RTP is a winner

VASA's new Registered Technicians Program (RTP) is the beginning of a new era for the automotive air conditioning industry in Australia. Members may not realise it just yet, but RTP will soon forge a huge chasm between professionals and "the rest" in a way which will make it a whole lot easier for consumers to choose their service centres in future.

As president Mark Mitchell puts it, "If this was the medical profession, VASA members would be the doctors and specialists while the rest of the industry would be the quacks."

The RTP has been applauded by even its critics as being the best thing to come out of the VASA training camp.

The training of technicians to a new level of competency to meet today's automotive demands has always been a VASA priority. Training committees have always worked long and hard to improve the status of the industry, but the industry turned the corner when VASA directors bit the bullet and instituted the RTP, funded by an annual membership fee increase this year.

At going to press, 300 technicians from more than 250 member workshops around the nation had joined RTP and received their first bulletins.

When the backlog of late membership renewals is taken up, there will be a potential of between 400 and 500 people undertaking the program.

VASA president Mark Mitchell and Training Chairman and coordinator Grant Hand are thrilled with the response from members.

The RTP, Australia's first registered training program for auto air conditioning technicians, is seen as the most constructive chapter in VASA's short history.

More on Page 2
Les Howard and Red Faces

It was only a few years back when we flew to the Gold Coast to an interest meeting in connection with auto air.

"This morning I received my first copy of the RTP. Over coffee and two iced vo-vos I breezed through my first questionnaire of 13 questions. I mean, who wouldn't after thirty years in the industry, one knows everything.

"After comparing the answers with those of our apprentice - well, that's another story. Red faces and all that!!!

"Congratulations, Mark - well done! The Big Green Book is fantastic.

"VASA is now on the super fast track."

RTP is a winner

Continued from Page 1

It is VASA policy that every member of VASA must participate in the RTP by having at least one person in the member organisation undertake the program.

Many members have nominated more than one person from their staff to undertake the program.

Conversely, individual technicians within member workshops can volunteer to undertake the program with or without the employer's nomination, in order to better themselves. In these cases, the technician and not the employer would be obliged to pay the fee of $100 per person per year.

Here are more RTP details and revisions from Grant Hand who is as anxious as anyone to ensure that all members gain the maximum benefit from the program.

(a duplicate of their questionnaire for their own records.

If other members have problems accessing a fax machine and would prefer to use a mail back facility, please phone Grant quickly on:
08 8251 3894.

CONTENT SUGGESTIONS

If any member has any suggestions about the content of the RTP Bulletins, don't keep it to yourself.

While there is a significant pool of information which can be included in the Bulletins, if there are pressing technical issues that you would like addressed urgently, Grant will do his best to accommodate you... but you need to let him know.

CONTACT POINT

Except for the initial enrolments, which must go through the National Secretariat, all correspondence relating to the RTP should be directed to the RTP Coordinators (Grant Hand) through:
phone 08 8251 3894 or fax at 08 8289 4260.

When you receive the membership renewal form, look for the accompanying nomination forms for the RTP.

FOR THOSE WHO CAME IN LATE

In your membership envelope, look for the accompanying nomination forms for the RTP. Fill these forms in (for one or more staff members), as quickly as you can and get them back to the address shown.

On receipt of your details, the name or names you nominate will be registered in the program and you will be sent the technical Bulletin, a sectionalised folder with laminated dividers, and other information.

Questionnaires are attached to each bulletin for return by fax or mail. Issue of the final Certificate can only occur if all questionnaires are returned from each bi-monthly Bulletin. This is VASA's method of ensuring that participants are reading the material and understand its content.

OEM INFO

As reported in the last Hot Air, VASA has applied for copyright clearance from manufacturers for supply of up to date information and service tips for OEM vehicles.

The response has been very positive and a full report on this initiative will be published in the next Hot Air. Information will be included (including wiring diagrams) when copyright clearance is granted. VASA will supply current information (system specifics) at the earliest possible opportunity.
Government Shows Interest

Environment Australia has become a major sponsor of the Adelaide Convention.

VASA president Mark Mitchell welcomed the sponsorship which had resulted from negotiations with Environment Australia officials in Canberra.

Environment Australia’s entry into the sponsorship stable for this year’s convention is a major coup for VASA, coming on top of the already announced major sponsorship of the big three Australian suppliers of refrigerant gases, Elf Atochem, DuPont and Orica.

“VASA appreciates this show of support from the suppliers and from Environment Australia,” said Mark Mitchell.

“It shows the level of support for environmentally sound management of refrigerant gases,” he added.

ENVIRONMENT AUSTRALIA WELCOMES VASA PARTNERSHIP

“The focus on HFCs as the theme of the 1998 VASA Convention provides an important and timely opportunity for the industry to debate the key issues it will face in effectively managing the transition away from ozone-depleting refrigerants,” said Paul Kesby from Environment Australia.

“Environment and consumer protection will be compromised unless responsible decisions are made collectively about future strategies and management systems for the industry. The Commonwealth Government welcomes the industry’s proactive approach in preparing for the projected increased use of HFCs, and encourages it to build on the lessons learnt from the phase out of CFCs.

“For its part, the Government is moving to put in place an action plan to deal with the non ozone depleting refrigerant gases. The success of these initiatives will depend on sound partnerships between government and industry,” said Paul.

Paul Kesby is Assistant Director, Ozone Protection in Environment Australia where he has a lead role in the development and implementation of national policies on ozone layer protection.

Paul has only recently moved into Ozone Protection after five years as a senior policy adviser supporting Australia’s involvement in international climate change negotiations, including the recent landmark meeting in Kyoto.

His experience also includes several years working on waste minimisation and recycling issues. Interestingly, Paul is a qualified mechanic and worked for nine years in the motor vehicle industry.

Trade Exhibition Line-Up

Car Aire
TRX Automotive Products
Trans-Cool Airconditioning
SuperCool Australia Pty Ltd
Sanden International
Actrol Parts
Environment Protection Agency
J N Bish Auto Air Condition Distributors
Cab Aire
Frozen Air Pty Ltd
Cooltemp Pty Ltd
Auto Aire Pty Ltd
Robinair
BOC Gases
Elf Atochem (Australia) Pty Ltd
CPS Products
The Refrigeration Oil Company
Javac Pty Ltd
Nippon Air Parts
Ingram Corporation
Melbourne Auto Air
Davies Craig
Lovelock Luke
Orica Chemicals

Rob Middlin has been senior advisor on ozone protection with the South Australian Environmental Protection Authority since 1991.

He brings to the VASA convention an impressive background in refrigerant management, highlighted by his work in recent years as special advisor to the United Nations on UN projects in Argentina, Fiji and Western Samoa to develop refrigerant management plans.

His address to the VASA convention will look at the background to South Australian legislation and policies to protect the ozone layer and he will explore possible future directions for SA laws on this topic.

A New Zealand contingent, headed by VASA NZ Committee chair Barry Rogers will be in Adelaide for Convention. The VASA rules will be formerly altered at the AGM, to allow a name change to Australasia, instead of Australia, in the VASA logo.
The big three to speak

Latest initiatives by the gas supply companies in the promotion of R134a will be covered by the high profile representatives of the three sponsoring gas companies for this year's Convention. Here's who they are:

Steve Colmer has been 25 years in various capacities with ICI Americas Inc. and is currently Market Development Manager for the Synthetic Lubricants Business of ICI.

He is responsible for development of automotive, industrial and basefluid markets in the US.

Between 1990 and 1995, he was project manager of automotive retrofit programs with the KLEA refrigerant business. During this time, there were over 700 vehicles under test with R134a and ester lubricants around the world. As a result of this experience, Steve has authored or co-authored more than 11 papers on the subject of automotive retrofit to R134a and ester lubricants.

Steve is a member of the climate control committee of the Society of Automotive Engineers and a member of the International Mobile Air Conditioning Association.

Elf Atochem's Carl Heslop

Elf Atochem has been involved in the refrigerants industry in Australia for more than 30 years. Business Manager Peter Lewis, Carl Heslop and Gordon Harris (Technical Manager) have been involved with the introduction of the new ozone friendly refrigerants in the automotive and commercial and refrigeration industry in Australia and New Zealand for the past five years. Elf Atochem's Forane range of refrigerants are now accepted throughout the world, making the company the largest producer of CFC substitutes.

Elf Atochem is committed to the supply and use of R134a worldwide in the automotive industry.

SPONSORS TO HAVE A SAY

For VASA, the involvement of such high profile sponsors is a major boost to its confidence and shows that they recognise the work being done by VASA to try to have Australia adopt one acceptable gas.

The sponsorships are so relevant to the Australian motor industry that each sponsor will be making a presentation during the convention. What they have to say is significant for the industry and vital for the future development of VASA.

Face to Face Training is still an option

Despite the huge success of RTP, VASA has not turned its back on face to face training courses.

This assurance comes from Training Committee-man Greg Thomas.

Greg Thomas – Training on supply and demand basis

"The RTP has taken the place of the earlier face to face training programs organised by VASA," said Greg.

"However, if the demand warrants, face to face training courses can still be organised in the off season, August/September, provided the numbers are available. We would need a minimum of 10 to 14 to justify a course," said Greg.

A charge would be made for the course.

If anyone is interested, call Greg Thomas on:

02 9774 4133 or fax 02 9772 3272.
Adelaide '98 - The Perfect Vintage

Ready...set...go....

The Perfect Vintage VASA convention in Adelaide from July 24 to 26 will be the biggest yet, with delegates coming from around Australia and New Zealand.

Convention Chairman Glen Watkinson and his team have filled the beds, lined up some class entertainment and top speakers, arranged the tours and have promised typical South Australia weather—15 degrees, cold and wet. It's a far cry from last year's Hot Hot Hot on the Gold Coast.

The Barossa wine tours are, as expected, heavily patronised, and the tours to the Holden Limited Assembly Plan, Air International and Mitsubishi have long been booked out.

Marion has been arranged.

The Trade Exhibition will be opened on Friday night by president Mark Mitchell, with what Glen calls a "Big Bang".

Training Sessions

The now legendary Grant Hand training sessions are on again, with two sessions organised for the Saturday afternoon.

The first session is on Airbags and the second on the World of Electronics, which will examine on board diagnostics and the modern vehicle management system.

Once again, to register for these sessions, you will need to send back your Event Confirmation Form from your kit.

Our spies tell us that the farewell Sunday breakfast will be worth getting out of bed for, regardless of what time you get to bed from the big Saturday night dinner.

According to Glen, you MUST respond on your Event Confirmation form if you plan to be there. Don't miss it for quids.

The Convention is not all fun, parties and wineries. Saturday will be a heavy day for all delegates, starting with a special warm up session from advertising guru David Rowe of Adelaide first thing which is not to be missed.

President Mark will review VASA's initiatives for the past year, with assistance from his committee leaders.

Director Tony Heat from Sydney has been given the gavel as chairman of the Annual General Meeting and the general business sessions.

After the guest speakers (listed elsewhere in this issue), the wind-up session will be delivered by business motivator David Floyd, who will share his knowledge about "working smarter."

Top Venue

The beach at Glenelg will be as cold as charity this time of year, but the outlook superb.

The Stamford Grand Hotel is Adelaide's trendy pub, so keeping the VASA minds on business will be a full time occupation.

Just 10 minutes drive from the Airport and 20 from downtown Adelaide, the Stamford is the major conference hotel in South Australia, with a conference centre which is well used by Adelaide's automotive industry for car and other product launches.

There are seven restaurants, sauna, spa, gym and a heated outdoor swimming pool.

Conventions are about networking. Most of the business is done outside the AGM. Bring plenty of business cards.

Check list

All delegates who have booked through Sharon Thomas at Harvey World Travel at Glenelg (official VASA convention booking agent) should by now have received their confirmation packs.

If you haven't, please get in touch immediately with Glen Watkinson, on phone 08 8347 1155 or fax, 08 8268 8048.

Make sure you have sent back your Event Confirmation Form which is part of your kit, otherwise you might find your plate is the one without the sandwich and your beer glass will be empty.
Membership

A few members have been a little slow in responding with their cheques to the membership renewal for this year.

Perhaps they found their way to the bottom of your “to do” basket. For VASA to do its job efficiently and effectively, it must begin each year with a healthy bank account.

So how about it late members. You are also slowing down the Registered Technicians Program by delaying your renewals and in addition, the longer you delay, the harder it will be for your nominated technicians to catch up with the Program, which is rolling along, with or without you.

Reminder

Lucky Door Prizes

$2,000 worth - or one tonne - of Forane R134a refrigerant has been donated to the VASA convention by elf atochem ATO and will be up for grabs for all comers, members or not, to the Trade Exhibition.

As an added incentive to get delegates back to Convention on time after the lunch break on Saturday, a second door prize from the same company will ensure a full house for the first speaker after lunch.

Case studies of compressor failures

A/C specialists don’t seem to be causing the trouble, but some compressor rebuilders and their distributors are having spurs of rebuilt compressor failures, and they’re justifiably nervous.

One, Ron Boston, of ACP Systems, showed us his warranty form, which among other things now says the following:

- Any evidence that incorrect or incompatible chemicals have been used with this product will void the limited warranty.
- Proof of drier/accumulator installation must accompany all warranty compressor returns (and he’s planning to modify this to add orifice tubes on O/T systems).
- Foreign oil or debris inside the compressor will void the limited warranty.
- Burned clutches on still-functional compressors will void the limited warranty.
- Compressors damaged or altered by user will void the limited warranty.

Boston showed us photos of a couple of returned compressors -- one a Chrysler A590, the other a Nippondenso 10P, both of which seized. In both cases the bores, shaft, bushings and other parts looked rusted, but obviously the aluminium parts couldn’t have rusted. And the damage went beyond that (See Pic 5).

In the case of the Chrysler compressor, he spoke to the shop owner who in this good reason. No manufacturer can possibly afford to run exhaustive tests on all the possible products and combinations, to see what might give trouble. In many cases, we have to go with limited information on what works, and make educated guesses as to what doesn’t and why something might have caused a failure.

Even the car manufacturers, who spent billions of dollars on the changeover to HFC-134a and retrofit procedures, had to say “No” to a lot of possible tests. They didn’t.

Here’s something to consider: although that flush could vaporise on a hot day, it wasn’t hot on the day he serviced the car. And the quick capping could certainly mean some flush could remain in the system when it was charged with HFC-134a.

Why the ‘rusty’ look? The material wasn’t analysed, but it certainly resembles the copper plating out that we saw in the early research work on retrofit, when systems were flushed with CFC-11 and small residual amounts were left in.

In this situation, of course, a small amount of residual HFCF is unlikely to cause a problem, but this system seemed to contain more residual flush agent than it should.

There are lots of unknowns out there, for

PIC 5 - This Nippondenso 10P shaft is from a seized compressor. Notice that the pistons and shoes are "welded" to the drive plate. The shaft (and aluminium parts) showed a "rust" look that may have been from plating out of copper.

PIC 6 - These Ford FX-15 shaft seals swelled, split and separated from the metal section of the seal, in a mix of an R22 based blend, the flush and PAG oil.

PIC 7 - This O-ring suffered what is called a "nibbling" or feathering failure.
have the staff or budget to do everything.

So when they found something that worked with HFC-134a, whether an oil or seal material, they considered it. And if they were satisfied something performed the best of what products they had from reputable suppliers at the time, they approved it.

Often, that meant not being able to test the latest version of a seal or oil at that time (‘maybe later’). They’ve been doing some work on new materials as they are introduced, but it certainly is at a more normal engineering pace. The get-into-production phase was completed by 1994.

Well, you can’t experiment on customers’ cars either. We’ve built up a wealth of information on various products that will do the job, both on new HFC-134a systems and retrofits. It may not all be proof positive of everything, but it does tell you this: be careful.

One A/C parts distributor, SunAir Products, was asked by a regional compressor remanufacturer if it could help with a string of compressor failures involving a refrigerant blend containing R22.

As you might know, if R22 is in a blend, the hoses must be replaced with the barrier type. But there is also evidence submitted by Santech, a seal manufacturer, indicating that R22 adversely affects most auto A/C seal materials that is uses.

SunAir soaked a variety of seals in markets in an R22 blend with PAG oil and an HCFC flush (HNBR is the seal material of choice for HFC-134a original equipment).

**PIC 8 - These original equipment valve cores’ outer seals are okay, but the bottom seals swelled and extruded so the valve core would not close.**

For some results, refer to Pics 6, 7 and 8).

Note: Sun Air declined to identify any of the blend refrigerants or brands of other products in its tests, but said they were ones readily available nationwide. Its position is that like the other companies, it can’t test everything.

This doesn’t prove anything specific, because you can’t tell whether the R22 blend or the flush was the exact cause of either of the failures we’ve just detailed. But it explains why a company will say you can’t use anything but HFC-134a and PAG oil, for example, and why it insists on a thorough purge of all flushing agents.

SunAir also decided to see what would happen if a blend refrigerant was charged into a system with eight ounces of mineral oil and just two ounces of polyol ester oil as recommended by the blend manufacturer. It built an accumulator with a clear Lexan plastic housing so it could look inside. All of the testing took place in a laboratory setting.

It first noted that linear cracks formed in the Lexan at only 75 psi, something it never had seen with HFC-134a and the lubricants it approves for that refrigerant.

With the clutch off, the oil floated to the surface, on top of the refrigerant. There did not seem to be any oil in the refrigerant. When the clutch cycled on the refrigerant and oil circulated, liquid refrigerant went through the oil to the bottom of the accumulator.

After about three minutes of operation, there was a heavy concentration of oil suspended in the middle of the accumulator (although ‘churning’ from system operation produced a small amount of mixing) and when the compressor finally cycled off, there was some oil still in suspension.

This indicated to SunAir that with this particular blend, all of the refrigerant would have to be drawn into the compressor, before all the lubricant on top would flow through the accumulator. See Pics 9, 10 and 11.

The HFC-134a, however, mixed well with either a PAG or polyol ester oil (Pic 12).

Here again, we may not have anything conclusive, but it made SunAir wonder about the quality of lubrication in a system with just two ounces of polyol ester.

This helps you understand why a company supplying parts to the aftermarket doesn’t want to take chances on something that produces such unfamiliar results.

Like others, it wants you to follow the established procedures and use products in well-proved combinations.

There is no reason for you to ‘wing it’.
Trashy garages, grease-covered mechanics and buggy whips all have one thing in common: decreasing consumer demand.

In a world of SMART cars, rapidly advancing automotive technologies, and waiting rooms with fax/phone/computer work stations, survival of the independent service provider may depend on changing a few things — especially their image.

How does your service facility compare to the next wave of customer convenience? Well, consider what’s happening right now down in Houston, Texas.

All The Whistles And Bells

According to a press release from Chrysler, Northwest Dodge is building what may, for the moment at least, represent the latest in consumer comfort and convenience. The contemporary dealership will reflect progressive and innovative retail concepts with such consumer amenities as a café, children’s play area, customer work area with phones and fax, computerized vehicle presentation area, audio enhanced vehicle display pads, quick lubrication fluid service area and an enclosed service entry.

Located on 6.5 acres, the dealership will be a 45,000 square foot facility which includes 6,500 square feet of showroom floor area, 6,500 square feet of parts storage and a 21,300 square foot fully air conditioned service repair centre. Construction is set to be completed by late summer 1998.

If you’re thinking that old stack of worn out tyres out back would make a great play area, you’re simply not getting the entire picture here. There are more vehicles being manufactured today than there are buyers. Call it poor planning on the OEM’s part, but the competition for the customer is heating up like a summer day in Hades.

And remember, service is a major component of dealership profit. The sale of a new car is worth only about $70 on the profit side of the ledger.

There’s a very good reason the dealership is offering a Nirvana-esque environment for the customer — the customer wants it. Mom is getting the car serviced and has the kids. Dad can keep in touch with the office and the Internet via his laptop or notebook computer. With all the opulence, there’s no need for the dealership to provide transportation for every customer who comes in for service — they want to stay for the duration. It’s cool, comfortable, there are snacks and a place for the kids to play while the customer gets some work done.

Should You Worry?

The equation is simple: there are a finite number of customers, Americans are impatient but love comfort and pampering, automotive service has become a do-it-for-me (as opposed to do-it-yourself) activity, success breeds repetition — so, what was the question again?

If you’re reading this while sitting on a chair of questionable colour and origin, surrounded by 1985 or older shop records and magazines, sipping a dark, noxious fluid you call ‘coffee’ and listening to the flutter of faded and tattered ‘sale’ banners outside your shop, instead of clamour of filled service bays you should worry.

No matter how nostalgic the image of the old comer garage may be, the industry is changing.

The motorist today wants more, and there are those more than willing to give it to them if it means survival - which, by the way, it does.

The number of active independent service facilities has been sliding like GM’s sales figures. Franchise operations have been nibbling at the customer base along with quick-lubes and parts sellers who also provide service. Newer vehicles go further between recommended tune-ups and other service.

That’s not to say the aftermarket is all gloom and doom — just the opposite, in fact. The question is not how many parts will be sold, or how much service will be performed, as much as it is by whom?

We are attracted to the new and exciting. Quality and price often take a back seat to clean and shiny. It’s a matter of image. If the service facility looks professional and capable, we are apt to believe that it actually is. Bees are attracted to honey more readily than vinegar.

Take a closer look at the image of your facility - not just the building. Is your advertising up to date in both information and design? What about your signage? Are the waiting and service desk areas bright and customer-friendly? Are your service technicians relatively clean and have spare clean shirts on the premises? How are your telephones answered? How do employees relate to customers?

There’s more to it than just sweeping the drive every so often. Learning from successful peers is an excellent way to begin.
A word from our sponsors

Where do VASA's gas allies stand in the battle for one gas

**elf atochem**

**ATO**

Forane® is the Elf Atochem trade name for R134a refrigerant which is the best option to replace R12 in automotive air conditioning systems.

R134a is the only single component refrigerant that closely resembles R12 operating conditions.

R134a is also the only refrigerant approved by OEM’s and automotive manufacturers worldwide.

**Du Pont**

Orica, (formerly ICI Australia), distributes Klea 134a.

Amidst much confusion, R134a remains the only refrigeration specified for retrofit by the automotive OEMs and many aftermarket organisations, with millions of fleets test documented since 1993.

Its characteristics are well known and its use minimises the impact on the service sector.

Du Pont have chosen R134a as the only recommended refrigerant for retrofitting.

We also share VASA's concerns about contamination of refrigerant gasses as a result of a proliferation of gasses which were never designed for the automotive air conditioning system.

The original equipment manufacturers have made their position quite clear – 134a is the only gas they approve for use in their vehicles and their air conditioning systems.

Cooperative program may lead to national qualifications for refrigerant techs

A refrigerant industry-sponsored classification system which would give all technicians nationally recognised qualifications is moving closer.

It’s possible that quite soon, a Memorandum of Understanding may be drawn up between VASA and the Australian Institute of Refrigeration and Heating (AIRAH), following a round of negotiations between the two on the issue of cooperative training programs.

VASA's man at the coalface of these negotiations is Chris Lindeman, who works alongside Mark Mitchell in VASA Public Relations.

Chris recently presented his paper titled "Vehicle air conditioning, the past, present and future" at the AIRAH conference at Darling Harbour in Sydney.

"The lecture was well attended and well received. I thank particularly Grant Hand for his technical input and Karl Priestley of Tridon Australia for helping put the lecture together," said Chris.

His lecture and other papers presented at the conference is available on CD-Rom obtainable directly from Chris or from the VASA technical li-

library. Copies can be purchased from AIRAH in your state also.

"VASA has been sharing some thoughts and philosophies in cooperative training over the past few months, and it's leading to a positive outcome for all Australian technicians in this industry," added Chris.

Shortly, all members will receive an upgraded CFC and HCFC Phase Out User Guide booklet, courtesy of AIRAH. A further amendment on vehicle air conditioning will also be sent out shortly.

VASA’s first large scale campaign aimed at the consumer is likely to be launched in Adelaide, with the release of the brochure "Why every motorist should care about the type of refrigerant gas used in their car air conditioning system."

The campaign has been made possible through a generous sponsorship package from **AFCAM**, the Association of Fluorocarbon Consumers and Manufacturers.

It's part of VASA's strategy to push for a mono-refrigerant industry which it says will be better for the environment and for the consumer.
This is the second in a series of three articles dealing with identifiers and the latest trends in the USA.

They are adapted from an IMACA initiative, “Refrigerant Identifiers: What Can They Do For You?” An expert panel from the industry was invited to lead the discussion.

Speaker: David W Gentit, Product Manager for Pressure Products and Instruments at Robinaire.

“Robinaire’s independent market research study in regards to retrofitting was based on 1,200 shops: 200 mass merchandisers, 200 A/C specialty shops, 200 independent service shops, 200 gas and service facilities, 200 paint and body, and 200 dealer equipment.

“Half of these facilities performed retrofits and an overwhelming number used HFC-134a for this service. Gentit noted that fleets were not included in the Robinaire study. The study also showed that over 80% of the facilities surveyed planned to do retrofits in the future. The study underlined the importance of refrigerant identification equipment, first to determine the refrigerant in the system and second, to identify what contaminants (if any) remained in the system after the retrofit had been completed.

“T o do a proper retrofit, you need accurate and reliable identification equipment to identify any potential contaminates before or after the retrofit takes place. There are many concerns that have been expressed in choosing the right identification equipment. Questions asked in our market research that we found to be the most common are: What does it cost? Is it easy to use? Will it tell me if I should work on the car or not? Is it reliable and will it last?

“We feel we have the solutions to these questions. After much research and painstaking detail, we formed a partnership with TI, a leader in infrared technology. I would like to introduce the PrismPro O.E. – it identifies CFC-12, HFC-134a, FRIGIC, and FREEZE 12 at a 98% accuracy level, with a hydrocarbon alarm, and air detection capabilities. The PrismPro will detect CFC-12, HFC-134a, hydrocarbons, and air. The Air I.D. will detect air and will also purge air from as storage tank.

“We offer a product range to fit every budget with a variety of applications. We have design that eliminates ‘operator error’ – just turn it on and hook it up. We offer the ability to identify the specific refrigerant and eliminate the need for confusing, hard to read detail which must be analysed by the technician. And, we offer an optical design with no moving parts. These products provide rugged refrigerant handling and protection against liquid refrigerant that damages the optical sensor.”

Speaker: Chris Chaloux, Gas Sensors Business Unit Manager Texas Instruments for the optical design portion of the presentation.

“The first two priorities for the Robinaire project were to develop a product that was both effective (capable of identifying the more complex mix of gases found in blends) and affordable (under US$2500). Infrared is a basic technology which is affordable. From this starting point, TI developed an optical/software package which could identify several known gases at specific percentages of concentration through pattern recognition.

“While competitive products focus on only one or two key gases, TI’s software compares the optical values (patterns) in the sample with the patterns of known gases contained in the software program. It’s like finding the right key to open a specific lock – when the patterns match, you know what is in the system.

“Another goal of the project was to provide the technician with an answer, not just data which the technician would then have to compare to a chart to determine the actual gas (or gases) the device had identified.

“This technology can be compared to two weathermen. One reported a high concentration of water vapor approaching
Review of the Retrofit

Australia isn't doing too badly

Despite the earlier gloom and doom of the retrofit scaremongers, Australia has retrofitted the national fleet with few complaints and indeed, a large measure of consumer satisfaction.

"There are some things we are good at," was VASA president Mark Mitchell's summation up of the last few years.

"I don't think we've done too bad a job at bringing Australia's cars through the retrofit process with a minimum of drama, despite the battles we had to fight along the way.

| Viva VASA Vigilance |

"In a way, I think VASA's early affiliation with bodies like MACS and IMACA in the USA, made us more vigilant than we might have been.

"We've seen what's happened in America, but thankfully, the Australian market has handled things differently, probably because we have a smaller population and geographic area," said Mark.

"There are so many bad retrofits in the US, with a proliferation of blends and hydrocarbons on top of R134a. The problem in the US is that it is a much bigger population, which means the message about proper retrofitting doesn't get through to the hundreds of thousands of smaller operators. Despite the best efforts of MACS and IMACA, the professionals are doing it right, but there's a huge gap in the message through sheer size of the market.

"In Australia, we have our share of problems, but not to the same extent. We are still coping with blends, hydrocarbons and gas washing (covered in our last issue of Hot Air). Our multiple refrigerant problem is small by comparison, but enough to cast doubt on the purity of the Australian gas stream," he said.

"We may not be perfect, but a small pat on the back is due to VASA's committees for being vigilant and fighting tooth and nail for the mono-refrigerant philosophy and better industry standards. We also give credit to the manufacturers and the ASE, who have worked diligently to bring the right message.

Australian workshops face probably another two years of active retrofitting, but so far, so good. "We haven't had a consumer backlash, and this says a lot for the manner in which the professionals in the industry, the VASA members, have handled their customers," said Mark.

NO, he's not a school teacher, but Michael Bennett, General Manager of Refrigerant Reclaim Australia (RRA), who will bring the Adelaide Convention up to speed with his three R's — Recovery, Recycling and Reclamation.

Michael has warned in previous issues of Hot Air that workshops must get used to the idea of having one gas bottle for capturing all gas from vehicles. This bottle is then returned to the workshop's regular wholesaler, who in turn will pass it on to RRA for reclaiming or destruction.

The big question is how much R134a is going to end up so contaminated with blends that it will be destroyed instead of reused under a mono refrigerant recycling policy.
In the weather bureau’s outlook for winter, it is pleasing to note that the infamous El Niño should no longer affect Australian rainfall this year.

Ocean temperatures in the central to eastern Pacific were close to normal by the end of the month.

Average to above average falls in winter cropping areas have often occurred following similar situations in the past. In fact, above average rains have fallen over eastern Queensland and New South Wales in the past two months.

There are other encouraging signs for winter rainfall. In particular, warmer than normal ocean temperatures off Australia’s northwest coast favour northwest cloudband development.

In summary, while El Niño’s influence may linger for a couple of months more in some parts of the world, Australia’s winter rainfall should be unaffected.

Source: Australian Meteorological Bureau

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**CAREER OPPORTUNITY IN TAURANGA, NEW ZEALAND**

SMAC AUTO AIR is seeking an experienced Automotive Air Conditioning Technician to join their small professional team.

The work we offer is varied and includes refrigeration on pleasure craft, coolstores, refrigerated trucks, coaches and of course automotive air conditioning.

Tauranga is situated on the east coast about 2 1/2 hours from Auckland. Tauranga is a popular place to live, boasting a great climate, excellent beaches, fishing and many other outdoor activities.

Please phone Steve on 0011 64 7 578 5626 or fax on 0011 64 7 578 5636 or write with CV to 24 Koromiko Street, Tauranga NZ.

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