



Hangar News

September 2026

Newsletter of the First Weedwacker Aero Squadron

AMA Charter #1651

First Weedwacker Aero Squadron

Sign up for Email Delivery of the Newsletter:

news.weedwackers@gmail.com

Web: <http://www.weedwackers.org>

Club Officers Email: info.weedwackers@gmail.com

President: Ron Keith 619-312-0968

V-P: Jeffrey Coskey 619-913-1455

Sec: Mark Gray 619-993-6548

Treas: Richard Brown 619-887-7273

15198 Picturesque Point

El Cajon,, CA 92021

Field Marshals:

Vernon Gilmore, Ron Keith, Butch Weiser, Steve Shepersky, Dick Milhausen, Gary Rold, Richard Brown, Keith Miller

Fun Fly Chairman Keith Miller

Race Chairman David Roche

Safety Officer Ron Keith

Newsletter Editor: Keith Miller 619-405-0192

Webmaster: Vernon Gilmore

webmaster@weedwackers.org

Instructors:

Richard Brown*

Keith Miller 619-405-0192*

Jeff Coskey 619-913-1455*

Butch Weiser 619-713-6096

Dick Milhausen 619-561-5323

Lester Moore 619-742-1202*

*AMA Introductory Pilot Program Instructors

HANGAR NEWS is printed for the members of the FIRST WEED WACKER AERO SQUADRON and its contents do not necessarily reflect the policies of the club. Editorial deadline is the 22nd of each month.

Articles, news items and classified ads should be sent to news.weedwackers@gmail.com.

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CLUB FIELD: Cactus Park (East), 10295 Ashwood St. (1/4-mile N-E of El Capitan High School) in Lakeside, CA. Please be sure the last flyer to leave locks the pin box and the gate.

Upcoming Events

Next Meeting:

Saturday Sep 5th 2026 9:00 am at our Ron Smith Memorial Flying.

Toys for Tots Drive / Swap Meet, Sat Oct 17th

Veterans' Day Fly-In, Sat Nov 14th

Pylon Races, Sat Nov 21st

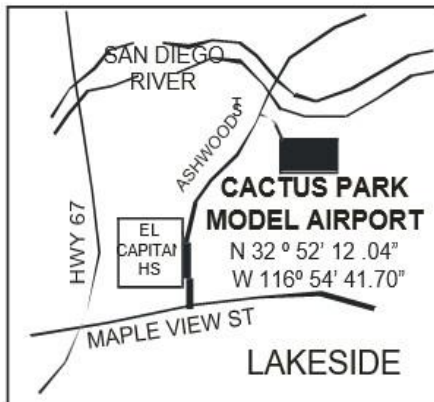
Headlines

Correction:

Our street address (10295 Ashwood St.) is explained inside. Read on for more details!

National Model Aviation Day was a broiling fun time!

Hints inside that might save your analog servos from digital death.



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Meeting Minutes 01 Aug 2026

Mark Gray

Short Summary:

Safety & Site Work

- Fire response: call fire department for flames or smoke
- Helix Environmental onsite by riverbank; crew working about one week
- Snakes found multiple times; exercise caution retrieving aircraft

Events & Outreach

- Fly-in scheduled 22nd; pylon races on 15th; swap meet on 8th
- Food: hot dogs and hamburgers approved; aim to break even
- Outreach: flyers/hobby store postings; honorary membership approved for John & Julie Weaver

Security, Equipment & Finance

- Return recently purchased camera; keep existing on-site camera
- \$250 reallocated from camera budget to gate security (solar lights/pole)
- Treasurer: starting \$14,268.29; income \$316.00; expenses \$498.63; balance \$14,085.66

Action Items

- Mark Gray: Send RSVP email for fly in
- Food Lead: Buy hot dogs & hamburgers - 22nd
- Ron: Bring ice - 22nd
- Janie: Provide paper goods - 22nd
- Security Lead: Return purchased camera (refund)
- Security Lead: Procure and install solar motion light + pole - End of month
- Gate Volunteer: Serve as gate guard at swap meet - Next weekend
- Chair Lead: Purchase chairs (\$200) and submit receipt
- Tree Crew: Trim BBQ area tree - Monday 7:00
- Web Lead: Review website analytics plugin and report findings

Detailed Summary:

Safety & Site Work

- Fire response instruction: call fire department if flames or smoke observed
 - Rationale: any fire will exceed on-site capability
- Helix Environmental activity
 - Location: riverbank by baseball fields, working toward river center to remove salt cedar
 - Duration: expected to be on site about one week
- Snakes observed
 - Incidents: two found one morning and another found on subsequent visit

- Action: all members warned to be extra cautious when retrieving aircraft

Events & Outreach

- Event calendar
 - Fly in: 22nd (main event)
 - Pylon races: 15th
 - Swap meet: 8th (club running swap meet)
- Food and raffle
 - Food decided: hot dogs and hamburgers; goal is break even on food costs
 - Previous raffle lost money; club will limit spending and consider a single big prize
- Outreach and membership recognition
 - Flyers to be handed out at swap meet; place flyers in hobby stores
 - Website: basic traffic monitoring enabled; plugin added to get more detailed analytics- Honorary membership: motion approved to make John Weaver and his wife Julie honorary members (presentation/plaque to be arranged)

Security, Equipment & Finance

- Cameras and deterrence
 - Current situation: trail camera takes photos but cannot reliably capture license plates due to reflective plates and IR washout
 - Decision: return the recently purchased camera (second best camera) and retain existing on site camera(s)
 - Next step: try deterrence first (solar motion lights, fake camera, flash) before buying an expensive camera
- Budget reallocation
 - Motion passed to reallocate \$250 originally for camera to "gate security" (solar lights/pole)
 - Timeline: group agreed to target installation at end of month (end of month mentioned as install timeframe)
- Treasurer report (July figures provided)
 - Starting balance: \$14,268.29
 - Income: \$316.00
 - Expenses: \$498.63 (porta potty, trash, camera \$79, Mailchimp, etc.)
 - Ending balance: \$14,085.66
 - Comparison: July 31st 2025 balance was \$13,467.85 (about \$600 higher this year)

Other Operational Notes

- Address / emergency mapping
 - Problem: Google Maps pin shows emergency address 10295 inside the flying area; county/emergency responders may be using incorrect pin

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- Action taken: a club member submitted feedback to Google Maps to correct the 10295 pin
- Gate shows a different number (106410) than website; club discussed adding an
 - emergency address sign on the gate
- Tables and safety while running engines
 - Concern: nitro/gas engine fumes affecting people seated near tables
 - Recommendation: engines that need lengthy testing should be moved to the lower pit/test area
- Chairs purchase
 - Discussion: additional outdoor chairs needed; motion approved to fund purchases up to \$200
 - Owner to submit receipts for reimbursement
- Site maintenance
 - Tree trimming needed over barbecue area because limbs hang down to tables
 - Volunteers coordinated to trim; club agreed to do work during weekday, volunteers set for Monday at 7:00 AM
- Neighboring club outreach
 - Club offered to help Hemet field with crack filling; intent to build rapport and cross promote events

Decisions made

- Return recently bought camera; retain existing camera units
- Approve reallocation of \$250 from camera budget to gate security (solar lights/pole)
- Approve hot dogs/hamburgers for fly in food (aim to break even)
- Approve \$200 (approx.) to purchase additional chairs
- Make John Weaver and Julie honorary members

Action Items

- Mark Gray: Send RSVP email for fly in
- Food Lead: Buy hot dogs & hamburgers - 22nd
- Ron: Bring ice - 22nd
- Janie: Provide paper goods - 22nd
- Security Lead: Return purchased camera (refund)
- Security Lead: Procure and install solar motion light + pole - End of month
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Notes/Risks

- Camera effectiveness limited by reflective California plates and IR washout; high end camera would be costly
- Solar lights risk theft or vandalism; plan to mount lights on club side of fence and consider dummy cameras

- Emergency address pin on Google Maps incorrect (10295); could delay emergency response until corrected

Expanded/Formal Minutes:

Call to Order: The meeting was called to order at 9:00 AM at the field. Club officers present were the President, Vice President, Treasurer, Secretary, & Newsletter Editor. A total of 16 club members were present. The meeting began with the Pledge of Allegiance.

Approval of minutes: Vernon Gilmore moved the minutes of the June 6th, 2026 meeting be approved as submitted. Seconded by John Loerke. The motion was approved.

Treasurer's Report:

Starting Balance: \$14,268.29 July 1st, 2026
Income: \$316.00
Expenses: \$498.63
Ending Balance: **\$14,085.66** July 31st, 2026

- Balance July 31st, 2025: \$13,467.85

Vernon Gilmore moved the treasurer's report be approved as submitted. Seconded by Butch Weiser. The motion was approved.

General Notes:

- Its fire season. Be super careful. If a plane goes down, be prepared to call 911 at the first sign of fire. Take a fire extinguisher with you every time.
- It's snake season – use caution when retrieving downed planes.
- Keith Miller was able to get Google Maps to adjust our address, 10295. Pin is now on our runway. Thank you Keith!
- There was a suggestion to consider getting a new address sign for the gate.
- Fly-in on the 22nd - Discussion to modify the scope of the event due to historical low participation. Make it regular flying for the whole day with a fun event or two thrown in. Generally, everyone agreed.
- Consider an email asking for a response for the fly-in for food. Concern that we will have a low turnout.
- Camera – CA license plates are too reflective; getting a camera that will pick up the image is too expensive. Vernon is returning the existing camera.
- An option to the camera was discussed - get motion sensor lights to deter the guy dumping the yard waste.
- Butch Weiser moved to roll the \$250 designated for a camera to buying solar powered lights (Gate Security project). Seconded by Keith Miller. The motion was approved.
- Vernon reported minimal traffic on the website – It's not really helping us advertise the club activities.
 - John Knowles requested we move the poster board with map one section to the East to provide better

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pilot visibility for approach and landing. No one had any issues or concerns.

Field Maintenance:

- Trim the tree over the BBQ area prior to the fun fly. It was agreed this would take place Monday 8/3, 7:00 AM.

Upcoming Events:

- Bruce Simpson – estate sale today after the meeting.
- August 8th - Swap Meet – Keith will make some cards for the fun fly to hand out at the swap meet.
- August 15th – Pylon Races T-28's and AeroScouts.
- August 22nd – Fun Fly (BBQ & Raffle); AMA National Model Aviation Day).

Old Business: See meeting summaries.

Safety Officer Report:

- See Safety & Site Work summary.

Rule review:

- Keith Miller moved to approve the rule 19 wording change discussed in July. Seconded by Vernon Gilmore. The motion was approved. **Gate must be locked at all times (when members are present and when no one is present). Each person entering or exiting the field is responsible to lock the gate behind them.**

New Business: See meeting summaries.

Good of the Order:

- Jeff Coskey offered to help the Hemet club with crack filling their field (loan our equipment) with the intent to build rapport and cross promote events.
- Butch Weiser moved to make John Weaver and his wife Julie honorary lifetime members of the club. Seconded by Keith Miller. The motion was approved.
- Butch Weiser moved to buy another 5 chairs (\$30 each), total \$200 (to cover 5 chairs already purchased). Seconded by Vernon Gilmore. The motion was approved.

Keith Miller moved that the meeting be adjourned. The meeting adjourned at 9:25 AM.

July 2026 President's Message

Ron Keith

Greetings everyone –

August is a hot and muggy month!

The AMA Fly In was successful due to the “behind the scenes” activity. There were raffle prizes and enough food based on the number of RSVPs. It was extremely hot, close to 100 degrees, which we suspect kept some folks from attending the event.

Work was done to clean out the space around the BBQ area by the same members that volunteer all the time! Rich

Brown shopped for the food and drinks then bought back what was left over so the club is not on the hook for the cost. He also collected money for the raffle tickets and was in charge of the raffle. Art Flores agreed to cook on short notice – thanks for your help Art! I was out of commission and unable to attend so Keith Miller took over all my tasks. A big thank you to Keith and all those that pitched in to help!!

Most members are great about closing and locking the gate. Thanks for the effort – much appreciated! Just remember, the County can and will close us down if they find the gate unlocked.

Please do not fly over the polo field. I get a call once in a while from the owner. We do not want to anger our neighbor. Remember, there are expensive horses and children learning to ride at the polo field.

August has been an exceptionally hot month!! Our field is cut short, but the surrounding area could be a problem from crashed aircraft. Please take a fire extinguisher with you when retrieving crashed planes. If you do not see the crash site, take two people with fire extinguishers and notify other members that you have crashed. **Be on the lookout for smoke!!** Remember “**wind at your back**” if fire is present. Call 911 immediately if you cannot control the problem (fire). An additional problem is critters (snakes) hiding in the shade so take extra precautions when retrieving planes. I do not want to keep harping on this, but a fire could cause the County to close the field. The east end of the field is scary with its thick and tall foliage.

Please do not hesitate to contact me if you see a problem with the field.

The next meeting will be held on Saturday, 5 September 0900.

Please take the time to read your emails. They provide updates regarding access to the field and any other pertinent information that you need.

As always, if you have any questions or anything to report, feel free to call me.

Ron

(619) 988-7667

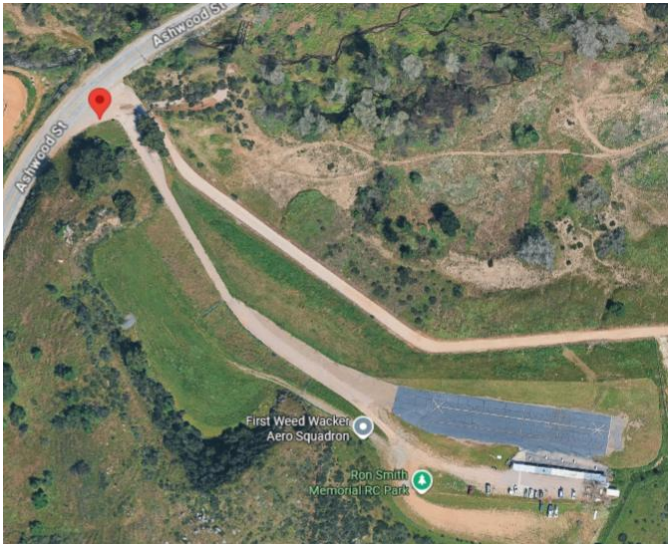
Editor's Corner

Keith Miller

Please forgive my error in last month's issue of the Hangar news where the cover page mistakenly showed our address at 10929.

Following up from last month, Google Maps corrected the location of our pushpin for 10295 Ashwood St. Now, guests and visitors will be accurately navigated to our entrance on Ashwood.

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National Model Aviation Day Event Report

We held our NMAD on the 22nd of August, officially the hottest day in Lakeside this year at 98 degrees. Surprisingly, the turnout was awesome!

Can-Can Event Results

In the Can-Can, pilots tow an empty soda can on a long 15' string, usually weighted with a few nuts or rocks. The goal was to touch the can in our circular target zone to accrue as many points as possible in a two-minute period. Jeramy Miller and me (Keith) both attempted the event with nitro models and cans that weren't weighted heavily enough. Both scored 14 points in 2 minutes (with a Sig Smith Miniplane and a Big Stick 60, respectively).

Jeff Coskey picked up 20 points with his Aero Scout, and Steve Morton got 26, also with an Aero Scout. Jim Elgie, in his first ever Fun-Fly event, flew his Eratix to pound the

zone for 62 points!

Hauling Jelly Beans Results

In this event, pilots are issued 10 jelly beans which are placed in a 1 oz measuring cup attached to the top of the airplane. The pilots are then tasked with flying some basic maneuvers with the goal of flying and landing smoothly to keep as many beans in the cup as possible. Keith dropped out early in Round 1, losing two of his ten beans during his first attempt (just a take-off and landing).

All other contestants went to Round 2 adding a loop to the circuit. That's where Jim and Jeff dropped out, losing all their jelly beans somewhere over the field. Jeramy and Steve both went on to Round 3,



flying a loop and a barrel roll and both saving all of their candies. This was the first time we'd seen the event go to a Round 4 – **two** loops and **two** barrel rolls, and this time Steve

lost three beans while Jeramy lost only two, winning the event.

The winners of each event took home a small collection of prizes and bragging rights.



Jeramy and Smith Miniplane, Jim and Eratix

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A very special thanks goes to all of those who sweated it out in the heat and made it all happen:

Richard managed all setup, tear down and the raffle.
Kenny Santos and Art Flores cooked.
Sandy Martin brought the baked beans (John Loerke's better half).
Janie Brown doctored up the potato salad and baked all of the wonderful cookies.
Vernon officiated the fun-fly events.
Mark helped managed food distribution.
Our newest youth rookie "AJ" drew the raffle tickets and won two prizes himself.

Lester Moore exemplified the true meaning of National Model Aviation Day, flying introductory and training flights with two youths while their families gathered to watch the kids have a good time. One of those being "AJ" will likely be ready for his solo check-flight soon! The other was Richard's 13-year-old great nephew Brandon.

Per Richard, our Treasurer, here was the financial report:

Food Cost	\$248.07
Income	\$160.00
Net	\$88.07
Raffle Cost	\$452.75
Raffle Income	\$340.00
Net Raffle	\$112.75

NET COST FOR EVENT: **\$200.82**

To note, this is exactly on par with our previous summertime BBQ events: 2026 Armed Forces Day event - \$211.53, and the 2025 Armed Forces Day event had a net cost of \$206.94. Not bad for a day of fun!

Frame Rate and Pulse Width in our Servos

Recently,
I've experienced several servo failures, fortunately, discovered on the ground during model maintenance or during preflight checks. I hope this article will help you identify potential problems early as well.

Over the past 15 years, I've acquired many models from estates and swap meets that have servos already installed. As long as the servos are smooth and in good shape, I use them. But most of those servos are "older analog" servos. Rarely do I find a

need to invest in new digital servos, and I don't buy much of the latest and greatest foamy ARFs.

It turns out that many of those servo failures were caused by the transmitter/receiver, and not by internal servo faults. The servos would get hot or start jittering or acting erratically. Here's what I learned.

Analog servos: Designed for the classic ~50 Hz (20 ms) frame period. Many newer high-voltage analogs tolerate somewhat higher rates, but rates much above ~70–100 Hz can cause overheating, jitter, or failure.

Digital servos (the vast majority of models from the past 15 years): Almost universally support up to **333 Hz** (3 ms frame period). This is the practical ceiling for standard 1–2 ms pulse-width servos because a full-width pulse leaves little low time at higher rates.

Specialized high-performance tail/rudder or gyro-optimized digital servos often support 333 Hz (or higher with narrower ~760 μ s center pulses).

In the case of Spektrum systems, the receivers can operate at different "frame rates", that being the frequency that the receiver sends commands to position the servos. Spektrum can operate at 22, 11 and 5.5 milliseconds between frames. (This data frame between the receiver and servo is different than the frames between the transmitter and receiver... That's a different topic which talks to frame losses, fades and holds. Not going there today.)

What those numbers translate to is the servo receiving position commands 45 times per second (45 Hz at 22 msec), 91 and then 182 times per second, accordingly for 11 and 5.5 msec frame rates).

Bottom Line Up Front (BLUF): I was literally cooking my analog servos when the Spektrum system automatically invoked the 11-millisecond frame rate, pounding the servos with commands faster than they could process and actually driving them to overheat, jitter, and fail.

Figure 2 is a depiction of a 1500 microsecond (μ sec)

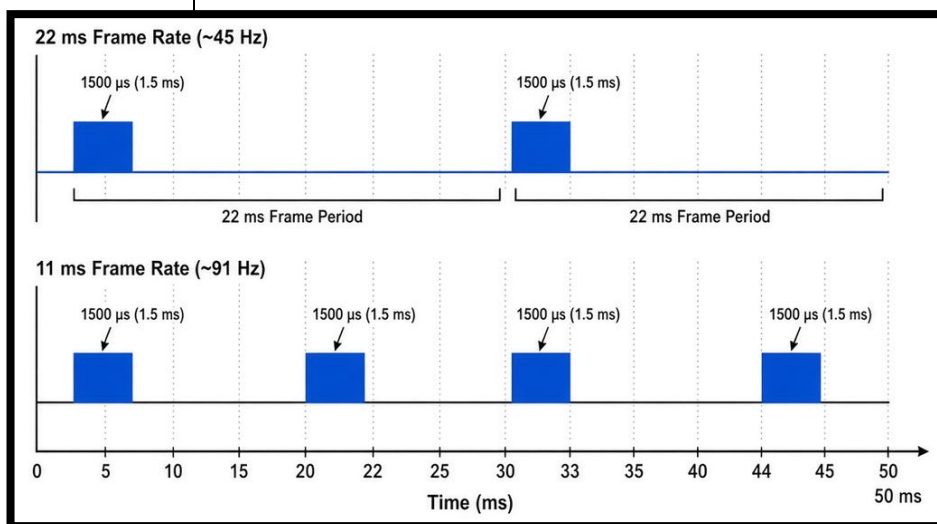


Figure 1. Pulses within frame periods

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pulse coming out of a receiver at either 22 msec or 11 msec. A 5.5 msec frame rate would have twice as many pulses as the 11 msec plot. The 1500 msec-wide pulse represents a command to the servo to go to center (for most servos). The pulse widths typically range from 900 to 2100 μ sec wide which is how the receiver tells the servo to move from one extent of its travel to the other.

Why does Spektrum do this? When a Spektrum gyro-stabilized receiver (“AS3X” is Artificial Stabilization–3-aXis) is configured, the engineers determined that, for best response when correcting for wind gusts, they needed an 11 msec frame. That allows higher control resolution for improved stability. That’s fine for the RTF and BNF models from Horizon Hobbies and the link that come with compatible digital servos. For those of us employing AS3X in our older planes with analog servos, that’s could be problem. The excessively fast command pulses can damage the servos (not “will”, but “can”).

The fix is relatively easy, but it bears paying attention. Any time a Spektrum receiver is initially set up with AS3X, and anytime the “relearn servos” function is used, the receiver is automatically configured to 11 msec. We then need to go into the receiver forward programming to set the frame rates back to 22 msec. Several of us can walk you through those steps if you need (myself, Lester, Kevin, others).

The Spektrum engineers have taken this on board and have agreed (in future updates) to either default to 22 msec, or to provide a screen warning on the transmitter that the configuration is about to set an 11 msec frame rate to remind us that maybe we do want to get back to 22 msec.

For those using current digital servos or ARFs that come with such, there’s no need to worry about this (generally).

The same issue may arise in any number of combinations of systems where a receiver is driving a servo harder than it’s capable of.

Other manufacturers use similar frame rates:

System / Protocol	Typical Servo/PWM Frame Rate	Notes
Futaba FASST	Normal: 14 ms High-Speed: 7 ms (ch 1–6)	High-Speed mode requires digital servos on the fast channels; remaining channels stay at 14 ms.
Futaba FASSTest	Normal modes ~ similar to FASST; 12-channel mode is significantly faster (more than 2 $\times$ normal update rate)	12CH mode prioritizes lowest latency (often used for 3D heli); telemetry is limited in that mode.
JR (DMSS / XBus)	Typically, ~ 14 ms packet interval	XBus servos can accept tighter intervals in some cases, but 14 ms is the standard/guaranteed rate.
Traditional analog / older systems	20 ms (50 Hz)	Classic standard; still widely compatible.
FrSky (SBUS-derived PWM, ACCST/ACCESS, etc.)	Often 9 ms or 18 ms	Depends on receiver and mode; some offer selectable rates. S-FHSS commonly in the 14–20 ms range.
Other modern digital (various)	7–22 ms range common	Higher rates (lower ms) are generally restricted to digital servos.

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And here's a partial summary of servos and their ratings. Digital servos won't exhibit the problems I described above, but the analog servos might.

MFGR	Example Models	Type	Typical Max / Recommended Frame Rate	Notes
Hitec	HS-311, HS-322HD, HS-325HB, HS-422, HS-425BB, HS-485HB, HS-625MG, HS-645MG, HS-430BH (HV analog)	Analog	50 Hz (20 ms) ; do not exceed ~14 ms	Classic sport and high-torque analogs. Pulse cycle listed as 20 ms on many data sheets.
Hitec	D-series (D645MW, D940TW, etc.), HS-5xxx/7xxx digital, HSG series	Digital	Up to 333 Hz (3 ms)	Modern programmable digitals.
Futaba	S148, S3001, S3003, S3004, S3010, S3305	Analog	50 Hz (20 ms)	Long-running standard analogs; widely used for decades.
Futaba	BLS series, S.Bus2 digitals, S3xxx/S9xxx HV digitals	Digital	Up to 333 Hz (some tail models higher with 760 µs center)	
JR Propo	NES-511, NES-517, NES-537 and similar NES-series	Analog	50 Hz (20 ms)	Older standard analog line.
JR Propo	DS-series digitals (DS8717, DS3717HV, etc.)	Digital	Typically 200–333 Hz	
Spektrum	Early A/S-series analogs or rebranded equivalents; some basic sport analogs	Analog	50 Hz / 22 ms preferred	Prefer Spektrum's 22 ms setting.
Spektrum	A6xxx / S6xxx digitals, H6xxx, A63xx brushless HV	Digital	Compatible with 11 ms / 5.5 ms; up to 333 Hz	

MFGR	Example Models	Type	Typical Max / Recommended Frame Rate	Notes
Savox	Earlier analog or hybrid models (less common)	Analog	50 Hz (20 ms)	Brand is predominantly digital.
Savox	SB-22xx / SC-12xx / SW series (e.g. SB2274SG, SC1268SGP)	Digital	Explicitly 333 Hz on many sheets	
Cirrus (older RC servo brand)	Various budget standard and micro analogs from 2000s–early 2010s	Analog	50 Hz (20 ms)	Brand far less active today; many were inexpensive analogs.
Other active brands (MKS, KST, Align, Power HD, etc.)	Older analog lines where offered	Analog	50 Hz (20 ms)	
Other active brands	Modern digital HV / brushless models	Digital	Up to 333 Hz	

Photos of the Month

This is a prime example of proper response to a downed e-powered aircraft outside of the runway boundaries. Jeramy Miller assists pilot Steve Morton retrieve a model, outfitted as required with our Crash Kit backpack. More of us need to follow this example.



Lyle Black had an unfortunate incident in which his beautiful Kwik Fly had a receiver switch failure. Control was lost heading up into the hill where he and Jeramy had quite a hike up the hillside. The Kwik Fly will fly again.



A team of members gathered to trim tree branches in the picnic area. Not pictured is John Knowles who put in some significant effort the previous day. Those on-hand on Aug 3rd were John Loerke, Jeff Coskey, Richard Brown, Keith Miller, Ron Keith, and Butch Weiser.



Photos of the Month



Photos of the Month



Thanks to David Roche for hosting our Pylon Race Day on Aug 15th. We had six participants: Lef to Right – Jeff Coskey, Keith Miller (Silver), Jim Elgie, Kenny Dunlap, David Roche, and Jeramy Miller (Gold). Jeff and Keith also flew a single exhibition race with Aero Scouts which would be a great class to race if we could only get members to participate.



Photos of the Month

Here are some of the raffle winners during National Model Aviation Day on August 22nd. AJ and Richard had the call.



Photos of the Month



Photos of the Month