

ATRF COMPETITION RULEBOOK

American Thundercat Racing Federation (ATRF)

Thundercat Racing Division

OFFICIAL ATRF RULEBOOK

THUNDERCAT RACING DIVISION

Effective Date: 2026 Competition Season

Sanctioning Authority: American Thundercat Racing Federation (ATRF)

Discipline: Inflatable Tunnel Hull Racing

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1. GOVERNANCE & AUTHORITY

1.01 Sanctioning Authority

All ATRF Thundercat Competition shall operate under:

- ATRF General Competition Rules
- ATRF Safety Regulations
- ATRF Medical & Rescue Standards
- This ATRF Thundercat Rulebook

The ATRF Race Director shall retain final authority regarding competition operations.

1.02 Authority Hierarchy

The official chain of command for all sanctioned events shall be:

1. ATRF Board
2. ATRF Race Director
3. ATRF Safety Director
4. ATRF Technical Director
5. Chief Referee
6. Medical Director
7. Course Marshals

5 – 7 only if under other governing body.

Safety decisions shall supersede competition decisions at all times.

1.03 Emergency Authority

The Race Director and Safety Director may:

- Delay competition
- Modify race format
- Suspend competition
- Remove unsafe competitors
- Remove unsafe equipment

- Reduce field size
- Modify course layout
- Cancel competition entirely

No appeal may override a real-time safety determination.

2. DEFINITIONS

2.01 Driver

The individual operating steering, throttle, and gear selection.

2.02 Co-Driver

The second crew member assisting with vessel stabilization, navigation, and safety.

2.03 Heat

An individual scored race segment.

2.04 Marathon Race

Any race exceeding 30 minutes continuous operation.

2.05 Rescue Standby

Rescue assets positioned and immediately available for response.

2.06 Safe Overlap

An overtaking condition in which a minimum 15-foot stern-to-bow separation exists.

3. LICENSING & ELIGIBILITY

3.01 Licensing Requirements

When an event is sanctioned by other governing authority membership may be required

All drivers and co-drivers must possess:

- Current ATRF competition membership
- Current government-issued identification
- Medical clearance documentation
- Liability release waiver

3.02 Rookie Classification

A rookie is defined as any competitor with fewer than three sanctioned offshore race events.

Rookie competitors must:

- Attend mandatory drivers meeting
- Start at far outside of field
- Demonstrate safe race craft

The Chief Referee may extend rookie status if necessary.

3.03 Age Requirements

Class	Driver Minimum Age	Co-Driver Minimum Age
Standard	16	14
Modified	17	14

3.04 Medical Eligibility

All competitors must:

- Be physically capable of high-speed marine competition
- Be free from impairment
- Meet cardiovascular fitness requirements
- Disclose prescribed medications if requested

ATRF reserves the right to require medical evaluation at any time.

4. COMPETITOR CONDUCT

4.01 Sportsmanship

Competitors shall conduct themselves professionally at all times.

Prohibited conduct includes:

- Verbal abuse
- Threats
- Physical confrontation
- Intimidation
- Unsportsmanlike conduct
- Unsafe operation

4.02 Alcohol & Drug Policy

Alcohol or controlled substance use is prohibited before or during competition activities.

Competitors may be removed from competition for:

- Observable impairment
- Refusal to test
- Positive alcohol/drug results

4.03 Social Media & Public Conduct

Competitors representing ATRF shall avoid:

- Defamatory conduct
- Threatening statements
- Public attacks against officials
- Conduct damaging to the sport

Disciplinary action may result.

5. SAFETY REGULATIONS

5.01 Mandatory Safety Equipment

All competitors must wear:

- Helmet
 - Approved (Coast Guard) life jacket
 - Full footwear coverage
 - Eye protection
-

5.02 Helmet Requirements

Helmets must:

- Meet Snell, FIA, SFI, or ECE certification
- Be full-face design
- Be in serviceable condition
- Contain no mounted cameras
- Visors are not to be worn

Helmet visibility:

- Minimum 70% high-visibility coloration
 - Fluorescent yellow, orange, red, or lime acceptable
-

5.03 Life Jacket Requirements

Life jackets must:

- Be competition rated
- Include manufacturer labeling
- Provide adequate flotation
- Be highly visible above waistline
- Must be USCG approved

Competitors are solely responsible for fit and effectiveness.

5.04 Propeller Guards

- Full coverage propeller guard should be mounted to lower unit
-

5.05 Kill Switch Requirements

All boats must utilize:

- Driver kill switch
- Co-driver shall have a second kill switch key

Requirements:

- Driver tether max length: 3'6"
- Must immediately disable engine upon separation

Failure results in immediate disqualification.

5.06 Fire Safety

Required:

- Fire extinguisher in pit/trailer area
 - Fuel containment equipment
 - No smoking during fueling operations
-

5.07 Propeller Safety

Propellers shall:

- Be covered or removed while trailered
- Never be operated on land unless removed

Violation may result in suspension.

6. MEDICAL & RESCUE STANDARDS

6.01 Minimum Rescue Deployment

Minimum rescue staffing:

- Two dedicated rescue boats
 - Minimum three personnel per rescue vessel
 - One trained medical responder per rescue vessel recommended
-

6.02 Rescue Boat Equipment

Each rescue boat shall carry:

- Marine radio communications
 - Trauma kit
 - Airway equipment
 - Backboard or Stokes basket
 - Rescue cutting tools
 - Fire extinguisher
 - Patient immobilization equipment
-

6.03 ALS Support

All sanctioned events shall maintain:

- ALS ambulance on standby
- Medical director or physician oversight
- EMS communications integration

Major championship events should include:

- Dive team
 - Rescue helicopter
 - Transport boat medic
-

6.04 Rescue Operations

Rescue crews shall:

- Respond immediately
 - Minimize wake hazards
 - Extract victims horizontally whenever possible
 - Coordinate through race control
-

6.05 Race Stoppage Criteria

Competition shall be stopped for:

- Driver ejection
 - Capsize with injury potential
 - Rescue emergency
 - Course hazard
 - Unsafe weather conditions
-

7. CLASSES & COMPETITION STRUCTURE

7.01 Approved Classes

ATRF recognizes:

- Stock Class
 - Modified Class
-

7.02 Team Structure

Each vessel shall consist of:

- One driver
- One co-driver

No substitutions during active heats.

7.03 Class Separation

Classes may compete simultaneously but shall:

- Be scored separately
- Receive separate points
- Maintain class compliance independently

7.04 Field Size

Maximum field size:

- 12 boats per class
- Or at the discretion of the race director.

Minimum starters for points:

- 3 legal starters

8. HULL REGULATIONS

8.01 Hull Type

Only inflatable tunnel hull boats are permitted.

8.02 Hull Dimensions

Minimum dimensions:

- Length: 12'6"
 - Width: 5'6"
-

8.03 Air Chambers

Boats must contain:

- Minimum three independent air chambers
 - Ability to float with partial chamber failure
-

8.04 Construction Rules

Boats must:

- Remain collapsible/rollable
 - Be commercially available
 - Maintain original hull integrity
-

8.05 Prohibited Modifications

Prohibited:

- Modifications below waterline
 - Aerodynamic wings
 - Structural keel reinforcement below waterline
-

8.06 Allowed Modifications

Allowed above waterline:

- Foot straps
 - Safety handles
 - Reinforcement patches
 - Splash plates within dimensional limits
-

8.07 Hull Numbers

Boat numbers must:

- Be visible on both sides
 - Minimum 7-inch height
 - Contrasting color
-

9. ENGINE REGULATIONS

9.01 Engine Type

Permitted:

- Outboard motors only
 - Naturally aspirated engines
 - Pump gasoline fueled engines
-

9.02 Prohibited Systems

Prohibited:

- Turbochargers
 - Superchargers
 - Nitrous oxide
 - Power trim systems in operation
 - Exotic fuel systems
-

9.03 Mounting Requirements

Engines must:

- Be securely bolted to transom
 - Maintain fixed running angle
 - Utilize approved steering system
-

9.04 Steering Requirements

Only tiller steering permitted.

Steering systems may:

- Be reinforced
 - Include dampening devices
 - Utilize solid mounts
-

9.05 Gearcase Requirements

Gearcases must:

- Retain skeg
 - Remain structurally sound
 - Use manufacturer-based configuration
-

9.06 Approved Modifications

Allowed:

- Propeller changes
- Carburetor jetting
- Gauge additions
- Steering reinforcement
- Solid motor mounts
- Cooling modifications were permitted

To be continued for each class.

9.07 Illegal Modifications

Illegal modifications include:

- Hidden power adders
- Illegal porting
- Non-compliant displacement

- Unapproved fuel systems
-

10. FUEL REGULATIONS

10.01 Approved Fuel

Only:

- Fuel 1 racing fuel to be provided
- Petroleum or synthetic marine oils

are permitted.

10.02 Fuel Testing

Fuel may be tested:

- Before racing
- After racing
- At random intervals

Failure results in disqualification.

10.03 Additives

Prohibited:

- Oxygenators
 - Nitrous compounds
 - Exotic octane boosters
 - Power-enhancing additives
-

11. RACE OPERATIONS

11.01 Heat Structure

A race shall consist of:

- Minimum two heats
 - Preferred three or more heats
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11.02 Heat Distance

Closed course heats:

- Approximately five miles
- Minimum three laps

Marathon events:

- Minimum 20 minutes
 - Minimum 15 miles
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11.03 Race Meetings

Mandatory driver meetings shall include:

- Course layout
- Rescue procedures
- Start procedures
- Penalties
- Weather advisories

Attendance is mandatory.

12. STARTING PROCEDURES

12.01 Approved Start Types

Approved starts:

- Floating starts
 - Dock starts
 - Le Mans starts
 - Clock starts
-

12.02 Floating Start Procedure

Requirements:

- Boats aligned evenly
 - Minimum 10-foot separation
 - White flag at one minute
 - Green flag raised at 15 seconds
 - Competitors display tether switches
 - No movement before green drop
-

12.03 Jump Start Penalty

Jump starts result in:

- One-lap penalty
 - Or equivalent time penalty
-

12.04 Lane Holding

Competitors shall hold assigned lanes until clear of first turn marker.

13. COURSE RULES

13.01 Right-of-Way

Lead vessel retains right-of-way until safe overlap exists.

13.02 Overtaking

The overtaking boat assumes responsibility for:

- Safe overlap
 - Avoiding contact
 - Marker clearance
-

13.03 Missing Marks

Failure to round course markers results in:

- One-lap penalty
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13.04 Outside Assistance

Prohibited during competition:

- External repairs
- Towing assistance
- Fuel transfer
- Equipment transfer

Unless directed by rescue command.

13.05 Dangerous Driving

Dangerous operation includes:

- Aggressive lane changes
- Intentional contact
- Reckless operation
- Failure to obey flags

Penalties may include suspension.

14. TECHNICAL INSPECTION PROCEDURES

14.01 Annual Safety Inspection

All boats shall complete annual safety inspection.

Inspection areas:

- Hull integrity
 - Steering systems
 - Safety equipment
 - Kill switch
 - Fuel systems
 - Engine mounting
-

14.02 Event Inspection

Pre-race inspections may occur at every event.

14.03 Post-Race Inspection

Mandatory for:

- Winners
 - Randomly selected competitors
 - Protested competitors
-

14.04 Refusal to Inspect

Refusal results in:

- Immediate disqualification
 - Potential suspension
-

14.05 Technical Authority

Technical inspectors may:

- Seal engines
 - Require teardown
 - Verify measurements
 - Confiscate illegal components
-

15. PROTESTS & APPEALS

15.01 Protest Filing

All protests must:

- Be written
 - Identify rule violated
 - Include filing fee
 - Be submitted within one hour
-

15.02 Technical Protests

Technical protest levels:

Stage 1

Limited teardown inspection.

Stage 2

Full teardown inspection.

15.03 Appeal Process

Appeals progress through:

1. Chief Referee

2. Race Committee
3. ATRF Board

Final decisions are binding.

16. PENALTIES & DISCIPLINE

16.01 Penalty Types

Available penalties:

- Warning
- Time penalty
- Lap penalty
- Position adjustment
- Disqualification
- Suspension
- Expulsion

16.02 Immediate Disqualification

Automatic disqualification for:

- Illegal fuel
- Missing kill switch
- Unsafe conduct
- Refusal of inspection

16.03 Assault & Abuse

Abuse of officials may result in:

- One-year suspension
 - Permanent expulsion
 - Loss of points and titles
-

17. CHAMPIONSHIP SCORING

17.01 Points Structure

Points shall be awarded according to ATRF Championship schedule.

17.02 Championships

Recognized titles:

- National Champion
 - Divisional Champion
 - High Points Champion
 - Marathon Champion
-

17.03 Championship Eligibility

Minimum requirements:

- Five sanctioned events
 - Three legal starters per class
-

18. OFFICIALS & RESPONSIBILITIES

18.01 Race Director

Responsible for:

- Competition control
 - Scheduling
 - Safety coordination
 - Final race authority
-

18.02 Safety Director

Responsible for:

- Rescue operations
 - Medical integration
 - Hazard mitigation
 - Emergency response activation
-

18.03 Technical Director

Responsible for:

- Equipment legality
 - Inspection procedures
 - Compliance enforcement
-

18.04 Chief Referee

Responsible for:

- On-course penalties
 - Rule interpretation
 - Driver conduct enforcement
-

19. EVENT OPERATIONS REQUIREMENTS

19.01 Race Site Requirements

All sanctioned sites shall provide:

- Controlled pit area
- Secure launch/recovery zone
- Emergency vehicle access
- Communications infrastructure

19.02 Communications

Required communications:

- Dedicated rescue frequency
- Race control frequency
- EMS interoperability

19.03 Weather Monitoring

Race control shall monitor:

- Wind
- Lightning
- Visibility
- Water conditions
- Marine forecasts

20. EMERGENCY ACTION PROCEDURES

20.01 Incident Command

All emergencies shall operate under unified command.

20.02 Medical Evacuation

The Medical Director may:

- Halt racing
 - Request helicopter evacuation
 - Upgrade response level
-

20.03 Water Recovery Operations

Recovery priorities:

1. Crew safety
2. Medical stabilization
3. Hazard mitigation
4. Equipment recovery

21. TECHNICAL SPECIFICATIONS

21.01 Stock Approved Engines

Approved Stock engines include:

- Nissan/Tohatsu 50HP
- Mercury 40HP Four Stroke
- Yamaha 40HP
- Mercury 50HP

Subject to ATRF technical bulletins.

21.02 Modified Approved Engines

Approved Modified engines include:

- Mercury 40HP 2-stroke
- Nissan/Tohatsu 40/50HP
- Yamaha 40/50HP
- Mercury 50HP 2-stroke
-

Subject to ATRF technical bulletins.

22. AMENDMENTS & RULE CHANGES

22.01 Rule Changes

ATRF reserves the right to:

- Amend rules
 - Issue technical bulletins
 - Implement emergency safety directives
-

22.02 Publication

Official updates shall be distributed through:

- ATRF website / ATRF Social Media
 - Official bulletins
 - Competitor notices
 - Event circulars
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FINAL AUTHORITY

ATRF reserves final authority over all:

- Competition matters
- Technical interpretations
- Safety decisions
- Eligibility determinations
- Enforcement actions

Participation in ATRF competition constitutes agreement to comply with all rules and directives contained herein.
