

# THE SAWDUST

NEWSLETTER OF THE CHARLOTTE WOODWORKERS ASSOCIATION, INC.

Volume 18, Issue 6

June 2011

## Newsletter

If anyone would like to contribute articles, information or provide suggestions for the newsletter, please send them to me. We need to make this a group effort.

Thanks also to Peter Stoffel, who assists with note taking at the meetings and to Tony Profera for the photos he provided : - much appreciated.

Roger Callahan ([roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net)) - Secretary



## Upcoming Learn & Build Project

by Greg Smith

### Floating Top Table



We are planning to hold a hall table build workshop on several Saturday sessions. We still have to do scheduling, but we anticipate the Saturday work sessions for participants will begin in September, and run every other week for several Saturdays. We are working with the Woodworking Source to sell kits for this project (more info next month). Or, you can bring your own wood using the following list (dark color for top and lighter color for base works best):

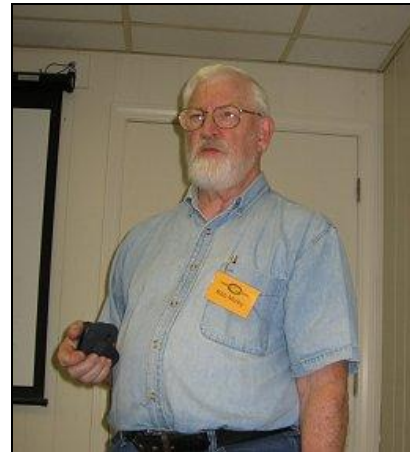
Legs (4): 1 7/8" square x 28" long, Aprons: (2) Front/back: 3/4" x 3 1/8" x 35 1/2", (2) Left/right sides: 3/4" x 3 1/8" x 11", (2) Cross braces: 3/4" x 3 3/8" x 11", Top (1): 3/4" x 14 1/4" x 39 1/2".

See or contact Greg Smith (email: [elgrego7@yahoo.com](mailto:elgrego7@yahoo.com)) to let him know that you want to participate in his project.



## Dust Collection 101

Bob Molby at the June meeting provided a detail presentation using PowerPoint about his opinions, research and understanding about various aspects of dust collection and how he has his shop configured. Bob is a retired engineer and has been in the Charlotte area for the last five years. He started woodworking in 1971.



- What is dust: - falls into 3 categories;
  - Shavings & Chips
    - Chisel, planer, jointer, hand plane, lathe, etc.
  - Easy to collect and control. Just sweep them up.
  - Need power and high air velocity to contain.
- Saw dust
  - Comes from table saw, band saw, radial arm saw, etc.
  - Drops to the floor
  - Easy to capture – if maintain air velocity
- Dust
  - 100 microns and smaller
  - All of the above operations make this- even hand tools
  - Airborne and difficult to contain
  - This is the stuff you see when the sunlight shines in the window of the shop
  - And air movement/ventilation keeps it in the air
  - Static keeps it in the air
  - Need large air volume, collector design important.
  - Health hazard.

(cont'd on page 4)

## CALENDAR OF EVENTS

### July 19: CHARLOTTE WOODWORKERS ASSOCIATION, INC. MEETING - 6:30pm

Will be a discussion on various new Freud Router Bits and Blades items available.

**Note:** Bring 'show and tell' - recent projects, items, etc. to share with members prior to the meeting. (Meet & Greet, and social begins at 5:30 pm.)

### August 16: CHARLOTTE WOODWORKERS ASSOCIATION, INC. MEETING - 6:30pm .

Dave Powles will discuss the Easy Wood Tools, lathe tools to make it easier for woodworkers to use their lathes.

-####-

### WOODCRAFT STORE IN CHARLOTTE UPCOMING CLASSES - See: Woodcraft of Charlotte Website at:

<http://www.woodcraft.com/stores/store.aspx?id=507&page=classes>

Carve a Stylized Duck	Thursday, July 07, 6:00 PM - 9:00
Table Saw Use & Safety	Thursday, July 14, 6:00 PM - 9:00 PM
Cabinet Case Construction	Saturday, July 16, 9:30 AM - 12:30 PM
Raised Panel Door Construction	Saturday, July 16, 1:30 PM - 4:30 PM
Bowl Turning	Sunday, July 17, 12:30 PM - 4:30 PM
Introduction To Scroll Saw: Hummingbird Plaque	Thursday, July 21, 6:00 PM - 9:00 PM
Kaleidoscope	Saturday, July 23, 9:30 AM - 4:30 PM
Basic Lathe - Full Day	Saturday, July 30, 9:30 AM - 4:30 PM
Carving Basics: Ball In A Cage	Thursday, August 04, 6:00 PM - 9:00 PM

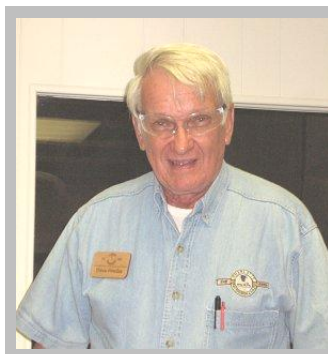


### Treasurer's Report: as of 5/31/11

Opening balance	2807.90
Deposits	257.00
Checks	40.91
Closing balance	3023.99



## June Meeting Kickoff and Other Items from the Woodpile



Dave Powles kicked off the June meeting in Mike Smith's absence; as Mike was on vacation.

- Patrick Smith is working on a 'mobile' library book case for our DVD, books, etc.
- Allen Grayson is working arrangements for a tour of Whiteside Machine Company, 4506 Shook Road Claremont, NC. Whiteside is a manufacture of router bits. Look for emails from Allen through the Google group for more information.
- Each Monday night woodworking and assistance is done for JPM and members at JPM. Everyone is invited. Starts about 5:30pm and ends about 8:00pm. Be sure you have signed the CWA, Inc. release waiver form.
- Charlotte Woodworkers Association has a cash payment account at Grainger's in Charlotte. Grainger is an industrial supply house. Be sure your name is on the purchase order.
- Bruce Bogust discussed CWA's participation in "Mathews Alive" (see [www.mathewsalive.org](http://www.mathewsalive.org)) event during the Labor Day weekend. We will have a room for displaying projects and doing some "non-power" tool demonstrations. Volunteers are needed for this three day event to man the booth and do demonstrations. See or contact Bruce. Thursday is the setup day and the room is to be manned by CWA Saturday thru Monday (3-5 Sept).
- September presentation will be a roundtable discussion of "small shops". Dave also mentioned there will be a finishing series of presentations at CWA monthly meeting beginning likely in November.
- Also, planning for some box building "learn and build project" this fall. Stay tuned.



## SHOW & TELL

'Show & Tell' at the June meeting included:

### ❖ **Small Box with a Floating Lid - Dave Powles**

Box is cherry with various inlays with a floating top".  
Inlay material from Dover Inlay. Still to be finished.



### ❖ **"Nostepinde" or "Nest Sticks" - Bruce Bogust**

Turned these nest sticks, which are used to wrap yarn and make balls of yarn. One is made of Brazilian cherry.



### ❖ **Mantle Clock - Roger Callahan**

Wedding gift clock made of mahogany with German Hermle chiming mechanical movement.



### ❖ **Mantle Clock - Greg Smith**

Made following the talks by "Fred Miller". Made of tiger maple with colonial maple finish.



## Dust Collection 101

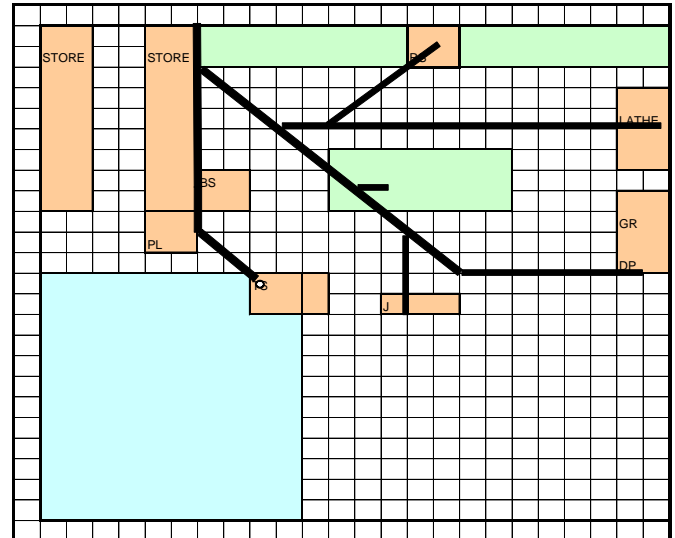
(continued from page 1)

- Why collect?
  - Housekeeping
    - Cleanliness next to godliness
    - Safety
      - Slip hazard
      - Fire hazard
  - Proper Machine operation
    - Clean the dust out of the stops, etc.
  - Health
- The Health Hazard
  - Fibrosis which comes from long term exposure to very fine dust particles.
  - Similar to asbestos and fiberglass inhalation
- How to collect.
  - Broom and shovel
  - Shop Vac
  - Bag System
  - Cyclone Collector – my choice.

### My Cyclone Collector

- First: Shop Layout – detached two car garage
- Second: Dust Collection Design
  - Requirements
    - Collect the dust, obviously
    - Central System: - Didn't want to move casters from machine to machine
    - DIY (Do It Yourself) compatible. Didn't want to pay someone to install it.
  - Cyclone – Which one to choose?
    - Oneida, Grizzly, Penn State, or ClearVue
    - Went with ClearVue - had good technical information.
  - Collection System Ductwork
    - Layout
    - Design
      - CFM requirements (Cubic Feet per Minute)
      - The Airflow at a velocity
      - 4,000 FPM (Feet Per Minute) is the agreed standard. Less than that and the particles will drop out in the duct work.
    - FPM Requirements
    - DP Limitations (Differential pressure)
      - Resistance of your ductwork to the airflow
      - Each type has its own resistance.
      - Each component has a resistance: elbows, 45's, etc...
    - Blowers are designed to be High flow /low pressure.
    - Fan Curve
    - Ductwork Design
      - Picked Bull Pentz as an expert and ClearVue as the vendor for design help.

## Shop Ductwork Design



### View to the left just inside the door.



- System chosen:
  - 5HP ClearVue
  - PVC S&D (soil and drain) PVC 6" Pipe as the central line.
  - Hook two 4" pipes to the top and bottom of the band saw.
    - Two 4 inch pipes is smaller than one 6" main line!
  - Pipe sizing recommended by Ed Morgano and Bill Pentz
  - The pipes are not glued together. Losing one CFM is no big deal.
    - Just held with a screw to stop vibration from pulling them apart
    - Not even duct taped.

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### Best Quote of Last Few Months

*"I could replace everything in my shop for the price of a Harley!"*  
**Bob Molby** (Commenting on the cost of other hobbies or grownup's toys.)

## Dust Collection 101

(continued from page 4)

### Bob selected the ClearVue Cyclone System



For noise abatement, he has it in a insulated separate room.

- The Reality
  - What I really do
  - Main line across the ceiling
  - Drops to the tools. Some 6" and others 4"
  - Temporary connections for smaller tools may get sized down to 2"
    - You are starving the line of air but it still works.
  - Floor sweep
  - 4" connection for the table saw
    - No cover for the saw back where the motor is
  - Band saw
    - 6" standard band saw connection
    - Doesn't catch table top dust
    - Re-sawing causes a lot of table top dust.
  - Planer
    - 4" connection direct to 6" main line
    - This is the only place in my shop where I get static.
    - Grounded it out and no longer have a problem.
  - My Dust Collector (see photo above)
    - Cyclone and filters
    - Filters are 300 square feet each and are rated for .5 micron.
    - Dust drops into 30 gallon trash can
  - Air filter ( see picture to the right)
    - Filters the breathing air

What I should do.

- Consequences
  - Static electricity
  - Dust transport in PVC does generate static electricity and can cause minor shocks.
  - There is not enough energy to ignite the dust.
  - NFPA code requirements is for air flow of 1,500 CFM to be in metal ducts. That is a high CFM that my shop does not get close to. Max is 1,000 CFM.
- Suggested Reference Sources
  - Book: Wood shop dust control by Sandor Nagyszalanczy
    - The second version is the better one.
  - BillPentz.Com web site.
    - Lots of technical information
  - ClearVueCyclones.Com
    - Lists all of the medical articles that talk about the danger of dust
  - Manufacturers web sites
    - Take these with a grain of salt.
    - Oneida, Grizzly, Penn State

Noise

- The specifications are 78 db at 10 feet
- If your shop is only 20 feet wide...
- A 3 db difference is a DOUBLING of the sound pressure.
- The noise comes from the AIRFLOW!
  - At elbows and transitions if makes a lot of noise!
  - The air coming out of the filters makes a lot of noise
  - The pickup connections at the table saw and planer are very loud
- By enclosing the cyclone it got much quieter.
- Do it all over again I would install it outside:
  - When it is warm outside I would just vent it outside
  - When it is cold out I would bring the air back inside.

### Ceiling mounted air filter. .5 um



(cont'd on page 6)

## Dust Collection 101

(continued from page 5)

### Some reference material:

**Static Electricity:** First, if you like to read, go here: [http://mywebpages.comcast.net/rodec/woodworking/articles/DC\\_myths.html](http://mywebpages.comcast.net/rodec/woodworking/articles/DC_myths.html). This is an article by Dr Rod Cole that discusses the myths surrounding static electricity and PVC pipe.

- From my research:
  - Dust transport in PVC does generate static electricity and can cause an irritating shock
  - There is not enough energy to ignite the dust
  - The NFPA code requirement is for air flow of 1500 CFM

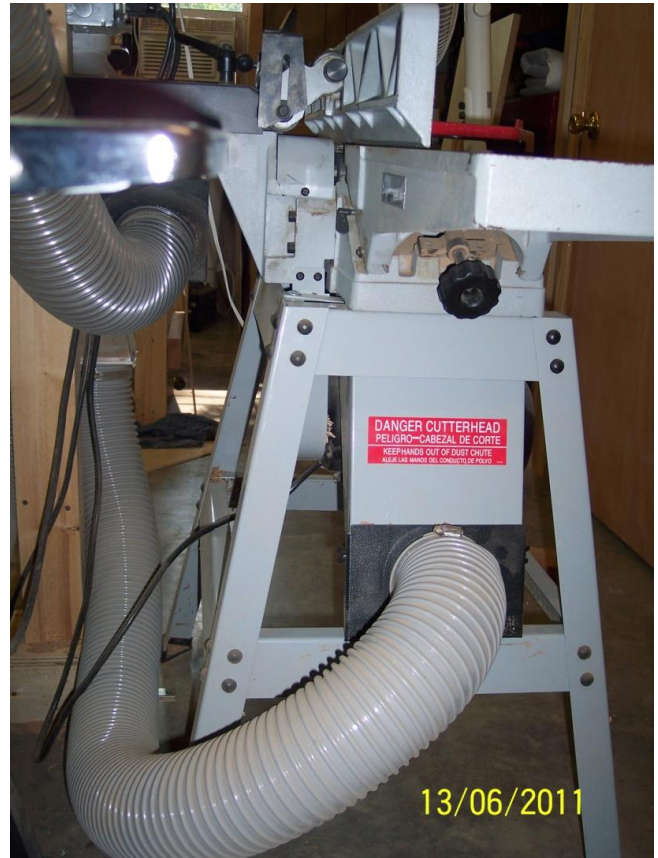
**Jointer and band saw share a 6" main line connection.**  
**There is plenty of air, but the band saw needs table top collection**



**Router table has 4" connection to 6" main, works well for operations on board edges**



**6" jointer, with 4" flex tubing to 6" main line**



**Radial arm saw, 6" line direct to cyclone. Works well.**



*Thanks Bob for great presentation and very useful information.*

## Boy Scouts of America

### *Woodworking Merit Badge:*

Scouts working on some merit badges at JPM and working projects typically on Monday evenings.

### *Explorers Post:*

We have had keen interest from area Scouts. An Explorer Post (A co-ed teenage division of Boy Scouts for 14 - 21 year olds) has been exploring a variety of areas of wood working in the broadest sense including framing, cabinet making, furniture making, wood turning, etc. They' meet at JPM generally meet once a month on the 3rd Saturday of the month.

Post members that want to also join CWA get a student membership rate of \$15/ year.



## JPM Shop Use

Any current CWA member who would like to use the shop is welcome to do so! All that is needed is to schedule the time! If you have something specific you need to do and you need our tools or a bigger shop to work in, please do so!

To use the shop contact Jim Emery at:

[JimE@JacksonPark.Org](mailto:JimE@JacksonPark.Org).



**The CWA meeting raffle** could benefit from your donation. If you have any tools (old or new) or shop supplies you would like to donate to be raffled, please bring them to the meeting and let Mike Smith know.



## SHOP TOURS

Mike Smith organizes club membership shop tours. The goal is to have shop tours scheduled that are in the same general geographic area to reduce the distances traveled between shops and permit time to adequately tour several shops in a day.

Please sign up even if you don't have a fancy shop

If you would like to put your shop on the shop tour list, please contact Mike at:

[mikececilsmith@carolina.rr.com](mailto:mikececilsmith@carolina.rr.com)

Note: all shop tours are for active CWA members only. Please refrain from bringing guests, family members, friends, dogs etc...

Once enough shops are committed a date will be set.



## CWA Google Groups

**There is a new method for CWA membership to communicate!**

With a single email we can let you know what's happening. You can also view all the 2009 published club newsletters.

**Note: You Can Join This Group on Your Own!** To join:

Paste the entire line below in your web browser's address bar

<http://groups.google.com/group/charlotte-woodworkers>

- Hit "enter", Click the link "Join this Group" (on the right).
- Create a Google account if necessary (all they want is an email address and password). Please save your password in a secure place for future use.
- Once "signed in" select the radio button "Email" at the bottom and enter a nickname.
- Send an email out to the group to introduce yourself!
- Use "charlotte-woodworkers@googlegroups.com" as the "send to" in any email communication to all members of the group.



## CWA MEETING PRESENTERS

All members are asked to keep an eye out for anyone that might make be a suitable program presenter for our CWA club meetings. Who knows, it might even be you!

### Recent presentations have included:

- Dulcimer making
- Shaker Table Build Workshop
- Wheel making
- Windsor chair making
- Spoon Carving
- Fitting a Drawer
- Power Carving
- Bandsaw Boxes
- Hide Glue
- Tuning up a Wide Board
- Workbenches
- Intarsia Lidded Wood Boxes
- Turning a Peppermill
- Using SketchUp
- Log Cabin Building
- Cutting Ogee Style Feet on a Bandsaw
- Building a Mantle Clock
- Tools and Changes in the Industry
- Workshop Design

**If you know of someone with a woodworking skill that could be of interest please contact Dave Powles at: (704) 506-0403.**

**REMEMBER TO BRING A PROJECT FOR  
SHOW AND TELL**

## Boy Scout Woodworking Merit Badge

JPM has been holding shop sessions for 20 Boy Scouts to work towards receiving a woodworking merit badge.

Jim Emery will be looking for volunteers from CWA membership to assist with Saturday workshops, as another session will be offered in 2011. Workshop sessions are anticipated to be held as morning and afternoon sessions.

This is an outstanding way to introduce young people to woodworking. With many school shop programs being phased out this may be the only contact our youth have to a woodshop and the craft of woodworking.

If you would like to put your name on that list to help or would like to find out more please contact Fred Miller at: [fredmiller2@gmail.com](mailto:fredmiller2@gmail.com).

Watch for additional information to be published to the CWA Google group.

### Regular CWA Meeting Time and Place

Meetings of the Charlotte Woodworkers Association, Inc are held the third Tuesday of each month, except for December. Meetings are held at Jackson Park Ministries Woodshop at Sentry Post Drive, Charlotte, NC.

Please check the web site

([www.charlottewoodworkers.org](http://www.charlottewoodworkers.org)) for directions.

Note: you may see construction on Sentry Post Drive as they have been working the area of late.

A social and refreshment time starts at 5:30pm; our meeting starts at 6:30pm. Come to the meeting early and get to know your fellow woodworking enthusiasts!

## *The CWA Library*

Books and DVDs are available from the CWA library for a buck a month. Contact Maurice Blackburn at [MBlackburn1@Carolina.RR.Com](mailto:MBlackburn1@Carolina.RR.Com)

Also, please help your fellow woodworker and make your club newsletter even better by contributing a short book review.

Remember, your review is redeemable for a free DVD rental from the CWA library!  
Send your book review to Roger Callahan ([roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net))



## **The Classified Section**

No items.

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This space is reserved for classified ads! If you have any woodworking or related items for sale that you think would be of interest to the membership please contact: Roger Callahan ([roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net)) Include a complete description of the items(s) and a picture or 2 (if possible).

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Also, check the bulletin board at JPM as other items may be posted there.



## 2011 CWA Officers



Mike Smith  
President  
704-535-4497  
[mikececilsmith@carolina.rr.com](mailto:mikececilsmith@carolina.rr.com)



David Powles  
Vice President, in-charge of programming  
(704) 506-0403  
Sorry, no e-mail available



Fred Miller  
Treasurer  
(704) 650-8520  
[fredmiller2@gmail.com](mailto:fredmiller2@gmail.com)



Roger Callahan  
(704) 236-2385  
Secretary  
[roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net)



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CWA Librarian  
Maurice Blackburn  
(704) 394-8780  
[MBlackburn1@Carolina.RR.Com](mailto:MBlackburn1@Carolina.RR.Com)



# Directions to Jackson Park Ministries



From the intersection of I-85 and Billy Graham Parkway:

- 1.) Take Billy Graham Parkway South.
- 2.) Turn Right on Paul Brown Blvd / West Blvd. (this will be after the main entrance to the airport)
- 3.) Turn Right on Airport Drive.
- 4.) First left on Sentry Post Drive.
- 5.) At the end of Sentry Post Drive there is driveway on the left. Enter here. Using the photo above, drive down the driveway and around to the warehouse with the “x” on the top.

From the intersection of South Tryon Street and Billy Graham Parkway (where Woodlawn turns in to Billy Graham). Also exit 6 from I-77.):

- 1.) Take Billy Graham Parkway North.
- 2.) Turn Left on Paul Brown Blvd / West Blvd. (this will be at the light after the Tyvola Road exit)
- 3.) Follow from Step 3 above...

## CWA FRIENDS AND SPONSORS

*Please thank them every time you use their services.*

### Woodcraft

1725 Windsor Square Drive  
Matthews, NC 28105  
(704) 847-8300  
[Charlotte Store](#)

### WHOLESALE TOOLS

4200 Barringer Drive  
Charlotte NC 28217  
1-800-438-3580 (Service)  
[www.wttool.com](http://www.wttool.com)  
5% - 20% discount with current membership card.

### Klingspor's Woodworking Shop

[www.woodworkingshop.com](http://www.woodworkingshop.com)  
800-288-0000

### Irwin Tools

<http://www.irwin.com/>

### FARRIS BELT & SAW

235 Foster Ave.  
Charlotte, NC 28203  
[www.farrisbelt.com](http://www.farrisbelt.com)  
704-527-6166  
complete sharpening services and abrasives

### Horizon Forest Products

Greenville, S.C.  
<http://www.horizonforest.com/>  
Local Charlotte Salesman Chad Mitchell, 704-401-6426

### The Woodworking Source

184 Azalea Road  
 Mooresville, NC  
<http://www.thewoodworkingsource.com>  
Phone: 704-662-9663

### Whiteside Machine Company

4506 Shook Road  
Claremont, NC  
<http://www.whitesiderouterbits.com>  
Phone: 828-459-2141



## CWA MENTOR PROGRAM

The following members have offered their help to anyone interested in learning skills or new techniques in their area of interest. Contact each person to arrange times to get together if interested.

Wayne Manahan  
Sharpening  
704.786.0768  
[wmanahan@vnet.net](mailto:wmanahan@vnet.net)

If you are willing to mentor new woodworkers please let us know. Thank you!



*"I have a lightning hammer –never strikes the same place twice.*

*-John Leake*

Roger Callahan  
3334 Whistley Green Dr.  
Charlotte, NC 28269

BUILD RATE  
US POSTAGE  
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PERMIT NO.  
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ADDRESS CORRECTION REQUESTED

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