



Newsletter

May / June 1998 Issue 7



Club Information

Any correspondence should be addressed to:

Northern California Rover Club

P.O. Box 14961

Berkeley, CA, 94712-5961

Members are strongly encourage to submit articles, notes or letters for publication.

Club Decals

Additional club decals are currently available for \$4 each. The decals are approximately 2 inches by 4 inches and bear the club logo as it appears on the newsletter cover. To obtain additional decals please forward a letter with a mailing address, number of decals desired and a check for the appropriate sum to the club address.

Newsletter Back Issues

Newsletter back issues may be obtained on an as available basis for \$2 each. The \$2 includes postage.

Membership Application

A membership application form is located on the rear page of each newsletter. Please feel free to copy this form for anyone you may know who is interested in joining the Northern California Rover Club. Application for membership need not be made using the application form. Membership application should include: Name, Mailing Address (inc. zip code), Telephone Number, Type of Rover owned

Officers

Current club officers are:

President: Bruce Bonar
Vice President: Ben Smith
Secretary: Mehdi Saghafi
Treasurer: Jeremy Bartlett
Member at large: Morgan Hannaford

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NCRC

Officer Election Results

The results of the NCRC elections are in. 39 ballots were received. There were some blanks/abstentions, thus the totals for each position do not always equal 39. While the turnout did not approach the full membership of the club, it actually beat some government election statistics, so maybe there is something to be said for communist style election slates of only one candidate. More seriously, we do wish to emphasize that the club positions are open and any club member may run for any position. It is our hope that if/as the club matures that additional members will step up and take over (... Please!). Anyway, the election winners and the focal points for all your complaints in the coming electoral year are:

President: Bruce Bonar - 38 votes

Vice President: Ben Smith - 21 votes

(contestant: Eric Cope - 15 votes)

Treasurer: Jeremy Bartlett - 38 votes

Secretary: Mehdi Saghafi -37 votes

Member at Large: Morgan Hannaford - 36 votes

(write in: Scott Dickinson - 1 vote)

Thanks to Eric Cope and Jim Russell for their service.

Club Award Nominations

Now is the time to submit your nominations for the following club awards to be handed out at the club picnic on July 11 at Hollister OHV park. The nominations will be reviewed by the club officers and those judged most deserving will receive the annual award. Submit your nominations to the club P.O. Box, any of the club officers, or via the internet.

The Woody: To be awarded to the club member who has had the hardest luck with their 'Rover for the year. This award is based on the last piece of the log that Jim Russel broke his leg on a few years ago while trying to clear a path for his SIIA.

The Gnarlciissus: To be awarded to the club member with the most cosmetically striking vehicle. This pretty much means anything that you think really strikes your eye for whatever reason ... visibly highly modified, atrocious paint schemes, all bare aluminum... whatever. The award is going to be based on a walnut burl dash plaque.

Cover Photo: Jimmy Patrick drives his RR across a washed out section of the road in the Mendocino National Forest in a desperate attempt to scape from the "Joe Lucas Not-A-Rally."

Calendar

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The following events may be of interest to club members. If you know of any events or wish to lead fellow club members on a trip please contact one of the club officers or send information to the club PO Box. If you are only wanting to make informal contact with other members for a small trip and do not want to lead a fully sanctioned club event you can list your trip under the "Non-Club Events". Get out there with others and have fun!

NCRC EVENTS

July 11, Club Picnic / Car Meet at Hollister OHV. This is intended to be a chance to meet other club members at a picnic site with the advantage of off-road course nearby. It is a great opportunity for novices to go through basic off-roading.

August 1-2, Niagra Rim Trail. Stanislaus Nat'l Forest Hwy 108 east of Pinecrest.

August 15-16, Blue Lakes-Deer Valley Trail. Between Hwy 4 and Hwy 88. An opportunity to do some moderate boulder crawling and trail running in the high Sierra followed by a stream side camp and potluck BBQ in the evening.

September 26-27 Downieville-Gold Lakes-Sierra Buttes. Expedition type trip in the Yuba

October 3-4, Pass area. Suitable for all vehicles and all levels of experience.

November 7-8, First NCRC Anniversary Rally/50th Land Rover Anniversary Rally in Mendocino National Forest.

Spring 1999 (Yes 1999) Probably **Late March. NCRC High/Low Tour.** From the Owens Valley near **Mt. Whitney to Death Valley.** 3 or so days of "weekend" travel over scenic roads and moderate off-road trails through some dramatic scenery.

WEST COAST NON NCRC EVENTS

July 25-26, Paradise Lost Not-A-Rally. For those who have yet to experience the Paradise Lost NAR you are in for a treat. And for those who have attended previous weekends, this year's should be the best ever! This area, in the Lassen National Forest, offers a variety of pleasures for the back roader. There are great trails (from

easy to very difficult); crystal clear lakes for fishing, boating, lazing along side of; close-up views of snow covered peaks, and hopefully this year snow covered trails!! You could say the entire weekend is truly a 'Kodak Moment'. Then, of course, there is the wonderful comradery of the LROs who just happen to gather (coincidentally I'm sure) at the same time same place each year :). Oh, and we can't forget the great food - those Saturday night pot lucks get better and better! Everyone brings something to share. Whatever you bring will be perfect! This year the snows are deeper than ever, and we may have to postpone the NAR a few weeks in order to be able to access the High Lakes area. We'll keep you posted.

September 4-6, The 22nd All British Field Meet, saluting Land Rover, will be held over the Labor Day weekend at The Portland International Raceway (PIR), Portland, Oregon, USA. Friday and Saturday night, numerous Land Rover owners will be camped out in the infield at PIR in a beautiful grassy clearing surrounded by trees. Saturday morning begins the display part of the meet. As before, vehicles in any condition are enthusiastically welcomed. Expected among the more than 125 Land Rovers are a 101 Forward Control, a Land Rover ambulance and several Dormobiles. An additional highlight of the event (for those poor souls who don't own a Land Rover) is the off-road jungle course where rides in a new Land Rover product will be provided by Land Rover of Portland. Those of us who own our own Land Rover will be able to conquer the off road jungle course on Saturday night and Sunday. Sunday morning is also the time that the PCRC prepares and serves breakfast for the assembled club members and guests. Registration information or directions may be obtained from Gord'n Perrot, Pacific Coast Rover Club, 10537 Interlake Ave. North, Seattle, WA 98133. (206) 361-5766.

September 13, Palo Alto Field Meet

October 23-25, Rovers in the City. A tour of San Francisco and environs with activities. Contact Roger Sinasohn.

As any trip approaches you call (510) 658-2775 for a recording of directions, meeting time and meeting places.



Technical Information



BLOODY BLEEDING BRAKES - Part 2

By: Jeremy Bartlett

In the last newsletter I scribbled up a few remarks on bleeding brakes in standard Land Rover brake systems. In this issue I'll go over the brake bleeding procedures for the ABS systems. You'll need to refer to the last article for the descriptions of basic bleeding equipment and procedures. ABS systems do not differ from standard systems in their need to periodically have the brake fluid refreshed. As always, when working with brakes, be careful, follow the procedures, and check the system before you use it. Any of the bleeding tools described also come with directions. The Haynes manuals and the workshop manuals are recommended reading. The pedal should be reasonably hard by the time you're done.

Addendum to Part 1.

In part 1 on bleeding non-ABS brakes, I did not point out that bleeding Series vehicle drum brakes is best done with a pressure bleeder rather than a vacuum bleeder. Vacuum bleeders have a tendency to draw air in around the seals of the wheel cylinders on brake drums; those seals are not as capable of withstanding negative pressure as the seals on disc calipers.

General Notes on Brake Fluid

Before we get into the nitty gritty of ABS system bleeding here are a few pointers on brake fluid that might be useful regardless of the type of brake system on your vehicle. Some auto enthusiasts replace their standard brake fluid with silicone (DOT5) fluid. Silicone brake fluid has a high performance image; however, it is more prone to brake fade at temperature because it's compressibility increases. Consequently, as a rule, racers don't use it. Somewhat ironically the best use of silicone based fluids is actually on older "classics" that have natural rubber seals and hoses (the source of the Castrol brake fluid dilemma for Series owners still running their original hoses). If you do ever replace your standard brake fluid with silicone you'll need to flush the system more frequently and thoroughly than normal because silicone brake fluid doesn't absorb water. Water will accumulate and accelerate corrosion or cause other problems (freezing for example). **NEVER replace DOT 4 with DOT 5 on ABS systems.** The ability of the DOT 4 to absorb trace amounts of moisture is critical to the integrity of the ABS system.

Build up of water in the lines is another reason why you should periodically flush your brake fluid. Moisture in brake fluid encourages corrosive interaction between aluminum and iron brake parts (for example in the wheel cylinders).



Photo 1

On another note, not all brake fluid is the same. DOT4 brand X can differ from DOT4 brand Y in its chemical composition. Mixing brake fluids could lead to chemical interactions that could cause degradation and possibly impact fluid compressibility. Ideally, unless you desperately need to top off the fluid to get somewhere it's better to drain the system to change fluids.

LAND ROVER ABS BRAKE SYSTEM VARIATIONS

Now on to bleeding the ABS systems. ABS brake systems are at the same time trickier and easier to bleed than the non-ABS systems.

There are two types of ABS brake systems used in the recent range of Land Rover products available in North America. These two systems are:

- 1) Integrated 4ch ABS with a high pressure hydraulic pump, accumulator and electronically controlled valve body (RR'90-95/RRMkII). A primary pressurized system covers all four calipers with a secondary hydrostatic system in the front calipers. Although Land Rover classifies the ABS systems on the Classics and MkIIs as the same system, the parts and some of the engineering is different and, in fact, the two are not interchangeable, and the differences lead to differences in servicing.
- 2) Automatic ABS working in conjunction with vacuum servo-power system (Discovery '94-98)

As with non-ABS systems try to get as much of the old brake fluid out of the master cylinder reservoir as possible prior to bleeding. On the MkII you will only be able to get about ½ out. Photos 1 shows the master cylinders for the MkII.

1a Integrated ABS/MkII RR "4.0/4.6"

The brake calipers on the MkII RR differ from all other



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Land Rover disc brakes in that they are floating calipers. Only a single bleed nipple is present on each caliper, "conveniently" positioned so that you have to remove the wheels to get decent access to it.

Bleed the right rear then the left rear. These calipers are in the power circuit. Bleeding the power circuit is very convenient compared to standard bleeding. Almost no tools are needed. Wedge the brake pedal in the down position, turn the ignition on (don't crank the engine), open the bleed nipple (the upper one on the front calipers) for each of the four calipers in turn and the system will pump brake fluid out. Close each nipple when done. Finally bleed the hydrostatic circuit, the single front bleed screws, on the right front and left front calipers.

1b Integrated ABS (Late RR "Classic")

The pressure accumulator in the integrated ABS system on the Classic must be depressurized before bleeding. To do this:

1. Make sure the ignition is off (key out to be sure)
2. Operate the brake pedal 30 times in succession (travel will increase each time)
3. Wait 60 seconds
4. Press the brake pedal 4 more times

After filling the reservoir with fresh brake fluid, fully and slowly depress the brake pedal 5 times waiting 10 seconds between strokes to allow any air to rise into the reservoir. Repeat this as necessary until resistance is felt, then bleed the calipers as follows. Right rear, left rear, right front, left front. Bleeding the hydrostatic circuit is identical to the

bleeding techniques discussed for non ABS systems (no pressure assist is available from the ABS). The hydrostatic circuit is only present in the front calipers. The front calipers on the "Classic" have three bleed nipples (1 for the pressurized system at the top and 2 (one on each side) for the hydrostatic portion). On Classics, bleed the front calipers from the power nipple first (the upper one) using the same technique discussed above. Then bleed the hydrostatic nipples (the ones on the sides of the calipers for Classics or the only nipple for the MkIIs) using either an assistant or tool. Use the order: outer nipple on driver's side, outer nipple on passenger's side, inner nipple on driver's side, inner nipple on passenger's side. Stop bleeding if the fluid warning light comes on and allow pressure to build up. If bleeding by pumping the brakes use only the lower 2/3 of pedal travel.

2 ABS/ Discovery

Bleeding of the Discovery style ABS system is much simpler than the above Range Rover systems and is essentially identical to the general bleeding procedure used in the Series and Defender. Unfortunately from the brake bleeding perspective the Discovery ABS system is non-pressurized ("dormant") so the standard assistant or tools have to be employed more than the Classic/MkII system. The bleeding order for the Discovery brake systems should be the standard furthest from the master cylinder to the closest (Right Rear, Left Rear, Right Front, Left Front). Be careful not to get air into the master cylinder on Discoveries. Poorly bled master cylinder can introduce air into the ABS valve block, triggering a hard to diagnose ABS fault.



NCRC members at the Pacific Northwest Team Trophy in Portland Oregon. 1998



Technical Information



MUD PLUGGING ..

In which the Reader Takes a Journey Through Conventional and Not So Conventional Radiator Field Repair

By: Jeremy Bartlett

So there I was, looking down at slightly muddy green coolant in the palm of my hand and thinking "what the f\$#% ?" But I am getting ahead of myself, you'd probably like a bit more prologue than that. I had just unsuccessfully tried to climb the first steep rutted section of Sherwood/Ft. Bragg Rd. and had reversed down over a few branches placed in the ruts to aid in traction. Returning on foot from checking the trail, I noticed "water" dripping from the left of axle guard. At this point I had two almost simultaneous thoughts: "the mud's not that wet" closely followed by "that had better not be coolant". Unfortunately a quick check revealed otherwise.

Recovering from the dismay at finding coolant dripping from my otherwise apparently intact vehicle, I stepped back to find out where the puncture had occurred. There was no visible damage to the front which is protect by wire mesh on the bull bar. Likewise, a quick glance below, protected by front and axle casing armor, revealed nothing. However, lifting the hood, the source of the damage was instantly visible. An inch and a half diameter branch about 3 feet long had worked its way from the rear of the vehicle up through the only available access past the axle casing and oil pan, tie rods, steering box, and pushing aside the fan shroud in to the left side of the radiator. Fortunately the damage was limited to the radiator as the shroud deformation was not sufficient to damage the fan.

After a few minutes of struggle, I removed the offending branch and made a better assessment. Three or four of the back row tubes and cooling fins had been deformed or torn and there were at least two tears and a dent in the side tank at the tube junctions. (Photo 1). Examination of the front tubes by looking through the grill showed no damage. Susan (my co-driver) produced a small mirror, and with a flashlight we checked the rear of the front row tubes and the radiator base which otherwise was impossible to see. We could see no damage.

We had enough "mix in the field" metal repair epoxies that a field repair seemed possible. Using needle nose pliers I tore the honeycomb/cooling fins off the damaged tubes and pulled the damaged sections of

tube from the core and side tank. The undamaged portions of these tubes were folded back on themselves and pinched tight. We decided to pull the tubes from the tank rather than risk having their mangled remnants prevent a good seal from the epoxy. At this point, I judged to leave some of the apparently undamaged but slightly deformed tubes in place rather than risk more damage. To be on the safe side, we drained the radiator through the leak into an empty food cooler, and then applied the epoxy. I hoped to reuse some of the coolant with fresh water. Since the Defender, Discovery and Range Rover radiators lack drain plugs this was the only way bar siphoning to empty the radiator. Always looking for the sliver lining, this provided the excuse for a cigar break. We finally sprayed the area down with a solvent (supplied by Eric Cope) to help clean it. When it was as close as to dry as reasonable we mixed up some of the hard 2 part epoxy and applied it to the tank holes, squeezing it into place.

A gallon or so of water was added from our drinking water. It proceeded to drip out of the base of the radiator only slightly less rapid than prior to the repair. A few moments later we re-examined the repair. There was a leak above the repaired tubes (the ones I'd decided to leave in place). A more aggressive removal was undertaken and the resealing process repeated. After the second filling, we still had a leak, the source of which was not visible but was apparently from the front tubes. Also, some of the epoxy was not holding well due to wet conditions, so it was removed. We tried one last epoxy repair by pushing large amounts well into the radiator matrix. To allow a conservative amount of time for this to harden, we ate lunch. Following lunch, a refill still revealed a reduced leak. At

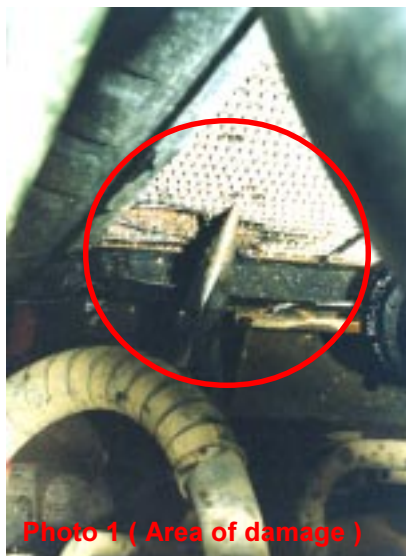


Photo 1 (Area of damage)

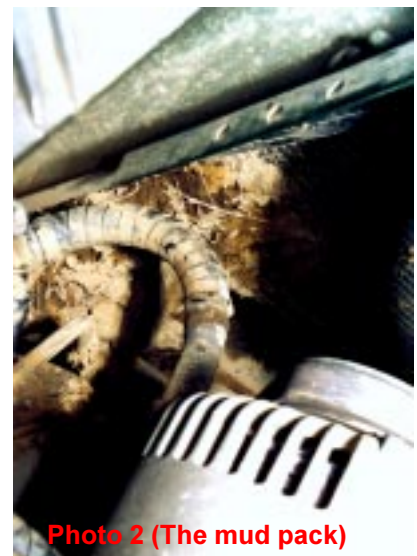


Photo 2 (The mud pack)



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this point, I gave up on a field repair that would see me through trail. (especially considering that once the vehicle was underway, vibration and flex from the trail would only worsen any leak.) We said our farewells to the rest of the group whom graciously had waited through the repair attempts. We were still not far from Ft. Bragg, so if worst came to worst, we could arrange for a tow. (Although it would have been nice to get close enough to the Bay Area to get an flat bed tow on the AAA extended policy and avoid towing expenses.)

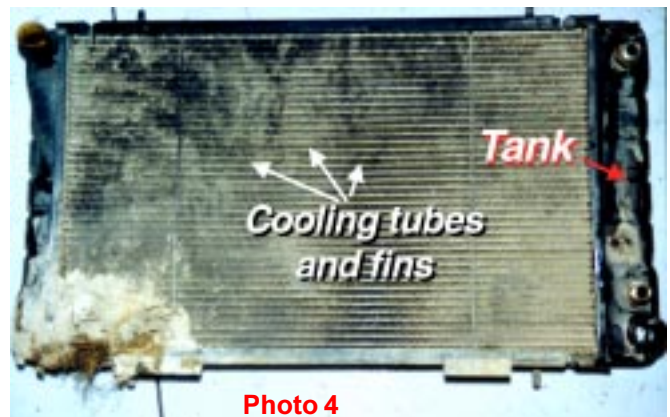
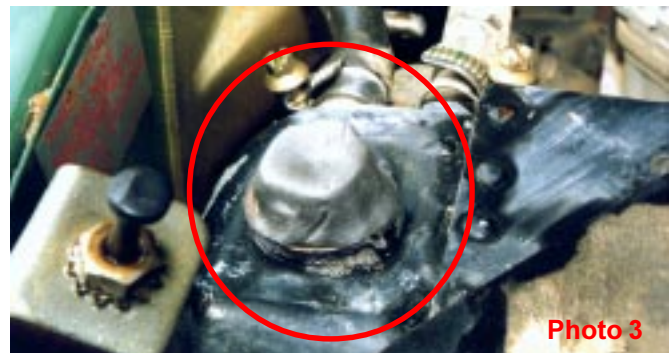
After the rest of the group had moved on, I assessed what else could I do with the remaining epoxy, which was clearly insufficient for plugging the invisible leak(s). Since there was a little creek running into the road down an embankment, water was not problem. I examined the possibility of actually pulling the radiator to get a more thorough look and hopefully fixing it with the remaining epoxy. Suffice to say that I thought the job was a lot more hassle than I wanted to get into. That left coming up with a different repair technique or running down to town with frequent refills of water. In anticipation of the latter we filled our 6 gallon water can from the "creek". However, while doing this a different answer came to mind.

The answer was mud. Yup... MUD! It was present in copious quantities and when mixed with a bit of grass for body provided a rather firm piece of plugging material. There was enough of it around to fill any area of the radiator I so desired, unlike the effective, but rare, 2 part solid epoxy. So, we decided to retain the remaining epoxy for specific emergencies and set about mixing mud. The mud was selected to tread a fine line between too wet to risk be washed away by the leaking coolant/water and too stiff to get into the nooks and crannies of the radiator (Photo 2). Of course, mud also has the advantage of drying hard when heated by engine heat and the Defender produces a lot of that. We though this would offset the risk of it being washed away if it would stay in place long enough. About three or four snowball size lumps of mud later we refilled the radiator and were satisfied that the leaking was slow enough to at least make it to Ft. Bragg on our 6 gallons of creek water. To minimize the pressure on the radiator seals we left the filler cap on loosely and turned on the heater to help cool the engine. We started up Samson, turned him around on the trail and headed downhill for town.

About 5 miles down the trail where the pavement restarted we topped off the coolant having lost only a cup or so and drove on to Ft. Bragg. By the time we reached a gas station the coolant had dropped perhaps a quart and was dripping noticeably quicker than when static and cool. Taking into account the large fluid loss on the trail I thought it likely that the system had "burped" somewhat releasing trapped air (typical of Land Rover V-8s that have coolant changes) so I thought it safe to continue back to the Bay

Area. Before going on, however, I purchased a couple of quarts of coolant and some "stop leak". I don't much care for the latter but in a pinch I was prepared to use it. We topped off with coolant and set off south.

About ten miles along highway 20 I stopped to recheck the fluid level which was still going down at about a cup every 10 miles, so I decided to add the stop leak. After all I'd be flushing the system in a few days anyway. This done, we continued the drive. Another ten miles along the road we stopped again to check fluid level. All dripping had now ceased. The combination of mechanical pinch offs, epoxy repairs, mud pack and "stop leak" was apparently working. Unfortunately the filler plug on the top of the radiator chose this moment to shear off. The plastic plugs on the top of the radiator occasional give problems when they cross thread into the metal radiator but this was the first time I'd seen a head shear off! (The older Ranger Rovers actually use metal plugs). A quick attempt at plugging the central hole in the sheared plug with a core of mastic failed it's pressure test about 5 miles down the road. We pulled off at a scenic turnout and I decided to use the last of the 2 part epoxy to form a filler plug/cap (Photo 3). We formed this on a dried off plug and let it set about ten minutes. It held and the remainder of the trip back was uneventful. Not quite the adventure I had in mind at the start of the day but an adventure nevertheless. Photo 4 shows the radiator after removal.







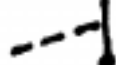

Rally Tulip Diagrams/ Road Books

By: Jeremy Bartlett






Off road rallies often include sections in which the participants are given directions in what are known as "Tulip Diagrams" or "Road Books". If you're thinking of participating in the NCRC Rally in the fall or other rallies such as the Pacific Northwest Team Trophy or Desert Pro Challenge you should know how to use these. The goal of the Tulip diagram is to provide instructions from the start of a road section to the end (although in competitive situations not necessarily with the greatest possible clarity). The key to successful use of Tulip diagrams is to track mileage using your odometer, ideally in tenths of a mile, while simultaneously noting features passed and anticipating upcoming directions. For this reason, effective rally driving relies on a navigator who issues instructions to the driver. Basically, the navigator controls the route; the driver controls the vehicle. Tulip diagram instructions are given in a series of steps each of which builds on the last. A Tulip diagram typically includes most of the following elements:

Direction of travel, total distance traveled, interval since last instruction, comments on the route.

Tulip diagrams tend to have common graphics. They are almost always read with up being the direction of travel; usually a dot indicates the vehicle location, and an arrow indicates the direction to be taken. Sometimes a compass bearing is given instead of a directional arrow. Make sure you have a compass handy! Typical graphical elements of Tulip diagrams are:

	Start and direction along main road/trail		Compass Bearing(CB)
	Intersection		Stream/creek
	Small trail/motorcycle trail		Bridge

Below is an example of an assembled Tulip diagram

Diagram	Interval	Total	Notes	Interpretation
	0.0	0.0	Start	Set your odometer to 0.0
	0.4	0.4	Steep descent	After 0.4 miles turn left at the intersection and descend the steep hill
	1.4	1.8		1.4 miles from the last turn pass a motorcycle trail joining the road from the left; go straight ahead.
	0.2	2.0	cross slowly, bouldery base	0.2 miles after passing the motorcycle trail slowly cross a bouldery creek, proceed straight ahead
	2.5	4.5	CB 75	2.5 miles after the creek you reach an intersection. Take the road that has a compass bearing of 75 degrees.

Trip Report

A View of the Joe Lucas Mendocino Not a Rally

By: Kevin Kelly

I woke up a little before 7:00 on Saturday in Cedar Camp, and I was planning on a morning run, but it was way too cold to get out of my sleeping bag, so I went back to sleep for about an hour. After breakfast, Ben and I got ready to head out in Dora to make some tulip diagrams of the trails for a NCRC rally later in the year. Before we could leave we had to relocate the GPS in Dora to the passenger side so I could see it. Tom Walsh came along in the Light Brigade with Gerry Elam as a passenger. As we were pulling out of Camp we passed Granville and Melanie Pool who were just arriving in their new '92 Range Rover County.

After mapping trails for a while, we were stopped at the top of a hill looking at trails through the binoculars when a KTM dirt bike came up one of them. The rider pulled off his helmet and reached for his water bottle. Ben and Tom asked what the trail was like and he responded *"There is no way you could get through it in a truck, it's a single track motorcycle trail and, all the guys I was with had to turn back since it was too tough for them to make it"*. Ben and Tom both got big smiles and said *"sounds like fun"*. Ben and I headed down first in Dora. The trail kept getting steeper and the ruts kept getting bigger. After so many trail miles with Dora, Ben was somehow able to keep her out of the two foot deep ruts as we drove down a slope that would be too steep for most people to walk down. We finally got stuck when some soft dirt collapsed and sent Dora sideways. We were planning a strategy to get through the section when Tom and Gerry came down to help. We built a ramp to get Dora out of the ruts with logs, rocks, and dirt, and spotted Ben up on to a couple dirt mounds a little wider than Dora's tires. After spotting Tom through the section, we looked over the edge of the next water bar, and the next section looked almost as tough. Ben decided to go for it figuring if he got caught in the ruts he would just slide down and out of them since it was so steep. Gerry and I decided to get a photo of Dora disappearing over the edge of the water bar. As Dora headed down she stopped abruptly and first one then the second back tire lifted off the ground and it looked like Ben was going to go for an end over end ride. Gerry and I jumped up to try and grab Dora, but before we got to her the shale rock that stopped the front tire snapped in half and both rear tires came crashing down as the front started to roll again. We did a little trail grooming to make sure the Light Brigade wouldn't hit anything and flip tail first. To add a little weight I "road" down the section standing on Tom's bumper leaning backwards hanging on to his homemade Rubicon Rack.



At the bottom of the hill it looked like the trail ended, but it actually followed a small stream for a little while. A couple guys on motorcycles stopped to watch us. As the trail left the stream there were two short steep segments that looked just a little too steep for even a Land Rover. I ran/climbed to the top to see what it looked like and spotted a bypass. I yelled down to Ben and pointed to the bypass behind some bushes, but he just gunned Dora and hit the hill with a running start. Like the little engine that could, she chugged over the top to the amazement of the guys on the motorcycles. After I jumped in I asked Ben if he thought he was going to make it he said he was also amazed Dora made it. Tom wanted to be sure he made it with the guys watching so he punched the ARBs. We are not sure if the motorcyclists believed him, but Gerry told them that Tom's mom let him borrow her Disco while she was shopping at the mall.

We road along a ridge top for a while then went in to the forest where the trail was not as dry. We pulled up to a deep mud pit that seemed to be stream fed and Ben rolled right in with Dora. Unfortunately it was a little too soft on the line we took and Dora sunk until mud covered the tops of the rear tires. I was able to jump to a semi soft spot, then Ben crawled out with his recovery gear. We hooked up to a small pine and Dora was able to winch herself out. Tom took a slightly different line and was able to chew through and didn't need to unspool his winch. A little while later we approached the back of a sign that said "Road Closed". We then got on the M5 to head back to camp for a 3:00 lunch. The evening was marked by a very successful pot-luck-dinner and a lot of socializing.

I woke up at about 6:30 the next Sunday, and it was a lot warmer than Saturday, so I came up with some other excuse not to go running and went back to sleep for about an hour. After breakfast I met up with Ben again and we got ready to leave for the day. As we pulled out of camp Eric and Brigid were in the lead in BUBBA followed by their



son Daniel in Queenie (SIII) and Brigid's sister in her Ford Explorer. Bruce was behind the wheel of Spot and Stephanie was driving Stella. Rick and Ben Mitchell. were each driving their D90s and Bruce's brother David was riding with someone. Ben Smith and I were last out in Dora. Our first stop was a clearing off the M10 where we left Stella and the Explorer for the day. We then headed down some of the interesting Black Diamond motorcycle trails.



On the first real steep section it got a little exciting as Dora hit a bump and popped out of low range. Ben had me hang on to the red knob on steep descents after that. Ben showed me how he does it by himself, with one hand holding the transfer case in low range, one leg holding the tranny in gear, and one hand steering. The next steep hill was called Rolling Rock hill. Dora knocked a basketball-sized boulder loose and it followed us down the hill but never caught us. Rick knocked a bowling ball sized rock loose while he was coming



down. It caught, and passed him, rolling under both his axles without hitting anything thanks to the lift from his huge swampers. At the bottom of the hill we pulled past a poison oak patch and had lunch in a clearing by a creek.

After lunch we found some steep trails that had recently been driven with a tractor. The trails had lot's of loose dirt and rocks, as we were coming down a steep off camber section littered with soft dirt and softball sized rocks Bruce came on the CB and said "I'm in the lead and I'll let you know if anything tough comes up". I commented to Ben that Bruce obviously has a lot of confidence in the group he is with since he didn't consider the trail tough. About a minute later as we were driving over a low spot in the trail the soft earth collapsed and Dora's back right wheel slid in to a gully. Ben got on the gas but the tires were spinning on the loose dirt and we started sliding backwards in to the gully. I grabbed the dash so my hands wouldn't fly out if we went over. Dora's front wheel suddenly hooked on a bush below the trail and stopped us from sliding. I decided to slowly get out of the downhill side and add ballast to the uphill side until we could figure out how to get out. As I opened the door, I realized that the gully got steep fast. After I jumped out I paused for a second as I noticed that Dora's floorboards were at about my chest. Ben yelled at me since I wasn't exactly standing in a safe spot as Dora was still slipping. I ran around and jumped on the front left fender. Ben instantly suggested that if we hooked to a tree 45 degrees





up the trail Dora could winch her self back on. After debating a few different recovery techniques we decided to use Ben's original idea of letting Dora winch herself back on the trail. However, to be safe we ran the winch cable through a snatch block on the tree to the back of Ben M's D90 just in case the small tree pulled out of the ground. For the second day in a row Dora was able to winch herself back on the trail. At the top of the next big hill we realized we were on the other side of the steep hill that put Dora on to two wheels Saturday. Everyone wanted to climb the hill but since almost everyone had to get up early on Monday (I think I heard Bruce say something about leaving home at 5:00 AM to get his brother to the airport) we headed along the ridge toward the M5. We approached the mud pit that Dora got stuck in on Saturday and she glided through taking a different line. Rick and David were behind us and also made it through without any problems, but decided to turn back and "play" in the pit. I'm not sure what happened, but when we got back Rick had snapped something in the front end. Dora gave him a pull out of the pit and he started on a field fix to convert the D90 to 2wd. Ben and I headed back to camp so Ben could pack his stuff and I could get the Range Rover. After packing Ben's stuff, picking up a few things people left behind (no one has claimed the little green

nylon stool yet) and pouring more water on the fires we headed back to the group. Rick was packing his tools as we pulled up and we all headed down the hill. We all stopped for dinner in Williams before heading home. As usual another fun weekend with the Mendo/NCRC gang.



Blair's 110 by Harry Thomas (Age 8) at Mendo 98.



Dr. Drip



Return of the Red Rover

Chjeap Guy's Roofless Red Rover (RRR is a '74 88" C-Guy's first rover, purchased 8 years ago in New Hampshire) had been delivered on the Sealand vessel "Discovery" to lovely Long Beach, California and was looking forward to a nice long drive to Henderson, Nevada after sitting dormant for about 2 years in Hawaii. (Chjeap Guy did bleed the brakes, replace the battery and successfully use Coleman's Fuel as a starting fluid before putting RRR on the ship!)

Chjeap Guy took advantage of the seasonal migration of rental plushie mobiles out of Nevada to cooler climes and booked a chjeap one day one way to Long Beach Airport. Upon returning the generic plushie, Chjeap Guy was delighted to discover that public bus service was available to the docks (Queen Mary ocean liner attraction) thus saving cab fare and increasing monies available for his ongoing market research in Las Vegas prime rib and exotic dance establishments.

The Sealand folk were once again impeccably polite and helpful and soon RRR was pulled around front. C-Guy notices the words "gas level ok - gauge not working" written in grease pencil on the windscreen. C-Guy smiles to himself - "wonder how long they tried to siphon gas out of the disconnected gas fill pipe to get the level down to 1/4 tank?" Several Sealand folk gathered around - several commented one how it "sounds like it runs pretty good!" C-Guy could only smile again to himself - a nice, new battery, a cracked exhaust manifold and HIGH idle will do that, cough cough, good thing the red rover IS roofless...famous last words... Upon leaving the Sealand lot at about 15:30 hours, the first order of business was to find a secluded spot to check all the fluids before the 270 mile drive home. Chjeap Guy pulled into what looked like a quiet side road and checked oil, brake fluid, coolant, and various gear lube reservoirs to the amusement of quite a few local folks who use the side road as a short cut.

Next stop was to top up the dual tanks with fresh, clean gasoline and then Vrooooo Vrooooo, homeward bound on the interstate...right into the teeth of an LA traffic jam! A couple hours later, C-Guy makes I-15 N and it is a clear shot home.

Just before Barstow, C-Guy notices some very dark clouds to the West..."hmmm, wonder if they are coming or going, damn El Nino" Soon, wet pavement is visible and the question is answered. While passing Barstow and wondering "Gas up here or wait till Baker?" (home of the world's largest thermometer!) C-Guy decides "nah, wait..." Famous Last Words!

After clearing a mountain pass after Barstow, Voila! The horizon was BLACK - Flash...Kaboom...oooh aaah - that bolt was really bright...loud too...Thunderstorm - Dead

ahead!

Now one neat thing about a roofless rover is if you are going faster than about 45 mph, the rain just blows over the top and you stay pretty dry.

Guess it would take a pretty long gas hose to let you fill dual tanks while going 45 mph...and since no gas means no warp drive or shields, hi ho hi ho, shoulda gassed up in Barstow!

The gas station attendant was quite intrigued by the RRR and glory be, he did not utter the typical question "what year is dat?" Now Chjeap guy usually appreciates interest in his rovers but FREE gas or at least a discount, now that would have been a nice gesture. Back on the road, as the city lights of Las Vegas came into view, C-Guy thought about some of the magnificent lighting bolts he had seen earlier, "nice try humans, but Ma Nature still has you beat." At 21:10 hours, somewhat damp in body but very happy to have the red rover back, His Chjeapness pulled in to 'El Rancho del Rovers' - "Ah, home! Home is where the Rover is!"

Ta!

Chjeap Guy

(Next time, Dr. Drip will tell you about his trip to England for the 50th Anniversary Celebration at the ARC rally at Eastnor Castle.)

Classified

5 stock Michelin Disco tires with 25K miles on them. Very good condition. \$350. John (925) 824-2234

Stock Disco front pumper. Good condition. \$100 OBO. Armando (510) 440-0869

Stock Defender bumper with brush guard/grill. 4 months old. \$200 ea or \$375 both. Cdin (650) 573-7389. <http://www.sen-c/rover.html>

21 day D110 safari in Africa. Oct 23 -Nov 13, 1998. \$4500 includes R.T. Airfair. Brent Rosengrant (208) 267-558

Our member profile this month focuses on Mehdi Saghafi.

Mehdi has been laying out the newsletter since it started and for this he was sentenced by members to become the club secretary. Since Mehdi has been very withdrawn about publicizing his work, we thought it was time he had an introduction to those of you who have not yet met him. As for those of you who voted for him without knowing who he is ... well what can we say but thanks for your trusting participation.

Mehdi was first introduced to Land Rovers in his native Iran where he leareened to drive in a Series III and broke his first half shaft 3 weeks later. If you ever want to learn some neat tricks on how to avoid oncoming traffic on mountain roads ask Mehdi about his father's technique. You'll be surprised at just how easy it is to shift out of the way of danger.

Mehdi's reacquaintance with Land Rovers began with the purchase of a Defender 110 a few years back. In the true spirit of the beast he soon had it headed off the tarmac. However, a few months ago with the arrival of the first addition to his family, Mehdi decided to sell the 110 to another club member and move on to a nicely restored Series III. Of course he still plays with the idea of putting 5 speed gearboxes and assorted engine transplants into various frames in an effort to recover the long lost power of the 110's V-8 ,but for now has settled on keeping his current charge running as is. The vehicle has not yet been named but he's already had it about on the back roads and looks forward to taking it out to play in the future. (..... after he puts a supercharger in it ☺.)



News, Clues, and Rumors

- Club member, Rick Larson, placed 7th out of 10th in the Top Truck Challenge run by Four Wheel Drive magazine. Rick was competing in his project Defender 90 against some of the most heavily modified vehicles in the country. The event was run over 4 grueling days at Hollister ORV park in central California. Congratulations to Rick and condolences on the broken parts.
- NCRC member teams placed 6th (Ben Mitchell and Ben Smith, Kevin Kelly) and 4th (Bruce Bonar, Eric Cope, Morgan Hannaford, and Jeremy Bartlett) in the Pacific Northwest Team Trophy in Portland Oregon.
- Over the last year of newsletters, a particular club member has been present on all but one of the club newsletter covers. In the one newsletter where he/she was not present she/he was shown in an internal photograph in the same pose as used on most (but not all) of the cover photographs. Have you noticed this? Your clue is that on the first two newsletters this individual is fairly large and part of the picture. The other photographs are digitally enhanced ☺.
- Expect to see the new model Discovery appearing in the fall of this year. It is likely to include air suspension (option?) At least in the rear and is slightly larger than the current model. Although externally similar to the current Discovery, it is rumored to, bear about as much mechanical resemblance to the existing Discovery as the "new" Range Rover does to the old.
- Tired of the much maligned Lucas systems in your vehicle? Well, in model year '99 Land Rover will probably be moving to Bosch engine management systems as part of the BMW ownership changes. In actual fact, the Lucas based GEMS systems on the newer Land Rovers have a better performance record than the Bosch systems ... so the results will be interesting to see.

Mechanics & Parts & Service

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The following list contains parts suppliers and mechanics who support and work on Land Rover and Range Rover vehicles. **This is not an endorsements list.** Before using particular vendors or mechanics we suggest you talk to fellow Land Rover and Range Rover owners regarding their experience and recommendations. Please contact us with any businesses or updates you would like to see added to this list.



P	Parts
S	Service
D	Dealer
NV	Newer Vehicle
OV	Older Vehicle
AA	After-market Accessory
ABA	After-market Body Armor

British Pacific [P]

3317 Burbank Ave.
Burbank, CA
tel. 800-554-4133

Carpenter Rigging [AA, ABA]

222 Napoleon St.
San Francisco, CA 94124
415-285-1954

Roverland Parts [P, NV]

2038 Village Point Way
Salt Lake City, UT 840093
tel. 801-942 7533

Rovers North [P]

1319 VT Rt. 128
Westford, VT
tel. 802-879-0032

Atlantic British [P, OV]

Box110. Rover Ridge Drive
Mechanicville, NY 12118
tel. 800-533-2210

Cole European [D, S, P]

2103 N. Main St.
Walnut Creek, CA
tel. 510-935-2653

Safari Gard [ABA, NV]

41095 Fig St.
Murrieta, CA 92562
tel. 909-698-6114

**Badger Interior Coachworks
[soft tops and interiors for Series
and Defender]**

Christopher Laws
259 Great Western Road
South Dennis, MA 02660
tel. 501-364-2680, fax 508-760-2281

DAP Enterprises, Inc.

86 Clinton St.
Springfield, VT, 05156
tel. 802-885-6660

Land Rover San Jose [D, S, P]

4040 Stevens Creek Boulevard
San Jose, CA
tel. 408-246-7600

Britalia [S, P]

2210 San Pablo Avenue
Berkeley, CA
tel. 510-548-0240

Euro Parts, Ltd [P]

1910 Prospect Ave.
East Meadow, NY 11554
tel. 800-274-4830

Scotty's [S, OV]

(Chevy conversions)
tel. 510-686-2255

**British Bulldog Spares LTD.
[P, NV]**

394 Kilburn St.
Fall River, MA, 02724
tel. 888-874-3888, fax 508-674-5025
bulldog@meganet.net

Great Basin Rovers [P, AA]

342 West 1700 South
Salt Lake City, UT
tel. 801-486-5049

Shamrock Services [S, NV, OV]

Robert Davison
15195 Arnold Drive
Glen Ellen, CA 95442
tel. 707 935-3605

**Hubacher Cadillac and Land
Rover [P,S,NV]**

#1 Cadillac Drive
Sacramento, CA, 95825
tel. 415-460-4600

West Coast British [S]

190 Airway Blvd.
Livermore, CA 94550
tel. 510-606-8301

**British Motor Car Distributors [D,
S, P]**

901 Van Ness Ave.
San Francisco, CA
tel. 415-776-7700

**RAB Motors/ Land Rover Marin
[D, S, P]**

540 Fancisco Boulevard West
San Rafael, CA
tel. 415-460-4600

XKs Unlimited [P]

850 Fiero Lane
San Luis Obispo, CA 93401
tel. 1-800-444-5247
xksunltd@aol.com

**British Northwest Land Rover Co.
[S, P, OV]**

1043 Kaiser Rd. S.W.
Olympia, WA
tel. 206-866 2254

Roverland [S, P]

San Francisco, CA
tel. 415-648-0885
service and parts for newer vehicles