



Guidelines

Equipment

Advice

Rules

2008
Oceanside to Annapolis



To RAAM Racers and Crew,

Preparations for RAAM 2008 are well under way. It's going to be another great race this year!

We know you're working hard to prepare for this year's race. The GEAR Book is designed to help in your preparation. The GEAR Book contains a wealth of information critical to getting ready to race in RAAM. It primarily covers race details and some logistics of the race. You still need to read the rules and should find articles about doing RAAM itself.

We'll do our best to make sure your RAAM experience will be as enjoyable and safe as possible. Your job is to help us stay on schedule by returning the required forms and following the procedures closely.

Should you have questions, problems or concerns, do not hesitate to contact us. Good luck with your preparations. We'll see you at the Start!

Sincerely,

Terry Zmrhal
Race Director

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Notes

This represents a major overhaul from the 2007 GEAR Book. If you find any errors, please let us know.

With 6 months still to go before the race, there may be minor changes from what is here. Any changes will be posted to the website, www.raceacrossamerica.org, and sent directly to you.

In some places there are references to the website. With the overhaul of the website some references may not be correct. If you can't find something at the website, please email us and we will correct the GEAR Book and let you know where to find the material you are looking for.

Finally - RAAM Supplies, such as light bar rentals, cargo rentals, etc. will be part of the website overhaul and the new Online Registration System. If you would like to reserve one you may also contact us directly and we will set it up.

Good luck!





Route & Navigation





RAAM Route and Navigation

The RAAM route is over 3000 miles long. It has been meticulously researched and reviewed to be as accurate as possible so you can have a smooth journey across the country. The route information is ultimately compiled into the RAAM Route Book which you will receive at the Start. This section will help you prepare for the task of navigating across the country.

Online Route Information

The Route Book is the master route information. We wait until just before the race to print it so that we can get any final route changes into it. In the meantime you will find route information available on the website with the most current information.

The website hosts a large amount of information about the route:

- Time Station locations
- Distance charts
- Maps
- Directions
- Elevation profiles

As changes are made to the route, we will update the website.

You will also find resources for electronic navigation via GPS or mapping software, including hints for use.

You can order Route Books from 2004-2007 at the RAAM Store. These will give you an idea of what a Route Book looks like. The 2008 course has over 1200 miles of changes from 2007. The 2007 Route Book can be used as a means of seeing what some of those previous sections look like. Do not bring any previous Route Books to the race as it may cause you confusion.

As always, the final, published Route Book is the master route.



Route Book

The core of the Route Book is the route itself. For each Time Station segment you will find a map, elevation profile, and detailed directions with turns and landmarks. In addition, you will find the following information in the Route Book:

- Course Description. The same description you see on the next page.
- Staff. Throughout the year, we have a small number of staff working on the race. Once the race starts, there are dozens of race staff and hundreds of Time Station volunteers. We salute all those involved.
- How to Use. Instructions on how to use and read the Route Book. The same as is provided in the following pages.
- Special Instructions. The Start and Finish have special instructions because they are different. In addition you will find various sections of the course also have special instructions – interstates, constructions, etc.
- Rules. A complete copy of the rules will be in the Route Book.
- Letter to police. Before the race, we send a letter to every police department along the route informing them that we are passing through. This letter is included.
- Police addresses. The address of every police station along the route is included.
- Hotels. A list of hotels along the route.
- Time Stations. A table of Time Station data including Time Station Number, Elevation, Miles, etc.



RAAM Race Route Summary

Over its first quarter century, the Race Across America was all about getting from coast to coast on a bicycle using paper maps, road signs, and odometers while strictly adhering to the required route from public phone to public phone. Over that time the direct routes became more congested and dangerous while “pay phones” drifted toward extinction. This year, while RAAM can still be ridden in the traditional manner, the support systems are more helpful, less costly, easier to use, and more accurate in letting everyone know where Racers are, but most importantly they allow the race to be held away from much of the commercial traffic and urban areas that had become so unnerving. We get to see more of small-town America, vastly different from the country depicted as the commercial and political giant by the media, or the simplistic, not always inspiring, stereotypical culture of commercial entertainment. The climbing challenges are similar to the past, but better defined so Racers and Crews can be better prepared. The vastness of the prairies and the heat of the desert remain challenges to Racers.

This year there are three races on the course at the same time with the one-day, the one-“K,” and transcontinental races with all their assorted divisions managed with a staggering start which should have more Racers meeting more often as we cross the vast nation.

RAAM leaves Oceanside and immediately attacks a series of moderate climbs. After passing in the shadow of the Palomar Observatory where one of our largest earth-fixed eyes scan the heavens to confirm the universe is indeed expanding (from where and into what?), the Racers plummet nearly 4000 feet in less than ten miles into the southern California deserts. After several hundred miles of very hot riding – including some miles below sea level near the Salton Sea, then over migrating sand dunes – the course climbs back into the cooler climates of Prescott and through the vortex of the Red Rocks of Sedona to Flagstaff, Arizona, where the 24 Hour Challenge ends.

Much of the course east of Flagstaff through Arizona, Utah, Colorado and New Mexico is laid out through reservation lands of various Indian nations including the magnificent Monument Valley. We must be respectful of cultures of these people with our behavior and vehicle noise and lights, as much as we should be in any residential areas of the United States. Returning again to our fine support in Cortez, Colorado, this year we take a tour through the center of Durango near the famous Silverton narrow-gauge railway depot before the familiar Time Station on the banks of the Animas River. We drop out of Colorado for the Continental Divide and major climbs of the eastern Rocky Mountains this year, including the finish of the Race Across the West in Taos, New Mexico. Near Taos, the Indians have preserved the structures of their earlier cultures driven by previous North American glaciations and the intervening periods of “global warming.”

After Taos, the transcontinental RAAM Racers ride the Enchanted Circle through Eagle Nest and descend out of the mountains. The transition from climbing to flatlands could not be more abrupt than it is in Cimarron, where Racers begin a thousand-mile slow



(often tediously so in the face of likely unfavorable winds) transition from prairie grasslands to amber waves of grain and green biofuel and ultimately to the river valley communities of the Missouri (longest river of the country) and the Mississippi.

For those who have come this way before, the route from the familiar crossing of the great river to the Finish will be the most different. We abandon the busy thoroughfare of US 40 and 50 through most of Illinois, Indiana, and Ohio and instead venture onto rural, often shoulderless two-lane roads with almost no traffic. For those Crews finding their way with just the Route Book and the follow car odometer, the navigator will be quite busy spotting fewer and smaller road signs, and time spent setting up GPS navigation should prove justified. While the staggered start will have Teams likely to catch and start to pass Solo Racers in Kansas as before, this time the delayed starts could have record-setting Solo men and women dueling for the lead all across Indiana, to the delight of University Indiana students who annually host the “Little 500” track bike race, perhaps the best-known amateur cycling race in the world thanks to Hollywood’s Oscar.

Again we do most of the climbing east of the Mississippi River in the many hills of West Virginia, Pennsylvania, and Maryland. We also visit the Gettysburg Battlefield, reminding Americans what sectarian civil war can do to a nation, then we ride through more of the Amish communities nearby which seem to reflect that era, but don’t. There we head south to stop at Mt. Airy Bicycles, where those with time penalties will serve their sentences. With help from Capital Bicycles of Annapolis, the Finish line has been set in what, in the past, has been a colonial, sleepy, fishing village often almost ignored in its hidden utopia between Washington and Baltimore.



RAAM Navigation

As has been the practice for several years now, the route description will be supplied in two formats. The complete description will appear in the Route Book and this is the one to which all Racers must conform or be found at variance with the rules. In addition, it will be provided in digital form, suitable for GPS-assisted navigation. With this relatively straightforward technological enhancement, navigation errors can be reduced by having the ability to cross-check where you think you are in the Route Book with where you actually are in the real world.

Remember: if there is a difference between the electronic and Route Book description, the Route Book prevails and is the official Route. If in doubt, follow the Route Book.

The hardcopy Route Book will include all traditional information. All turns will be unambiguously described. Mileage to turns, elevation data and important intermediate roadside milestones will be given. Distances are recorded in statute terrain miles such as a precisely calibrated odometer or cycle computer will display. Annotated Time Station-to-Time Station section maps will show the course in enough detail so that with the accompanying description extra paper maps should not be needed. An elevation profile in feet of each section will also be supplied.

Electronic Navigation

Electronic navigation employing mapping software or GPS hardware is a mature technology of the last half-century now readily available in reliable, low-cost consumer products. Having GPS information available can help with navigating the RAAM course and the more than 300 turns. GPS devices continuously report your location, essentially reducing the navigator's job to simply checking to be sure that location remains on the route specified in the Route Book. Knowledge of street names, and for that matter distance between turns, is no longer critically important to staying on the route. It does take some effort to master these tools, but it can be worth well it. It should be noted that many competitors make it across the country without GPS and without ever getting lost; it just takes some diligence and paying attention.

The major advantages of having GPS information available to the follow-car driver:

- The other Crewmember, required by the rules to be in the car, can attend to other things besides navigation for almost the entire race, when turns are miles apart, so you don't need a third person in the follow car to do these jobs.
- While they can be damaged through misuse, properly set up, a GPS is always reliably accurate within system limits (more than precise enough for all RAAM needs). If powered from the vehicle electrical system, GPS gadgets suitably set up for RAAM can run continuously, providing current location information for the entire race with little, if any, operator actions.



- “Handheld” gadgets can be used in the follow vehicle, and passed to the Racer if he will be alone for awhile, to remind him when and where to turn and which way.

Problems with trying to have useful and reliable GPS information for RAAM drivers and Racers:

- Not all GPS devices are suitable for the RAAM task of making one trip with more than 350 required stops or turns. You have to find one that is. The RAAM website has suggestions of needed capabilities and what sorts of gadgets have them.
- While no more difficult to use than a cell phone or personal computer, until users become familiar with GPS receiver operation, there is a learning curve. This is only a few minutes for most operators but considerably longer for the person who has to set up the gadgets for RAAM and load all the race data. As with cell phones and PCs, if you can operate one GPS, it’s easy to get used to operating any of the others.

RAAM will make all necessary race data available in the various formats used by many of the more popular GPS receivers and their associated data installation programs as downloadable files from the RAAM website. If contacted in a timely fashion, the RAAM management, specifically the Route Designer, will try to provide individual help with selections of equipment and software (by capability, not price or brand) which have been found to be most useful for the unique RAAM task, and how to then prepare it with the proper data.



How to Use Route Book

The more than 3000-mile route designed for the 2008 Race Across America is divided into 54 sections with a designated Time Station at either end. Sections average about 55 miles in length with two in the southern California low desert over 88 miles and two in the western prairie grasslands about 82 miles long. Time Stations are specific locations, frequently highway intersections, at which the Racers' times are reported to race headquarters by the Crew, using a cell phone or the closest public telephone. Many of the Time Stations are staffed by volunteers, who are there to provide information, help, and other services appropriate to the location. They may be set up anywhere within visual range of the place designated in the Route Book where they can best provide their services, usually close and on the right side shoulder or curb of the route highway. If there are no volunteers at a Time Station, and a working cell phone is not available, the Route Book indicates where the next public telephone, which is either outdoors or accessible at all times, may be found.

With the exception of special pages covering Start procedures, each route section is specified in detail on two facing pages of the Route Book. On the left-hand page is a topographic map of that section with detailed inserts, to clarify places where several turns occur close together or where other amplification is considered useful. Below the map is an elevation profile of the route in that section. Be careful to note the vertical elevation and horizontal terrain mileage scales of these charts as all are formatted to fill the same space on the page. Distances are in US statute miles, following the route similar to as if you are measuring with a precision odometer, and elevations are in feet above the WGS 84 datum sea level.

The right-hand page contains the specific instructions for following that section of the route in tabular format, following a brief description of the section. Column headings are **ref**, **mile**, **turn**, (**description**), and **elevation** and are explained in the following paragraphs.

ref a **reference** designation assigned in sequence to each line in the directions which specifies action at that particular location.

- Time Station **ref** designations are TS01 through TS54.
- "Turns" have **references** starting with two digits for the number of the next Time Station ahead followed by a letter, which allows you to put all the turns in a section in proper sequential order. After this is a hyphen (dash) followed by a one- or two-letter abbreviation indicating what the Route Book directs you to do at this location. There aren't many choices: an L or an R suggests a left or right turn of about 90 degrees or more, whilst BL and BR refer to turns which are less than 90 degrees (bear left and bear right). An S means to go straight, and is seldom used except when the road you are on turns but the intent is for you to continue in a more or less straight direction onto the connecting road, or some other unusual situation.



- These **ref** designations are useful cross-references between the Route Book and points displayed by a GPS receiver on a bike or in a vehicle or shown on the screen of a computer running mapping software. In addition, the **ref** designation is also handy in communications, both with your Crew and with Race Headquarters. “We are three miles before 36F” immediately conveys a complete Route Book **reference** without worrying about page numbers or miles. Similarly, should a Racer be proceeding alone and carrying a handheld GPS receiver to count down the distance to the next turn, the name (**ref**) of the turn, if the gadget can display it, tells him in simplest terms what to do when he gets there. You will probably find other uses for the convenient **reference** label in coordinating Racer support.

mile Every instruction in the Route Book directions refers to a location along the route. The **mile** number is the odometer or terrain distance since the previous Time Station.

- For this number to be most useful, the driver must remember to re-zero the trip odometer at each Time Station and then realize that if the vehicle has to depart from the specified route (stop for gas or whatever) the odometer will no longer correspond to the miles indicated in the Route Book.
- For convenience, those miles which correspond to referenced turns or other action are in **boldface (dark) print**. It is recommended that Crews also use colored highlighter pens to further emphasize these points. Missing a turn can ruin your whole day by annoying the Racer.
- If two lines of instruction refer to points less than 0.1 mile apart, the second line will normally have “Imm” for immediate in the mile column or perhaps 1 BLK for one city block (next intersection).

turn

- This column contains the spelled-out **LEFT, RIGHT, br LEFT, br RIGHT**, and **straight** instructions abbreviated in the **ref** key and they are also in **dark print**.
- The first entry in each section uses a compass heading to indicate in which direction you should go when leaving a Time Station and will most often be **East** or **Northeast** but not always. Time Stations that are set at intersections can be confusing, so this indication is there to help in addition to the comments in the next column.
- All other entries in the **turn** column are in faded (light) printing and are the miles remaining until the next turn. To emphasize that no action is to be taken the word “straight” may appear in light print in the turn column without resetting the countdown to the next turn. This happens when there is an intersection where the road appears, through differences in paving or traffic, to turn but, in fact, does not.

elevation This is the surveyed altitude above sea level of the point and is used to help anticipate climbs and descents.

- Every **referenced turn** has an listed **elevation**, as do other points which mark the start and top of significant climbs, even if the location itself, often a creek, has no road sign or other means of identification.



- This number will not often agree with GPS data within 30 feet due to the inherent variability of satellite locations and their orbital geometry, but the difference between numbers in the **elevation** column of the Route Book represents the real world, as it is to the best we have been able to survey it and publish results in a readily useable format.
- You are cautioned against using the **elevation** number, and what the GPS tells you, all by themselves, to determine you are at the location of a **turn**.

(description) The main column on the right-hand page contains the detailed information for turns, names of streets at highway junctions, and the like. Also included are suggested lane changes for turns ahead. As long as you stay on the specified route, whatever lane or shoulder, you are riding according to RAAM rules, but you must also realize that local police and traffic controls, even if temporary, by rule take precedence over the Route Book, and any conflict must be reported to headquarters.

There are a few abbreviations like “jct” for a road junction and those associated with street names like “Rd.,” “St.,” “Ave.” and the like.

US highways are indicated by their numerical route number, such as US 56 E for US highway 56 going east. A state road would be referred to as SR 252 and so forth regardless of what state it is in. County roads are CR, and Indian reservation roads are IR.

On any directions line, the road that is part of the RAAM route at that point is in **dark (boldface) print**.

Intersections where actions are required often have the following abbreviations to help you identify them:

- TL (traffic light)
- yTL (flashing yellow caution light)
- rTL (flashing red stop light)
- T (a three-way “T” intersection)
- SS (stop sign in our direction)
- 4SS (a stop sign in every direction).

This information is seldom included for junctions where we take no special action but, of course, every traffic control sign, light or other device must be obeyed according to RAAM rules as well as local laws.

Railroad crossings are not normally listed but by state and federal law have adequate warning signs. Livestock control grates are sometimes real and sometimes just paint on pavement but neither kind is listed and should be anticipated as surely as the animals they try to control or any other hazard in the road.

At the bottom of each right hand page are spaces for recording the time of the Racer’s arrival as reported to headquarters and the confirmation number received back from headquarters as evidence that the report was received.



Detours/Alternate Routes:

Between the Start and the point in the desert where restrictions on support vehicle use of the route are lifted, 31 miles past Time Station 1, there are several routes provided. The one for the bicycle Racers must be strictly followed and since Crew support is not present the Racers should each have the copies of the directions for that part of the route, included in the Route Book as a tear-out page, and know how to interpret them.

A suggested route for the follow car to rendezvous with the Racer is provided but need not be followed as long as no Crew support vehicles are on the route prior to the end of the neutral support, about 22 miles from the Start.

Special attention must be paid the restrictions on the size and number of support vehicles for Racers between the Start and the desert floor, since use of the “Glass Elevator” rapid downgrade by large vehicles is prohibited in the race rules, and experienced mountain cyclists may indeed be trying to go considerably faster than all motorized vehicles, with no really safe opportunities for anyone to pass anyone else, other than perhaps two daredevils on bikes. A suggested alternate route is offered for RVs and other vehicles not permitted on the course or to use the “Glass Elevator” to get from the race Start to the rendezvous point on the desert floor.

Several (about a half dozen) other alternate routes on the way east are described to allow large vehicles to avoid unnecessary narrow mountain roads (Arizona), low clearance obstacles (Missouri and Pennsylvania), and congested pedestrian areas (Indiana and Ohio). Each of these is indicated in the remarks at the top of the associated directions page with details in a box at the bottom of the same page.



Sample Directions

This is what a page of directions will look like in the Route Book.

TS 13 to TS 14 Cortez, CO to Durango, CO
 Leaving Cortez, the course heads into the heart of the Colorado Rockies--the San Juan Skyway--with two warm-up climbs. Elk warnings return. Generally, wide roads with good shoulders and moderate traffic.

<u>ref</u>	<u>mile</u>	<u>turn</u>	<u>elevation</u>
TS13	0.0	E continue on US 160 E	6175
	0.4	straight TL: SR 145, stay on US 160 E	6180
	3.6	39.8 cross McElmo Creek (again, and for the last time) .. fairgrounds (on right)	6291
	8.7	straight jct US10/Mesa Verde National Park, stay on US 160 E .. 3 mile gradual descent	6963
	11.9	31.6 Mud Creek - Commence climb up Mancos Hill	6643
	14.9	straight stay on US 160 E <not right to Bus US 160>	6947
	16.3	27.1 <u>Mancos</u> .. TL: SR 184	7049
	17.0	26.4 cross Mancos R, <i>caution--Bus US 160 merges from right</i>	7117
	22.0	21.4 Mancos Hill summit, 2 mile descent into Thompson Park	7944
	23.4	20.0 Cottonwood Creek, Thompson Park. Commence climb	7639
	30.7	12.7 Hesperus Hill summit ... ski area (on right)	8414
	32.9	10.6 jct SR 140, stay on US 160 E	8129
	33.7	9.8 begin marked 6% descent	8230
	43.4	0.1 cross Animas R	6472
14A-L	43.4	LEFT TL/T: US550/Camino Del Rio. Large RVs may opt to turn right here and proceed .6 miles directly to the time station where RV support facilities are available.	6474
14B-R	43.6	RIGHT TL: College Dr (First TL on US550)	6488
14C-R	44.3	RIGHT TL: E 8th Ave (Last TL on College Dr in town)	6576
14D-R	44.6	RIGHT T: Santa Rita Dr (Toward Gateway Park)	6532
14E-L	44.8	LEFT TL: US160 E/US550/S Camino Del Rio	6479
TS14	44.8	0.0 TS 14 at Gateway Park - Phone at Visitor's Center	

Arrival time/conf#: _____ / _____
 Time Station 14: Durango, CO

813.1 miles so far: 2,200.3 miles to go



RAAM Course Description

The 2008 edition of the Race Across America is a combination of sections ridden over the past 26 years and safety considerations which take advantage of better roads and methods of ensuring no one gets lost or out of touch. With more simultaneous events and several different start times for various race divisions it is more likely than ever that even in the most remote parts of the country Racers will not be alone on the road for as long as many have been in the past. Some of our most dedicated and resourceful Time Station Crews will be visited again over the 3013 miles from the familiar Start at the Oceanside Pier on the Pacific Ocean to our new destination at the City Dock of historic, colonial Annapolis, Maryland. Many Time Stations will be new and looking forward to supporting world-class athletes doing what only they can do that well, and rookies still honing their skills.

RAAM Racers start their cross-country cycling odyssey in Oceanside, California, leaving the sound of the Pacific Ocean surf hitting Oceanside Pier and enjoy a police-escorted “parade” up The Strand and the San Luis Rey bike path. By the time they cross under I-15, the parade is over and they’re racing with the RAAM staff providing minimal neutral support. The first time that Crews may accompany their Racers on the route comes after about 21 miles. Separate suggested, but not mandatory, routing is provided from the Start for the follow cars and for other Crew vehicles not allowed on the course until after crossing the coastal mountain range. A series of moderate climbs away from the ocean takes the Racers into the shadow of Palomar Mountain near the crest of the Laguna Mountains. Then, not unlike a blast furnace, the temperatures rapidly climb into triple digits during the steep, dizzying, twisty, 3500-foot descent of the “Glass Elevator” into the Anza Borrego Desert. Desert conditions could get even more difficult below sea level along the southern shore of the Salton Sea, as rising humidity levels make a mockery of the “at least it’s a dry heat” West Coast mantra. Brawley, California, is the RAAM first-day desert oasis with a Time Station and full services between two hot 90-mile sections. These sections take Racers over sand dunes and through Colorado River Valley agricultural communities to Blythe and the Interstate Highway I-10 bridge to Arizona.

Without an extensive desert detour there is no alternative to riding the shoulder of I-10 for 30 miles as the race enters Arizona. The route trends up over the eastern lip of the Colorado River Valley to Quartzite (last 24-hour fuel opportunity until Prescott) and then departs the limited-access highway hazards on US 60. The barren stretch between Wenden and Gladden will be mentally demanding: for over 20 miles, the road is perfectly straight and not even the string of telephone poles along the left side of the road appears to alter in appearance. The desert is not a forgiving environment and there are few turnout opportunities for support vehicles maintaining the posted speed. 350 miles into the race, Yarnell Grade along with subsequent climbs into Prescott, finally allow the Racer to bid farewell to low desert conditions while providing white-knuckle driving for support vehicles.



Taking pages from historic RAAM routes of the mid 1980s, this race follows the mountain route from Prescott through Jerome, Cottonwood, and Sedona to Flagstaff. It is suggested that support vehicles not required for this 90-mile section use the fast SR89/I-40 bypass to avoid being trapped into illegal caravanning on the mountain roads and narrow streets of Jerome. The 24 Hour Challenge ends in Flagstaff.

Departing Flagstaff, the route bends north into the Indian Country east of the Grand Canyon. At Kayenta, the Racers pass between the silent sentinels that guard the spectacular Monument Valley. The Utah canyons around Mexican Hat and Bluff will be equally memorable.

Western Colorado brings the Rocky Mountains: the **high** Rocky Mountains. Between Cortez and Durango, Mancos Mountain and Hesperus Hill are simply polite introductions to the much more significant climbing to follow. After the Racers pass through Pagosa Springs, RAAM turns south into New Mexico then back into Colorado for climbs at Cumbres and La Manga passes that crest over 10,000 feet before dropping into the Alamosa Valley and heading south back to New Mexico.

Approaching Taos, New Mexico, we cross the Rio Grande gorge where finishers of the Race Across the West use cell phones to call race headquarters and announce their impending arrival. Those continuing east check in at the Taos Time Station then leave town the way they entered to circle the Ring of Enchantment around the resort ski area. The Racers then drop out of the Rocky Mountains at Cimarron, from which the flat grasslands stretch to the eastern horizon and far beyond.

While the desert and mountains present known challenges, the unpredictable winds and squalls of the prairies will probably determine whether this will be a RAAM for the record books. Will it be hot, humid, southerly headwinds off the Gulf of Mexico or cold fronts with squall lines riding the westerly trade winds out of the mountains? Those Crews monitoring weather fronts can try to catch and stay with strong winds of storms ahead and to their left and be pushed almost faster than Racers can control their bikes. Whether pushed or held back by weather, the seemingly endless prairie will perhaps pose the greatest challenge to Racers from mind-numbing monotony between the few small towns along the way, while Crews have to refuel at every opportunity to be sure to get through the night. Just because there's a Time Station on the route you must not expect there to be any fuel or food services until halfway through Kansas, seven Time Stations and 400 miles after leaving the Rocky Mountains.

After leaving the always- friendly reception at Pratt, Kansas, the halfway point of RAAM is only three miles outside of town. The next task is to skirt the large metropolitan area of Wichita. This will probably be the first test of navigation on two-lane local streets away from the numerous road signs of the larger highways; a chance to refine skills and organization essential to staying on the route through Illinois, Indiana, and Ohio.



After Fort Scott, the Racers enter Missouri. Immediately, rolling hills and distinctive lettered state highways will clue the Racers that they aren't in Kansas anymore. Midway across the state, the route crosses two widely separated arms of the massive Lake of the Ozarks, between which the Racers will be forced to contend with an abundance of vacationing motorists. A short while later, Racers circle the magnificent rotunda of the state capital at Jefferson City and cross the Missouri River. For the next 70 miles, the road never strays far from that river and is fairly flat, except for two sections of short, extremely steep, twisty climbs.

Do you know how high your vehicle is with all the gear stowed on top? An oversized-vehicle detour is suggested to avoid the low clearance of a railroad trestle as roads become congested in the vicinity of I-70 nearing St. Louis. After wandering a bit across the great river flood plain, Racers will cycle over the mighty Mississippi on a magnificent golden yellow suspension bridge, The Clark Bridge, into Alton, Illinois. 955 miles to go.

About 100 miles into Illinois, RAAM departs the familiar transcontinental corridor of US 40 to stay away from major urban areas of the Midwest. Now rural road navigation becomes critical and failing to re-zero an odometer at a Time Station can become a major nuisance. Hilly country will unexpectedly remind some of western mountains while warning others that half of the climbing in RAAM is still ahead. Bloomington is the largest city we go through as we cross the Indiana University campus, catching a glimpse of the stadium where the "Little 500" bicycle race is held, which gives a chance for the legendary coming-of-age battle between coeds and townie "cutters" to play out every year, as documented in the movie "Breaking Away."

Just before the Indiana state line, we go through the quaintly German town of Oldenburg and then try to follow St. Mary's Road as it wanders across many rural intersections, turning at some, not at others, and navigators can be thankful for helpful highway caution signs. In Ohio it's not easy to get between Cincinnati and Dayton without running into rush-hour traffic but the inconvenience, if present, is momentary. In Athens, grades moderate as the Racers cross Ohio University's sprawling campus. Large support vehicles are encouraged to take an alternate route on controlled-access roads to the Time Station past the campus.

RAAM crosses the Ohio River and enters West Virginia on US highway 50, through busy Parkersburg, and starts a series of climbs through the Appalachian Mountains. As the road narrows, it climbs over the Eastern Divide at 3,000 feet above sea level, and then climbs again to the ominously named Mt. Storm before dropping into Maryland. Some of the most intense grades of the entire race are found on scenic US 40 in the forty miles between Cumberland and Hancock. The fourth of these climbs, Sideling Hill, subjects Racers to a 1,000-foot ascent in two miles.

Fortunately, once the route enters Pennsylvania, Racers will no longer face any extended climbs. After crossing the Gettysburg National Memorial at the battleground of the civil war, and just before Hanover, there is a low-clearance covered bridge. A suggested



alternate route is provided for tall vehicles. The route turns abruptly south at Hanover and returns to Maryland, where jail at Mount Airy awaits those Racers and Crews which have been assessed time penalties for RAAM rule infractions in the past 2950 miles. Once cleared by officials, Racers proceed through residential areas and rolling country south to the Washington, DC to Baltimore, Maryland corridor. We almost completely avoid its nest of limited-access highways and freeways, except for a couple of miles around the Patuxent River Wildlife Preserve, as all of Fort Meade, home of the National Security Agency, is now behind guarded barriers.

Most of the commercial traffic is behind us at the last Time Station in Odenton where a final call alerts the Finish line, 15 miles ahead, that Racers are coming in. East Coast congestion may rear its ugly head if you happen to hit the area during rush hour, as suburban commuters will keep the roads around Annapolis busy. Thankfully, the final few miles see wide shoulders and much less traffic. As we reach the Naval Academy and enter the historic colonial district, the roads become narrow, but there is little further chance of getting lost if Racers proceed on their own to the City Dock Finish, among the crab and fishing boats and luxury yachts in the compact harbor.

More than 3000 statute miles, more than 100,000 feet of perceived climbing, and 53 Time Stations in your rearview mirror. Life is good!



RAAM 2008 Route “Fun (and other) Facts”

Here are some fun facts about the course. But be forewarned: do not take ALL of them too seriously...

Only three nations still officially use the British Imperial system of measurement, with statute miles and feet instead of meters, and the United States is one of them. Since those are the numbers you will find on US maps and street signs it is the system used for RAAM. (Approximate conversions: 1 inch = 2.54 centimeters, 1 foot = .3 meters, 1 mile = 1.6 kilometers, 1 US gallon = 3.8 liters, 1 pound = .45 kilograms)

Measuring over 3013 miles, the 2008 Race Across America is half again as long as the Tour de France but it only takes half as many days. On the other hand, the combined distance that will be covered by all the finishers of this year’s RAAM will be equivalent to circling the Earth at the equator at least seven times.

This year’s edition of the Race Across America spans a wide range of elevation, from 179 feet below sea level (at the Salton Sea approaching Brawley, California) to 10,275 feet above sea level (La Manga Pass in Colorado). This spans an elevation range of almost two vertical miles.

RAAM Racers sense they have to climb over 100,000 feet, which is roughly the distance from the ground to the edge of space, three times the nominal altitude flown by commercial jetliners or four times the elevation of Mt. Everest. If your computer measures the elevation every 50 feet for the entire distance (you wouldn’t want to do this by hand), and adds up all the increments where an elevation is greater than at the previous spot, the actual total climbing is even more. Fortunately many of these changes are too small to be noticed. (Sample more frequently and you’ll find there’s even more climbing!)

At its southern limit, the race goes due east for 5.45 miles in California, just 19.5 miles north of the Mexican border as it leaves Brawley and heads into the sand dunes. The northernmost point is near Cove Gap in southern Pennsylvania, north of Hagerstown, Maryland, at 39 degrees 52.219 minutes north latitude, 77 degrees 57.463 minutes west longitude. From there, one might say it’s all downhill, or at least south, to the Finish at sea level at the City Dock in Annapolis, Maryland – but it’s not, exactly.

The course passes through 14 states; or 18 if you count the two visits to Colorado, New Mexico, West Virginia and Pennsylvania; or 21 if you also count all four visits to Maryland. Add two more if you believe Google and Microsoft that US 56 touches the northwest corner of Texas. However, DeLorme and others suggest that while there may be local government service agreements, the actual boundary of Texas is southeast of the RAAM route. There is a monument marking the corner, in a park which belongs to New Mexico, and will be to your right. You decide.



In addition to the Start and Finish, the race passes through Time Stations located in 53 different cities. The largest is Bloomington, Indiana (less than a tenth the size of the largest metropolitan area we visited last year); the smallest is Abbott, New Mexico, which is well marked but almost too small to see.

The moon is new on June 3rd and full on the 18th when it is 10% further away from earth.

The straightest/flattest/least changing section of the course is the 22 miles between Wenden and Aguila, Arizona, some 85% of the entire length of an Olympic marathon foot race.

This route marks a return to the unique community of Sedona, Arizona, on the way to Flagstaff from Prescott. Last used on the 1987 course, it was along this route in 1986 that the fastest Solo RAAM was ever ridden – and it was almost 100 miles longer than this year. In 1986, the course went on I-40 at Flagstaff and stayed there for almost 600 miles! Easy navigation even without GPS.

RAAM crosses the five longest rivers that are entirely in the US; the Mississippi, Missouri, Rio Grande, Arkansas and the Ohio.

The course passes just outside Dayton, Ohio, which is the hometown of bicycle shop mechanics and aerospace pioneers Wilbur and Orville Wright (neither of whom ever rode across the country).

While many languages and dialects can be heard in communities across the country, only one town along the route has signs in a language other than English, Spanish, or Indian tribal dialects. The signs are in German, with English subtitles, and the town is Oldenburg in Indiana.

Don't blush when you read the names of some of some of the creeks we cross. No, we won't tell you here....

The Finish line is at the City Dock in downtown Annapolis, capitol of Maryland, and site of the 2007 Middle East Conference. Historic colonial Annapolis celebrates its 300th anniversary this year. Annapolis is also the home of the United States Naval Academy.

And last, but far from least, the whole concept of a bicycle race across America can be traced back to an unlucky and lonely coyote who, in 1887, licked the face of newspaperman George Nellis, who crossed the USA on a 45-pound steel bike with no gears and the pedals attached directly to the front wheel, in just under 80 days. George woke to the licking and promptly shot the coyote, for breakfast, with his derringer. RAAM is not for the light-hearted and derringers are no longer permitted as support equipment.

