

Syracuse Thunderbirds Aero Radio Society



Plane Propwash



June 2019

Charter 473

The Next General Meeting will be July 10th, at 7:00 at The STARS Field.

2019 Officers

[Paul Volcko, President](#)
[Phil Knapp, Vice President](#)
[Herb Moore, Treasurer](#)
[Jeff Wolsley, Secretary](#)
[Peter Seiffert, Safety Officer](#)

Directors:
Peter Seiffert, 2007-08
Herb Moore, 2014
Phil Morgan *2011-2013

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[Jeff Wolsley, Propwash Editor](#)
[Michael Graham, SYG Administrator/Club Historian](#)
[Paul Volcko, Webmaster](#)
Ted Anderson, Field Committee
[Mike O'Neill, Facebook Admin](#)

The next STARS meeting will be at the STARS Field, July 10th, at 7:00. As a reminder, the meeting is always the second Wednesday of the month. The STARS monthly meetings will be held at the STARS Field until fall 2019.

The Rains Continue

Still damp out there, but at least we're getting some good flying days between the rain!

On the suggestion of the field committee and some members, a load of top soil was purchased recently and the bulk of that load distributed around the field to fill in depressions that have been forming for the past few years. The frost heave of the last winter and the deluge of rain we've been getting have done a number on the field, and it was finally time to address the problem. There will, no doubt, be more work to be done this fall, after the airshow and event schedule are complete. For now, however, we hope that these repairs will help level out the field for our use through the main part of the flying season and be of benefit for the District II Fly-In and Airshow participants.

Thank you to those that were able to come out and lend a hand with distributing the top soil around the field and seeding it!

There are two very large depressions on either end of the main field. Those were not addressed with the load of top soil. It was too wet at the time and the size of them would have easily used up the entire load of top soil, perhaps even a good chunk of a second load. The plan is to scrape up soil from around the perimeter of the field to use for establishing a base fill on those depressions. Then we will get another load of fresh top soil suitable for leveling and seeding. We'll be communicating more on the timing for this work as it becomes known.

That all said, the field is usable. There is a clear strip in the middle of the runway, free of depressions and filled

areas. And for those wanting a challenge, some STOL practice in the midst of the filled areas can be fun! Hopefully the grass will grow in these spots soon.

Planning for the airshow is well underway. If you'd like to be involved or would like to volunteer your time at the event please get in touch with Ed Nans. For those that had already gotten in touch with me about volunteering, your names have been passed along to Ed already.

Lastly, thank you to everyone that came out to the June meeting and participated in the group photos with Warren Wagner and his wife, Rose, in front of the new building and the dedication plaque. Prior to the photos there was a presentation on AS3X receivers that was well attended and generated some Q&A at the end. We're looking for people to similarly do a bit of show and tell or present on a topic they're interested in, prior to club meetings. You do not need to be an expert on the subject matter, just have an interest and know something about it that you think others might benefit from. The presentations can be anywhere from 10 minutes to 50 minutes long. It's up to you. If you're interested in sharing some knowledge, get in touch with Phil Knapp or another officer and we'll get it scheduled.

Thanks and see you at the field!

Paul Volcko
paul.j@volcko.net
315-673-7158

Secretary's Report: Jeff Wolsley

The June STARS regular meeting was called to order at 7:02 by President Paul Volcko. There were 14 Open members, 2 Associate members, 1 Youth members, 2 Guests in attendance.

Secretary's Report:

The Secretary's Report from the May meeting was accepted as published in the May Propwash. Motion to accept by Peter Seiffert and 2nd by Mike Graham. Carried.

Treasurer's Report: Herb Moore

The top soil purchase has been paid. The treasury is in good shape for this time of year. Motion to accept the Treasury Report by Peter Seiffert and 2nd by Lloyd Darrohn. Carried.

Committee Reports:

Field Committee: Herb Moore

The field is wet even though it doesn't look like it. Some of the dips have been filled. The large dips at either end will be addressed later in the season.

Safety Report: Peter Seiffert

No issues at the field so far. Please keep up the good work.

The complete AMA safety handbook is available here-
<http://www.modelaircraft.org/files/100.pdf>

AMA Report: Phil Morgan

Nothing new to report.

AMA/FAA info- Your current FAA listing has been extended to 2020. The AMA website has additional information regarding the FAA registration-

<https://www.modelaircraft.org/faa-uas-frequently-asked-questions>

Flight School: Bob Rowe

Fixed wing- So far, one father/son team have joined the fixed wing school. Rain has been a factor for school nights.

Heli flight school has been rained out every night except last night.

Interest in VPV flying. There is a need for some practice gates.

STARS Web Site: Paul Volcko

The address is <http://www.amadistrictiistars.org>

Please view the field cam at:

<http://www.amadistrictiistars.org/cameras.php>

This is an infrared cam so you can see some activity at night.

Old Business:

New Shed: Phil Knapp

The commemorative plaque has been installed. Nice job on the plaque. See the pictures below.

Big Bird Giant Scale:

Big Bird night has been mostly rained out. They still intend to meet when it isn't raining. John Steele and [Peter Seiffert](#)

Control Line:

[Mike O'Neil](#)- No report

Facebook:

STARS has a Facebook page. There are 118 members at this time. [Mike O'Neil](#) is the administrator.

New Business:

HeliJam: Paul Volcko

The HeliJam will be held June 22. Field conditions are in question. It will be lower key than previous Heli Jam events. No sponsors and no banners.

Cooks are needed to feed the group so Paul is looking for some volunteers.

FPV Racing: Paul Volcko

FPV racing will be held September 21st. The rain date is September 22.

DII Fly In: Ed Nans

A committee has been formed for the event. Committee members are Phil Morgan, Ed Nans, Paul Volcko, and Peter Seiffert. Ed Nans will be leading the event.

So far...

Phil Artese will DJ the event.

Options are forming for more music

Tables- good

Chairs- rent or borrow

Bruce Throne- not here

Walt and Jan Throne.- here

Tent- nothing formal yet.

Guest Columnist:

If you wish to submit a column of your own, please submit it to the Secretary. All submittals are subject to review by the Officers prior to publishing.

Club Hat Order:

Bob Rowe mentioned that anyone interested in a new STARS Club Hat can pick one up at Papa's Sports (315-455-7272), 1926 Park Street (at Park and Hiawatha). Bob says they have the STARS club logo in their inventory. They have many different styles of hats. Just ask for the STARS logo on it.

New Members:

Seth Terril rejoined as an Associate member

Steven Schmidt is joining as a Youth member. He and his dad are in the fixed wing flight school.

Motion by Peter Seiffert and 2nd by Mike Graham. Passed.

Adjournment:

The June regular monthly meeting of the STARS was adjourned at 7:11pm.

Secretary, Jeff Wolsley

There was a before the meeting presentation by Paul Volcko on the AS3X Receiver from Spectrum.

Before Meeting Show and Tell- AS3X Receiver

By Paul Volcko

These are the slides from Paul's presentation. I will include these with the Propwash email.

Introduction to AS3X Open Stock Receivers

Topics

- Definitions
- Hardware
- Software
- Default Setup
- Programming Steps
- Rate vs Heading Hold vs Priority Gain
- Relative Gain Feature
- Auto-Trim is Evil

Definitions

- AS3X: Base stabilization technology
- SAFE: Add-on technology to AS3X which adds level sensing, panic recovery mode, angle limiting modes, etc. Not available in general purpose receivers, only on BNF or RTF models. Restricted AS3X programmability and adjustments. Often include a method of adjusting gains with stick inputs.
 - SAFE Select: Removes panic recovery mode.
 - SAFE Plus: Adds GPS sensing for hold/loiter and return to land/home modes.
- Open Stock: Set of AS3X receivers sold as general purpose stabilizing receivers for use in ARF and other non-BNF/RTF models. No SAFE features (no need to be level when powering up, only still).

Hardware - Receivers

- SPMAR6335: 6 channel, nano size, park flyer and ultra-micro models
- SPMAR636: 6 channel, full range, can work with 1 satellite
- SPMAR7350: 7 channel, full range, comes with 1 satellites
- SPMAR9350: 9 channel, full range, comes with 2 satellites
- All support
 - Servo travel, subtime, reverse, absolute limit, balance
 - Dual rates, expo, flight modes/banks, rate and heading hold gain, mixing
 - Multiple wing/tail configurations



Hardware - Programming Interfaces

- SPMA3065: PC USB programming cable
- SPMA3080: Mobile device headphone output programming cable
- SPMBT1000: Bluetooth programming interface for Android and iOS mobile devices



Default Setup

- All banks/flight modes setup with 0% gains
- Normal wing (Y splitter aileron) and standard single servo on elevator and rudder.
- Can use Rx without programming, out of the box.



Software

- Mobile devices (phone or tablet) use AS3X Programming software on the Google Play or Apple Store.
- PC programming software available at:
<https://www.spektrumrc.com/Technology/AS3X.aspx>
- No MacOS or Linux software available
- My recommendation is to use either an iOS/Apple mobile device with the bluetooth interface or a PC with the USB interace cable. Android is very buggy with the bluetooth interface.

Installation and Programming

- Total of 8 possible installation orientations. Wires forward or backward. Top face up, down, left or right.
- Create a default model in your transmitter and bind the rx normally. Remember failsafe presets are set during bind.
- Plug in your preferred programming interface to the bind port.
- Start programming software and verify that the rx connection is present.
- Create a new model in the programming software (may be automatic if no model has been created before).

Programming

- Select rx orientation and flight mode channel.
- Select wing and tail type.
- Assign ports/channels to surfaces. Plug in servos.
- Adjust failsafes for channels from "preset" to "hold" as desired.
- Setup each surface for travel, reversal, subtrim, and balance (if multi-servo surface).
- Setup flight modes/banks: dual rate, expo, stabilization gains for each of aileron, elevator, and rudder.

Stabilization Gains

- Rate mode gain: Acts against disturbance changes on each axis. If wind is steady, rate mode will not impact things much. If wind gusts, rate mode correction will act against the change in attitude.
- Heading hold gain: Acts to hold attitude on each axis, acting against both steady and changing forces (steady and gusting wind, for instance).
- Too much gain will result in rapid flutter of a surface, can damage servos or lead to instability. Too little gain will produce "hunting" where the model doesn't react fast enough to disturbances.



Stabilization Gains

- Always start with low gain settings and increase them slowly between (or during) flight.
- Speed of flight, surface throws, and speed and torque of the servos will impact how much gain you can use. Slow, 3D flying will allow for (and even benefit from) higher gains. Faster, sport type flying will require use of lower gains to avoid flutter and over correction.



Changing gains during flight?

Yes!

AS3X calls this feature "relative" gain.

You can set each of rate and heading hold gain, for each axis, for each flight mode independently. And you can set each as absolute or relative gain.

Relative gain allows you to set a maximum gain setting in programming and then use your transmitter in flight to tweak the relative gains for a given flight mode while in flight, via telemetry connection.



Relative Gain

This requires use of the latest generation of Spektrum transmitters that have both live telemetry support and the AS3X menu item.

The two major use cases for this are:

- Tweaking either/both of a sport and 3D flight mode for a new model.
- Tweaking each axis of an eventual programmed flight mode independently.

In both cases, the idea is to tweak in flight over several test flights, then program absolute values based on the relative changes made in flight.



Auto-Trim is Evil

This “feature” attempts to learn a stick trim setting while in flight.

The problem is that it happens in non-heading hold flight modes so you end up with a model eventually “learning” double the trim entered for a given stick axis.

My recommendation: Do not use stick trim to trim a plane with an AS3X receiver in it. Or only put in about half the trim you need to maintain level flight. Fly the rest of the trim needed by hand. Land quickly, and make mechanical linkage adjustments to correct back to 0 trim. You want to fly without stick trim with AS3X.



Live Demo or Need Help?

If you want to see a live demo of the AS3X programming process, gain adjustment process, or need help getting your AS3X equipped model flying right please contact me:

Paul Volcko (paul.j@volcko.net)



The Wagner's with the plaque commemorating their generous donation. *(Photo's courtesy of Mike Graham)*



And the very appreciative membership in attendance...



More rain in the forecast... as of Thursday 06/20 it looks like the entire west side of the field is under water.



Calendar of Events for April and beyond 2019 Events: *Editor's Note- Also watch your e-mail for sudden changes to events like cancellations or re-scheduling due to weather.*

June 22- STARS HeliJam

June 29-30 [Mohawk Valley Helis over Highland](#)

July 20-21 [Phelps Air Show](#)

July 27- [ARCS Pattern Contest](#)

July 27-28 [Canandaigua Chiefs Fun fly](#)

August 9-11 [Festival of Giants Binghamton Aeros](#)

August 31- 9/1 [STARS /AMA DII District Fly In](#)

STARS Flight Schools- *It's never too late to join a flight school!*

Fixed Wing Flight School at 5:30 on Thursday nights. It runs every Thursday, weather permitting, until September 5th.

Heli Flight School starts at 5:00 on Tuesday nights. It runs every Tuesday, weather permitting, until October 8th.

Big Bird- has started and is held every Wednesday night until end of summer

The indoor schedule for the 2018-19 season is winding down. This space will be updated in the fall when indoor season starts up again.

[Camillus Indoor Aviators \(CIA\)](#) Indoor flying at First Baptist Church located at 1960 State Route 5 in Elbridge **NEED TO CONFIRM** Tuesday and Friday 6:00 to 9:00 and the first Saturday of each month 4:00 to 9:00 (2.4GHz only)

[CNY Indoor Flying Society](#) Please visit the web page for details before attending. Sacred Heart Catholic Church on Route 11, Just South of Cicero, NY. **NEED TO CONFIRM** Tuesdays and Thursdays 12:30-4:00. Saturdays 6:00-9:00.

[Walt's Hobby Town-](#) Indoor flying will be available at Walt's during normal business hours. Flying ends 1/2 hour before closing time. \$5.00 landing fee. Please contact Walt's Hobby Town for further details.

[MexAir R/C](#) Indoor flying starting **NEED TO CONFIRM** October 14 thru April, Friday night from 6pm-9pm at the Mexico Elementary School located in Mexico, NY. There is a \$5 charge for any adults who wish to fly. Anyone ages 19 or below fly for free!!



Syracuse Thunderbirds Aero Radio Society

Phoenix, NY

Charter 473



S.T.A.R.S. 2019 Helicopter & Multirotor Night

*All skill levels welcome, but must be an AMA member to fly
and provide your own outdoor capable Heli or Multirotor.
Build help and flight instruction available.*

**Tuesday evenings - April 16 to October 08
5PM until Dusk**

Come out and join us for fun, food and good flying



Charter 473

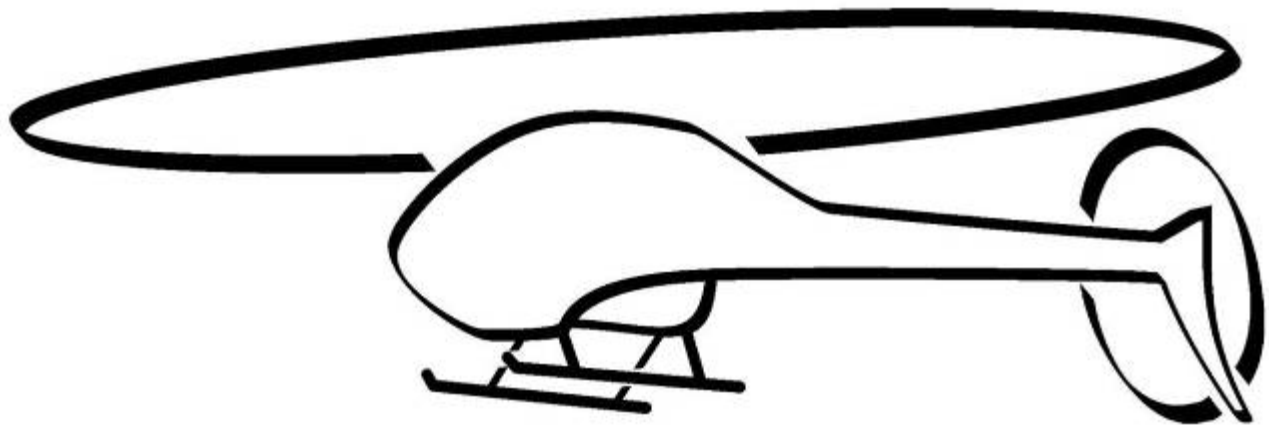
S.T.A.R.S.

Presents the 10th Annual

CNY Heli-Jam

Saturday, June 22, 2019

9 AM to 5 PM



At the STARS Field located at north of Phoenix, NY, on County Route 12
(See map on back)

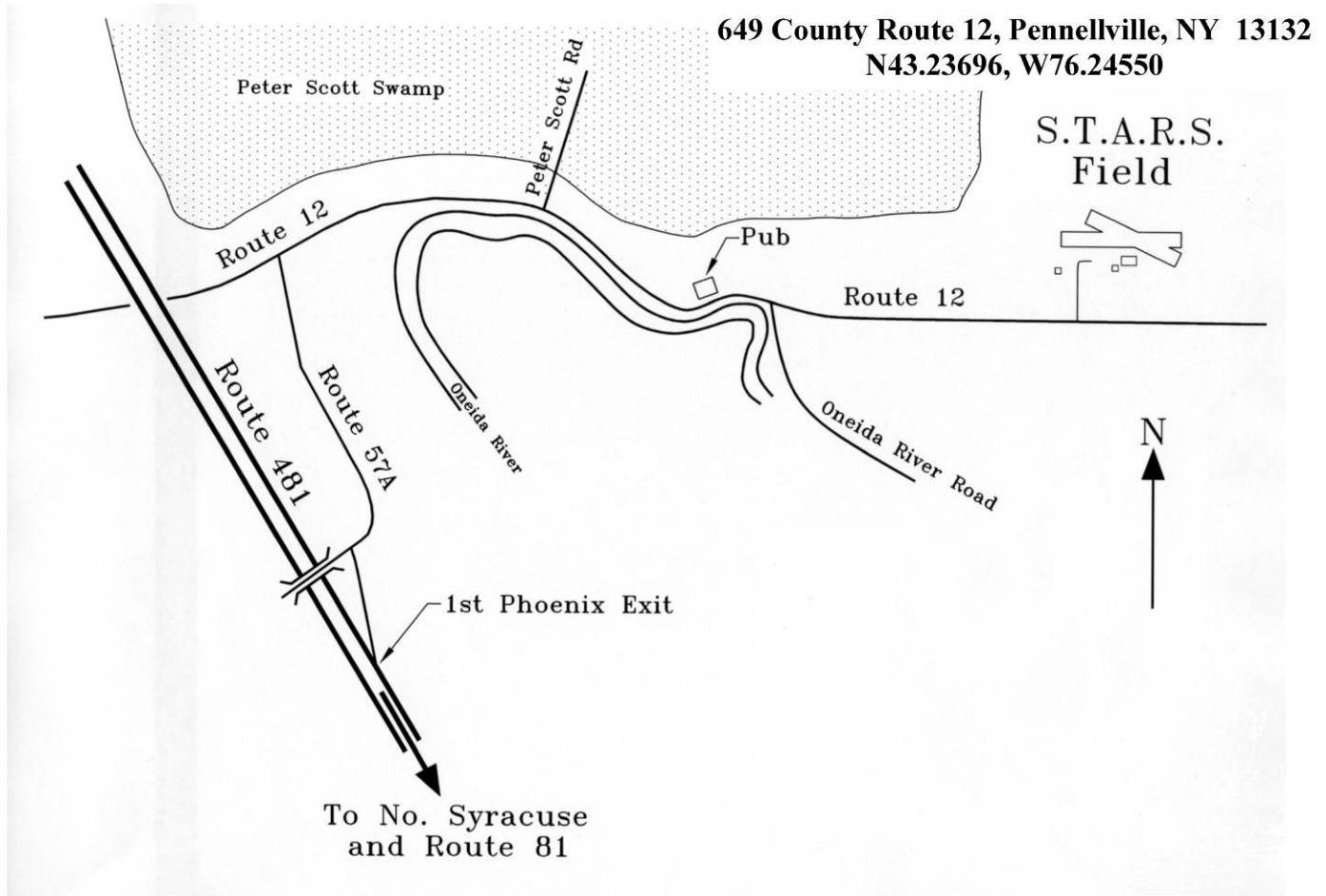
Ample room for parking & overnight camping - no hookups
Food and beverages available

No parking fee, landing fee or pre-registration

AMA Required

Gate opens at 8 AM - Pilot's meeting at 8:50 AM

For more information, contact Paul Volcko, at 315-708-2009 or email helijam@amadistrictiistars.org



When all else fails: Type the STARS Field address into your GPS.

Hotels Nearby:

(These are located approx. 2 miles south of the field at Rt 31 and Rt 481)

Wingate by Wyndham

3979 State Route 31, Liverpool, NY 13090

<https://www.wyndhamhotels.com/wingate/liverpool-new-york/wingate-by-wyndham-liverpool-syracuse/overview?CID=LC:WG::GGL:RIO:National:53624>

315-516-8549

Hampton Inn Syracuse Clay

3948 State Route 31, Liverpool, NY 13090

www.syracuseclay.hamptoninn.com

315-622-3443

Binghamton Aeros'

Festival of Giants



August 9 -11, 2019
Chenango Bridge Airport, NY



Fri - Sat 10am - 5pm
Sun 10am - 3:30pm
\$20 Landing Fee covers all 3 days



Celebrating our 34th year with Three Full Days of Fun. Fly from a Full Scale Grass Runway with Wide Open Flying Area. This event is open to all Giant Scale Aircraft*. Lots of Great Pilot Prizes. Overnight Hanger Storage Available. Onsite Camping Sites (No hookups). Early arrivals on Aug 8th welcome.

Event in support of Community Hunger Outreach Warehouse(CHOW)

* 2m Wingspan min for Monoplanes, 60" Wingspan min for Multi-wing, or at least ¼ Scale if smaller. Jets must have a combined wingspan and fuselage length of at least 130". Current AMA or MAAC Required

Thanks to our Sponsors:



NATIONAL BALSA



RA Cores



Visit <http://binghamtonaeros.wildapricot.org/> or Contact CD Larry Cobb cobb99@nep.net , 570-465-7566,
or Tony Jensen tjravenpilot@gmail.com , 607-644-6873

247 Airport Rd. Chenango Bridge, NY 13901 Field GPS:42.191742N x -75.841305W
AMA Sanction #7224



Charter 473

AMA Sanctioned

S.T.A.R.S.

Presents the 18th Annual AMA District II

Fly-In and Picnic

Saturday & Sunday, Aug 31-Sep 1, 2019

At the STARS Field located at north of Phoenix, NY, on County Route 12
(See map on back)

Ample room for parking & overnight camping - no hookups

Swap shop and 50/50 raffles both days

Food and beverages available to all

Free lunch for *registered pilots* on Saturday

Pilots - All types of aircraft invited!! If you bring it, fly it!!

All legal AMA Aircraft Welcome!!



COME JOIN US AND ALSO CELEBRATE THE STARS 40TH ANNUAL AIRSHOW ON SUNDAY

Parking donation of \$5.00 per car

BBQ dinner available Saturday evening along with live musical entertainment

For more information, contact Phil Morgan, CD, at 315-457-3674 or contact us at: fly-in@amadistrictiistars.org



S.T.A.R.S.

Jacket Order Form



The STARS Club jacket is a blue, three season, satin finished, quilt lined jacket with the Club logo on the back and your name embroidered on the front over the left breast.

The prices: \$88.40 for S, M, L, XL; \$90.40 for 2XL; \$92.40 for 3XL

Name: _____

Address: _____

Phone: _____

Name desired on jacket: _____

Send form to: Phil Morgan
9172 Beach Road
Brewerton, NY 13029

Checks payable to: Phil Morgan (Not the STARS)

IMAA Big Bird Safety Checklist

Balance

Is the longitudinal center of gravity (for and aft) within the range shown on the plans?

Is the model balanced laterally (side to side)?

Alignment

Are all the flying surfaces at the proper angle relative to each other?

Are there any twists in the wing?

Do the wings and removable tailplane seat properly on the fuselage every time?

Is the engine set at the proper thrust angle as shown on the plans?

Control Surfaces

Are all control surfaces securely attached? (i.e., hinges glued, pinned). Pull on each one to test.

Are the control horns secured to the model?

Control Linkages

Have all the linkages been checked to be sure they are secure?

Are the clevises closed? (Keepers or fuel tubing should be fitted to ensure they stay closed)

Engine / Motor Mount Security and Operation

Are all engine mount screws tight, including mount to bulkhead if applicable?

Are the propeller bolts and/or spinner tight? If a single nut, is there a safety nut as well?

Does the throttle work without binding?

Does the throttle trim tab shut down the engine?

Has the propeller been balanced and checked for damage?

Are the propeller tips painted a contrasting color? (while not essential it makes the propeller much easier to see)

Has the engine been thoroughly test run? (engine idle and throttle up properly)

Is the fuel tank installed correctly? (i.e., carburetor at the same height as fuel tank, fuel tank clunk in proper position and moving freely, fuel lines in good condition and connected to the engine correctly)

Radio Equipment

Are the receiver and the battery securely mounted and padded with foam to protect from vibration and shock?

Are all the electrical connectors secure?

Is the receiver antenna fully extended and in good condition?

Are the batteries charged and in good condition (check under load with a volt meter if unsure)?

Are all servo securely fastened to the rails or trays?

Are servo arms firmly attached with screw in place?

Are all push rods firmly secured in servo arms (again keepers or fuel tubing should be fitted)?

Are the control throws in the correct direction with proper amount of deflection (as per plan)?

Rudder & tail wheel: Left stick should move the rear of the rudder and tail wheel to the left.

Nose wheel: Left stick should move the front of the nose wheel to the left

Aileron: left stick should move left aileron up and right down.

Elevator: Pulling back on the stick should move the back of the elevator up.

Canard: Pulling back on the stick (elevator) should make the front of the canard move up

Throttle: With trim set fully forward, pushing the stick forward should open throttle fully. With trim set fully backward, pulling the stick back should fully close the throttle.

Has a full range check been performed? (see below)

Undercarriage (where fitted)

Is the undercarriage firmly attached to airframe and the wheels securely retained?

Does aircraft taxi in a straight line?

General

Is the covering tight with no visible signs of damage?

Are the retaining bolts in place and secure?

Are all hatches, cowls and canopies secure?

Are all components structurally sound?

Is your name and contact details marked on the model somewhere easily visible? (in case it's lost)

Range Checking the radio

Verify frequency is available and mark it as yours if necessary.

Turn on transmitter check the correct model is selected (if applicable) and then turn on the receiver.

Important: make sure the transmitter aerial is down fully.

Ask someone to help and walk away from the model until signs of loss of control is apparent. If electric powered ensure that the range is not worse with the motor running.

Before EVERY flight:

Check the receiver battery pack to ensure enough charge for the flight intended.

Check for damage and the control throw direction of all surfaces.

Advertisements:



Store Hours:

Monday/Friday: 9:00am-9:00pm -- Tuesday/Wednesday/Thursday: 9:00am-6:00pm -- Saturday: 10:00am-5:00pm -- Sunday: 11:00am-5:00pm

Phone Number:

(315) 453-2291

waltshobby.com



Open 10-7 Tuesday thru Sunday.

315-532-6826

www.mexairrc.com

www.facebook.com/mexairrc

**Winner of AMA 2015 Hobby Shop Award
for signing up new AMA members.**

FOR SALE:

Please visit the Southern Tier RC Swap Shop. Dan Luchaco has included me in his mailing list. The current edition is sent along with the Propwash in the monthly email. All contact information is included with the ads.



Hobby Warranty
Contact List 2016.xls

If you want to list modeling items for sale, R/C services offered, or a really neat R/C web site, this would be a good spot. Free for members. Send your advertisement by e-mail to jwolsley@verizon.net. Please put STARS ADVERTISEMENT in the subject line.

Links-

New website to check out- <http://www.flyboyzblog.com/>

This site has articles pertaining to both full scale and model aircraft. Check it out.

Howard Blair found an interesting video from YouTube on micro flight
<http://www.youtube.com/watch?v=fuoFA2fKjEo&feature=fvst>

Tom Catalino pointed out this site. An excellent site for Lipo battery info-
<http://sites.google.com/site/tjinguyletech/charging-how-tos/balance-connectors>

Peter Seiffert sent along the following web site- www.servodatabase.com/servos/all

Mike Graham has a torque conversion chart-



Servo Torque
Conversion Chart.pdf

Arming Switch Information-

AMP'D- Arming The Big Boys, by Greg Covey November 2007
http://www.rcuniverse.com/magazine/article_display.cfm?article_id=950

RunRyder- How To Make A Spark Arrestor for an ESC by Lucien Miller

<http://www.helifreak.com/archive/index.php/t-289393.html> look down to the post from gbidwell from 4-24-2011 0601am. That's the exact article that I have from RunRyder.

Note- Many of the newer ESC's have a built in spark arrestor. If you still see and hear the spark, this is a good idea to save the plugs.

The link for the AMA DII Calendar is:

<http://www.amadistrictii.org>

The link for the club yahoo users group is:

http://groups.yahoo.com/grjwoup/stars_club_members/ (Don't forget to sign in)

The link for the STARS club home page at DII is

<http://www.amadistrictiistars.org/>

The link for the STARS club web cam is:

<http://www.amadistrictiistars.org/scam.html>

The Propwash News Letter is also available at YAHOO GROUPS. The current news letter and previous years/months are viewable and printable from there.

Please contact Mike Graham tanjmg82@aol.com to join the STARS Yahoo group. Send Mike an email asking to join from your preferred email account. Mike will then reply with an invite to join the group. The invitation contains the links and instructions necessary to join.



STARS Field Satellite photo

A satellite photo with the new shed is still not available!



HOW DO I LEARN MORE?

Get ready to get schooled.

AMA Flight School is a free educational resource for anyone interested in unmanned aircraft systems (UAS) operation and model flying.

Designed to answer the question, "How do I...?", AMA Flight School provides information about topics such as:

- Battery and operational safety
- Building your own multicopter aircraft
- Travelling with your aircraft and batteries
- Participating in the Search and Rescue challenge with UAS4STEM.

Learn more at (www.uac4stem.org).

There's a great pilot in you.
Go find it!

www.amaflightschool.org



Welcome to the club.

The Academy of Model Aeronautics (AMA) is the largest model aviation organization in the world. At 175,000 members strong, we're standing behind you to give you the support and guidance you need to be successful and, most importantly, have a great time.

AMA members enjoy a suite of great benefits tailored to model pilots such as:

- Liability insurance
- Subscription to *Model Aviation* magazine
- Competition privileges
- Education and youth scholarships
- Flying site assistance

For more information, visit www.ModelAircraft.org.

THE MOST FUN YOU CAN HAVE (WITHOUT A LICENSE).

Flying is just for fun.

Currently, no individual or government agency may operate an unmanned aircraft system (UAS), commonly called a drone, in a commercial or public capacity without a Certificate of Authorization from the FAA.

Common examples of prohibited use include, but are not limited to:

- Real estate & wedding photography
- Inspection or surveying services
- Film or television production
- Search and rescue operations

Interested in commercial or public use flying?

There are options available to you through the Federal Aviation Administration (FAA).



For more information, visit www.KnowBeforeYouFly.org.



WE'RE YOUR GUIDE TO RESPONSIBLE FLYING.

Flying guidance provided by the Academy of Model Aeronautics, the world's largest model aviation organization.

KNOW FLY Here's what you need to know.

Learn more at www.amaflightschool.org

1

law Obey local ordinances.

Some municipalities prohibit the operation of unmanned aircraft systems (UAS) in public spaces such as parks and school grounds.

Even if nothing is posted, it's good to check with local authorities before you fly in public spaces.



2

limits Fly within guidelines.

These include rules set forth by federal law and guidelines recommended by the Academy of Model Aeronautics (AMA).

- Do not fly above 400 feet.
- Do not fly anything heavier than 55 lbs.
- Do not fly beyond your line of sight.
- Do not fly in high winds or reduced visibility.
- Do not fly under the influence.
- Do not fly within 25 feet of bystanders.

3

surroundings Know the conditions.

Don't fly your UAS or model aircraft near bystanders or during emergency situations such as a wildfire, medical evacuation or search-and-rescue operation unless authorized by the proper authorities.

Watch for and avoid potential hazards in your environment such as:

- Manned aircraft
- Unprotected people
- Moving vehicles
- Roadways
- Private property
- Infrastructure
- Deteriorating weather



4

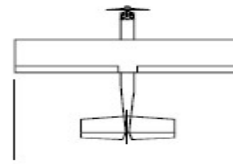
airspace Share the sky.

The Federal Aviation Administration (FAA) expects all unmanned aircraft systems (UAS) operators to:

- See and avoid manned aircraft
- Be aware of Temporary Flight Restrictions (TFRs) that affect the operation of UAS or remote controlled aircraft.
- Never fly within 5 miles of an airport without contacting airport authorities.



S.T.A.R.S. Field Rules



1. General:

- A. License: All pilots, students, and flying guests *must* have a current membership in a nationally recognized model aircraft association in order to fly. Those pilots participating in the Park Pilot Membership Program must fly models that weigh two pounds or less and be incapable of reaching speeds greater than 60 mph. They must be electric or rubber powered, or of any similar *quiet* means of propulsion.
- B. Spectators: Only those people essential to flight operations will be permitted in the pit area; all others will remain on the spectator side of the fence.
- C. Impound: All pilots, students, and flying guests must place their transmitter(s) in the impound area immediately upon arriving at the field.
- D. Vehicles: Vehicles will not be permitted *on* the flying field.
- E. Crash Debris: Pilots must retrieve all pieces of their aircraft after a crash. Particularly, attention must be made to obtaining all pieces of aircraft that land in the neighboring fields under cultivation.
- F. Trash: All members will take home their own trash.
- G. Alcoholic Beverages: Members will not consume alcoholic beverages prior to, nor during, participation in any *modeling* operations.
- H. Smoking: Smoking will not be permitted in the pit area or on the flight line.
- I. Mowing: Flying on the field will not be permitted if the field is being mowed or maintained.

2. Transmitters:

- A. Frequency Control (*For non 2.4 GHz transmitters only*): All members, students, and guests *must make use of the field frequency control system*. Each pilot will obtain the correct frequency flag (or pin) from the impound board and attach it to his/her transmitter before attempting to fly.
- B. Range Checks: Each pilot will conduct a successful radio equipment ground range check before flying a new or repaired aircraft and prior to each flying session.

3. Engines:

- A. All internal combustion engines run at the field will have a silencer (except for small displacements of .09 cubic inches or less).
- B. When running an engine in the pits, keep neighboring personnel behind the prop arc.

4. Flying:

- A. Boundaries: Flying over the pit area or the spectator side of the fence is prohibited, unless beyond the control of the pilot(s).
- B. Taxing: Taxing is prohibited in the pit area!
- C. Flying:
 - (1). Pilots will initiate their first turn after takeoff away from the pit and spectator areas.
 - (2). Engines will not be started before 9 AM Monday through Saturday and 11 AM on Sunday (*electrics may start at 10 AM*), unless approved by the Event Director.
 - (3). No more than three aircraft will be permitted in the air at one time.
 - (4). All flying will be conducted from the designated flight boxes.
 - (5). Hand launching of aircraft is prohibited from the pits.
 - (6). Flight operations will cease during electrical storms.

5. Guests:

- A. All guests must have a current membership in a nationally recognized model aircraft association in order to fly.
- B. Guests may fly at the field only with the approval of a member in good standing and only as long as a sponsoring member *remains at the field*. Guests will not fly unattended.

- C. A local guest will be allowed to fly at the field on three (3) separate occasions and then will be asked to join the Club.
- D. An out-of-town guest may make arrangements with the Club to fly at the field while visiting the area. The Club Officers and the Safety Officer will handle each out-of-town visitor on a case-by-case basis.
- E. *All guests are required to extend every courtesy to current members sharing the same flying frequency*. But when there is a conflict over who shall fly, the Club member will have the first option to fly. Both the guest and the members should use common sense while sharing the flight line or using the same radio frequencies.

6. RC Aircraft Utilizing "First Person View" Systems (AMA Document 550):

A. GENERAL:

- (1). FPV flying of radio control model aircraft by AMA members is allowed only for noncommercial purposes as a hobby/recreational and/or competition activity.
- (2). All FPV flights must be conducted in accordance with AMA's current National Model Aircraft Safety Code and any additional rules specific to the flying site/location.

B. OPERATIONS – REQUIREMENTS - LIMITATIONS:

- (1). *AMA FPV novice pilots undergoing training with an experienced AMA FPV pilot should use a buddy-box system if practicing at a low altitude (below 100 feet) or practice at a safer, higher, altitude when no buddy-box system is an option.*
- (2). All FPV flights require an AMA FPV pilot to have an AMA FPV spotter next to him/her maintaining VLOS with the FPV aircraft throughout its flight.
- (3). The FPV pilot must brief the FPV spotter on the FPV spotter's duties, communications and hand-over control procedures before FPV flight.
- (4). The AMA FPV spotter must communicate with the FPV pilot to ensure the FPV aircraft remains within VLOS, warning the FPV pilot of approaching aircraft, and when avoidance techniques are necessary.
- (5). The FPV spotter may at any time during an FPV flight acquire the transmitter from the FPV pilot and assume VLOS control of the aircraft.
- (6). If the FPV pilot experiences a problem due to a loss of video link, orientation, or is unable to safely fly, he/she must abandon FPV mode and fly VLOS or pass the RC transmitter to the FPV spotter to assume VLOS control of the aircraft.
- (7). Before initial FPV flight and after any flight system changes or repairs, FPV model aircraft must be test flown by conventional VLOS to determine that flight systems are working properly.
- (8). FPV model aircraft must use frequencies approved by the FCC for both the RC system and the wireless video system. Pilots must meet applicable FCC licensing requirements if they choose to operate the RC flight control system or the wireless video system on Amateur Band frequencies.

C. RANGE – ALTITUDE – WEIGHT – SPEED:

- (1). One of the requirements in Federal Law (Public Law 112-95 Sec 336 (c) (2) February 14, 2012) for model aircraft to be excluded from FAA regulations is that model aircraft be flown within VLOS of the operator.
- (2). Model aircraft flown using FPV must remain at or below 400 feet AGL when within 3 miles of an airport as specified in the AMA Safety Code.
- (3). Model aircraft flown FPV are limited to a weight (including fuel, batteries, and onboard FPV equipment) of **55 lbs.** and a speed of **100 mph**.

STARS

Field Protocol

Dedicated to responsible
RC fun with safety by
choice, not chance.

5

1. General:

- A. Civil and courteous behavior is required at the field at all times.
- B. Safety is paramount and everyone's business. Use common sense in all matters.
- C. It is strongly recommended that you do not fly alone.
- D. Learn where the First Aid station is located and inform the Field Committee if material has been issued from it.
- E. When opening or closing combination locks, *always* set the wheels to 0000.
- F. Last member out must close and lock the refrigerators, pavilion, and main gate.
- G. Cell phones are not to be used on the flight line or in the pavilion near the transmitters.

2. Engine Courtesy:

- A. Long term tuning and initial break-in should be conducted away from the pits and spectators (usually at the engine break-in stand).
- B. Do not direct prop wash at other modelers, their aircraft, equipment, or bystanders behind the pit fence. Kindly inform those bystanders near the fence that you intend to start an engine before you do so.

2. Flying Courtesy:

- A. Any person wishing to enter an active flying field or runway to cross same or to retrieve an aircraft, must loudly announce their intention to all fliers on the flight line.
- B. A "landing" aircraft has the right of way over an aircraft "taking-off".
- C. A "dead stick" aircraft has the right of way over all others.
- D. All take-off and landing attempts must be announced to other pilots on the flight line. Take-offs are normally announced by saying "taking off", and landings are announced by saying "landing" or coming in". Dead stick landings are announced clearly to all pilots in the pits and on the flight line by saying "dead stick".
- E. A pilot having difficulty in controlling his/her aircraft must announce to all in the pits and on the flight line that he/she is experiencing radio or mechanical problems. Pilots on the ground preparing to fly will turn off their transmitters and wait for the problem to be resolved before continuing to fly. Fliers in the air will stay clear of the aircraft in distress and will land, if possible, as long as it does not contribute to the crisis. All personnel near the pit area must be alerted to the situation.
- F. If a crash occurs on the field or in the pits, all flying will stop until the accident has been investigated and the debris has been cleared from the field.
- G. Normal flight duration is 10 minutes. Obviously, flight time may be extended if there are no other pilots waiting to fly or waiting for a particular radio channel.
- H. When you have finished flying, please return your transmitter to the impound.

3. Good Earth Policy:

- A. Place recyclables in the appropriate container in the pavilion.
- B. Turn off all pavilion lights when departing the field for the night.
- C. The field does not have a trash removal service. If you carry anything to the field, carry it back out.
- D. If a pilot or guest brings a pet to the field, he/she will be responsible for supervising the animal's conduct while at the field. Please observe all appropriate Field Rules.
- E. If you smoke, please place all cigarette butts in the butt cans in the field.
- F. Do not throw cans or bottles or any other trash in the outhouse pits.
- G. DO NOT DRINK THE WELL WATER. Well water is to be used for washing only.

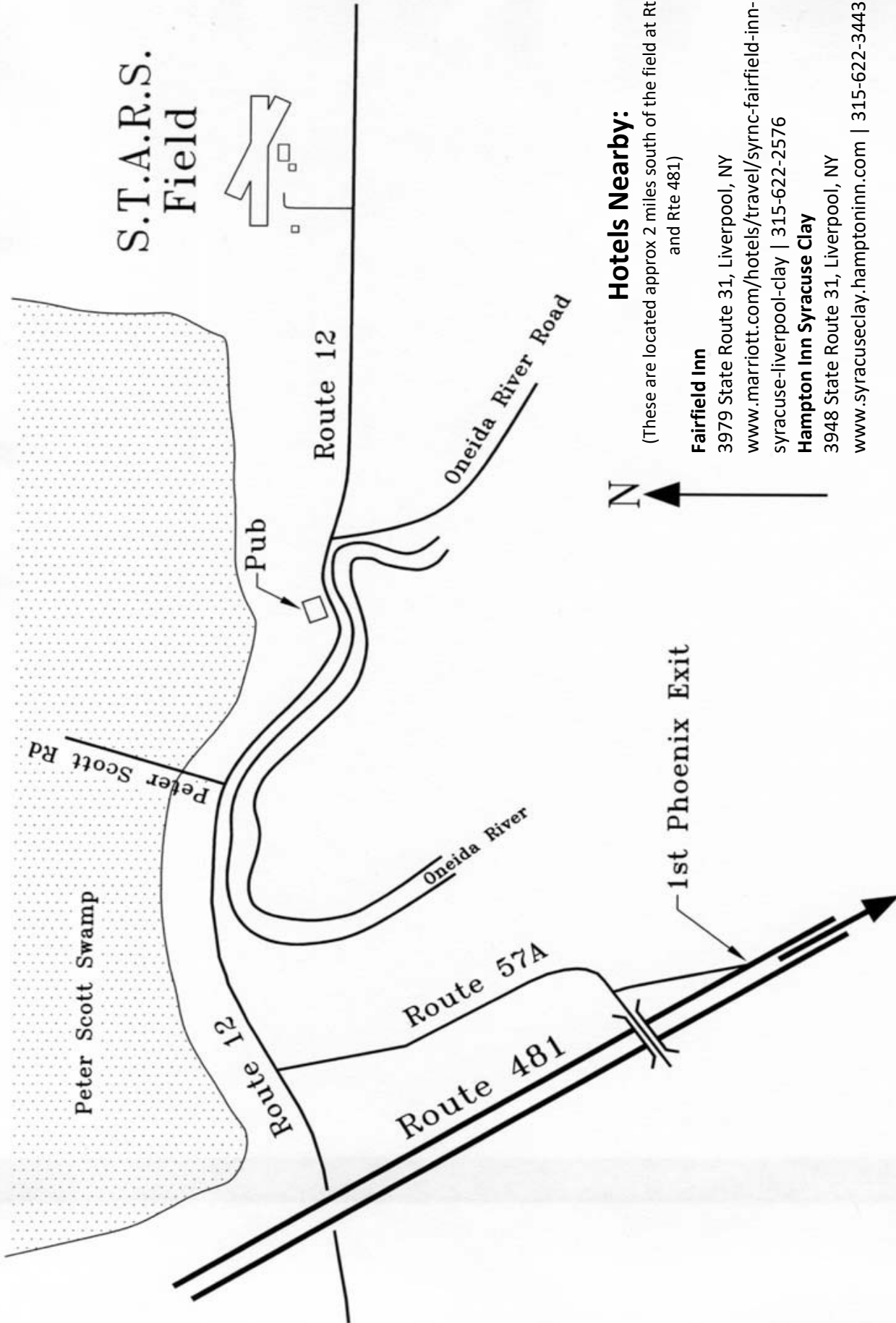
4. Replacement Courtesy:

- A. Where an individual's plane or property is damaged by the actions of another individual, it will be the responsibility of the two parties to resolve the situation in an appropriate manner.

STARS POLICY REGARDING PHOTOGRAPHY

- STARS is a membership organization organized under the laws of the State of New York.
- The STARS flying field, located in Phoenix, New York, is owned by STARS, and as such, is privately owned property.
- The purpose of this policy is to limit and restrict the reproduction of images, in any form, of the STARS property and the activities which occur thereon.
- While the STARS property is privately owned, members, guests, and the general public are welcome at the field during published field hours of operation. Members, guests and the public must adhere to all rules imposed by STARS regarding entry upon and/or the use of STARS property, including the STARS policy on photography.
- The reproduction of images of the STARS field or the activities thereon, in any form, is a privilege and not a right.
- Except as provided below, the reproduction of images of the STARS field or activities thereon in any form, including, but not limited to film and digital still photography, and video photography in either film or digital form, is strictly forbidden.
- Violation of this policy will result in immediate expulsion of the violator from the STARS premises, and may subject the violator to criminal and/or civil sanctions and penalties.
- Members in good standing of STARS shall be exempt from the above requirements so long as any images or video produced of the STARS premises or the activities thereon are for personal and non-commercial use.
- Guests and the general public may be permitted to photograph or video the STARS property and activities thereon, but only for personal and non-commercial use, and only with the prior written consent of the Club's executive board.

Map to the STARS



S.T.A.R.S.
Field



Route 12

Oneida River Road

N

1st Phoenix Exit

Route 57A

Route 481

To No. Syracuse
and Route 81

Hotels Nearby:

(These are located approx 2 miles south of the field at Rte 31 and Rte 481)

Fairfield Inn

3979 State Route 31, Liverpool, NY

www.marriott.com/hotels/travel/syrnc-fairfield-inn-syracuse-liverpool-clay | 315-622-2576

Hampton Inn Syracuse Clay

3948 State Route 31, Liverpool, NY

www.syracuseclay.hamptoninn.com | 315-622-3443

N43.23696, W76.24550

starsmap.dwg
rev 12 Feb 03

Map to S.T.A.R.S. Flying Field in Phoenix, New York



Est. 1965

Syracuse Thunderbirds Aero Radio Society

Online at: <http://www.amadistrictiistars.org>



Charter 473

Membership Application Form

Date: _____

Membership: Open (\$160 share+\$60 dues) Extra Family member (\$30.00)
 Associate (\$75.00) Youth (< AMA age 19 - \$0.00)
 Park Pilot - Associate (\$75.00) Park Pilot - Youth (< AMA age 19 - \$0.00)

Name: _____

Address: _____

Phone (for roster): _____

AMA: _____ DOB: _____

STARS Member(s) Contacted: _____

Primary Interests (Sport, Scale, Pattern, Fun Fly, etc.): _____

Email Address (for newsletter and notices): _____

Emergency Contact Name: _____ Phone: _____

You must be a current member of the Academy of Model Aeronautics (AMA) in order to join the STARS. Please show your AMA card to the Officer given this application or include a photocopy of the application for the license.

"I have read and agree to abide by the STARS Field Safety Rules." (on back)

Submit this form to a Club Officer

Rev 16aug17