

# State of the NAR

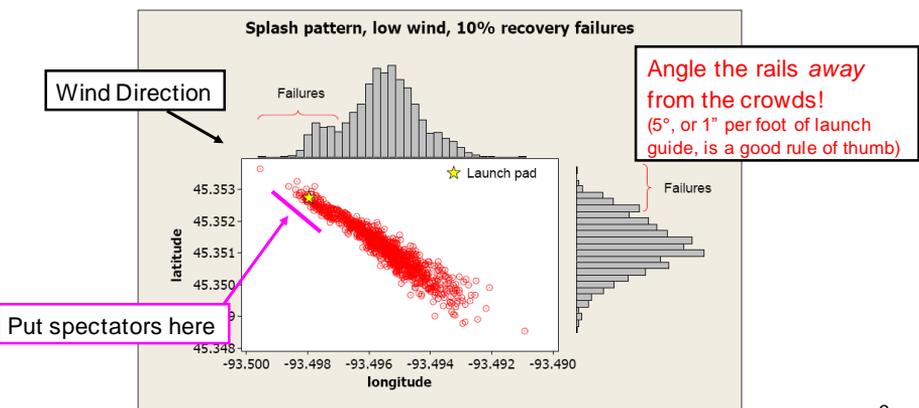


March 2014  
Ted Cochran  
NAR President



## Safety Minute: Keep Spectators Safe

Significant risk reduction can be achieved by positioning people and vehicles crosswind from the launch pads.

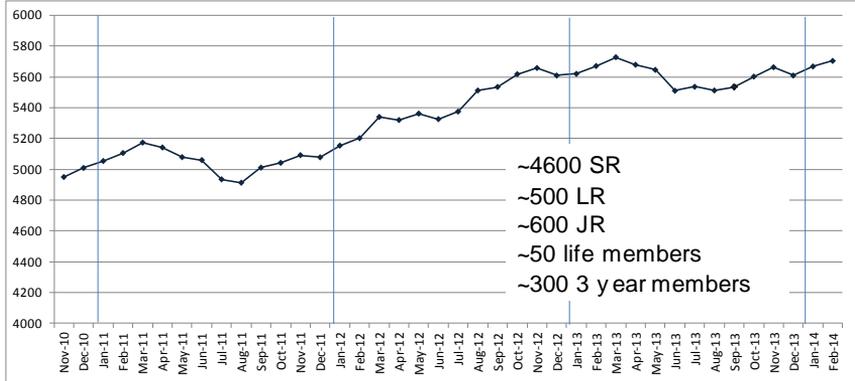




# How Are We Doing?

- Our membership levels remain high

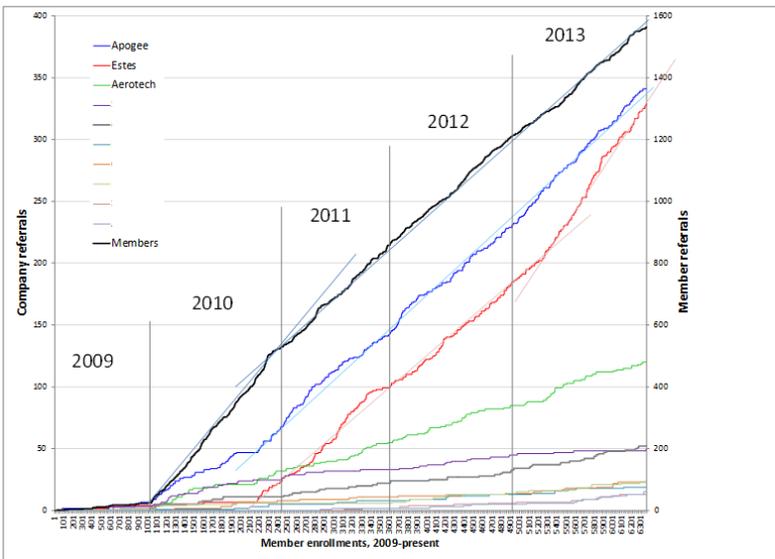
Around 5700 (+600 in last 3 years, but flat last year) thanks to focused efforts including kit flyers and the \$5 recruiting bonus to members



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# Referral efforts

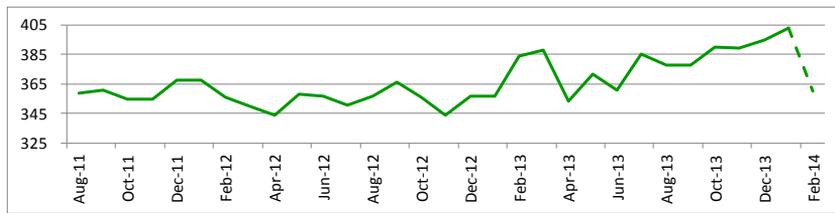


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## How Are We Doing?

- Our finances remain very good as a result
  - Continue to increase services to meet emerging needs
  - Section grants, educational support and outreach, launch infrastructure, upgraded technology
  - ~\$400K annual revenue, breakeven budget, appropriate reserves



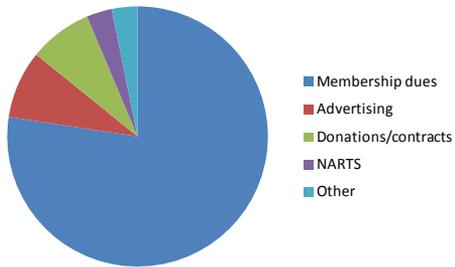
Funds Balance

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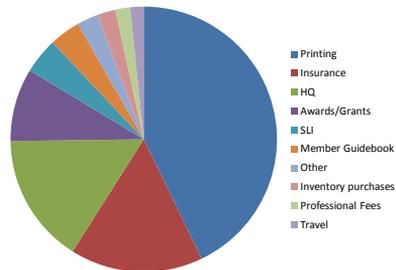


## Income and expenses

### • Income



### • Expenses



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## How Are We Doing?

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- Our magazine is the best it has ever been
  - Paying for top-quality “how to” and technical articles
  - Still looking for great content to sustain 56-page issues
  - Now the *only* rocketry magazine available in hobby shops
- Our outreach programs are doing well
  - TARC: 12 years! 701 teams!
  - Educational funding: Cannon Grants, Scholarships, R&D Prizes, Travel grants
  - 4-H partnership: Strong and growing
  - NASA SLI: Rescoped and moved to Utah
  - Seattle Museum of Flight: New Memorandum of Understanding signed, sport rocketry exhibit being planned
  - Civil Air Patrol: New Memorandum of Understanding agreed to

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## Our Association is Diverse

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- Age
  - 0.5% < A division (<7)
  - 3.9% A division (7-13)
  - 8.2% B division (14-18)
  - 87.4% C division (19+)
- ~325 Contest flyers
- Over 2650 High Power flyers (more than 50% of eligible members)
  - 1122 Level 1 (+60) (+134 Junior)
  - 1070 Level 2 (+45)
  - 422 Level 3 (+24)
- 148+ Teachers
- 143+ Sections

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## Our Priorities

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- Continue to make flight safety our organization's first priority
- Support and celebrate all forms of commercial sport rocketry: Model rockets to Level 3 high power, High performance to oddrocs, sport rocketry to international competition.
  - HPR Awards
  - New web content for contest flying
- Increase our organization's size: Members and sections, then increase member services as our size goes up
  - Headquarters support, section support, member support
- Support and expand outreach and educational efforts
  - Small Satellites for Secondary Schools, Museum of Flight
- Offer members full transparency and the opportunity to participate
- Continue to provide national support to our local sections
  - New Section Manual

**Be safe, have fun, pay forward**

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## Our Concerns

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Rockets that should *not* be flown too often *do* get flown

- Near misses and landing mishaps occur too frequently
- Financial health would be significantly impacted by a major incident
- Three hazards to focus on:
  - Power Lines
  - Fire Prevention
  - Trajectory Management

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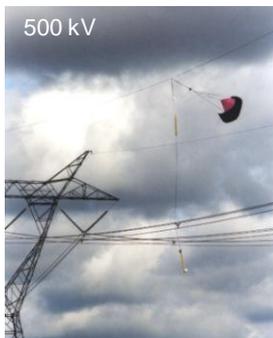


## Power lines

Multiple fatalities and serious injuries have occurred

### STAY AWAY!

Call the power company; let them recover the rocket (even the models you don't want back might attract kids.) Even if it costs you, it is money well spent!



Shorted main

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## Fires: Prevention is Key

Significant cause of loss of flying privileges

- Clear the area around the pads
  - NFPA requires blast deflector and cleared area near launch pads.
  - *Specific cleared distances specified for HPR (more for "sparky" motors!).*
  - Pad blankets, pre-soaking of ground can also help.
- Have adequate firefighting equipment, and *knowhow to use it!*
  - Fire extinguishers alone will not stop a grass fire – tools needed.
  - Observe burn bans: If dry & windy, fires may be unstoppable –don't fly.
  - Know the address!
- Assign a fire watch for the pads; don't just watch the flights.
- Fires at crash sites
  - Fire will grow if people do not hurry to the site expecting to fight it.



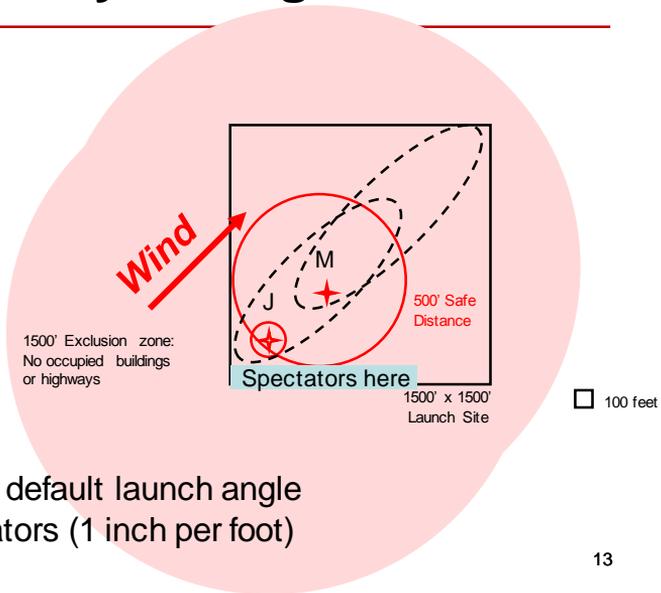
NARAM-47

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## Trajectory Management

- Maximize recovery area
- Place spectators cross-wind
- Aim rails away from spectators and parking areas
- New guideline: 5° default launch angle away from spectators (1 inch per foot)



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## NAR Safety Codes

- Updated August 2012 to reflect new NFPA Codes effective last year
- Drag races have new safety (personnel standoff distance) requirements in both
  - More than 10 model rockets, 2 HPR rockets
- HPR rockets with onboard electronic staging/deployment systems must have such systems “armed” only when upright on launch pad, minimum people at pad
- Smaller launch site minimum dimension requirements (1000 ft) for G and below “HPR” motors
  - New NFPA codes makes the upper limit of “model rocket” motors a full G (160 N-sec), not 62.5 grams of propellant
  - Hybrids, sparky motors, and motors with >80N average thrust are still “HPR” regardless of total impulse
- Comment period for NFPA 1125 closes in July

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## NAR Insurance

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- Our insurance coverage is being renewed:
  - \$2M limit, covers Canada as well as US
  - *\$1M for fire damage to launch site* (was \$100K, then \$300K)
  - Teams participating in TARC & SLI covered at *section launches*
  - Cost in 2014 will be about 5% higher than in 2013.
- A NAR member following the NAR safety code has NAR insurance coverage wherever they fly in the U.S. and Canada
- The ultimate liability (and responsibility) is with the flyer of the rocket, who makes the final decision to launch.
- NAR *section* insurance and *site owner's* insurance do not apply to TRA (and independent) launches.
- Dual Sections/Prefectures need to notify both HQ at least 24 hours before the launch as to whose launch it is.

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## Our Other Concerns

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- We need to continue to attract and retain new NAR members to sustain our future
- Development encroachment and landowner fear of “safety” or litigation continues to reduce access to launch sites
- We could use more sections; too many members do not belong to one
  - We need sections with flying sites near every major population center
- *We need more NAR volunteers to improve our services and programs, both locally and nationally*

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## Membership Surveys

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- About 2000 NAR members responded to our 2008 and 2011 online surveys
- Almost every section's leader responded to a 2012 survey
- Four areas for improvement stood out as priorities on all surveys and we have worked hard on all of them
  - Increase support to sections
  - Provide better support for efforts to gain/maintain launch site access
  - Redo the NAR website
  - Enhance the “how to” article content in Sport Rocketry
- Number one impediment to members' enjoyment of the hobby is access to launch sites
- Another triennial survey is coming this year.

Your feedback has driven the NAR Board's agenda

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## NAR Board Actions

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- Reaffirmed goals: 5800 members (2900 HPR certified), 140 sections with 3500 members – by NARAM in 2014
- Section support: Section grants on continuous basis
  - Not limited to safety items
- Implementing a new program to certify teachers
- Approved a code for HPR competitions
- Renewed membership rewards for recruiting new members
  - You will receive \$5 in cash for every member new to the NAR who cites you as their referrer when they join
- Upgrading infrastructure for National Events

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## More Board Actions

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- Plan to award 10 Cannon teacher grants (\$500 each), 10 NAR scholarships (\$1000), \$2200 in R&D prizes (Thanks, Bob!)
- Simplified TSO program
- Museum of Flight exhibit
- Altimeter testing
- Small Satellites for Secondary Schools
- New Web site to be rolled out
  - Permits content owners to maintain their own sections
  - Expanded member section with more member-only content

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## Still Happening

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- Still paying for Sport Rocketry Articles
- Recognizing HPR skills with “Rocket Science Achievement” awards
- Expired Motor testing program
- Motorcato.org
- Facebook page (2000 members)
- Section renewals
- Trustee elections

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## Our Value Proposition

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- At \$62/year (senior) dues we are the best value in the hobby and should say it proudly:
  - Includes a great 56-page bimonthly magazine
  - Includes insurance that is valid anywhere in the US & Canada, any time, including fire insurance for launch sites
  - Includes HPR certification through Level 3
  - Includes US & international competition programs
  - Includes family member discount of \$12
  - Includes a 64-page Member Guidebook with discount coupons

**We all need to recruit personally to keep our NAR going and growing!**



## What Can You Do?

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- *Fly safely*, and ensure that others around you do the same!
- Recruit new NAR members, HPR certifications, competitors
- Take your own turn volunteering to help with your section or with the NAR nationally (see me for our pressing needs)
- Do community outreach to community leaders, young people, parents, and to those who work with young people

**Be safe, have fun, pay forward**