PROBLEM COULD GET WORSE

By John Timmer | Published: September 06, 2007 - 09:06PM CT

As people become increasingly comfortable with the use of cell phones, they're beginning to chafe at the remaining restrictions on their use (as anyone who has boarded an airplane recently can attest). The tension over wireless limitations is even more complex in the medical world, where not only do patients and their families want to stay in touch, but wireless connectivity can enable better patient care. An Open Access study that was released today points out yet another complication: wireless technology is a moving target, and what's safe today may not remain so.

The work follows up on an earlier study that suggested that not all cellular technology might be equal when it comes to interference with medical equipment. GSM networks can handle data from two generations of transmission technology: UMTS, and the higher-powered GPRS. The original study suggested that, although UMTS devices were generally safe to have around medical equipment, GPRS-based phones had the potential to interfere with their function.

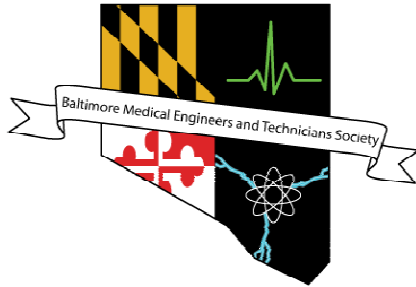
The new study focuses on what could be considered "worst case" interference. Instead of using typical operating power, the authors reasoned that a hospital environment, which is often deep within a building and subject to a variety of sources of interference, is likely to force phones to operate at their maximal power limits (in the case of GPRS devices, 2 watts). So, they set up both GPRS and UMTS antennae 500cm away from medical devices, and gradually moved them closer while checking the device's function. Problems were

classified as light when they simply interfered with monitoring the device, significant when they required intervention, and hazardous when they created a health risk for the patient. Devices included various pumps, monitoring equipment, defibrillators, and pacemakers.

All told, the authors witnessed 48 events, affecting 26 of the 61 medical devices tested. The good news is that cellular devices typically had to be on top of equipment before causing a problem; the mean distance at which signs of trouble appeared was only 3cm. Still, at least one hazardous event occurred out at 300cm (nearly 10 feet), and five happened at 25cm. The key result, however, is the clear relationship between signal power and problems. The UMTS signal, which operates at 10 percent of the power of GPRS devices, caused only 17 percent of the trouble. A low-frequency GPRS signal produced 31 percent of the incidents, while a high frequency version caused about half of the problems. The severity of the problems broke down along similar lines.

The authors note that the existing safety standards of the Netherlands, where the study took place, limits cell phones to a distance of over a meter from medical devices, and they suggest this standard is reasonable. But the more notable message is one the authors didn't mention: those standards are clearly going to need to be reevaluated as wireless devices evolve in the future.

Plan to attend our next monthly meeting sponsored by:



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October 18, 2007

**Rose Restaurant**

- 6:00 - 6:30 PM Meet and Greet
- 6:30 - 7:30 PM Dinner - good conversation.
- 7:30 - 8:00 PM Business Meeting
- 8:00 - 9:00 PM Presentation by Brian Studebaker, Medrad

**RSVP's** This is the "Monthly" RSVP request for the October Meeting, October 15, 2007. ONLY Emails will be accepted - I do not trust my Cell phone voice mail to come thru with the RSVP's

What must be included in the RSVP's is:

1. Name of ALL individuals coming to the Meeting.
2. Healthy appetite
3. Relative mind set for conversation and enjoyment.

That is it.

Please respond to the email or send your RSVP's to [vice-president@bmeets.org](mailto:vice-president@bmeets.org) No later than October 15, 2007. No late entries will be accepted for the meal.

Thank you for your cooperation in this matter.

**Directions:** FROM THE AIRPORT: TAKE THE AIRPORT EXIT 195 TO YOUR FIRST RAMP (170) AND FOLLOW TO YOUR THIRD LIGHT. AT THE THIRD LIGHT YOU MAKE A LEFT, THAT IS A CONTINUATION OF ROUTE (170N) AND FOLLOW 2 MILES AND WE WILL BE ON YOUR RIGHT HAND SIDE.

FROM BALTIMORE INNER HARBOR FROM LOMBARD STREET GO TO GREENE STREET AND MAKE A LEFT, GREENE STREET WILL TURN INTO 295. FOLLOW 295 TO 695 EAST TOWARDS GLEN BURNIE. TAKE EXIT 6A TO THE FIRST LIGHT AND WE ARE ON THE RIGHT.

FROM WASHINGTON: TAKE EITHER 95N OR 295N TO 695E TOWARDS GLEN BURNIE TO EXIT 6A FOLLOW EXIT TO FIRST LIGHT WE ARE ON THE RIGHT.

CALENDAR OF EVENTS  
CHECK THE WEB PAGE FOR UPDATES

October 18—Monthly BMETS meeting, The Rose Restaurant

November 21—Monthly BMETS meeting, location to be determined

November 25-30 - RSNA Radiology meeting in Chicago, Illinois

December—No monthly BMETS meeting (Merry Christmas)

| Acronym | Definition  |
|---------|---|
| EFR     | Early Failure Rate (reliability)                            |
| EFR     | Emergency First Response/Responder                          |
| EFR     | Eagle First Responder                                       |
| EFR     | Eastern Frontier Rifles (India)                             |
| EFR     | Effective Resolution  |
| EFR     | Efficient Foodservice Response (initiative)                 |
| EFR     | Electronic Failure Report                                   |
| EFR     | Employee & Family Resources                                 |
| EFR     | Engine Firing Rate  |
| EFR     | Engineering Facility Requirement                            |
| EFR     | Enhanced Full Rate  |
| EFR     | Equipment Facility Requirement                              |
| EFR     | Equipment Failure Report                                    |
| EFR     | European Fast Reactor (reprocessing of spent nuclear fuels) |
| EFR     | European Financial Roundtable                               |
| EFR     | Expatriate Failure Rate                                     |
| EFR     | Expect Further Routing                                      |
| EFR     | Extended Flight Rules                                       |
| EFR     | Extended Focus Range (Leupold rifle scope)                  |
| EFR     | Extended Frequency Range                                    |
| EFR     | External Function Request                                   |

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## BMETS Monthly Meeting Sponsors for 2007

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6864 Cochran Road Solon, OH 44139  
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