



TRIPOLI MINNESOTA

March 14, 2017 Club meeting

- **Goal - Have Fun!**
- **(safely)**

AGENDA

- 2016 Launch Report
- 2016 “Year of Change”
- 2017 Range Operations
- 2017 Club Member Actions
- 2017 Flight Operations

2016 LAUNCH REPORT - LAUNCHES

	Impulse Class	Impulse Range	Average Impulse
Low	A - G	1.26 – 160	81
Medium	H - I	160.01 - 640	400
High	J – L	640.01 – 5,120	2880
Very High	M - O	5,120.01 – 40,960	7680*

* Only M's were launched

2016 LAUNCH REPORT - LAUNCHES

	Low	Medium	High	Very High	Total
April	59	22	7	0	88
May	14	9	12	2	37
June	107	25	7	3	142
July	118	28	11	3	160
August	160	34	13	1	208
September	78	19	9	0	106
October	93	34	13	3	143
November*	30	8	2	0	40
Total	659	179	74	12	924

*Restricted ceiling

2016 LAUNCH REPORT - IMPULSE

	Low	Medium	High	Very High	Total
April	4,780	8,800	20,160	0	33,740
May	1,134	3,600	34,560	15,360	54,654
June	8,667	10,000	20,160	23,040	61,867
July	9,558	11,200	31,680	23,040	75,478
August	12,960	13,600	37,440	7,680	71,680
September	6,318	7,600	25,920	0	39,838
October	7,553	13,600	37,440	23,040	81,633
November	2,430	3,200	5,760	0	11,390
Total	53,400	71,600	213,120	92,160	430,280

2016 LAUNCH REPORT – L1 CERTS

- Jeff Einstern
- Ryan Knutson
- Ralph Tuck
- Murphy Pizza
- Jose Carillo
- Anthony Pray
- Ion Timberlake
- William Inboden
- John Christopherson
- Duane Klink
- Jesse deFiebre
- Chistopher Winchell
- Jeff Marler
- Jennifer Stelzig
- Michael Urzahn
- Christopher Colvin
- Justin Van Iperen

2016 LAUNCH REPORT – L2 CERTS

- Stephen Thormondson
- Martin Petterson
- Christopher Winchell
- John Christopherson
- Patrick Bavier
- Duane Klink
- James Duffey
- Wayne Kosak
- Jeff Marler
- Nicholas Anderson

2016 LAUNCH REPORT – L3 CERTS

- Steve Nelson
- Christopher Dean
- Tom Dean
- Josh Dean
- Karl Tyrell
- Bruce Patrick

2016 – “YEAR OF CHANGE”

- Purchased new trailer and support equipment
- Rebuilt low, high power, and Red Bull pads
- Built new and/or repaired launch controllers
- Reconfigured launch range
- Divided RSO and LCO roles into 2 hour time slots
- Established Tripoli Minnesota canopy for memberships/sales
- Purchased new flight line posts and flags
- Organization changes
 - 1) New Prefect – Kevin Gapstur
 - 2) New secretary/treasurer – Dale Hagert

Thanks to many to make this all happen !

2017 – RANGE OPERATIONS

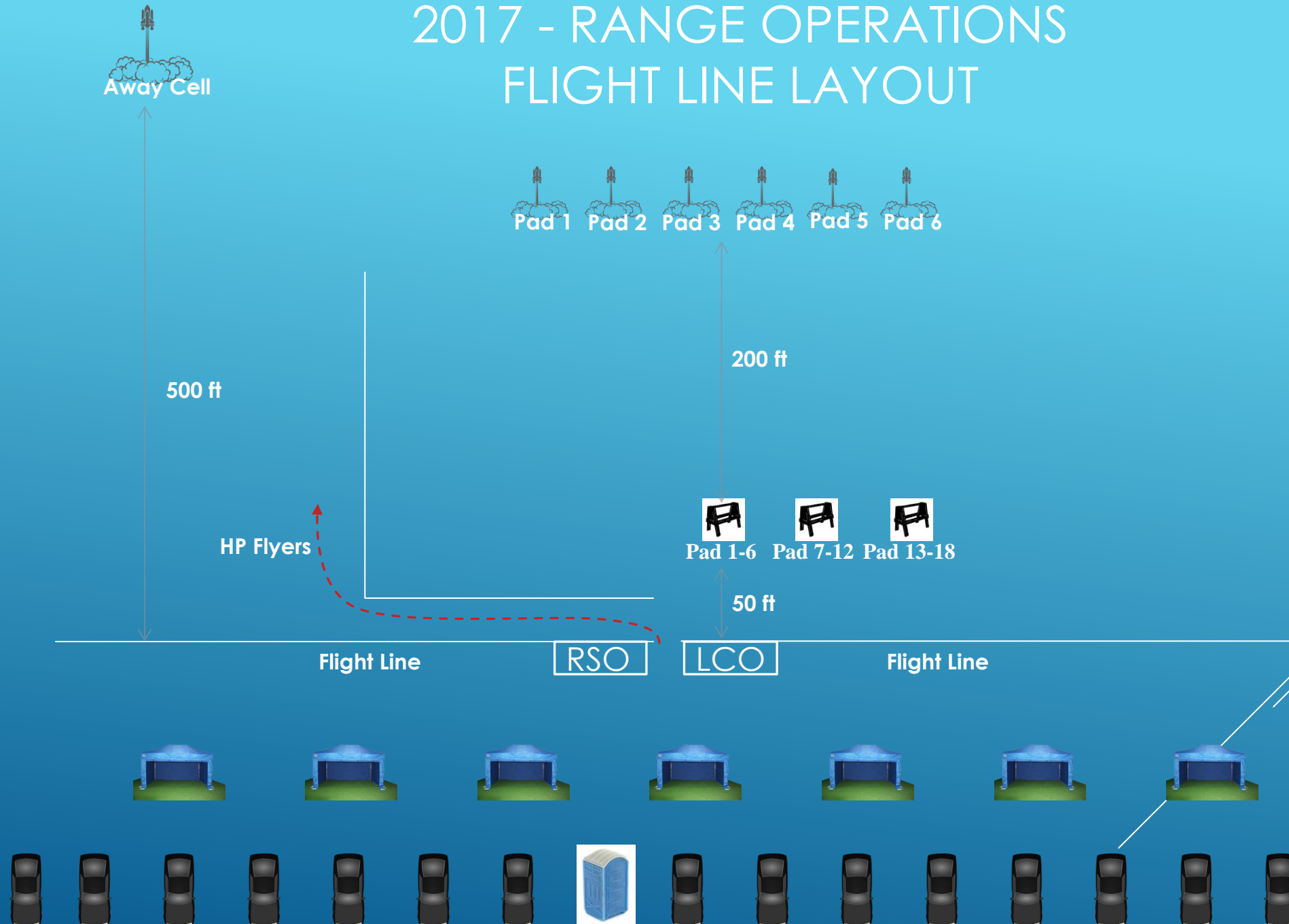
PRIMARY GOAL – SAFETY!

- First stop for Flyers – Tripoli MN Canopy
- Present your current Tripoli MN and National TRA cards
- Flyers will get a wrist band, valid for that day only
- High Power Flyer – Tripoli/NAR member (18 and over). Junior Members who have completed Mentoring Program. Also, Students from accredited schools (18 and over) working jointly with Tripoli member
- Flyers must have paid membership, local and national
- Flight cards now available at this location

Also available at Tripoli MN Canopy

1. National and local membership application
2. Merchandise – clothing, books, etc.
3. Rocket hunter rental

2017 - RANGE OPERATIONS FLIGHT LINE LAYOUT



2017 - RANGE OPERATIONS - PREFECT

- Knowledge that the Certificate of Waiver is in effect
- Knowledge that a Notice to Airman has been issued for the launch
- Aircraft must be outside a 3 mile radius of launch site
- Winds are less than 20 mph
- Flight path of vehicle cannot pass through clouds
- Lightning must be greater than 10 miles from launch site
- Launch site has been set up according to TRA safety code
- Adequate safety equipment is on-site

2017- RANGE OPERATIONS MEMBER ACTIONS

- Fly safe rockets - report lost rockets to the Tripoli MN Canopy
- Support our local vendors
 1. Off We Go Rocketry
 2. Brian's Brat's
 3. Tripoli MN Canopy for clothing, rocket hunters, books, etc
- Refrain from gathering around the RSO and LCO tables
- Stay behind the flight line
- Donate to help defray cost of Porta-Potty
- Park at 90 degrees to road, backing in
- Be respectful of property and crops
- Fill out flight card completely PRIOR to going to RSO table
- And finally – **Volunteer!** We need your help

2017 - FLIGHT OPERATIONS – FLYER AND RSO

PRIMARY GOAL - SAFETY

- Level 2 or 3 TRA certified (must be lvl 3 if RSO'ing M or higher)
- Check for Flyer wristband
- Flight card filled out with all pertinent information.
 - 1. Special attention to heads up, or certification flights
- Performs a Flight Safety Review (FSR) of vehicle
- Igniter not installed and ejection charge electronics must be off
 - 1. Multistage and cluster excepted (shunted for safety)
- New - Flights projected to exceed 3K feet must have electronic tracker

2017 - FLIGHT OPERATIONS – FLYER AND RSO (CONTINUED)

- Propulsion – various attributes relative to rocket/motor combo
- Construction – structural integrity, shear pins, launch lugs, fins, motor retention
- Stability – question for CP and CG calculations, measurements
- Recovery – parachutes, shock cords, blast protection
- Stamp card and send to LCO desk

Ask the Flyer Questions!

If necessary, send flyer back to fix issues or get info!

2017 - FLIGHT OPERATIONS – LCO

- Club member, extrovert, color commentator, know process
- Review announcements over speaker system.
 1. Cheat sheet will be provided.
- Assign launch pads to flyers after inspection by RSO
- Scan range for people and close the range
- It is permissible to launch HP independent of LP and vice versa
- When ready to launch, read pertinent info from card
- Be aware of Heads-up or Certification flights
- Follow flight until deployment can be confirmed
- Ensure descending rocket is not above pads or crowd
- Write comments of any noteworthy flights or landings