

Wing Tips

January 2014

THE NEWSLETTER OF THE MID-HUDSON MODELMASTERS

Editor: Domenick Fusca, PO Box 266, Pleasant Valley, NY 12569-0266

Email: wingtips@modelmasters.us

Website: <http://www.Modelmasters.us>

2013 Club Officers

President: Bob Santoro

Vice President: Ron Irvin

Secretary: John Knight

Treasurer: Tom Eng

Sgt. at Arms: Flavio Ambrosini

Junior VP: Tyler Irvin

CLUB CALENDAR

Coming Up:

- **Sunday, January 12: - INDOOR FLY SESSION**, Senate Gym, SUNY Ulster, 1:00pm – 5:00pm.
Note: Sneakers or other gym floor footwear should be worn
- **Thursday, January 16: – MONTHLY MEETING**, Highland Middle School Gym, 71 Main St., Highland, NY 12528, 6:30pm to 9:30pm. Indoor flying, and a short meeting will begin at 7:30pm. Club officers will be elected. If you are unable to attend you may still vote by proxy. *Note: Please limit flying to indoor types -- fly the larger, more aggressive models outdoors or at larger indoor sites. Sneakers or other gym floor type footwear should be worn.*
- **Friday, January 24: – ANNUAL DINNER, GIFT EXCHANGE and AUCTION**, Coppola's Restaurant, 4167 Albany Post Rd, Hyde Park, NY 12538, 6:00pm. RSVP to Bob Santoro was due Jan. 10. There may still be time to join us, but you need to contact Bob quickly.
- **Friday, February 21 – Sunday February 23 – 46th ANNUAL WRAM SHOW**, Meadowlands Exposition Center in New Jersey. For advance tickets see article below. For more information about the show go to <http://www.wram.org>

Regular Events:

- **OUTDOOR FLYING SESSIONS AT WEST ROAD FIELD** - Every Saturday Morning, weather permitting. Charge your batteries and let's fly! As of Thursday, January 9, the West Rd. field is accessible for flying. Field condition and accessibility updates will be provided via email as the information is obtained.
- **INDOOR FLYING SESSIONS AT SENATE GYM, SUNY Ulster:** Following is the approved list of dates and times for indoor flying. *NOTE: sneakers or other gym floor type footwear should be worn.*

January 12, 2014	1:00 PM – 5:00 PM
February 9, 2014	1:00 PM – 5:00 PM
March 9, 2014	1:00 PM – 5:00 PM

April 13, 2014 1:00 PM – 5:00 PM
May 11, 2014 1:00 PM – 5:00 PM

- **MONTHLY WINTER CLUB MEETINGS AT HIGHLAND MIDDLE SCHOOL:** Upcoming club meetings and flying sessions at will be held at Highland Middle School, dates are: 1/16/14, 2/13/14, 3/14/14, 4/11/14, 5/9/14, 6/13/14. **NOTE: Jan & Feb. mtgs are on Thursdays, all other mtgs, Friday.**

CLUB OFFICER ELECTIONS – JANUARY MEETING

Club officers will be elected at the January 16 meeting. The current nominees are the current officers. Additional nominees will be accepted at the meeting, up until the voting begins.

2014 MEMBERSHIP DEADLINE

Thank You to all those who have renewed their club and AMA memberships! If you have not yet renewed your 2014 Modelmaster membership, it would be very much appreciated if you would send it. Your prompt attention to this will reduce club treasurer, secretary and Wing Tips editor effort in maintaining club records and the printing and distribution of membership cards. As a reminder, you must also renew your AMA membership to be able to fly at the club field and club indoor flying events.

2014 WRAM SHOW: ADVANCED PURCHASE TICKETS

The 46th Annual WRAM Show will be February 21-23, 2014 at the Meadowlands Exposition Center in New Jersey and opens daily at 10 am. For more information please go to <http://www.wram.org>. As last year, I will organize a group sale order for tickets. A minimum of 10 tickets must be ordered to qualify for advance group sales. Purchasing your ticket in advance will allow you to go directly to the show entrance and avoid any line at the ticket window. Ticket window daily rates are \$12.00 per adult, and \$3 for children (the website does not define an age). Children under age 6 are admitted free, and on Sunday, 12 and under are admitted free. The advance group sale tickets are \$10 each person for 1 day (\$10 for each day you plan to attend). I will be collecting for those tickets now through January 13. If you are interested please contact me, Domenick Fusca before January 13 (wingtips@modelmasters.us, phone # at top of Wing Tips). I do have the minimum of 10, and will be obtaining the tickets to be distributed at the dinner.

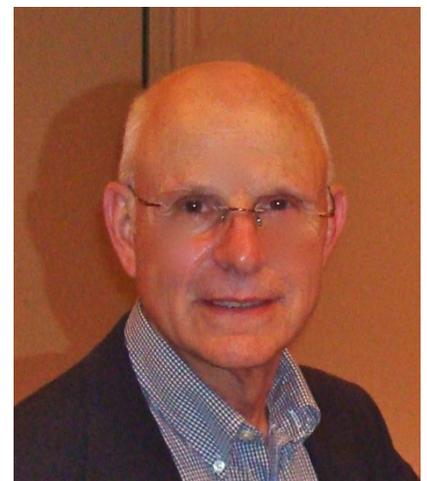
FROM THE PRESIDENT'S COCKPIT

I wish to extend my best wishes to all members and their families for a New Year filled with joy, good health and peace.

2013 was a very busy year filled with activities, workshops, community participation and field improvement.

The year began with long time member, Jesse Aronstein, being honored at our annual dinner/auction as he received the District II AMA Service Award for distinguished service. National Vice President, Eric Williams, presented the award to Jesse.

There was increased interest and participation in indoor flying both at our monthly meetings and at Ulster County Community College throughout the winter months. The snow and cold weather however did not stop members from flying at our West Road Field. Thankfully, Brad Quick plowed the driveway and runway several times which made this possible.



Quadcopters began getting very popular and to help us understand this new aircraft and its technology Brad Quick did a dynamic PowerPoint presentation at our March meeting. It was well attended and included a lot of displays. In July, Brad conducted a building workshop at his home where eight members built GPS equipped quadcopters.

We did a good deal of community service in the Spring and Fall. Lloyd Quick provided an RC 101 for Mike Watts, aviation club advisor at the Highland School. In June our club participated in Staatsburg Day where computers were used for simulation programs and flying demonstrations were conducted. In September provided a similar program for Pleasant Valley Days.

In August we had our 3rd annual picnic that had record attendance. The weather was perfect for flying, the food was delicious and Brad did a super job of developing fun and unique competitions. The fall welcomed new junior member to the club. It is always encouraging to be able to welcome young flyers into the fold.

The field is in the best shape ever. Regular mowing by Lloyd and Les has transformed the field from a briar patch to what looks like a maintained park. Les recently moved to Arizona. We will miss him. We have improved drainage and an expanded parking lot due to the excavation work done by Ron Irvin and his sons Jarred, Tyler and Caleb. Nick Batson and his wife celebrated the birth of new baby. Dom Fusca stepped up to take over the newsletter giving Nick the opportunity to be focused on his new role in fatherhood. We are very grateful for all the time and effort these members have contributed.

It was also a year we were touched by sadness with the loss of one of our members. In November we experienced the loss of George Buso, a well-known and respected member of the R/C community. George was a very accomplished flyer, competing at the international level and was a highly skilled model builder. He served as a judge at international competitions. George was a great contributor to our hobby and will be missed.

We begin 2014 with the hope and expectation that it will be as much fun and exciting as 2013. With all of our continued interest, help, and participation it should be a great year. I hope to see many of you at our dinner/auction on the 24th. I can promise you great food, a fun gift exchange and a lively auction.

Remember... "It's not about what we fly, it's about the people and the friends we make" (Eric Williams)

Build Straight, Fly Safely, Have Fun,

Bob

EDITORS CORNER

Thank You Nick for your editing during the past year. I will do my best to maintain the newsletter as you have. Next month publishing deadline is February 6. Send your submissions to wingtips@modelmasters.us. Please indicate in your email that this is an item for Wing Tips. Also it is most helpful to me if you are providing a URL for an interesting item or product, please include a sentence or two in your email as a description of the URL contents. Wing Tips (with addresses and phone numbers removed) is also available for the club website. There you will also find previous copies.



MEETING MINUTES - 12/13/2013

- The meeting was called to order at 7:35 PM
- The minutes of the November meeting were voted on and accepted
- In Tom's absence Bob gave the financial report. There is \$908.79 in the treasury. There was expense of \$146.00 for the cost of the website

- Lacking a quorum, the election of officers had to be postponed until January
- Bob announced that Dom Fusca will be taking over as editor of Wingtips and expressed thanks to Nick Batson for having done a great job in 2013
- Brad Quick addressed the concerns flying quadcopters and indicated that he would write an instructional article for Wingtips
- Bob gave a holiday party update indicating the event would be held at Coppola's restaurant in Hyde Park on Friday, January 24th
- Bob related Dom Fusca's interest in obtaining discounted WRAM tickets for \$10.00. He would need to purchase a minimum of 10 tickets to obtain the discount.
- Bob reminded everyone that Club memberships need to be renewed and that 2014 AMA renewal was required to maintain flying privileges.
- Show & Tell-Dillon showed his 2-way radio system that may be used at the field; Bob DiGiacomio showed his \$39.00 mini-quadcopter; Jer described a sticker system for making labels on an inkjet printer, Brad showed his new foam construction mini Fokker Dr1 triplane; Jonathan Elie showed his partially constructed F4F Wildcat WWII plane
- New prospective junior member C.J. Nuting (spelling ?) was introduced by Cameron Masker
- Next meeting on Thursday, January 16th was announced
- Meeting adjourned at 8:15 PM

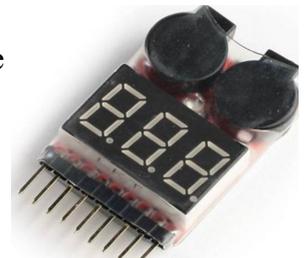
Respectfully submitted,
Bob Santoro for J. Knight

INTERESTING STUFF

Lloyd Quick: Check your batteries after flying to be sure they are above 3.7 volts per cell resting voltage to maximize your battery life. This unit shows each cell voltage and sounds an alarm if any cell is too low. See specifications.

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=400471831126> \$2.17 and Free shipping.

Or from the USA:<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=310802824833> \$3.68 and Free shipping.



Dillon Losee: FPV camera review https://www.youtube.com/watch?v=wdqsCIsJyUU&feature=youtube_gdata_player

Bill Bolitho: Something New in Multi Quadcopters, <http://articles.sae.org/12585/>

Craig Domanos, owner of Hobby House on South Road in Poughkeepsie will match Horizon Hobby Prices. In addition to a matched price, keep in mind that you will not pay shipping charges. Horizon Hobby does charge for shipping for orders under \$99.00. Our Club welcomes this offer as we believe we should make every effort to support our local hobby shops.

QUADCOPTER ADVISE by Brad Quick

Quadcopters - What's Next?

OK, we've gotten past step one. A number of members participated in the quadcopter seminar and came away with flying quadcopters. Since then, we've done lots of experimenting, hovering, and flying away out of control.

Those of us who have flown helicopters have found the transition to quadcopters an easy one. Quadcopters fly a lot like helicopters, but the fact that they self stabilize makes them even easier to fly. For those who have only flown airplanes, the fact that quadcopters self stabilize makes them easier to fly out of site!

I think we can look to helicopters for direction in how to learn to fly quadcopters. One advantage to helicopters and quadcopters over airplanes is that pilots can more easily teach themselves to fly. Flights can last as little as a couple of seconds.

The first step in learning to fly a helicopter is to learn to hover. This should also be our first step. Hovering is easier on a quadcopter because of the stabilization, but we shouldn't take this step for granted. It takes a lot of practice to be able to keep the quad within a 20' area for the duration of a whole battery pack. The pilot needs to become comfortable with pitch and roll control and how they work. He should be able to hover for a whole battery and land exactly where he wants to land. During this process, he will also be concentrating on yaw control. During the first stages, he will make sure that the quad is always yawed such that the front of the quad is pointing away from him. This makes roll and pitch controls more intuitive.

This first step may sound simple, but it's more difficult that you might think. It's a lot like learning 3D airplane flight because you need to be comfortable with adjusting four channels all at once. This first stage should be practiced until throttle control and yaw control become completely intuitive and roll and pitch control are mastered to the point where the pilot can move the quad back and forth and spot land at will.

The second step requires more hovering, but instead of the tail pointing toward the pilot, the side of the quad is toward the pilot (side in hovering.) First one side, then the other. The pilot needs to do this until he's comfortable doing all of the things he was able to do with tail in.

The third step is nose in hover. This may sound easy, but it's not. You will consistently move the sticks in the wrong direction, but eventually you'll learn to correct your error before you have to put the quad down.

All of the above procedures should be done close to the ground (10 feet or less.) If something goes wrong, let go of the right stick and cut the throttle. Then start over. Those of us who have flown helicopters spent many battery packs learning these basic skills. If you don't learn these skills with a helicopter, you will instantly break it into pieces, so you are forced to learn slowly. Quadcopters are so easy to hover that they lull you into a false sense of security, but these skills are just as important on a quadcopter, as we've all been learning. An added benefit to all of this practice is that it will make us better airplane pilots as well.

Once hovering at all angles is mastered, the next step is to do slow circles, followed by slow figure eights. These can be followed by faster circles and figure eights. I've learned that these skills are important to master before you attempt to fly at further distances because the best way to recover a quad that's flown too far away is to fly it in forward flight, otherwise it's too difficult to determine orientation.

The small toy quads that we fly in the gym are good for learning these skills. They fly like the bigger quads, but tend to bounce off the ground better. If you want a full featured indoor quad, look at the Pocket Quad from Hobby King.

The bottom line? Practice, practice, practice!

ANNUAL DINNER: GIFT EXCHANGE by Lloyd Quick

If you would like to participate, bring a gift (no more than about \$10 value), place it on the table and take a ticket. Keep half the ticket and put the mating ticket in the bowl.

1. When the exchange activity starts, a ticket will be drawn from the bowl.
2. If your number is called, take a gift from the table and unwrap it for all to see.
3. The first person "temporarily" keeps his gift and picks a ticket from the bowl for the next person.
4. The next person takes a gift from the table, unwraps it and then **MUST** exchange it for a previously opened gift. (You are not allowed to keep the gift you opened)
5. After the exchange, pick a ticket from the bowl for the next person.

6. Steps 4 and 5 repeats until all gifts have been opened.
7. Finally, the first person MUST then exchange his "current" gift for any other gift. (He/she cannot keep the gift they end up with at this point).

ANNUAL DINNER: AUCTION by Dom Fusca

January 24 will be our Model Master Dinner and Auction. The auction is the one time a year you can spend your Model Master dollars. Model Master Dollars (MMD) are earned by members by participating in, volunteering and organizing club events. For example, when you attend a Model Master meeting you receive dollars. The complete list of MMD rewards can be found on the club website, RULES section. Below is a partial list of items which will be auctioned. There is a wide variety. Good luck during the auction.

- Quick Cure 5 min. Epoxy
- Insta-Cure gap filling CA
- Ball end 6 piece metric allen wrench set
- X-acto knife
- (2) Hobby House \$10 gift certificate (auctioned individually)
- OrangeRx R620 Spektrum/JR DSM2 Compatible Full Range 6Ch 2.4Ghz Receiver w/Failsafe
- Turnigy 2730 Brushless Motor 1500kv
- HobbyKing 2612 Brushless Outrunner 1900KV
- (3) HKSCM12-6 Single Chip Digital Servo (6V) 12g / 1.7kg / 0.16s
- (3) HXT900 9g / 1.6kg / .12sec Micro Servo
- TURNIGY Plush 12amp (2A BEC) BESC
- HobbyKing 12A BlueSeries Brushless Speed Controller
- HobbyKing 30A BlueSeries Brushless Speed Controller
- hexTronik 2 gram Brushless Outrunner 7700kv
- TGY DP 3A 1S 1g Brushless Speed Controller
- Turnigy 500mAh 3S 20C Lipo Pack (#1)
- Turnigy 500mAh 3S 20C Lipo Pack (#2)
- GWS EP Propeller (DD-9050 229x127mm) orange (6pcs/set)
- GWS EP Propeller (DD-1060 254x152mm) green (6pcs/set)
- LED Strip / JST Connector 200mm (Red) & LED Strip / JST Connector 200mm (Green)
- Turnigy 2200mAh 3S 25C Lipo Pack (#1)
- Turnigy 2200mAh 3S 25C Lipo Pack (#2)
- Dr Mad Thrust Machine Gun Effect Sound Unit w/Speaker
- Mr Grippy Soldering Jig
- Counter Rotating Three Blade 8x4.5 Propeller - Red & Green (2 pairs each color))
- GWS EP Propeller (DD-1170 279X178mm) Green (6pcs/set)
- Signal loss Alarm & Lost Plane Finder
- (2) Turnigy MG90S Metal Gear Servo 1.8kg / 13.4g / 0.10sec
- HobbyKing Cell Key - 6s Lipoly Cell checker
- Turnigy 1300mAh 2S 20C Lipo Pack
- FC 28-22 Brushless Outrunner 1200kv
- Twisted Hobbies \$15 gift certificate
- (2) WRAM Show Tickets (auctioned individually)
- Tower Hobbies \$15 gift certificate

THE PHILMONT PHLYER by Jesse Aronstein

Model Building on the Trail at Philmont Boy Scout Ranch! Design, Photos, and Plans by David Aronstein

Article by Jesse Aronstein (for the EPA and Modelmasters Newsletters). In early summer 2012 Dave and Jesse Aronstein (son and grandson, respectively) and their Boy Scout Troop completed a 12-day 70+ mile hike at the Philmont Boy Scout Ranch. Dave's method for producing models in the face of pressing demands for his time by job, family, home maintenance, and modern life in general is to "always leave something drying". He took that approach on the trail at Philmont. Having packed a small box with the requisite materials, Dave

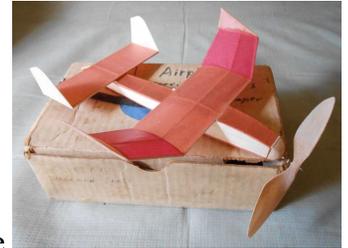


Dave on the Trail at His "Workbench"



The Finished Model Breaks Down to Fit in the Box

managed to design, build, and fly this nice little back-packable rubber powered free flight model - the "Philmont Phlyer" - while on the trail. This past December, when I visited Dave and his family in Wichita, Kansas (he is an engineer at Beechcraft) we flew the Phlyer on an unseasonably mild afternoon. Outdoors, it climbs vigorously, and its small size leads to the misconception that it is higher and further away than it really is. Flight time of a minute plus is the norm. The climb phase and the glide phase are about equal time at this stage of Dave's flight trimming process. He'll probably get the flight time up to two minutes. It is a perfect freeflight model for the "RC" fields of the clubs that



I belong to. Lots of flying fun and not too much chance of getting lost. With less rubber it will make a nice indoor sport flyer. Here are some photos, and the full-size plans are on the following pages. Give me a call if you need building materials. I have plenty of the required balsa, tissue, and rubber and will gladly provide you with Dave on the Trail at His "Workbench" what you are short of. Jesse [REDACTED]



Plans for the Philmont flyer can be found on our club website PLANS section.

CATAPULT GLIDER EVENT AT UCCC - FEB. 8TH by Jesse Aronstein

GRAB YOUR STOPWATCH!

Our club is running the "Elastic Launch Vehicle" (AKA Catapult Glider) event at the Mid-Hudson Science Olympiad Regional competition on Saturday, Feb. 8. in the UCCC (SUNY Ulster) gym. (Feb 9 is the backup date in case of snow cancellation). Competition flights start at 8:30 AM, and finish at 1:15. There will be some time for us to fly our own models when the competition activity is low.

It is always a treat to work with the Science Olympiad kids. We need at least 4 volunteers to run the show. The only skill required is to be able to click a stop watch properly and record the flight times. Bring some of your models to fly.

Contact Jesse ([REDACTED], protune@aol.com) if you can can participate for all or part of the session.



Vic Nippert Explains Catapult Launch Gliders at the 2012 Science Olympiad Coaches Clinic

CONVERTING BETWEEN INCHES & MM by Jer Milosek

How to use the graph Inches - Millimeters

If you need to know how many inches a 1000mm wing span is: find 1000 in the vertical column on the left edge and proceed to the right until you intersect the slanted line and stop. Now go directly down and read the inches scale. In this case, it reads 40, i.e. 1000mm = 40 inches.

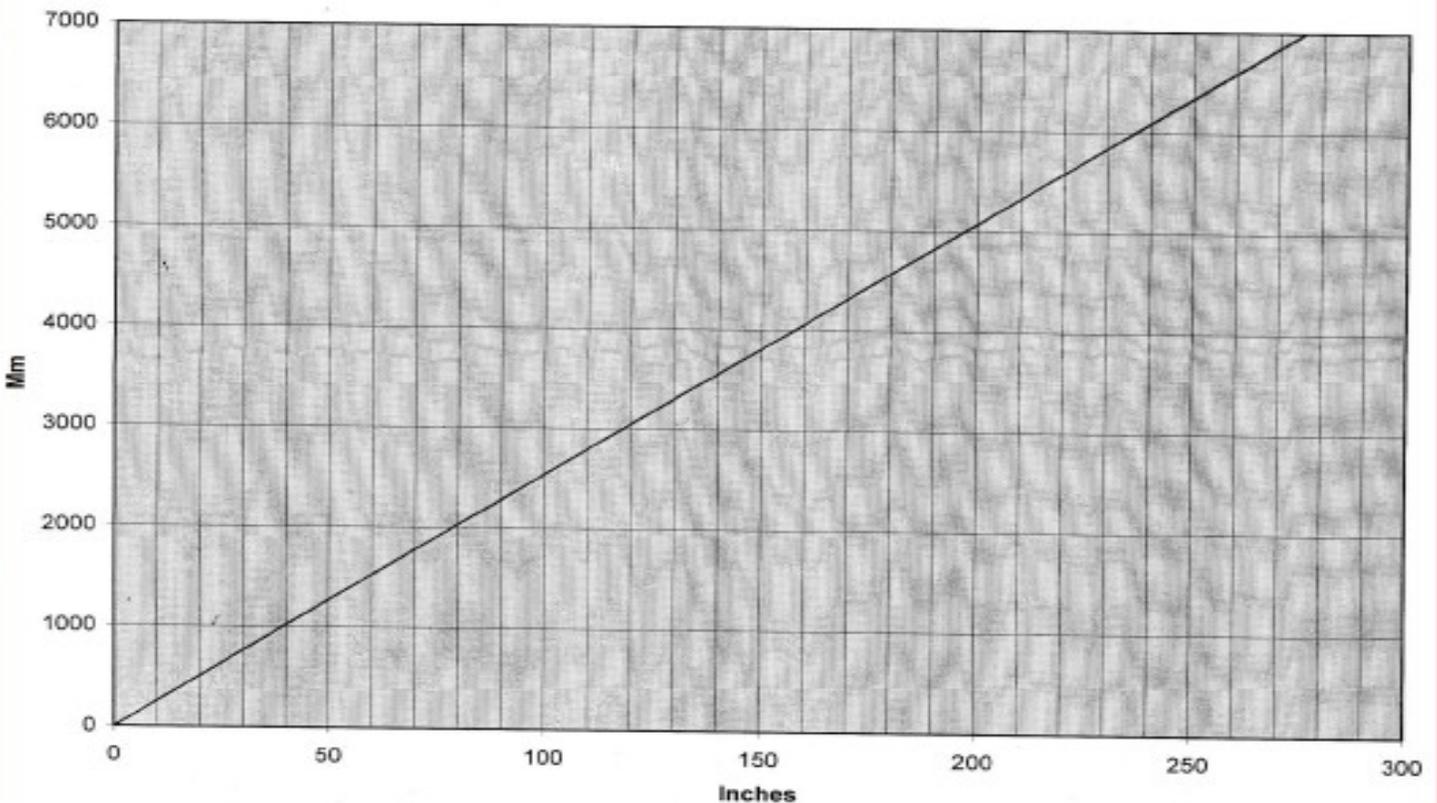
You can also use the graph to convert inches to mm. For example, how many mm are there in an 80 inch fuselage? Starting at the bottom left corner, proceed to the right until you come to the vertical line representing 80, its the 3rd line after 50. Go up that line until it intersects the slanted line. At the point of intersection, go directly left on a horizontal line until you are at the left edge again but above the corner. You should be at the point just right of the 2000 label. That's telling you that 80 inches converts to 2000mm.

If you prefer cm(centimeters) instead of mm, simply divide the mm number by 10. From the above examples:

- $1000\text{mm} = 1000/10 = 100\text{cm} = 40$ inches
- 80 inches = $2000\text{mm} = 2000/10 = 200\text{cm}$

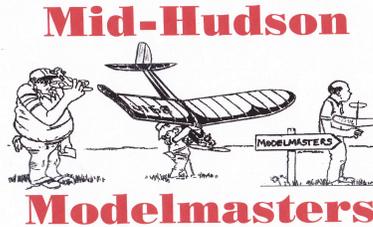
The conversion factor is 2.54cm per inch and because you now know that dividing mm by 10 yields cm, you can reverse the math and convert cm to mm by multiplying cm by 10 which will give you 25.4mm per inch.

Jer's
Inches - Millimeters



2014 MEMBERSHIP APPLICATION

Mid-Hudson Modelmasters
c/o Tom Eng, Treasurer
PO Box 266
Pleasant Valley, NY 12569-0266
[REDACTED]



Name _____

Address _____
_____ Zip _____

Telephone _____ Email _____

AMA # _____ AMA Category: ___Open ___Youth ___Park Pilot ___Family

AMA (Academy of Model Aeronautics) membership is required for all members except those in “non-flying” status.

Please select below as appropriate:

Note: Adult membership is defined as those members over the age of 19 by July 1st of the current year.

\$ _____ **Open \$25.00 per year**
(1 adult older than 19 years, full voting, 1 email (PDF) Wing Tips newsletter, full flying privileges)

\$ _____ **Youth Membership FREE**
(Under 19 years old, full voting privileges, 1 email (PDF) Wing Tips newsletter, full flying privileges)

\$ _____ **Family \$35.00 per year**
(Applies to any one adult who resides in the same household as a current OPEN member, full voting privileges, 1 email (PDF) Wing Tips newsletter, full flying privileges)

Other Adult _____

AMA# _____ Email _____

\$ _____ **Wing Tips Hard copy Subscription for non-members \$10.00 per year**

\$ _____ **Wing Tips optional hard copy \$6.00 per year**
(for members with email address)

\$ _____ **Contribution**
Suggested Voluntary Field Maintenance Contribution
Members who have been approved by the Board to cut the grass and/or plow the runway and driveway are being compensated for their gas at the rate of \$10.00 per occurrence. To cover this additional expense we are asking members to consider making a voluntary contribution using the following guidelines: Regular field user-\$20.00; Occasional field user-\$10.00. This source of funding will be evaluated on a yearly basis.

\$ _____ **Total**

Make checks payable to “Mid-Hudson Modelmaster” and send to the Treasurer (address above)