

THE HUMAN ELEMENT

Motorcycle Rider Training and Education

Paper Title: ADVANCED RIDER TRAINING (ART)

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In 1994 TEAM OREGON was asked to lead training for the Oregon State Police Motorcycle Patrol Unit. Twelve officers formed this new unit, some with riding experience, others with none. TEAM OREGON staff conducted a special MRC:RSS, then in the days following ushered the group around Oregon for 1000 miles of street riding experience. A two-week long Motor Officer Training Academy rounded out the unit's training requirement.

A portion of the 1000 mile street riding experience included a stopover at a go-cart race track. After two hours of continuous riding and active coaching on the track, the subsequent 200 mile ride presented a night and day difference in skill, technique and confidence.

From that experience and enlightenment, TEAM OREGON developed a course of experienced rider instruction centered on the go-cart track. Known as *Advanced Rider Training*, ART was unveiled to the public in 1997. Tracks in Medford and Canby, Oregon, are utilized for this class.

THE TRACK

This program's success lies in the training environment of the go-cart track. The advantage of training on a go-cart track is the rider is presented with good traction, tight corners, safe and plentiful run out area, and a continuous circuit in which to work on precision control.



Jackson County Sports Park, Medford, Oregon

INSTRUCTIONAL OUTLINE

ART was field tested for two years. Instructors, former students, motor officers and some members of area motorcycle clubs and organizations participated as students. A variety of parking lot and track exercises and instructional methods were tested to determine suitability, safety and training effectiveness. The completed outline had to accommodate the strengths of the track so that riders could practice with confidence while giving instructors the opportunity to effectively coach.

PERFORMANCE EXPECTATIONS

After considerable testing, it became evident that riders with some formalized rider training experience benefitted more from ART than riders with no background in professional training. The evidence was presented in riders' cornering, swerving and braking performance and development. Formerly trained riders could more effectively improve upon the foundation of skills

developed in earlier training. The untrained group struggled to unlearn old habits and apply new principals in a short period of time, leading to this expectation: *Riders entering ART must be able to demonstrate safe and controlled cornering, swerving and braking performance, as evidenced by a certificate of training from a TEAM OREGON, MSF or other recognized training provider.* Riders are also required to show proof of endorsement and provide motorcycle insurance documentation.

ART OBJECTIVES

Riders enrolled in ART can expect to promote their riding knowledge and performance consistent with the following objectives:

1. To advance specific information on how to manage riding risks;
2. To advance training in and practice of skills shown to be lacking in crashes;
3. To advance riders' awareness of their machines handling characteristics;
4. To control the motorcycle smoothly and with precision.

Advanced Rider Training (ART) Instructor Range Cards

These range cards are for the sole use of the TEAM OREGON Motorcycle Safety Program instructors to facilitate and enhance presentation of Advanced Rider Training.

Under no circumstance may this material be reproduced for resale.

Revised 5/99

COURSE OUTLINE

<u>Exercise</u>	<u>TIME</u>
1. Overall Control Evaluation	15
2. Stopping in a Straight Line	20
3. Principles of Cornering	30
4. Selecting a Safe Cornering Speed	30
5. Countersteering for Swerving	20
6. Stopping Quickly in a Curve	20
7. Decision Maker (swerve/brake)	15
8. Practice and Evaluation	30
9. Debrief and Graduation	15

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CLASSROOM

ART includes 2 ½ hours of classroom review and discussion which can be conducted in a classroom or track-side.

Advanced Rider Training (ART) CLASSROOM REVIEW

! STRATEGIES IN MOTION

- " Managing Risk
- " Information Search and Processing
- " Effects of Impairment

! RIDING WITH PRECISION AND CONTROL

- " Principals of Traction Management
- " Maximum Braking Performance
 - Straight Line
 - Curve
- " Cornering Proficiency
 - Controlling Suspension
 - Linking Turns
 - Cornering Placement
 - Controlling Speed
 - Handling Mid-Curve Surprises
- " Swerving Performance
 - Managing Swerving and Braking

! TRACK RULES

The objective of this component is to evaluate the riders' understanding of information and principals learned in earlier training sessions and applied in their regular riding. The emphasis is in refining these strategies and principals and learning how to smoothly and precisely handle transitions, such as braking to cornering, cornering to cornering, swerving to braking, etc.

The objective of ART is not about speed, but rather about precision placement and smooth control. Once the rider understands how to link turns smoothly and handle transitions with assurance, confidence soars, and with it, capability.

READY TO RIDE

Student-owned motorcycles must meet the same safety and readiness criteria as in the Experienced Rider Course (ERC). Instructors inspect each motorcycle prior to allowing it to the track using the MSF "T-Clock" inspection form.

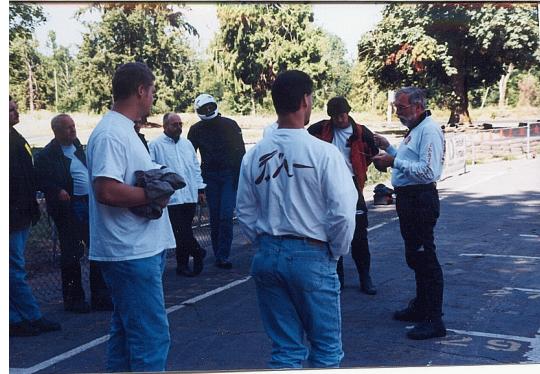
Motorcycles ridden in ART represent a cross-section of motorcycling, including standards, dual sport, cruisers, sport and touring styles. All styles of street bikes are suitable for this training.



Pat's Acres Cart Track, Canby, Oregon

ON TRACK

Eighteen students are allowed in each ART class. Tuition is \$95 for this one-day event. A total of four hours is spent riding, a period in which riders will log 32-38 miles. Safety rules include: no passing unless directed by an instructor, no tailgating, and no racing. Three to four instructors are assigned each class due to the larger area and number of riders. Instructors spend time riding with the class and track-side, depending upon the exercise and rider needs. Exercises run in one direction, except as described in Exercise 8.



Exercise 1 - Overall Control Evaluation

This exercise is conducted in the parking lot or paddock area and consists of a large offset weave. Riders are evaluated for basic vehicle control and rider skill.

Exercise 2 - Stopping in a Straight Line

This exercise measures the rider's ability to stop the motorcycle quickly and safely, and progresses from stops from 20 mph to stops from 35 mph.



Exercise 3 - Principles of Cornering

This is the first exposure to the track conducted in single file evenly spaced between instructors. Riders are instructed to keep speeds low and develop smooth lines through the turns. On each lap the riding instructors allow the following riders to pass so that all students benefit from the riding examples.

Exercise 4 - Selecting a Safe Cornering Speed

This exercise allows the riders to increase speed but still requires precision control in corners and smooth transitions. Instructors ride and/or coach track-side. Riders should now start to connect turns in one smooth motion.



Exercise 5 - Countersteering for Swerving

Riders are instructed to swerve onto a new path of travel and then back to the original path. Speeds start at 20 mph and move to 30 mph. Up to three practice areas are placed on the track.

Exercise 6 - Stopping Quickly in a Curve

Riders are instructed to straighten and brake smoothly to stop the motorcycle quickly while in a curve. Riders start at entry speeds of 20 mph and move to 25 mph. As many as three practice areas are set.

Exercise 7 - Decision Maker

The track is set for Ex. 5. Approaching riders are signaled to swerve left or right, and/or brake to a quick stop, or a combination thereof. Speeds begin at 25 mph and move to 30 mph.



Exercise 8 - Practice Ride

The track direction is reversed and riders practice. This presents a whole new riding experience to apply cornering judgment and precision. Instructors pay particular attention to safety and control as it is common for speeds to increase. This has not presented a problem, but an opportunity to capture and coach real-world skills and situations.



Passenger Rides

Giving passenger rides is an excellent method to show riders the desired precision and control. Riding instructors provide narration to coincide with the example of smoothly linking turns around the track. Passenger rides are offered only in Exercise 8.



Student response to ART is overwhelmingly positive. Skills and precision typically improve dramatically. This observation comes from formal and informal student evaluations, follow-up and student testimony. An example was presented in a 2000 ART for Motor Officers, many of whom stated that this training qualified as the best training they had ever received.

ART instructors are selected from among TEAM OREGON staff and members of its instructor corps. Instructors complete an apprentice period of observation and practice before being released to teach.

SUMMARY

ART is the crown jewel of TEAM OREGON's selection of courses, which includes courses for beginning, intermediate and experienced riders. Motorcycling is truly a lifelong learning adventure. ART serves to improve and refresh riders on that journey.

Attachment:

TEAM OREGON Poster

TEAM OREGON MOTORCYCLE SAFETY PROGRAM

Advanced Rider Training



ADVANCED RIDER TRAINING (ART)

Spend a day with encouraging, professional riding coaches and learn to ride with more precision and control than you ever thought possible! Offered exclusively to TEAM OREGON graduates, this 8 hour class is held on a closed course go-cart track. It is an ideal location to sharpen cornering, swerving, and braking skills.

Uninterrupted riding allows you to concentrate on cornering lines, proper head and eye placement, and judgement as to speed and position. We strongly recommend at least 1 year or 3000 miles of street riding experience on the motorcycle

you plan to ride in class.

TEAM OREGON offers motorcycle safety programs statewide. Call for course schedules in your area.



For more information call 800/545-9944 or visit our web site at <http://osu.orst.edu/dept/team-oregon>