Annual Business Meeting Report

On December 2, 2011 at 8:15 pm, ACGNJ President Paul Syers called the Annual Business Meeting to order with an official quorum.

Election

Elections for 2012 Officers and Directors were unanimously approved with no nays or abstentions.

Officers

President: Evan Williams
Vice-President: (Open)
Treasurer: Malthi Masurekar
Secretary: Bob Hawes

Directors (through 2013)

Gregg McCarthy
John Raff
Frank Warren
(Open)

Note the two positions that are still vacant. Our new President will fill them by appointment as soon as possible. Any volunteers?

Other Business

Malthi Masurekar presented the Treasurer’s Report for 2011.

A motion to adjourn the Annual Business Meeting was made, seconded and approved. Ice cream cake and videos followed. (See Our 2011 Holiday Party at the bottom of page 3 for further details).

ACGNJ Meetings

For the very latest news on ACGNJ meetings, please visit the ACGNJ Website (www.acgnj.org).

Lunics (Linux/UNIX): Monday, January 2, 8:00 PM
Andreas Meyer (lunics@acgnj.org)

Board of Directors Meeting: Tuesday, Jan. 3, 7 PM
Evan Williams (president@acgnj.org)

Main Meeting: Friday, January 6, 8:00 PM
Evan Williams (president@acgnj.org)
Speaker: Brian Welch.
Topic: Recent changes to Facebook.

Layman’s Forum: Monday, January 9, 8:00 PM
Matt Skoda (som359@aol.com)

Java: Tuesday, January 10, 7:30 PM
Mike Redlich (mike@redlich.net)

WebDev: Wednesday, January 11, 7:30 PM
Evan Williams (webdev@acgnj.org)

Investing: Thursday, January 12, 8:00 PM
Jim Cooper (jim@thecooperno.org).

NJ Gamers: Friday, January 13, 6:00 PM
Gregg McCarthy (greggmajestic@gmail.com)

Firefox: Monday, January 16, 7:30 PM
David McRitchie (firefox@acgnj.org)

C/C++: Tuesday, January 17, 7:30 PM
Bruce Arnold (barnold@iee.org)

Window Pains: Friday, January 20, 8:00 PM
John Raff (john@jraff.com)
Speaker: David McRitchie.

All meetings, unless otherwise noted, are at the Scotch Plains Rescue Squad, 1916 Bartle Ave, Scotch Plains, New Jersey. Directions and map on back cover.
ACGNJ News

ACGNJ News is published by the Amateur Computer Group of New Jersey, Incorporated (ACGNJ), PO Box 135, Scotch Plains NJ 07076. ACGNJ, a non-profit educational corporation, is an independent computer user group. Opinions expressed herein are solely those of the individual author or editor. This publication is Copyright © 2011 by the Amateur Computer Group of New Jersey, Inc. All rights reserved. Permission to reprint with appropriate credit is hereby given to non-profit organizations.

Submissions: Articles, reviews, cartoons, illustrations. Most common formats are acceptable. Graphics embedded in the document must also be included as separate files. E-mail submissions to bdegroot@ptd.net preferred. Always confirm. Date review and include name of word processor used, your name, address and phone and name, address and phone of manufacturer, if available.

Tips for reviewers: Why does anyone need it? Why did you like it or hate it? Ease (or difficulty) of installation, learning and use. Would you pay for it?

Editor: Robert D. Hawes
bob.hawes@acgnj.org

Editor Emeritus
(and Emergency Backup Publisher):
Barbara DeGroot
145 Gun Club Road
Palmerton PA 18071
Tel: (570) 606-3596
bdegroot@ptd.net

ACGNJ

Advertising: Non-commercial announcements from members are free. Commercial ads 15 cents per word, $5 minimum. Camera ready display ads: Full page (7 x 10 inches) $150, two-thirds page (4.5 x 10) $115, half-page $85, one-third $57, quarter $50, eighth $30. Discount 10% on 3 or more consecutive insertions. Enclose payment.

Publication Exchange: Other computer user groups are invited to send a subscription to ACGNJ at the address below. We will respond in kind.

Address Changes should be e-mailed to membership@acgnj.org or sent to ACGNJ at the address below.

Membership: Regular (now includes all family members who reside at the same address): 1 year $25, 2 years $40, 3 years $55. Student: 1 year $20. Senior Citizen (over 65): 1 year $20, 3 years $45. Send name, address and payment to ACGNJ, PO Box 135, Scotch Plains NJ 07076.

Typographic Note: This ACGNJ News was produced using Scribus 1.3.3.13. Font families used are Times New Roman (TT) for body text, Arial (TT) for headlines.

E-Mail Addresses

Here are the e-mail addresses of ACGNJ Officers, Directors and SIG Leaders (and the Newsletter Editor). This list is also at
(www.acgnj.org/officers.html).

Bruce Arnold barnold@ieee.org
Brenda Bell mobdevsig@acgnj.org
Jim Cooper jim@thecoopers.org
Barbara DeGroot bdegroot@ptd.net
Mark Douches pcreports@pobox.com
David Eisen ultradave@gmail.com
Bill Farrell wfarri1824@aol.com
Manuel Goyenechea Goya@acgnjdotevsg.org
Bob Hawes bob.hawes@acgnj.org
Sol Libes sol@libes.com
Malhi Masurekar masureka@umdnj.edu
Don McBride don@mcbride.name
Gregg McCarthy greggmc@optonline.net
David McRiche dmcrichie@hotmail.com
Andreas Meyer lunics@acgnj.org
Arnold Milstein mrfark@yahoo.com
John Raff john@rjraff.com
Mike Reagan hardware@acgnj.org
Mike Redlich mike@redlich.net
Matt Skoda som359@aol.com
Paul Syers paul.syers@acgnj.org
Lenny Thomas lennythomas@technologist.com
Scott Vincent scottvin@optonline.net
Frank Warren kbkcye@webwarren.com
Evan Williams tech@evanwilliamsconsulting.com

January 2012
Hi! With this issue of ACGNJ News, I've taken over as Editor. So I thought I'd tell you something about myself. You may already be aware of me, since I've been writing articles for this newsletter for the past six and a half years. Moreover, I do have previous Desktop Publishing experience, too. From 1990 to 1994, I edited and distributed a “snail mail” newsletter for the Bayonne Train Club. I created it on my computer using a DOS Desktop Publisher, and then printed out up to ten single sided “copy master” pages on my own printer. Those pages I took to a large scale copying center (often the nearest Staples store), where I had as many double sided copies made as I needed. Then, I stapled them together, stuck on stamps, took them down to the Post Office, and mailed them. (Experimentally, I'd determined that five double sided pages would always weigh just under one ounce).

More recently, I used Scribus (a fun, fabulous and free Desktop Publisher that has both Linux and Windows versions) to produce July and August issues of this newsletter in 2009, 2010 and 2011. So you really ought to be familiar with my work. By my count, I've already had 85 articles published here. Over a dozen times so far, I've had more than one article included in the same issue; but I didn't count articles that I considered to be “too small” or “more edited than authored”. So a more inclusive count could easily come up with an even higher total. However, I'm satisfied with 85; and now that I'll be writing all of our extraneous verbiage in the future, I'll be adding even less of what I write each month to my cumulative total.

As for changes: I will be making a few. The biggest one I already tried out in my previous six July and August issues. There, I put our monthly meeting schedule on page 1; and I liked it that way. So unless I get lots of complaints, our schedule (and other current announcements) will be on page 1 from now on. Then, there are our “boilerplate” pages. (Those are pages that we reproduce almost identically from issue to issue). Looking at our December 2011 issue, I'm thinking that our boilerplate pages are in that "point of diminishing returns” for both of them. They'll each have to be re-created from scratch by Scribus. That will take a lot of work; but I'll get to it as quickly as I can.

I'd also like to convert our SIG News section (half of page 12 and all of page 13 in our December 2011 issue) into a single “boilerplate” page, by moving current announcements from there to page 1. In this issue, however, I've already used all of the “announcement” space on page 1 for our election results. So that idea will also have to wait. Barbara DeGroot (our previous Editor) did an exceptional job for seventeen years, so I've got some big shoes to fill. Wish me luck (and skill). ☺️

---

**Our 2011 Holiday Party**

Bob Hawes, ACGNJ

On Friday, December 2nd, 2011, for the sixth time in three years, I hosted a small party for the club. However, before I describe what happened this time, let me list my previous parties. The first was on December 5th, 2008, at our Main Meeting/Annual Business Meeting. After we voted to approve a "complete and total revision" of our By-Laws, I served ice cream cake and showed a video. That went well enough, so I tried it again, at our May 1st, 2009 Main Meeting. After we voted to adopt
seventeen more attorney-suggested amendments to our By-Laws, I held a “Finally Finished With The By-Laws Party”, again serving ice cream cake and showing videos. (Anybody spot a trend here?) I had intended to hold another Holiday Party at the end of that year; but at the very last minute, the scheduled speaker for our September 18th, 2009 Window Pains Meeting dropped out. With just one day’s notice, I stepped in and threw my third party early, changing it to an “End of Summer/Welcome Back Party”. Yet again, I served ice cream cake and showed videos. Because of that schedule change, my fourth party didn’t come until more than fourteen months later, when I hosted another Holiday Party on December 3rd, 2010. Once more, I served ice cream cake and showed videos. My fifth party was an “ACGNJ 36th Anniversary Party”, at our Window Pains meeting on Friday, June 17th, 2011. (That was actually four days late, because our club held its first meeting on June 13th, 1975). Yet again once more, I served ice cream cake and showed videos. Here’s a brief recap of each: I’d lost most of my audience by the end of the first party. (Though they didn’t leave until after they’d totally consumed the ice cream cake). I didn’t run into any problems; but at about 75 minutes, the video I’d selected just ran too long. At our May 1st, 2009 meeting (but before the party phase), I had technical difficulties with the PDF presentation file that I’d created to display those 17 amendments. This resulted in much amusement for my audience. My videos, though, ran just fine. At my third party, I got into trouble while streaming my videos from the Internet. Probably due to slow download speed, the picture kept hanging up; and because of the transcendent genius of the HD video design, if the picture experiences even a little bit of interference, you lose the sound completely. For my fourth party, I downloaded my videos while still at home, and wrote them all to my hard disk. I had no difficulties once I got to the party, but related equipment problems at home caused me a lot of extra work. At party five, I ran everything from my hard disk again. I had no trouble, but I did run too long; and thus lost some of my audience. (The information above should be sufficient for the purposes of this article; but if you really want additional details, refer to A Solstice Party in our January 2009 issue for the first party. See Twelve in our January 2010 issue (near its middle) for the second party. Also see Twelve (this time near its end) for the third party. Refer to See You Later, Data Gator in our January 2011 issue for the fourth party; and see ACGNJ 36th Anniversary Party Report in our August 2011 issue for the fifth party). As you can see, something went wrong somewhere for each of those parties. (Although it was most often a different something). This time, I wanted my sixth party to go perfectly; but it was not to be. In preparation, I put together a “lugable” Linux computer, and I copied six “TED Talks” to its hard disk. (TED is a nonprofit devoted to Ideas Worth Spreading. It started out in 1984 as a conference bringing together people from three worlds: Technology, Entertainment, and Design. Since then, its scope has become even broader. TED videos are advertised as “Riveting talks by remarkable people, free to the world”). Plus, I also copied two short humorous videos to use as “opening jokes”. Five of my six TED downloads came in as MP4 files. The remaining three files were FLV. (Adobe Flash Videos). All eight played perfectly on my computer under Linux; but as emergency backups, I copied those eight files to a CD as well, and to the USB stick that I carry around on my key ring, too. The very last thing I did before leaving for the meeting was to take the ice cream cake out of my freezer and put it in my car. When I arrived at the club, I found that something completely different had gone wrong. Our landlord had moved our meeting from our usual room on the second floor to a smaller room on the first floor. This messed me up in two ways. First, I’d expected to have access to the freezer in the upstairs kitchen. Without that, the ice cream cake would continue to thaw out (and ice cream cakes melt very quickly). Second, I’d expected to have access to the spare equipment that we keep upstairs, so I didn't bring my own keyboard, mouse, or monitor. This meant that my “lugable” Linux computer was absolutely unusable. I couldn't do anything about the ice cream
cake. There, we'd just have to hope for the best; but thanks to my backups, I could borrow a laptop belonging to somebody else. Another member lent me his, and I quickly copied my files from my USB stick to his desktop; but when I tried to run my first "opening joke", I got another surprise. After I'd double-clicked on its file name, a message popped up informing me that I had to install another company's media player in order to run Flash Videos. The owner did not want to install that particular program, and I couldn't blame him. I've never installed it on any computer that I've ever owned, and I never will. The owner started looking for an already installed alternate player. He was sure he had one, but he couldn't find it. After a few minutes, I decided that we were wasting time that we didn't have. Hesitantly, I double-clicked on the first MP4 file, and it ran OK. So I abandoned my two "jokes" and that sixth TED file. (I'll keep them in reserve, for future use). Instead, I just ran the five TED Talks listed below. (I can't give you my MP4 files, but I can give you links to the Talks themselves).

(Continued Above Right)

state of the art and the way forward (15:59):

4. Britta Riley - A garden in my apartment. Britta Riley wanted to grow her own food (in her tiny apartment). So she and her friends developed a system for growing plants in discarded plastic bottles: researching, testing and tweaking the system using social media, trying many variations at once and quickly arriving at the optimal system. Call it distributed DIY. And the results? Delicious (7:52):

5. David Christian - Big history. Backed by stunning illustrations, David Christian narrates a complete history of the universe, from the Big Bang to the Internet, in a riveting 18 minutes. This is "Big History": an enlightening, wide-angle look at complexity, life and humanity, set against our slim share of the cosmic timeline (17:40):

As usual, we ate all of the ice cream cake. It did get a little “soupy” by the end, but it was still delicious. One question remains, though: Why wouldn't that laptop run Flash Videos? Well, I don't have a definitive answer, but I do have a suspicion. It has Windows 7 installed. Now, Microsoft has a product called Silverlight, developed to be a competitor to Adobe Flash. Could it be that they purposely designed Windows 7 not to run Flash? In my opinion, anyway, that's exactly the sort of thing that they would do; but it really doesn't matter. The five links above should run just fine under Windows 7 (or anything else, for that matter). If you want to experience a reasonable facsimile of our 2011 Holiday Party, go get some ice cream, and then eat it as you run those links. Enjoy! ☺

Special Computer Security Newsletter Still Available

Last October, ACGNJ collaborated in a special newsletter made for NCSAM (National Cyber Security Awareness Month). It contains fifteen informative articles about computer security. In our opinion, everybody should be aware of these topics. Happy (or scary) reading:
Happy Legal Holidays
by Kevin Underhill

Groklaw (www.groklaw.net) has a feature called “LATEST NEWS PICKS”. On December 25th, 2011, they quoted the following from Lowering the Bar (a website/blog by Kevin Underhill):

“Here's a holiday email that a reader received from another lawyer:

Wishing you all the best for the Holidays and a wonderful New Year!

This e-mail may contain confidential or privileged information. If you are not the intended recipient, please notify the sender immediately by return e-mail and delete this e-mail and all copies and attachments. Unless specifically stated otherwise, any tax advice contained in this communication (including any attachments) is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding penalties under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.

Nothing gets you in the holiday spirit like a good disclaimer (the foregoing not to be taken as a guarantee of future results).

Happy holidays, including, but not limited to, Christmas”.

The following link has been included for purposes of copyright acknowledgement:

Back Me Up, Cloney
Bob Hawes, ACGNJ

Obviously, this article's title is a “twist” on the famous line “Beam me up, Scotty”. That catch phrase is so ubiquitous that it’s quite hard to believe that no “official” performer ever said it until long after it had become a cliche. It’s a prime example of the phenomenon of misquotation, which is actually fairly common in literature and journalism. A real or fictional phrase gets “distilled” through extraneous use until it comes out sounding so much better than whatever its original source really was. I've said it before and I'll say it again: William Shatner (playing Captain James T. Kirk) never, ever said those exact words, in that exact order, in any Star Trek TV episode or movie. The closest he came was in Star Trek: The Animated Series, when he said; “Beam us up, Mr. Scott”. (Though Kirk wore a cartoon face at the time, his voice was Shatner's). I've based titles on both of those lines before: Back Me Up, Scotty in our November 2010 issue, and Back Us Up, Mister Gates in our April 2011 issue. As you might expect, those previous articles involved backup programs of one kind or another. Here, our subject will be Clonezilla.

A couple of days ago (as I write this), I got a phone call from my cousin. He asked me to send him detailed instructions for using Clonezilla. Now, I use Clonezilla a lot for my own personal backups. It's actually designed to make and restore images of operating systems. As such, it doesn't really fit my requirements for backing up my data files; but then again, no program that I've found in the last two decades or so has suited me as well as Colorado Backup for DOS did, back in the “Good Old Days”. Clonezilla may not be perfect, but it works. I've got it, I understand its idiosyncrasies, and I trust it implicitly. So for now, at least, it's what I use to back up both operating systems and data. As far as newsletter articles go, I last described its use in Dat-A-Whirl (Part One), in our February 2011 issue; but I didn't go into step-by-step detail there. Before that was Something Spooky? (in our October 2009 issue), but I didn't dig too deeply there, either. For truly extensive details, we'd have to go all the way back to Hold That Ghost (in our November 2007 issue). However, that information is just too old. So we'll be updating it here, instead. How about that? I get to
help my cousin, and I also get another newsletter article at the same time.

You may remember my cousin's Dell OptiPlex 740 computer from *Second Cousin Twice Removed of Thirteen Things*, in our October 2011 issue. (Incidentally, that was just a silly title. He's my cousin, not my second cousin). There, I described how I replaced the original Windows XP operating system (then damaged and unusable) with a completely new Ubuntu/XP dual boot system. (As they come from the factory, Dell computers also contain a hidden and proprietary “recovery” partition, in addition to the usual operating system partition. Since I'm not a member of the Secret Society of Dell Devotees, I didn't try to reproduce that). My replacement hard disk layout contained a 20 GB FAT32 XP partition, a 39.27 GB FAT32 data partition (for use by both operating systems), a 14.06 GB Linux Ext4 partition, a 0.93 GB Linux Swap partition, and 325.33 MB of unallocated “slop” space (located at the very end of the hard disk, for use by Clonezilla if necessary). As far as

Windows swap file, which, as mentioned earlier, doesn't get backed up), that left 4.13 GB of files to be backed up. Inside the last Clonezilla backup that I made of the Dell computer before I delivered it, those files measured 2.2 GB (after compression). As created, the Ubuntu partition contained 4.55 GB of files. Inside that same last backup, those files measured only 1.7 GB (also after compression). Apparently, while they're still actually being used, the files in Ubuntu are not compressed as much as the files in XP. (We can infer this due to the demonstrable fact that Clonezilla was able to compress Ubuntu's files a lot smaller during the backup). That gave 3.9 GB as the total size for all compressed operating system files. Over time, that figure will grow a little bit, but not much. Without that data partition, a complete backup of all the files on that hard disk would never measure much more than 4 GB. With that data partition, if it was nearly full of data files that were mostly already compressed, a Clonezilla backup of that Dell computer's hard disk could easily exceed 40 GB. Ten times as big; but still, compared to 2 TB, both of

Clonezilla is concerned, that's only three partitions, because (like the Windows swap file), it doesn't back up the contents of the Linux Swap partition. (That would just be a waste of backup space). As long as you don't try to store any data files in them, both of those operating system partitions are relatively huge, and shouldn't become filled up for the foreseeable future. By today's standards, on the other hand, that data partition is downright tiny. I advised my cousin to move any data files that are not being actively worked on to his 2 TB external USB Expansion Drive, for longer term storage.

Now, the only reason I located that data partition on the same disk as the operating system partitions is because that particular Dell case only had room for one hard disk. If there had been room for two, I would have given the data files their own exclusive hard disk. Then, those data files could get their own backups, and thus wouldn't interfere with operating system backups. This way, they do interfere. As created, that XP partition contained 5.53 GB of “Used space”. Subtracting 1.4 GB (the size of the

those totals are negligible. So maybe I'm worrying over nothing.

Currently, I have two versions of Clonezilla: Release 1.2.2-31 (which I downloaded in December of 2009), and Release 1.2.10-14 (which I downloaded in September of 2011). If you already have your own Clonezilla live-CD, it's probably from some time between those two; but if, as you're reading this, you decide to download a current CD image and then burn it to a disk, it'll probably be newer than either one of mine. Right now, I'm writing this article from what I have on hand, so I'll be describing each step as it's displayed from both of my CDs. For most steps, it's the same; but sometimes its a little bit different. Keep in mind that if you've got a different CD, you might see something different, too. However, it should be close to what I've written, and you should be able to figure it out easily enough. For your convenience (and my own), I've given each step a number and a descriptive name. It's possible that Clonezilla might “throw you a curve” by skipping something, or by adding an additional function. In
that case, of course, my step numbers won't match up anymore. In case of a conflict, follow Clonezilla, not me. As for my names, mostly they'll match what Clonezilla displays; but sometimes, for clarity, I've added additional information of my own. Hopefully my additions will be helpful to you, rather than confusing. Anyway, here we go!

**Backup Instructions:**

Almost immediately after booting from the Clonezilla live-CD, you'll get an opening screen. There, 1.2.2-31 displays 9 options, while 1.2.10-14 displays 5. This screen also has a countdown timer. If you haven't made a selection within 30 seconds, it will pick the default (“Clonezilla live”), which is already highlighted. That's what you really want, anyway, so you can continue by just hitting the Enter key at any time.

After that, the CD will run for several minutes, displaying lots and lots of messages on the screen. (It's amazing to think that somewhere out there, somebody exists who actually knows and understands what **all** of those messages mean). Eventually, a language screen will pop up. There, 1.2.2-31 offers a choice of 7 languages, and 1.2.10-14 offers 10. “English” should be the default, so just hit Enter to continue.

Step 3 is a keymap screen, with four options. You want the default, “Don’t touch keymap”, so just hit Enter again to continue.

Step 4 is a command screen. “Start Clonezilla” should be the default, so hit Enter yet again to continue.

Step 5 is a source/destination screen, with two options. You want “device-image” (the default), so just hit Enter.

Step 6 is a mount device screen, offering six options. You want “local_dev” (again the default), so just hit Enter.

(Continued Above Right)

Step 7 displays the following text message at the bottom of the screen, in yellow letters: “If you want to use USB device as a Clonezilla image repository, please insert USB device into this machine *now*. Wait for about 5 secs then press Enter key so that the OS can detect the USB device and later we can mount it as /home/partimag”. On some (mostly older) computers, the BIOS might object if you try to boot with a USB Expansion Drive attached. Therefore, when working on somebody else's computer, I usually wait until this point to attach my USB drive. If you waited too, here's some advice: Wait **20** seconds, not 5, and watch the additional messages that will be displayed at the bottom of the screen. They'll come up in two or three spurts, and you'll probably see around twenty of them before Clonezilla is done. Only **then** should you hit Enter to continue.

Step 8 is a partition selection screen, offering two or more choices, depending on how your computer is set up. The top choice (which, depending on your version of Clonezilla, might be identified as either hdal or sdal) is the default; but don't just hit Enter. This time the default is most definitely **not** the choice you want to make. That top choice is almost always the first (and maybe only) partition on the hard disk that you're trying to back up. So by definition, it **can't** also be the partition to which you'll be writing that backup. Your USB drive will usually come in as the bottom choice, but unfortunately, it doesn't necessarily have to be that bottom choice. Furthermore, I can't predict what that partition's hd? or sd? identifier might be, either. **That** will depend on the internal configuration of your computer. Fortunately, the size of your destination drive will be included as part of its listing. That's the only tip I can give you. Otherwise, you're on your own for this step; but most times, your choice should be pretty obvious. (For instance, my cousin's 2 TB USB drive will show 2000 GB there, even though its **true** size is really closer to 1700 GB). Use the up and/or down arrow keys to select it, and then hit Enter. With that, Clonezilla will automatically mount your selection as /home/partimag. (That's the **only** destination directory that Clonezilla can work with).
Step 9 is a directory selection screen. Because Clonezilla creates a new directory to hold each backup, any and all previous backups will be displayed here, along with whatever other directories might exist on your USB drive. Unless you previously created a special directory to hold all of your Clonezilla backups, just hit Enter to select the default (“Top_directory...”).

Step 10 displays information about disk usage at the bottom of the screen. Just hit Enter to continue.

Step 11 is a Beginner/Expert screen. When I first started using Clonezilla, I'd pick “Expert”. However, I found that I always accepted all of the defaults there, except for compression. (There were three levels. Once, for a 2.5 GB test subject, I got backup times of two minutes, four minutes, and twenty-two minutes, respectively). After a while, I decided against using the highest compression level, and went with the middle one (also the default). So now I just hit Enter to select “Beginner” (the overall default).

Step 12 is an operation selection screen, offering six options (seven for 1.2.10-14). Hit Enter to chose the default, “savedisk” (meaning save all of the partitions on the entire hard disk, not just one of them).

Step 13 is a name selection screen, which automatically generates a unique name for your backup (based on your computer clock's current date and time). When I first started using Clonezilla, I just accepted these names. However, after creating multiple backups of different computers, I found that I couldn’t remember what I’d been backing up on any particular day, so those backup names became meaningless. Nowadays, I still accept these automatic names; but before hitting Enter to save each backup, I press the Home key, and then type a few descriptive words in front of the date. That way, my backup names have more meaning.

Step 14 is a source selection screen, which lists all the hard disks connected to your system except for the one containing the partition you mounted in Step 1.

8. If only one selection is displayed, it will be automatically marked with an asterisk (*). If you see more than one disk, you must use the up and/or down arrow keys to highlight the one that you want to back up, press the space bar to mark it, and then hit Enter to continue.

Step 15 is a relatively new option, so it might not be displayed by your version of Clonezilla. (It's present in 1.2.10-14, but not in 1.2.2-31). Hit Enter on the default (Yes), and after your backup has been created, it will be tested for restorability.

Step 16 displays a command at the bottom of the screen. An expert System Administrator could copy this information, then later repeat this backup by typing it into a terminal window's command prompt. (Thus eliminating the need to manually step through the screens above). Most people, myself included, just hit Enter to continue.

Step 17 appears at the bottom of the screen after a lot of other messages have scrolled by. It says; “Are you sure you want to continue?” To answer, first press the “y” key, and then hit Enter.

Step 18 is the backup itself. As it runs, the bottom line on the screen will display two time readings (“Elapsed” and “Remaining”), a percentage reading (“Completed”), and a speed reading (“Rate”). In rare cases, a backup might fail, and you'll get error messages; but usually Clonezilla will finish successfully, and you'll see “Press Enter to continue...” So do it.

Step 19 gives you four numerical choices: 0 to Poweroff, 1 to Reboot, 2 to enter the command line prompt, and 3 to start over. I usually press the “1” key, and then hit Enter.

Step 20 appears after a lot more messages have scrolled by. First, Clonezilla ejects its CD, then it asks you to “Please remove the disc, close the tray (if any) and press ENTER to continue”. Shortly after you do that, Clonezilla will be done.
Back Me Up, Cloney, continued

Restore Instructions:

During a restoration, Steps 1 through 7 will be exactly the same as in a backup; but note that the meanings of some words will have changed. Your destination (or target) will now be the hard disk to which your backup will be restored, and your source will now be the hard disk on which your backup files are located. (Your USB drive, if you are using one).

Step 8 is a bit different. You're looking for the exact same hard disk as before, but now it's your source. If your computer has more than two hard disks connected to it (or if your destination hard disk contains one or more existing partitions that you intend to overwrite), you'll be given multiple choices; and the default is almost certainly not the right one. Following the clues given above for backup Step 8, use the arrow keys to highlight the proper selection, and then hit Enter. However, if your computer has only two hard disks connected, and your destination's entire contents are unallocated (no partitions created), you may get only one choice.

That will be your source, so just hit Enter.

Steps 9 through 11 will again be exactly the same as in a backup, but not Step 12. For Step 12, use the arrow keys to select “restoredisk” (not “restoreparts”) instead of “savedisk”, and then hit Enter.

Step 13 is still the name selection screen; but this time, you'll be shown the names of previous backups that you created. If necessary, use the arrow keys to select the right one, and then hit Enter.

Step 14 is now a destination selection screen, listing all hard disks connected to your system except for your source (selected in Step 8). Use the arrow keys to highlight the proper choice, and then hit Enter. (If your computer just has two hard disks connected, only one selection will be displayed. That's your destination, so just hit Enter).

Step 15 skips over backup Step 15. Instead, it's exactly the same as backup Step 16, displaying command line information at the bottom of the screen. I just hit Enter to continue.

At this point, it's possible that you might get an error message, starting with something like: “Target disk sda does not exist in the image saved from disk(s) hda”; and then going into more detail in yellow text. There's actually nothing wrong; but Clonezilla has become confused by the recent changes made to the Linux hd?/sd? identifiers. This sometimes happens to real people, too. Just hit Enter to continue.

Step 16 is different from backup Step 16, but exactly the same as backup Step 17. It says; “Are you sure you want to continue?” To reply, first press the “y” key, then hit Enter.

Step 17 is an additional double-check. It's quite similar to Step 16, saying; “Let me ask you again, Are you sure you want to continue?” Again, press the “y” key, and then hit Enter.

Step 18 is the restoration itself, different from the backup operation, yet similar, too. Here, though, we run into one of Clonezilla's idiosyncrasies. When the time remaining figure drops to zero, and the percent completed indicator goes beyond 99, Clonezilla seems to stall. However, there's nothing wrong with the program, and your computer isn't hung up, either. What's wrong is the synchronization of those two indicators. Clonezilla is still doing something, It's just not telling you about it any more. (In the case of a backup containing three partitions, you'd get three sequential restore operations, and thus three long pauses, too). Don't sit there staring at the screen. You'll go crazy. Take a break instead. When you return, Clonezilla will have moved on, and you'll see “Press Enter to continue”. So do it.

Step 19 is exactly the same as backup Step 19. I usually press the number “1” key, and then hit Enter.

Step 20 is exactly the same as backup Step 20. After Clonezilla ejects its CD, I remove it and close my CD drive tray. Then I hit Enter, and I'm done.

Well, that's it for Clonezilla; and that's it for us, too. See you next month.

Page 10

January 2012

ACGNJ
Microsoft Offers Free “Windows Defender Offline Tool” (beta)  
by Ira Wilsner

WEBSITES:  
https://www.techsupportalert.com/content/probably-best-free-security-list-world.htm?page=0.2  

One major problem detecting and neutralizing much of the current crop of malware is that the malware very effectively protects itself from detection and removal by many of the more traditional security methods. Since many of today’s most prevalent PC security threats load when the computer is booted, and often involve a rootkit, common security software may either be unable to detect the malware, or may actually be deactivated by that malware, but still appear to be running normally. According to Wikipedia (wikipedia.org/wiki/Rootkit), “A rootkit is software that enables continued privileged access to a computer while actively hiding its presence from administrators by subverting standard operating system functionality or other

(Continued Above Right)

features.” Many users erroneously believe that they are always protected from all malware threats because they purchased name-brand security software that is supposedly updated automatically, and that by periodically running a security scan with that same software, their computer is clean and free of malware. That is not always the case.

Recently a student brought me her computer, which was very clearly taken over by one of the many rogue security software utilities that alleged that her computer was heavily infected by other malware. The software, “Vista Anti-Spyware 2011”, informed her that for a fee of $39.95 charged to her credit card, this scam utility would remove all of the alleged malware and restore her computer to proper operating condition. If she would have done what was asked by the scammer, she would have given her credit card number, expiration date, and CVV security code to a crook, probably in Russia, who would not only not rid her computer of malware, but also likely have sold her credit card information to other Internet crooks! She had thought that her computer was secure as she had installed one of the major retail security software packages, and had a second layer of security provided by a third party utility that was supposed to protect her from malware. While doing research for a term paper on one of the major search engines, she

(Continued Below Left)

clicked some links on the top of the search results; one of the listings had been hijacked by an internet crook, and the purloined website loaded the malware onto her computer. She was greeted by the pop-up Vista Anti-Spyware 2011 window that informed her that there were hundreds of different malware items on her computer, and that she had to pay to remove them. She tried to run her commercial security software, but either clicking on the icon by her clock, or the desktop icon, but whatever she clicked on, this Vista Anti-Spyware 2011 window appeared. If any other icon was clicked, including the word processor that she had been using to type her term paper, this scam window appeared; closing the window allowed all of the other programs to run except her security software. Even using Windows Explorer to go directly to her security software, and running it from there, only the rogue security program appeared; her name-brand commercial security software had been effectively destroyed. Using the security software I carry on my keychain flash drive, and booting into safe mode (F8), I was able to remove over 300 pieces of malware, but her computer was still heavily infested with malware. I had to create a bootable CD with an integral malware detection utility to remove the last of the infection, which included a rootkit.

There are several sources of utilities to create bootable CDs that contain some form of malware scanning software.  

Directories of free bootable utilities can be found on the Gizmo's TechSupportAlert.com website (techsupportalert.com/content/probably-best-free-security-list-world.htm?page=0.2) and at Raymond's "13 Antivirus Rescue CDs Software Compared in Search For The Best Rescue Disk" (www.raymond.cc/blog/13-antivirus-rescue-cds-software-compared-in-search-for-the-best-rescue-disk). Among the recognized publishers of software that can create free bootable CDs (and sometimes bootable USB flash drives) that contain software to detect and kill malware are Kaspersky, Avira, F-Secure, Panda, BitDefender (USB), AVG, and several others. Using a bootable CD (or bootable USB flash drive) to detect and kill malware is quickly becoming the preferred method of malware removal, because when booted from the CD, the malware cannot load, even if it is a rootkit. The bootable CDs or USB flash drives typically contain a non-Windows operating system, usually some version of Linux or WinPE, thus the version of Windows on the hard drive never loads. Since the Windows does not load, any infections harbored on the hard drive are not loaded, and then can likely be detected and removed by software on the bootable media. Not to be outdone by its smaller competitors, Microsoft has joined the fray by releasing a beta (pre-release) version of its new "Windows Defender Offline Tool (beta)".

January 2012  ACGNJ  Page 11
Microsoft Offers Free “Windows Defender Offline Tool” (beta), continued

What Microsoft has done is take an improved version of its Windows Defender security software. This popular security software is mates with bootable media, such that a CD or bootable USB flash drive created with the free downloaded software can be used to boot an infected computer, and then scan that hard drive for malware, including otherwise difficult to detect rootkits. Since the scanner is running outside of Windows, the malware cannot easily protect itself from detection and removal.

To use the free Windows Defender Offline Beta, download the small 764kb installer directly from Microsoft (windows.microsoft.com/en-US/windows/what-is-windows-defender-offline), preferably to another “clean” computer. The installer file is available for either 32-bit or 64-bit computers; most newer computers are 64-bit, while most older computers are 32-bit. Insert a blank CD or DVD into the CD drive, or insert a USB flash drive that is not password protected, and has at least 250mb free space. Run the downloaded installer (msstool32.exe or mssstool64.exe) which will open a window asking the user to select create a bootable CD or DVD, bootable USB flash drive, or create an ISO file to be installed to a CD. For most users, the bootable CD option is the simplest and most trouble free. The installer utility will download a large file from Microsoft (about 250mb), and guide the user in the steps to create the bootable media. The installer contains all of the software necessary to create the bootable media; no other software or utilities are required. Once created, insert the bootable media into the infected machine, and reboot using the newly created Windows Defender Offline Beta media. By default, almost all PCs will automatically boot off of a bootable CD. If the computer does not boot directly from the CD or flash drive, it may be necessary to tell the BIOS to change to boot sequence, putting the CD drive or USB drive first in the sequence; instructions for doing this are often briefly shown on the splash screen when the computer is first rebooted, and says something like “Press delete (or some other key) for setup” or “Press (a specific key) for boot sequence”. If additional help is necessary, Microsoft has detailed instructions online at windows.microsoft.com/en-US/windows/windows-defender-offline-faq#section_2. This will open the BIOS window, and one of the selections is usually to choose the device from which the computer boots. Once booted into Windows Defender Offline Beta, the user can perform a scan for malicious software, and get rid of it. Once cleaned by the Windows Defender Offline scanner, remove the CD or flash drive, and reboot the computer. The computer should boot normally, free of the malware infection.

If it is ever necessary to perform another scan from bootable media, Microsoft recommends that a fresh CD be created, as an updated malware signature file will likely be available, as it is updated frequently. If a bootable USB flash drive was created, it will not always be necessary to create a new one, as the digital malware signature files on the flash drive can be updated by the integral wizard while on an internet connected computer.

Since many of the contemporary malware types destroy the installed security software, leaving the computer open to subsequent attacks and infection, it may be necessary to reinstall a fresh copy of whatever security software is desired. Either the previous software can be installed and updated, or new software can be installed. Commercial software is readily available (I recommend the comprehensive suites rather than just the traditional antivirus software), or comparable free security software can be downloaded and installed (techsupportalert.com/content/probably-best-free-security-list-world.htm).

It is obvious that while offline bootable media may currently be an optimal way to detect and remove difficult malware, it is only a matter of time until the malware authors come up with some devious new way to hide malware to counter this method, just as they had done with the previous methods. Still, it is necessary to stay on top of the threats, and perform a variety of security scans using different methods, media, and software.

(Continued Above Right)

(Continued Below Left)

36th Anniversary Newsletter CD Now On Sale

Beta .11 Release.

$8.00, including postage.

($7.00 if you pick up a copy at a meeting).

Get yours today!

Back Issues Still Needed

Our collection remains incomplete. Below is a list of missing newsletters. Anyone who lends us one of these (or supplies a good clear copy) will receive the next CD as our thanks.

1975: #2 and #3 (dates uncertain).
1976: January.
1984: August.
1985: June, July, August, September. □
SIG News

LUNICS (Linux/Unix)
Andreas Meyer (lunics@acgnj.org)
http://www.acgnj.org/groups/lunics.html

LUNICS is a group for those who share an interest in Unix and similar operating systems. While we do quite a bit with Linux, we’ve also been known to discuss Solaris and BSD as well. Recent meetings have followed a Random Access format. See our web page for further information. (We meet on the first Monday of each month, at 8:00 PM). □

Main Meeting
Evan Williams (president@acgnj.org)
http://www.acgnj.org/groups/mainmeet.html

January 6th: Brian Welch will be going over some of the recent changes to Facebook, particularly smart lists and how to use them. A Q&A for basic Facebook questions will also be held after, for such topics as security settings and facebook features. (We meet on the first Friday of the month, at 8:00 PM). No meetings in July or August. □

(Continued Above Right)

Java
Mike Redlich (mike@redlich.net)
http://www.redlich.net/javasig/javasig.html

This SIG covers beginner, intermediate, and advanced level Java programming. Primary focus is on developing useful/practical applets and applications. (We meet on the second Tuesday of each month, at 7:30 PM). □

Mobile Devices
Brenda Bell (mobdevsig@acgnj.org)

The Mobile Devices SIG focuses largely on current-generation cellphones and smart phones (such as Blackberry, Android, iPhone) which bridge the gap between basic cell phones and traditional computers, and how they can help you manage and organize your life. Our membership ranges from those who have recently acquired their first, basic cellphone to those who develop applications for today’s modern smart phones, iPods, and ultra-portable computers. While we expect to spend much of our time investigating the built-in features and specialized applications available to modern smart phones, if you bring your basic (or multimedia) cell phone, iPod, or other mobile device with questions on how to use it, where to find applications, or what features they have, we are always happy to help! Meet and greet and plan where this event goes. Bring all your ideas, PDAs, fancy phones, etc. (We meet on the second Wednesday of alternate months (we get the even ones), at 7:30PM). □

(Continued Below Left)

Layman’s Forum
Matt Skoda (som359@aol.com)
http://www.acgnj.org/groups/laymans.html

This SIG discusses issues of interest to novice users or those planning to get started in computing. Watch our Web page for updates and announcements. We meet at the same time as the Hardware Workshop. (On the second Monday of the month, at 8:00 PM). No meetings in July and August. □

Hardware Workshop
Mike Reagan (hardware@acgnj.org)

This group is dedicated to repairing, refurbishing and/or recycling older computers. Ten people attended the first meeting, so there is still a market for this type of event. Although we looked at some of the older equipment stored in he back room, most of our time was spent in talking about ast experiences and planning for the future. Hopefully, we can establish a viable long-term schedule of projects, and keep the interest of those who attended this inaugural meeting. If you have a hardware problem, bring it in and we can all help fix or demolish it. (No guarantees either way.) We meet at the same time as the Layman’s Forum. (On the second Monday of each month, at 8:00 PM). □

WebDev
Evan Williams (webdev@acgnj.org)

This SIG is an open forum for all Website Development techniques and technologies, to encourage study and development of web sites of all kinds. All languages will be considered and
examined. The current project is a CMS for the club. Anyone interested in starting a new project, come to the meeting and announce/explain. Provide as much detail as possible. WebDev should be an all-encompassing development and examination forum for all issues, applications, OS, languages and systems one can use to build Websites. We currently have two web development language SIGs: .NET and Java; but other languages and OS need to be investigated, examined and tested; Windows, Linux, UNIX, DEC, Vax, HP etc. Intel-PC, Motorola - MAC etc. (We meet on the second Wednesday of alternate months (we get the odd ones), at 7:30 PM).

Investment Software
Jim Cooper (jim@thecoopers.org)
http://www.acgnj.org/groups/sig_investment.html

The Investment SIG continues with presentations on how to use analysis programs TC2000 and TCNet. Large charts are presented on our pull down screen and illustrate the application of computer scans and formulas to find stocks for profitable investments. Technical analysis determines buy points, sell points and projected moves. Technical analysis can also be used on fundamentals such as earnings, sales growth, etc. We're no longer focusing on just Telechart. If you are using (or interested in) Tradestation, eSignal, VectorVest, or just in learning how to select and use chartering and technical analysis, come join us!! (We meet on the second Thursday of the month, at 8 PM).

NJ Gamers
Gregg McCarthy (greggmajestic@gmail.com)
http://www.NJGamers.com
www.lanparty.com

The Friday Night Frag starts at 6:00 PM on the second Friday of each month, and keeps going until 12 Noon on Saturday - 18 hours for 5 bucks!
BYOC - Bring your own computer.
BYOF - Bring your own food.
And if you don't like sitting on metal folding chairs...
BYO chair!

Firex
David McRitchie (firefox@acgnj.org).

This SIG is an open forum for all Firefox and Mozilla techniques and technologies, to encourage study and development of web sites of all kinds. All browsers will be considered and examined. All members and guests are invited to check out the design concepts and voice their opinion. (We meet on the third Monday of each month, at 7:30 PM).

C/C++ Programming
Bruce Arnold (barnold@ieee.org)
http://acgnj.barnold.us/index.html

This is a forum for discussion of programming in general, beginning and intermediate level C, C++, C-Win programming, hardware, algorithms, and operating systems. We demonstrate real programming in a non-intimidating way, presenting complete code for working programs in 3-5 sheets of paper. Our January 17th meeting will be a members review and questions night. (We meet on the third Tuesday of each month, at 7:30 PM). No meetings in July or August.

Beware of the Computer Gremlins!
Guru Corner

If you need help with any of the technologies listed below, you can call on the person listed. Please be considerate and call before 10 PM.

**Software**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Name</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML</td>
<td>Mike Redlich</td>
<td>908-246-0410</td>
</tr>
<tr>
<td></td>
<td>Jo-Anne Head</td>
<td>908-769-7385</td>
</tr>
<tr>
<td>ColdFusion</td>
<td>Jo-Anne Head</td>
<td>908-769-7385</td>
</tr>
<tr>
<td>CSS</td>
<td>Frank Warren</td>
<td>908-756-1681</td>
</tr>
<tr>
<td></td>
<td>Jo-Anne Head</td>
<td>908-769-7385</td>
</tr>
<tr>
<td>Java</td>
<td>Mike Redlich</td>
<td>908-246-0410</td>
</tr>
<tr>
<td>C++</td>
<td>Bruce Arnold</td>
<td>908-735-7898</td>
</tr>
<tr>
<td></td>
<td>Mike Redlich</td>
<td>908-246-0410</td>
</tr>
<tr>
<td>ASP</td>
<td>Mike Redlich</td>
<td>908-246-0410</td>
</tr>
<tr>
<td>Perl</td>
<td>John Raff</td>
<td>973-560-9070</td>
</tr>
<tr>
<td></td>
<td>Frank Warren</td>
<td>908-756-1681</td>
</tr>
<tr>
<td>XML</td>
<td>Mike Redlich</td>
<td>908-246-0410</td>
</tr>
<tr>
<td>Genealogy</td>
<td>Frank Warren</td>
<td>908-756-1681</td>
</tr>
<tr>
<td>Home Automation</td>
<td>Frank Warren</td>
<td>908-756-1681</td>
</tr>
</tbody>
</table>

**Operating Systems**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Name</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 3.1</td>
<td>Ted Martin</td>
<td>732-636-1942</td>
</tr>
</tbody>
</table>

**Discount Computer Magazine Price List**

As described by the DealsGuy

<table>
<thead>
<tr>
<th>Magazine</th>
<th>1 yr</th>
<th>2 yr</th>
<th>3 yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Games</td>
<td>$10.95</td>
<td>20.95</td>
<td>29.95</td>
</tr>
<tr>
<td>Computer Gaming World</td>
<td>14.95</td>
<td>28.95</td>
<td>41.95</td>
</tr>
<tr>
<td>Computer Shopper1</td>
<td>16.97</td>
<td>32.95</td>
<td>47.95</td>
</tr>
<tr>
<td>Dr. Dobbs Journal</td>
<td>15.95</td>
<td>30.95</td>
<td></td>
</tr>
<tr>
<td>Mac Addict</td>
<td>10.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mac Home Journal</td>
<td>15.97</td>
<td>29.97</td>
<td></td>
</tr>
<tr>
<td>Mac World</td>
<td>12.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum PC</td>
<td>9.95</td>
<td>18.95</td>
<td>27.95</td>
</tr>
<tr>
<td>Microsoft System Journal</td>
<td>21.95</td>
<td>39.95</td>
<td></td>
</tr>
<tr>
<td>PC Gamer</td>
<td>12.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC Magazine (22/44/66 Issues)</td>
<td>25.97</td>
<td>48.95</td>
<td>68.95</td>
</tr>
<tr>
<td>PC World</td>
<td>16.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wired</td>
<td>6.00</td>
<td>12.00</td>
<td>17.00</td>
</tr>
</tbody>
</table>

These prices are for new subscriptions and renewals. All orders must be accompanied by a check, cash or Money Order. Make payable to Herb Goodman, and mail to:

Herb Goodman, 8295 Sunlake Drive, Boca Raton, FL 33496

Telephone: 561-488-4465, e-mail: hgoodman@prodigy.net

Please allow 10 to 12 weeks for your magazines to start. For renewals you must supply an address label from your present subscription to insure the correct start of your renewal. As an extra service I will mail a renewal notice about 4 months prior to their expiration date. I carry more than 300 titles at excellent prices — email for prices.

---

**ACGNJ MEMBERSHIP APPLICATION**

Sign up online at www.acgnj.org/membershipApplication.html and pay dues with PayPal.

<table>
<thead>
<tr>
<th>US/CANADA</th>
<th>Dues</th>
<th>STUDENT</th>
<th>SENIOR CITIZEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>$25</td>
<td>$20</td>
<td>$20 (Over 65)</td>
</tr>
<tr>
<td>2 Years</td>
<td>$40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Years</td>
<td>$55</td>
<td></td>
<td>$45</td>
</tr>
</tbody>
</table>

Mail this application and your check to:

AMATEUR COMPUTER GROUP OF NEW JERSEY, INC., P.O. BOX 135, SCOTCH PLAINS, NJ 07076

First Name: ____________________ Last Name: ____________________ Phone: ____________________

Mailing Address: ____________________ E-Mail: ____________________

City: ____________________ State: ____________________ Zip: ____________________ URL: ____________________

What topics would you like to see covered at club meetings?

[ ] New Member [ ] Renewal [ ] Address Change

January 2012

ACGNJ

Page 15
**Other Local Computer Groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>Contact Information</th>
</tr>
</thead>
</table>

**Radio and TV Programs**

**Computer Radio Show**, WBAI 99.5 FM, NY, Wed. 8-9 p.m.

**Software Review**, The Learning Channel, Saturday 10-10:30 p.m.

**On Computers**, WCTC 1450 AM, New Brunswick, Sunday 1-4 p.m. To ask questions call (800) 677-0874.

**PC Talk**, Sunday from 8 p.m. to 10 p.m., 1210 AM Philadelphia. 1-800-876-WPEN

---

**Directions to Meetings at Scotch Plains Rescue Squad, 1916 Bartle Ave., Scotch Plains NJ**

**From New York City or Northern New Jersey**
Take Route I-9 or the Garden State Parkway to US 22 West-bound.

**From Southern New Jersey**
Take Parkway north to Exit 135 (Clark). Stay on left of ramp, follow circle under Parkway. Bear right to Central Avenue; follow to Westfield and under RR overpass. Left at light to North Avenue; follow to light in Fanwood. Right on Martine (which becomes Park Ave). Right on Bartle Ave in middle of shopping district. Scotch Plains Rescue Squad (2-story brick) is located on the right. Do not park in the row next to the building — you'll be towed.

**From I-78 (either direction)**
Take exit 41 (Scotch Plains); follow signs to US 22. Turn right at light at bottom of hill and use overpass to cross Rt. 22. Follow US 22 Westbound directions.

**From US 22 Westbound**
Exit at Park Avenue, Scotch Plains after McDonald's on the right, diagonally opposite Scotchwood Diner on the left, immediately before the overpass. After exiting, turn left at the light and use overpass to cross US 22. Bear right at bottom of ramp to continue south on Park Avenue. Turn left at the second light (a staggered intersection). Scotch Plains Rescue Squad (2-story brick) is on the right. Do not park in the row next to the building — you'll be towed. We meet on the second floor, entering by the door at the right front of the building.

**From Western New Jersey**
Take US 22 Eastbound to the Park Avenue exit. The exit is about a mile past Terrill Road and immediately past the overpass. Exit onto Park Avenue South and follow the directions above to the Rescue Squad building.