

THE VOLUNTEER

Official Journal for The Country Fire Services South Australia

VOLUME 13

Autumn Issue

March 1982

Published Quarterly



Correspondence to the Editor

"The Volunteer"
Country Fire Services
P.O. Box 312, Goodwood
S.A. 5034. Telephone (08) 297 6788

Published with the endorsement and support
of the Country Fire Services Board, South Australia

ISSN0725-2846



Letters to the Editor.

Concern over Railway Lines

A recent fire at Peterborough believed to be caused by a train has caused concern over the protection of property from fires started on railway property to raise its ugly head again.

Late last year scenes such as this one near Terowie and red tape problems caused a delegation of farmers and Council representatives from the route between Riverton and Peterborough to meet with the General Manager of Australian National, Doctor Williams.

The meeting resolved some aspects of the problems and cleared the way for burning of grass on railway property with the CFS, local farmers and the railways combining forces.

If reports on the cause of this recent fire are true then obviously the problem hasn't been solved, and with the continuing hot weather it will be a cause of genuine concern in the weeks to come.

Hopefully next year burning off or clearing of railway land alongside railway lines will be completed long before this time of year.

Editorial courtesy *The Flinders News*.

Fire Fighter Boots

Rossiters makers of footwear since 1910 have just released a three-quarter length boot specially designed for firefighting.

Features include ease of accessibility, normal to large fitting, holding ankle strap, greenland gristle rubber sole, double stitched upper attachment, sufficient calf legroom for inward or outward wearing of trousers, side pull-on tags and leather top band for extra strength.

The three-quarter length fireman's boot has been designed by Rossiters Pty Ltd of Unley.

CORRECTION

Radio call sign

Please amend your records to read:

VICTOR HARBOR call sign VL 5FH not VL 5FM

In Case of Fire

Some serious advice on 'staying alive 'til the smoke clears' has been drawn up in a brochure recently released by CSIRO's Division of Building Research.

Dr Caird Ramsay, of the Division's Environmental Hazards Section, said people needed to be constantly reminded of the necessary precautions to be taken in case of fire.

'These precautions should be standard practice and not just thought of on days of total fire ban', he said.

They included checks on spouting and roof gutters to see they have been cleared out, and on water supplies to ensure they are adequate; clearing rubbish and other 'burnables' from around the house; keeping axes, shovels, hoes, rakes and ladders handy; and knowing where the children are, and what they are doing.

The brochure clearly and briefly tells you what to do on a day of total fire ban, when fires are close by, if you can see the fire, and if the house catches fire.

BRUKUNGA VOLUNTEERS 'FIRED UP' OVER VANDALS

The Brukunga, CFS members have locked their shed doors for the first time since the brigade was formed twenty-five years ago.

Vandals got into the shed on Sunday, 24 January, and generally created havoc.

The fuel tank was 'milked,' radio tampered with, breathing apparatus used and the gas emptied and oil sprayed all over the shed floor.

Continued page 4...

LOST

A Country Fire Services Headquarters Portable 'Motorola' Radio was lost between the Adelaide Airport and Belair Golf Course, during helicopter duties on 6 November 1981.

A physical ground search has failed to locate the missing radio.

Anyone finding the radio or can provide information leading to the recovery of this radio, please contact CFS Headquarters Communications Officer, telephone (08) 297 6788, or write to Country Fire Services, P.O. Box 312, Goodwood 5034.

A method used to combat 'fuel vaporisation'

An interesting method used to combat the old problem of 'fuel vaporisation' designed by Barry Carter, secretary and brigade members of the Senior CFS, is recorded in the following report:

Overheating and the resultant 'fuel vaporisation' in petrol powered trucks has long been a major problem to the CFS Volunteer.

Many and various methods have been tried to overcome the most frustrating obstacle, but our Senior CFS brigade believes we have a solution, in particular to fire fighting trucks.

Affectionately nicknamed 'Rover' our very simple but highly reliable and efficient system consists of a small mist type spray mounted in front of the radiator, coupled to high pressure 1/2 inch hose which in turn is coupled into the units plumbing at a convenient location and controlled by a small gate valve.

Using as little as 1 litre/minute 'Rover' is able to reduce the temperature reading in our International C1600 4x4 from exceeding 200° F to 140° F on days when shade temperature is extreme.

While 'Rover' has raised the odd chuckle from observers, at a fire situation it has proved beyond any doubt that the simplicity and effectiveness are worthy of consideration by any brigade who needs to tackle fires in grassland, stubble, scrub, etc., where demands on the truck are beyond the wildest dreams to which the manufacturer intended.

Criticism that moisture will stall the motor, or that water is being wasted are both false as the mist used is evaporated largely by the time it has passed through the radiator, (this evaporation is no doubt the cause of the remarkable cooling effect). Yes, 'Rover' has become a very reliable and trusted addition to our unit, he no doubt will be around for a good while yet.

Whilst this system is possibly not a new idea, I feel that when consideration of the extreme heat conditions firefighting units are involved in, much more attention needs to be given to what is a ridiculously cheap and trouble free arrangement.

It has been estimated that in a fire situation when shade temperature is hovering at 40°C or higher, up to 50 per cent of petrol fire units will experience some overheating problems. This can and should be viewed most seriously with the view to eliminating such failure.

I trust this information will prove beneficial to readers from brigades throughout the State who are experiencing frustrating 'Vapourisation' problems and seem unable to find any real solutions.

Further information is gladly available from the Senior CFS, Box 108, Bordertown 5268.

PS: The installation of a fire filter in the system will help where water is known to contain debris.

EDITORIAL

The long shadow is cast

It seems paradoxical, but every summer soaring temperatures and hot dry winds cast a giant shadow across our State. Every summer 11 000 volunteers look uneasily skyward when fire bans are imposed in their area. Long serving members remember Black Sunday and Ash Wednesday; new members wonder when their turn will come and just how they will cope.

Why then, has summer '81 been different?

Apart from a near record hot spell, the season temperatures and conditions could be considered 'as expected'.

It is now three years since I first came to South Australia and this summer I am sensing a new attitude and approach to the whole business of fire protection in this State. There has been an upsurge of new equipment, more demands for training, more demands by the service for support from Headquarters. This has been transferred to fire ground operations with fast turnout, rapid knock-down—a feeling of urgent efficiency.

If my perceptions are correct—please keep up the good work—there is still a long, long way to go!

LLOYD C. JOHNS,
Director

South Australian Country Fire Services

Front cover:

'FIRE DEMON' GETS EXTINGUISHED

The 'Fire Demon' at this year's Smokey's Birthday Party at the Adelaide Zoo came to a watery end when drenched with water from knapsack sprays manned by children from the Greenhill area.

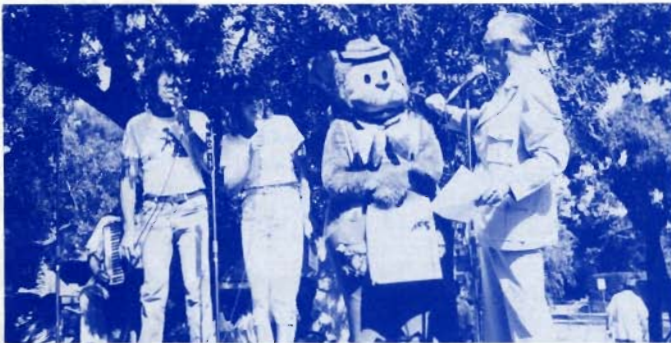
Smokey's Birthday Party is sponsored by the Country Fire Services as part of its educational program for children, to be aware of the dangers of fire.

This year's 'fire demon' was played by fireperson Kate Foubister, a member of the Greenhill CFS brigade. Her mother Mrs G. R. Foubister, is secretary of the brigade's ladies auxiliary.

'SMOKEY'S BIRTHDAY PARTY'



The annual Smokey's Birthday Party held at the Adelaide Zoo, Wednesday, 20 January 1982, was attended by approximately 1 200 children (many accompanied by parents).



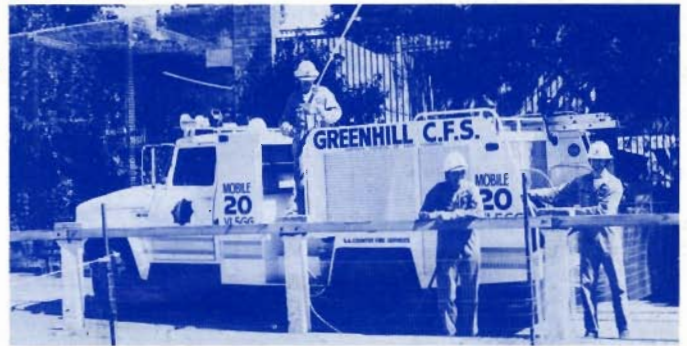
A tray-top truck supplied by Coca-Cola Bottlers (Adelaide) set the 'stage' in the Elephant Arena, and despite the 38°C temperature. Mrs Helen Woods (KESAB Promotions), Mrs Judith Barr (ABC News Reader), Mr Ian Wilson and 'Fat Cat' (SAS10 'Early Birds' personalities), Mr Barry Pitman (NWS9 Weather Forecaster), and Mr Steve Curtis (ADS7 'Music Express' compere) each took turns in holding the audience 'spell bound' with stories, antics and messages on 'Bushfire Prevention'.

Smokey Koala—South Australia's Fire Prevention symbol came down from his Eucalyptus tree to take part in the celebrations and inspect his special birthday cake.

Compere Mr Ron Sullivan praised the service provided by piano accordionist Mr Les Cooksley, Coca-Cola, the television media and the behind the scenes work done by Adelaide Zoo staff—for the hours of preparation necessary for the party to be a success.

CFS Director, Mr Lloyd Johns, gave a fire prevention speech and led the chorus of 'Happy Birthday to Smokey.' Zoo Director, Dr Robert Baker, reflected on the need to protect our farm and bushland animal friends and the already endangered species from bushfires.

A 'Fire Demon' sketch involved the Greenhill CFS Brigade wetting down and putting out the fire demon, played by fireperson Kate Foubister. The inclusion of a knapsack brigade, consisting of Greenhill CFS brigade members' children who first wet down the fire demon (refer front cover), met with loud acclaim from the audience.



Greenhill CFS members patiently waiting for the final appearance of the Fire Demon, are pictured above testing their pumps to ensure a fast knockdown of the fire—on the demons' arrival.

Free Coca-Cola dispensed immediately following the hourly program, gave a most welcome relief to the parched throats of the many party goers.

Special thanks is conveyed to the above mentioned television personalities and their respective TV networks, all radio station networks, Mr Ron Sullivan (in his capacity as compere), Mr Les Cooksley, Nomis Electronics and Coca-Cola Bottlers Adelaide. Acknowledgement is made to Messrs Colin Sampson and Graham Slape for Coca-Cola Bottlers (Adelaide) generous contribution, Mr Richard Coombe, Radio 5AN and Mr Jeff Warden, Double SA-FM Radio.

Particular reference is made to Mr Des Callaghan, Captain, Greenhill CFS, the Greenhill CFS Brigade members and the entire Adelaide Zoo staff, Dr Baker and Mr Perkis, for their support in the promotion of the CFS Bushfire Prevention cause ... Editor.

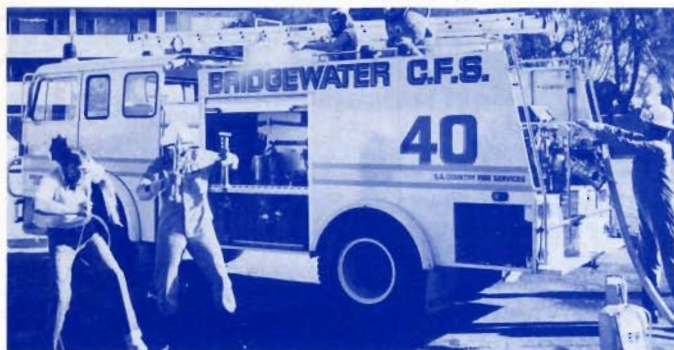


Members of the Bridgewater CFS paid a recent visit to SAS Channel 10, to remind children who watch the 'Early Birds' program of Smokey's Birthday Party at the Zoo. The visit also afforded the CFS the opportunity to promote:

- (1) the service to the community provided by CFS volunteers.
- (2) the 'Prevent Bushfires' message, that everyone should heed.

Pictured 'live' on television were from left Ian Wilson (SAS 10), with Bridgewater CFS members Stan Jezioranski with his sons Simon and Damian, Rob Smith and on the rear of the appliance 'Early Birds' cast Janice Bebb and 'Fat Cat.'

Continued page 4...



'FIREMANSHIP OF THE 80'S'

By Grant Hofmeyer
Senior Fireman, Stirling District

Firemanship of the 80's and beyond will be totally different to what you know now. Education and training of some firemen used to be a matter of 'Come down to the fire station and we'll show you around, they're a good mob of blokes and we get a fair roll-up when the siren goes, but we don't see them much otherwise'. No longer is this the attitude, learning goes on forever, and training is a *must*.

With the advent of transportation of dangerous substances and the enormous variety of potentially toxic hazards, even with Breathing Apparatus; a host of sophisticated equipment; and the Headquarters 'Hazteam' back-up, *all* firemen should have some knowledge of handling dangerous substances in the event of a spillage or in a fire situation.

The amount of dangerous substances being transported on road and rail (particularly at night) now is staggering. An electrical fault, a fuel leak, an overheated brake drum resulting in a burning tyre, or brake failure resulting in an overturned vehicle could happen anytime, and could result in a spillage of dangerous substances.

If you were confronted with any of these problems tonight or tomorrow, how would you, your brigade and your district react?

I believe responsibility for 'in brigade' training rests largely with Brigade Captains, whether a Training Officer be appointed or not. Brigade Captains, Lieutenants and Senior Firemen know their areas and its fire hazards best, and can therefore advise and direct the correct training required to meet local needs.

Training *doesn't* simply involve starting and running the vehicles for a few minutes, or conducting an infrequent hose or ladder drill. It means every part of fire prevention and fire fighting, involving the chemistry of ignition and extinguishment.

With the right professional attitude and the correct training skills many CFS Volunteer Brigade crews can now handle almost any domestic emergency: from the extraction of toes and fingers from plug holes, to field search and rescue, to potential fire situations and vehicle accident/rescue.

Is your brigade working to its fullest capacity in skills, and continually researching new methods, new techniques, new products and new equipment?

Are you and your crew in a constant state of training and preparedness? If you are selected by your brigade to attend either a training course at Headquarters or a course run by a local training establishment; treat the information and skills obtained as something that everyone should know.

Try to involve your brigade (all *all* levels) and encourage the crew to actively train in the wide variety of subject matter that is called 'Firemanship'. There is no substitute for experience and even though every fire or emergency situation is different, some elements remain the same and can be built on to make you a better fireperson.

If you are a Brigade Captain or Lieutenant you might say, 'Oh you young people don't know how lucky you are, we had bad fires years ago, but we don't see them now'.

That may well be so, and we don't want another Black Sunday or Ash Wednesday *ever* but the lessons learnt from history are the key to a better service today and in the future. Don't treat the lessons learnt and skills developed as secrets. Talk about tactics 'why couldn't you use a bulldozer here?' or 'why was a predicted wind change ignored?' If we are all doing our jobs in fire prevention as well as fire fighting there will be less fires. Infrequent fires mean a safer environment, but with fewer fires crews may lose interest.

For this reason training at all levels and in all subjects must remain at a high pitch as well as perfecting the skills required for the 80's and beyond. 'Hats off to the past, coats off to the future'. We have come a long way from the wet bags and beaters of the 40's and 50's. We can handle grass, bush, scrub and house fires, faster, safer and better than ever before, but we can't rest on our laurels and think we're good enough.

Consider the hazards in an average domestic dwelling, room by room. Today even the laundry and bathroom generally contain an assortment of pressure pack cans which in a fire incident can become a serious hazard. A hazard that wasn't so prevalent ten years ago.

Protection of Life and Property from fire is the role you have accepted, the methods of doing it better, are in your hands—you—the Volunteer.

To highlight the fire prevention message while at the same time demonstrating how fires are put out, SAS10 Early Birds TV personalities caught Ian Wilson and Stan Jezioranski completely by surprise with a jet of water from the monitor mounted on top of the Bridgewater fire appliance.

Thank you Bridgewater CFS brigade members Mrs Jan Smith, Mr Rob Smith, Mr Stan Jezioranski, Mrs Isobel Jezioranski, Master Simon and Damian, John Meikle, John Scott and Captain Dave Moller for your valuable co-operation and the time given to further the CFS cause. And to RO Richard Keynes (Region 1), for his assistance... Editor.

Brukungu Volunteers
continued...

Brigade captain, Mr Mike Franson, said that he and fellow volunteers are 'hopping mad.'

This vandalism comes in the wake of two deliberately lit fires in the Brukungu area.

Editorial courtesy Mount Barker Courier.

VEHICLE ACCIDENT

The Secretary
Waikerie CFS
Waikerie 5330

Dear Sir,

I refer to the vehicle accident on Blanchetown Hill which occurred in the afternoon of 26 December 1981.

Please convey my sincere thanks to the crews who were in attendance at the incident. Their expertise and confidence, combined with the excellent co-ordination of the First-Aiders, ambulance personnel, members of the public, police and the Blanchetown CFS was truly a magnificent effort.

We are deeply appreciative of your help and I think it proves how efficiently the emergency services co-operate under stress conditions when a disaster of this magnitude occurs.

Unfortunately, the overall results were not in keeping with our efforts, but I believe this to be only because of the severity of the patients injuries and the fact that many were trapped in their vehicles for a long period of time.

Thanking you, once again, and wishing your organisation every success in the future, I remain,

Yours faithfully,

Dennis A. Ryan,
Service Superintendent
St John Ambulance Service for
S.A.
Waikerie and Districts Branch

'SWIFT ACTION' PRAISED

The Chief Officer,
CFS, Jamestown
Dated 8 January 1982.

Dear Sir,

We would like to express our appreciation to your group for your prompt attendance at the fire we had on our property this afternoon. The proof of the efficiency of any Service Unit is its performance in the field, and I was amazed at the very short lapse of time before you were in action on the site, and the same must be said for the many others who attended. It was due to this swift action that the fire was so soon contained.

Yours faithfully,
L. J. and H. A. Staker
CFS Assistance
Acknowledged

Mr George Polomka
Regional Officer
Country Fire Services
Jamestown, S.A. 5491

Dear Sir,

On 10 November 1981, one of our vehicles was involved in a mishap near the Mannanarie Road junction. The scene was attended by yourself and your crew.

Would you please accept the thanks and appreciation of the company and myself for the very real job that you were called on to perform on this occasion.

Please also convey our appreciation to your crew for their assistance and co-operation.

Your faithfully,

R. C. Muller
Manager
Silverton Transport & Agency Pty
Ltd Broken Hill.

FOR SALE
EX BURNSIDE CFS
FIRE TENDER

1969 International Model C1640 Fire Tender—low mileage, 1800 litre steel water tank. Magirus pump driven by Volkswagon engine. Inspection welcome—contact Depot Manager, Burnside City Council, S.A. Tenders to be addressed to Town Clerk, City of Burnside, P.O. Box 9, Glenside S.A. 5065.

K. L. Peacock, Town Clerk

Department of Agriculture can help after fire

With a bulk of dry feed in country areas, exists a high potential bushfire risk.

No one wants bushfires, but unfortunately each summer, fires do occur and property is lost.

The Department of Agriculture staff can help in several ways after bushfires.

- * Treatment of burnt livestock and arranging for livestock slaughter, if necessary.
- * Assessment of pasture losses and replacement fodder needs.
- * Help through Rural Reconstruction and the Primary Producers Emergency Assistance Act.
- * Assessment of agricultural assets lost and advice to farmers on re-establishment.

Farmers and fire control officers should contact their local Department of Agriculture officer, if help is needed in the wake of a fire.

The Department of Agriculture can particularly help in the treatment of burnt animals, so consult your local officer before rushing in and shooting burnt stock unnecessarily.

Fire receivers for forests

The Woods and Forests Department intends to buy handheld receivers to help co-operate with other firefighting bodies during firefighting.

The department will have the transceivers fitted with CFS and District Council frequencies for use by officers-in-charge of each district.

In a letter to the Naracoorte District Council meeting on Tuesday, the director Mr P. M. South said it had been difficult to make early and effective contact in the field with the fire control officers in charge of the fire.

This was because the bodies operated on different radio frequencies.

He said early contact was vital if all forces available could be used to the greatest effect in co-ordinated firefighting.

The department felt radio transceivers could best achieve initial field contact between fire bosses of various organisations.

CFS regional officer Mr Murray Sherwell and other delegates at a Border Co-ordinated Fire Conference supported the idea.

Mr South said that to fulfill licensing requirements, written permission was needed from the council for the department to install its frequency in the sets.

The Council said it had no objection.

Editorial courtesy *Naracoorte Herald*.

CFS wants residents on lookout for 'firebugs'

Country Fire Service Director, Lloyd Johns, has called on foothills residents in the Mount Lofty Ranges Fire Ban District to watch out for 'firebugs'.

Mr Johns said on fire ban days in the district, CFS air spotting patrols covered the area looking for any sign of fire or any activity of a suspicious nature.

'The air patrols start early in the morning and operate to late in the afternoon,' Mr Johns said.

'The CFS and Police are extremely concerned about the number of fires which have started suspiciously, and had all the hallmarks of having been deliberately lit.

'There are firebugs about and arson appears to be accounting for more than half the fires which have occurred up to now.

'We are extremely concerned about these types of fire.'

Mr Johns said the public could play a major role in reducing the activities of firebugs by immediately reporting any suspicious happenings, and by providing descriptions of the person or persons, their vehicle, and, where possible, the vehicle registration number.

'Early reporting to police or CFS headquarters or local brigade would greatly assist investigations.'

Fire Extinguisher Guide— Addendum

Australian Standard 2444—1981 referred to in the Volunteer Annual 1981, classifies Type A fire extinguishers (free burning carbonaceous solids) with a rating number appropriate to the size of fire likely to be extinguished.

The Standard does not qualify what size of Class A fire can be anticipated to be extinguished by the rating numbers; however, following discussions with the Standard Association, it has been determined that one cubic foot of 25 sq. mm. timber pieces laid in crib form can be reasonably expected to be extinguished by an extinguisher rated No. 1.

All 9 litre air/water extinguishers are rated a minimum of 2—viz.: should extinguish 2 cubic feet of such timber.

The previous article referring to the rating determination by the area extinguished of a deep layer flammable liquid was, of course, for Class B fires only.

RO Richard Hutchins,

Headquarters Fire Prevention Officer

RESPIRATOR ESCAPE HOOD

A photograph of an Emergency respirator escape hood was featured on the back page of the last issue of the Volunteer, Volume 12 December 1981, Page 40.

Brigades are advised that this was not intended as any endorsement of the hood by CFS Headquarters as an operational fire brigade item of equipment.

The hood was not designed for consideration by firefighters for use in smoke or other irrespirable atmospheres and should not be considered for purchase by CFS Brigades in lieu of conventional 'breathing apparatus'.

The projected use is for building occupants to don when evacuating floor areas and confronted by smoke filled exit routes.

If adequate means of egress is provided with appropriate fire and smoke rated doors protecting escape routes, there should be no necessity for this type of apparatus.

Regrettably, people create hazardous situations in safely constructed buildings by wedging open fire doors, obstructing exit doors and storing combustible materials in protected corridors and staircases which could render those routes untenable.

With this fact in mind, certain building owners or occupants may consider the escape hood has some merit.

RO Richard Hutchins,

Dropping in on trouble

by Mike O'Reilly
The News

Hanging beneath a hovering helicopter is now a part of being a park ranger in S.A.

Eight senior park rangers with the National Parks and Wildlife Service learnt how to 'drop in' on park emergencies.

They are from metropolitan parks including Para Wirra, Morialta, Cleland, Brownhill Creek and Belair.

Saving

The new program of special task training will allow the rangers to fight spot fires in previously inaccessible country and carry out rescues within their parks.

The NPWS protection management officer for S.A. Mr Howard McBeth, said fire was the main worry for this department.

'Now our men will be able to drop in on spot fires before they can take hold and wipe out large inaccessible areas,' he said during the training session.

'In the long term we will be saving money by using the helicopter,' Mr McBeth said.

As part of their senior ranger course, all the officers were trained in first aid, cliff rescue and firefighting techniques.

Airborne

'We've got 200 parks around the State and many are in really inaccessible areas which may require a 'chopper' rescue to save a life,' Mr McBeth said.

The airborne training, using the State Rescue helicopter, is being carried out jointly by the NPWS and Country Fire Services.

Mr McBeth said the airborne rangers would play an important part in protecting valuable native vegetation in rugged areas of the Mount Lofty Ranges.

CFS PRESSES FOR TOP COMPENSATION

The Country Fire Services Board has welcomed a Government proposal to increase the lump sum compensation payment to \$50 000 in the event of the accidental death of a volunteer firefighter while engaged in firefighting activities.

CFS Director, Mr Lloyd Johns said that the board had been concerned for some considerable time that the present payment for accidental death was limited to \$25 000—as specified under the South Australian Workers' Compensation Act.

Commenting on a call made by the Leader of the Opposition, Mr Bannon, for a revision of the compensation provisions applying to volunteer firefighters, the director said the board covered every registered volunteer firefighter in South Australia under a single workers' compensation policy.

The compensation provisions for firefighters who were injured were satisfactory. The firefighters were fully covered until they were able to return to work.

Since the CFS compensation scheme was introduced in 1979, 167 claims totalling \$189 576 have been paid to volunteers injured while on firefighting duties. To date there has been no payment for a death cover.

Mr Johns said that volunteers who were not registered CFS members but who assisted at the direction of a fire control officer, would, if injured, receive special compensation under the Volunteer Firefighters' Fund. Where claims were made, compensation similar to the schedule for workers' compensation, would be paid.

The proposed increase in death cover payments to \$50 000 would go further towards assisting the next of kin. However, there could still be room for further improvement.

Mr Johns continued, 'Many CFS brigades are taking out additional death compensation cover under a separate system, negotiated privately between insurers and the brigades.'

'For a premium of around \$20 (per firefighter), the brigades can secure a \$100 000 cover which is more in line with today's financial requirements to cover the loss of a person's life,' he said.

Mr Johns said that technically, the CFS Board could not subsidise the premiums for the increased death cover as the State Government would not approve the expenditure of Government funds on policies other than those required under the Workers Compensation Act.

Many CFS firefighters were injured each year—some seriously but, fortunately, the death of a firefighter on duty was rare, although it was always a possibility with a call-out to a fire.

Mr Johns said that contrary to the comment by Mr Bannon that councils now paid half the compensation premiums, the board only recouped a very small proportion of the premiums from councils.



IN MEMORIAM

The Country Fire Services expresses sincere condolences to Mrs L. Gladigau and family of Nuriotpa, at the recent passing of Mr C. H. A. (Harry) Gladigau. Harry was a foundation member of the Brigade, with thirty-three years service, during which time he served as Captain of the Brigade for a number of years and Training Officer. Harry was also Captain of Competitions Teams, which won the annual State Championship Hose and Pump Drill event three times, together with many other fine trophies. His loss will be sadly missed. We shall meet again.

REGIONAL TRAINING SCHOOLS

Open to all interested CFS Personnel

16, 17 and 18 April	Region 3	Stage 1
30 April; 1 and 2 May	Region 6	Stage 1
30 April; 1 and 2 May	Region 7	C.A.B.A.*
21, 22 and 23 May	Region 5	Stage 3
21, 22 and 23 May	Region 1	Stage 1
	(Upper)	
29 May; 5 and 6 June	Region 3	C.A.B.A.*
18, 19 and 20 June	Region 6	C.A.B.A.*
30, 31 July; 1 August	Region 1	Stage 1
	(Lower)	
10, 11 and 12 September	Region 4	Stage 1
15, 16, 17, October	Region 6	Stage 2
24, 25 and 26 September	Region 7	Stage 2
12, 13 and 14 November	Region 5	Stage 1

Note: Nominations close 3 weeks prior to start of course. Contact your Regional Officer for details and nomination forms, or use forms in *The Volunteer*, Volumes 8 and 10.

* = Compressed Air Breathing Apparatus

REGIONAL TRAINING SCHOOLS

REGION 1

A residential Regional Training School (Stage 1) for CFS members within Region 1 is to be conducted at the Mount Lofty Ranges CFS Training Centre from 21-23 May 1982, with accommodation at Woodhouse.

The school is to commence at Woodhouse at 1930 hours on 21 May and conclude at about 1700 hours on 23 May. The school is limited to forty CFS members selected from within Region 1 with a minimum of twenty-five.

The object of the school is to qualify Brigade Officers and senior FCO's in Stage 1 of a four-stage course of firefighting techniques. The course does not cover basic firemanship.

Nominations are invited from Brigade members and FCO's through their Brigade Captain or Council. Priority is to be given to Brigade Officers, Supervisors and Senior Firemen.

The cost of full accommodation is \$20 and a deposit of \$10 is required with each nomination to cover initial expenses.

Nominations and deposits are to be directed to G. W. Hofmeyer, Secretary, Mount Lofty Ranges CFS Training Centre, 4 Hakea Court, Bridgewater 5155, with cheques made payable to CFS Training Centre Course Fund.

The closing date for nominations is 21 April 1982.

Nominations require the full name and address, rank and other training courses attended for each nominee.

Note: A similar school is proposed for Aldinga in early spring.

All Regional Training Schools (Stage 1) are to be conducted within their respective regions.

The next Stage One Training School will be held at Aldinga in similar manner as at Mount Lofty.

The closing date for nominations (with the \$10 deposit) is 21 May 1982 and to be addressed to Mr Terry Johnson, Secretary Aldinga Beach CFS, Box 197, Aldinga Beach 5173.

R. T. KEYNES
Regional Officer R.1

CFS TRAINING BODY FORMED

The Eyre Peninsula Regional Firefighting Association, Port Lincoln, has formed a 'Regional Training Committee' to eliminate the need for CFS volunteers to travel to Adelaide for training.

The Committee's first meeting will be held in March 1982. It will research training needs and then prepare and conduct training activities at a regional level.

The Committee hopes to establish a central training depot on Eyre Peninsula.

FIRE INVESTIGATION

by RO John Lloyd
Research and Fire Protection Branch



With the ever increasing toll of fire losses in South Australia, fire cause investigation must be given a more prominent role in our fire prevention activities.

Our charter under the Country Fires Act is for the prevention and suppression of bushfires and other fires. In order to prevent fires we must have complete information on the cause of previous fires, and yet in recent years over 25 per cent of fires reported to CFS Headquarters are marked as cause unknown. In addition, whether we like it or not, increased public awareness will result in more civil litigation arising from fires of all kinds. Cases where a just claim for damages may be substantiated only by accurate fire cause information. We are also experiencing an upsurge in deliberately lit fires; a crime which can only be solved by thorough investigation.

What is the Country Fire Services doing to improve this position and what can the volunteer fireman do?



Members of the Research and Fire Protection Branch at CFS Headquarters have recently undergone specialised training to enable them to conduct an investigation of any type of fire. These officers are on call at all time to provide assistance to Brigades and local police in fire cause determination. However, with such a large area of the State to cover, it is obvious that any officer based in Adelaide is not going to be able to investigate all 'unknown' fires. Therefore, training of volunteers will start with Stage 4 of the Brigade Officers course, due to commence in October.

In the meantime, there is a great deal that the fireman can do or may see at the scene of a fire which will be of great assistance to any investigator.

As 'first on the scene', the fireman is a valuable witness whose observations are vital to correct cause determination.

Listed below are the actions and observations that a fireman should make for EVERY FIRE call:

WHEN THE FIRE CALL ARRIVES—RECORD

1. Time when fire is reported.
2. Identity of person reporting the fire, if possible.

APPROACHING THE FIRE SCENE—NOTE

1. Weather conditions.
2. Vehicles or individuals leaving the scene.
3. Colour of smoke.
4. Colour of flame.
5. Extent of fire on arrival.
6. Time of arrival.

IN ADDITION:

IF THE FIRE IS IN A BUILDING—WHILE FIGHTING THE FIRE—OBSERVE

1. Security of premises on arrival.
2. Means of entry of firemen.
3. Location of the fire or area of most intense burning.
4. Separate unconnected fires.
5. Abnormally rapid spread.
6. Unusual odours.
7. Any eager helper and unusual acting individual.

AFTER THE FIRE—REPORT

Suspicious or unusual observations to local police and CFS Headquarters Control Centre.

In order to assist the investigation, firemen should take great care in the use of hose streams around the area of origin. The use of spray or fog nozzles will greatly reduce the displacement or damage of evidence. For bushfires, mopping up and blackout of the suspected area of origin should be left until after inspection of the area, or carried out with the use of the minimum quantity of water and as little disturbance as possible.

Should any object of a suspicious or unusual nature be found, DO NOT TOUCH IT! Call the local Police and CFS Headquarters Control Centre.

Any such object should be protected until it has been photographed in its original position. Before any evidence can be presented to a court of law, the police must be able to account for the movement and handling of it, from the position where it is found, up to the time of its presentation in court. Naturally enough, they do not take kindly to the efforts of any amateurish Sherlock Holmes, no matter how well meaning he may be.

Pending the arrival of the police, the area should be secured and no unauthorised person allowed to enter or interfere. If asked to speculate on the cause of a fire by any person other than a police or CFS officer, firemen should not offer personal opinions or guesses. Such opinions should be reserved for the proper authorities. The police will issue any statement on the cause of a fire that is of a suspicious nature. The fireman's job is to minimise loss of life and property from uncontrolled fire.

Finally, AFTER EVERY CALL OUT:

Fill out a Fire Report form and forward it in to CFS Headquarters, as soon as possible.



Protective Equipment currently on the market (pictured above) was displayed at a recent seminar on 'Dangerous Substances Hazards' held at Country Fire Services Headquarters and attended by representatives of Industrial and Government related departments; who deal with the handling and transportation of Dangerous Substances Hazards.

NEW DEVELOPMENT Automatic Distress Alarm



CFS Headquarters have placed orders for a new automatic distress alarm to be worn in conjunction with breathing apparatus.

Unlike previously available distress alarms, the new Strathclyde alarm will automatically sound a high pitched two tone signal 25 to 30 seconds after the wearer has been trapped, concussed or asphyxiated. This alarm can also be activated manually and can be used as a signalling device.

The Strathclyde alarm complies with British Standards and British Home Office requirements and is meeting wide acclaim with Fire Brigades and Chemical Industries throughout the world.

PEDAL POWER YOUTHS RAISE \$500 for CFS

Three Hills teenagers have just raised more than \$500 for Stirling and Bridgewater CFS brigades by cycling to Mount Gambier.

The fund raising cycle ride organised by Heathfield High School student John McArthur (16) had the support of Community Improvement Through Youth (C.I.T.Y.).

It attracted twenty-two cyclists aged from fifteen to twenty-five, who raised funds for a wide variety of charities of their personal choice.

The project began when John approached C.I.T.Y. with the idea of obtaining help for a CFS fund raising effort.

The organisation allocated \$4 000 to provide for the hire of ten bicycles, food, repairs to bikes and a back-up vehicle.

The cyclists spent five days cycling to Mount Gambier, where they stayed for a weekend. Many of them had decided to do a return trip which took them only three days.



Bridgewater CFS benefits through about \$70 raised by John McKenzie (16), mostly from the S.T.A. depot, and through about \$50 from Andrew Nicholls (16) who said he had found it difficult to establish sponsors.

Organiser John McArthur found sponsorship from two fire equipment firms for \$50 each, and with other sponsors established through visits to shops and house calls, he raised about \$400 for Stirling CFS.

The boys said the ride had been without incident, except for a minor collision between three or four of the cyclists in the main street of Mount Gambier.

However, many of the riders had suffered punctures and a touch of sunburn.

Editorial and photograph courtesy 'Mount Barker Courier'.

Fire spotting Tower



'On a clear day you can see . . . 100 km'

A 30 m steel structured fire spotting tower has been erected at Mount Lofty to assist in early fire detection and protection during this bushfire season.

The top of the tower is 756 m above the coastal plain, giving a panoramic view for over 100 km. Kangaroo Island is visible in clear conditions.

This temporary tower costing \$5 000 replaces the aging Mount Lofty obelisk which has been declared unsuitable and unsafe. A permanent tower will be built when funds become available, which will improve fire spotting conditions even more.

On fire ban days the tower will be manned by National Parks and Wildlife Service personnel, who will scan the hori-

zon for the first sign of smoke.

When smoke-fire is sighted the spotters pin-point the location on a large table map, situated on the roofed observation area at the top of the tower and report details to Adelaide headquarters by radio.

The spotters and National Parks and Wild Life Service firefighters are a key force throughout the fire danger days, when most Country Fire Services volunteers are at work.

A Steering Committee consisting of senior personnel of Public Buildings Department, Department of Tourism, Premiers Department, Country Fire Services and National Parks and Wild Life Service has been set up to look into long term proposals for the Mount Lofty Fire Tower . . . Editor.

CFS TO SUBSIDISE RADIO RECEIVERS

The Country Fire Services Board is broadening its emergency call out communications system through subsidising the purchase of VHF pocket receivers for key personnel of local brigades.

CFS Director Mr Lloyd Johns said the Board recognised the use of both UHF Citizen Band radios and VHF pocket receivers as valuable and effective means of maintaining communications with brigades and private units assisting with firefighting operations.

'In many respects, the two types of equipment compliment each other and both have roles in the Board's continuing policy of ensuring the service has the best possible communications network.

We see the single channel pocket receivers as a means of a quicker call out for key per-

sonnel in an emergency and also for one-way communications during firefighting operations,' the Director said.

Under the pocket receivers subsidy scheme, this financial year the Board will consider subsidising up to five units per brigade with another five eligible for subsidy in 1982-1983.

Mr Johns said that because limited funds were available under the CFS subsidies scheme, there had to be restrictions on the number of receivers approved under the scheme.

'We would like to have approved a much wider distribution but we cannot fund such at present,' Mr Johns said.

Full details of the subsidy proposals for both the pocket receivers and the CB radio equipment have been sent to brigades and local councils. With both, the units must be purchased and owned by a CFS brigade or council.

POCKET RECEIVERS— SOME OBSERVATIONS

The approval of pocket receivers for subsidy purposes has sparked off many discussions about types and uses.

The approval has been based on the need for brigade members out of range of the siren and telephone, to be alerted for a fire call. This is particularly applicable to rural areas where small towns rely on property owners to 'come in from the fields' to make up the fire fighting crew. The receivers also make it possible to keep widely spread personnel informed of fire and burn off details. Receivers are also used as back-up turnout devices in the event of a power failure, in effect like a pager.

All of the functions described occur on local frequency, and rely on the receiver being on that channel to hear the call. For this reason a single channel receiver has been approved in preference to a multi-channel device. Scanner receivers could be considered, but cost more and are subject to 'lock-up' on other channels due to other signals, RF noise, or manual selection.

At this stage only the one type (Seiwa MR2G Modified), is approved for subsidy purposes. Other types are being considered for suitability and price. One parameter which must be considered is the spurious radiation which is emitted from the receiver.

Although the receiver is primarily for the reception of signals, it may also radiate varying amounts of unspecified frequency signal, giving the potential for interference to other radios. This will vary from one type to another and also between individual devices of the same type, and is a major factor in their rejection by Department of Communications for licencing purposes.

However special approval has been granted to the CFS for their use—but responsibility for interference by them, will have to be borne by CFS.

It is therefore important that some regulation of their use be exercised by Country Fire Services in the interest of our organisation as a whole.

R.O. Trevor Conlon
Communications Officer

CFS Standard Threads

Couplings, Branchpipes and Nozzles

CFS Circular—No.: J6/2/81, November 1981

Delivery Hose	Thread and/or Fitting
64 mm	64 mm SAMFS**
38 mm	64 mm SAMFS**
25 mm (High Pressure Above—1750 kPa)	25 mm Barway Type*
25 mm (Low Pressure Below—1750 kPa)	25 mm BSP
19 mm (High Pressure Above—1750 kPa)	19 mm Barway Type*
19 mm (Low Pressure Below—1750 kPa)	19 mm BSP
Suction Hose	
100 mm	Storz 100 DS Norm.
64 mm	64 mm SAMFS**
38 mm	64 mm SAMFS** Opt. 38 mm BSP
Branchpipes	
64 mm	64 mm SAMFS** with 38 mm BSP Boss
Monitors	
38 mm	38 mm BSP 38 mm Storz
* 1 inch US Chemical 8 TPI Thread.	
** S.A. Metropolitan Fire Service.	

State Championship Trophy

The South Australian Fire Brigades Board, now the Metropolitan Fire Service has kindly donated a handsome silver cup on a perpetual basis for the annual Country Fire Services State Championship Fire Fighting Drill Competitions.



The 'South Australian Fire Brigades Board perpetual trophy' is to be awarded to the runner-up team in the State Championship 'A' Grade Pump Drill event.

This impressive award carries an individual plaque to record the runner-up team each year.

The thoughtful and generous action by the South Australian Fire Brigades Board, (prior to its reconstitution as the Metropolitan Fire Service) manifests confidence in the service being rendered by the 456 S.A. Country Fire Services Brigades, and will surely play an important role in maintaining the interest and efficiency of the volunteer firefighting crews.

Continued page 10...



Pictured at the trophy hand-over presentation are from left: Professor Peter Schwerdtfeger (Chairman, CFS Board), S.A. Fire Brigade Board members—Messrs. Colin Morphet (Acting Chief S.A.F.B.), Kevin Phelps (G.R.E. Insurance), Jim Keen (Switzerland and General Insurance), and Chairman of the Insurance Council of Australia, (S.A. Division) with Mr Lloyd Johns (Director, CFS).

ANNUAL CFS FIREFIGHTING DRILL COMPETITIONS, 1982

A cordial invitation is extended to Country Fire Services Brigades and Members to participate in the annual CFS Firefighting Drill Competitions.

Regional elimination contests are arranged in each CFS Region, and the final State Championships will be conducted during August.

Excellent trophies are to be won in the Regional and State Championship contests.

Brigades may enter any number of teams and/or contestants in Regional Competitions.

Events:

- 'A' Grade Hose and Pump Drill
- 'B' Grade Dry Hose Drill
- 'C' Grade Dry Hose Drill (Cadets and Ladies)
- Portable Pump Alarm Race
- One Man Hose Drill
- One Man Ladder Drill
- Three Man and Captain, Single Ladder (Wet) Drill
- Best and Most Efficient CFS Appliance (State Event)

All competitors are eligible for either 'A' or 'B' Grade Hose Drill events, but no competitor can compete in both grades in the same competition, except in accordance with the rules for 'A' and 'B' Grade events; teams must compete in the grades nominated on their entry forms.

Entry forms for all events can be obtained from your Regional Officer, or from CFS Headquarters. Drill instructions for all events available on request.

Visitors:

Brigades or members who wish to visit Regional Competitions as guest or visiting competitors, are assured of a warm welcome. Visitors are unable to win Regional titles or trophies, but where possible, CFS 'Visitors' or 'Open' trophies will be arranged.

1982 CFS Annual Firefighting Drill Competitions

Region	Date	Place	Time
5 (South East)	6.6.82	Robe	12 noon
1 (Mount Lofty Ranges)	20.6.82	Mitcham Hills	12 noon
2 and 3 (Combined Lower North and York Peninsula)	27.6.82	Two Wells	12 noon
4 Northern	11.7.82	Burra	12 noon
7 (Riverland and Murray Mallee)	25.7.82	Pinnaroo	12 noon
6 (West Coast)	8.8.82	Lock	12 noon
State Championships (Lower North FFA)	22.8.82	To be advised	12 noon

Officers in Charge are requested to make special efforts to make a success of their Region CFS Competitions. CFS Officers and men are requested to wear uniforms.

INVITATION TO FIREFIGHTING ASSOCIATIONS—A cordial invitation is extended to Firefighting Association members. Fire Control Officers and any other interested persons from the district to attend their respective district CFS demonstrations.

Members with private firefighting units are invited to take part in a Parade of Fire Appliances and any special events for private vehicles, which may be arranged. (Enquiries to your Regional Officer, or CFS Headquarters, will be welcomed.)

THE SUPPORT OF YOUR FIRE FIGHTING ASSOCIATION IS NEEDED.

NOTE: Officers in Charge bringing fire appliances are advised to make arrangements in their own districts to have auxiliary fire units and crews standing by for duty at their Stations whilst their CFS appliances are absent from the town.

'B' GRADE DRY HOSE DRILL—INVITATION TO COMPETE—'B' Grade contests are arranged to give fire teams the opportunity to gain competitive experience and to encourage participation in the 'A' Grade Championships. 'B' Grade Firemen compete in first, second and third movements of the Dry Hose Drill and are exempt from the Wet Pump Drill.

'C' GRADE HOSE DRILL (CADETS AND LADIES)—The 'C' Grade Hose Drill has been arranged to enable participation in competitions without hazard or strain or injury to which women or young Cadets would be exposed in the standard men's drill movements. The 'C' Grade Drill is the equivalent of the basic four man fire brigade drill for operating with a line of hose from a pillar hydrant and adding a length branch end. No handling of the plate cover and standpipe is required, but the coupling of the branchpipe has been included in the drill as an additional training and skill movement.

The **PORTABLE PUMP ALARM RACE, ONE MAN EVENTS** and **LADDER DRILLS** are other excellent events, designed to improve the fireman's skills and efficiency in handling fire fighting equipment.

JUDGES—It is evident that previous delays at the commencement of CFS Competitions occur because of the lack of trained Judges to adjudicate at the various points as laid down to watch for penalties. *Brigades are requested to train and supply at least one or more Judges* who are proficient at any of the following positions—viz.: Standpipe, Hose Trailer, Centre Couplings, Branch End, Portable Pump Alarm Race, One Man Hose Drill, Ladder Drills. *The Judges nominated should preferably be non-members of a Team.* Please include the names of members on the nomination form, who will be available for judging or timekeeping, and any stop watches available.

HOSE—(Specifications)—Official hose will be available for ALL hose drill events except when competitors elect to use their own hose. Teams using own hose will be responsible for its length and specifications. If hose supplied by competitors for own use, It MUST be 30 m (100') LENGTHS of 64 mm (2½") CANVAS FIRE HOSE—COUPLINGS TO BE CFS STANDARD. Light alloy couplings ARE NOT PERMISSIBLE. Minimum of ONE FULL TURN (360°) on branch and couplings, from marrying to hand-tight. 'Wet' (three-man) Ladder Drill requires 38 mm (1½") hose.

METRIC CONVERSION—Drill Instruction Circulars have been converted to the metric system and to the nearest practical measurement, viz.: 30 metres will represent the previous measurement for the 100 feet lengths of 64 mm (2½") and 38 mm (1½") canvas/synthetic fire hose.

Official competition event hose which has been made available by CFS Headquarters for all Hose Drill events, will be provided, as in the past, in 100 feet lengths.

It is proposed to use existing 100' length hoses for competition purposes. CFS officers are advised not to cut their 100' length hoses to the precise metric measurement.

NOTE: The term 'Canvas hose' in drill circulars include cotton/synthetic type weaves, used in present day manufacture of 64 mm (2½") fire hose.

SUPPORT YOUR CFS FIRE FIGHTING DRILL COMPETITIONS

CFS Firefighting Drill Competitions

AMENDMENT TO DRILLS 'C' GRADE DRY HOSE DRILL

CFS CIRCULAR G2/7/81

'C' Grade Dry Hose Drill was introduced into CFS competitions at the request of CFS members, to enable CFS Cadets and Ladies Auxiliaries to participate in competitive work.

The CFS Board's recent decision to officially recognise service for CFS Cadets, is a further acknowledgement of the valuable contribution Cadets (both boys and girls) make, to ensure a continuation of membership with South Australia's volunteer Country Fire Service. (See Volume 11, page 5, and Volume 12, page 8, *The Volunteer*.)

The 'C' Grade event has increased in popularity to the extent that many requests have been received from competitive teams to increase the skill of the Drill.

The CFS Board Competition Sub-Committee, therefore, has revised the 'C' Grade Hose Drill along lines suggested by a cross-section of competitors:

The Drill will consist of 'Getting to work with one line of hose from a hydrant' and 'Adding on length branch end'.

With the exception of the standpipe which will be shipped (i.e., set in the 'Competition' fire plug), the drill is basically the first and second movements of the 'B' Grade Dry Hose Drill. Note that the branch is connected to the first length of hose, ready for running.

Officers in charge of CFS brigades are reminded that it is their responsibility to ensure that *Cadets must be eleven years old* to be eligible for membership in a brigade, and to participate in CFS competitions.

Conditions governing the revised 'C' Grade Dry Hose Drill can be obtained from CFS H/Q, or your Regional Officer—Circular Reference CFS G2/7/82—'C' Grade Hose Drill'.

General explanation of drill movements, conditions and penalty infringements, etc. as applicable to the 'C' Grade Hose Drill, is set out in the principal 'Hose and Pump Drill' Circular, G2/1/81. Copies available on request to CFS H/Q or your CFS Regional Officer.

LADDER DRILLS—Due to a number of requests from CFS members and brigades who participate in the popular CFS competition Ladder Drill events, the CFS Board Competition Sub-Committee has amended the method of elevating the ladder in the Single Ladder—One Man Competition Dry Drill and the Captain and Three Man Crew, Single Ladder and Line of Hose, Wet Drill.

The alterations are the adoption of standard Fire Service procedures for elevating a single ladder.

Competitors will recall that past practice in CFS ladder drills for elevating a single ladder, has been to place the foot of the ladder in a footing block 1.5 m out from the base of the training tower, and elevate the ladder to a vertical position by underrunning.

The competitor will now place the foot (heel) of the ladder against a footing block at the base of the tower; elevate the ladder to a vertical position by underrunning; with the head of the ladder against the top rail, lift the foot (heel) of the ladder away from the base of the tower footing block, and position the foot (heel) on a pad located 1.5 m out from the base of the tower footing block; climbing of the ladder commences.

Copies of the complete ladder drills can be obtained from CFS H/Q or through your Regional Officer. Please quote CFS Circular No. G2/4/82 (Single Ladder Drill) and/or Circular G2/5/82 (Captain and Three Man Crew—Wet Ladder Drill).

Support your CFS Regional Competitions.

TO ALL COUNCILS, CORPORATIONS
AND CFS BRIGADES

—FOR SALE—

CFS—B3 URBAN/RURAL FIRE APPLIANCE

Shortly, the Country Fire Services Board will be offering for sale by public tender, a fire appliance which was purchased for test and evaluation purposes, and as a 'State Spare'.

Arrangements for the disposal of the appliance will be handled by the State Supply Division, of the Department of Services and Supply, and it is anticipated that this will take place during early April, 1982.

It is reasonable to assume that a number of CFS Brigades will be interested in purchasing this appliance and therefore should be given the opportunity to submit a tender.

The vehicle body, which was built in New Zealand on an International 4 x 4 chassis (1981 Model 610A), is of all aluminium construction and features a crew compartment complete with drop down fire blanket behind the main cab for protection of crew members.

The appliance is fitted with a water heat exchanger and manual reset circuit breakers on electrical systems.

Appliance Specifications:

Cab Chassis—

Engine—Petrol V345

Transmission—T253 5 Speed (Manual)

TC—155 2 Speed Transfer
Case; Clutch—13"

Wheel Base—3.4 metres

Wheels and Tyres—20" diameter rims;
8.25 x 20 tyres

Body—

All aluminium, with generous cupboard space, crew compartment and a 2 700 litre water tank.

Pump—

Type—Front mounted Darley Champion HF400 Single Stage driven off prime mover, with a pump and roll capability.

Performance—2 000 litres per minute at 700 K.P.A. or 270 litres per minute at 2 400 K.P.A.

A 'Hydroblender' is also fitted. This enables a detergent to be introduced into the water stream to provide a higher wetting capability.

Hose Reels—

2 Hannay geared, manual rewind, holding 60 m of 25 mm high pressure hose; complete with T.F.T. automatic flow control branches.

Accessories—

1 double headed alloy standpipe;

3 x 2.5 lengths of 100 mm suction hose;

1 basket and skirt;

Brackets to carry ladder and breathing apparatus.

Brigades wishing to submit a tender for the appliance, are advised to contact the *Supply Officer, Country Fire Services Board, before 26 March 1982.*

The State Supply Division will then be notified collectively of those brigades interested in purchasing the appliance. Tender forms will then be forwarded by State Supply to the Brigades concerned.

Further information of a technical nature can be obtained from Regional Officer, R. G. Gear, Country Fire Services Headquarters, Telephone 297 6788.

LLOYD C. JOHNS

Director, Country Fire Services.



The Country Fire Services in continuing with their program of advice to farmers and the community in general on fire prevention/protection procedures have produced a number of television scatters, alerting property owners to the problem of a burn off becoming a burn out if adequate and proper fire protection measures are not taken.

The rules (as specified in the TV scatter) one must follow, to comply with the CFS Act, comes as a timely reminder—with the commencement of the burning off period, this summer.



Filming a Burning Off for a television scatter, nearing the final stages as the Mundulla CFS unit moves in to put out the fire. Note SES 8 film cameraman Sid Hoskin can be seen perched on top of the vehicle water tank.



There was little difference between a real grass fire and this 'staged' one—for realism. The fire was quickly extinguished by the Bordertown CFS, when cued to move in.

Television scatters on 'Burning off ... Rules to follow,' 'Fire reporting by motorists' were produced at Tatiara in the South East.

The co-operation and assistance given by Tatiara Firefighting Association Supervisor Mr Brian Wiese, Mrs Dianne Jarrett, R. O. Murray Sherwell (Region 5, South East) and the Tatiara Firefighting Association; involving members of the Mundulla and Bordertown CFS Brigades is acknowledged with thanks.

The above-mentioned personnel participated in the production of the television scatters.

Congratulations go to Mr Sid Hoskin, Promotions Manager (SES 8 cameraman) and the team at South East Telecasters Limited (SE 8 Mount Gambier TV), for the professionalism and quality of the completed television scatters now being aired on country television networks ... Editor.

The 'Burning Off' sequence was filmed at Mundulla, in the Tatiara District Council, South East.
A Burn Off can soon become a 'Burn Out' of a neighbours property if correct measures are not taken.

THEME: 'BURNING OFF ... ARE YOU WITHIN THE LAW ... RULES TO FOLLOW'

KEY No.: CFS/
BF21/82
LENGTH: 45
SECONDS

CLIENT: COUNTRY FIRE SERVICES
TALENT: STUDIO VOICE
LOCATION: SOUTH EAST—TATIARA
SES 8 MT GAMBIE TV

VIDEO	AUDIO
VOICE OVER ONLY OF STATION IDENTITY.	BURNING OFF BUSH AND STUBBLE IS A MAJOR CAUSE OF FIRES IN THE SOUTH EAST.
FILM FOOTAGE OF BURNING OFF PROCEDURES ... (FIRE FILM TO COVER DURATION OF TV SCATTER).	CORRECT PROCEDURES CAN PREVENT HEAVY LOSSES TO LIVESTOCK AND PROPERTY THIS SUMMER.
SUPER 1. 'PREPARE NECESSARY FIRE BREAKS'.	<p>ARE YOU WITHIN THE LAW ... RULES FOR BURNING MUST BE OBEYED, AS PRESCRIBED IN THE COUNTRY FIRES ACT. BEFORE LIGHTING THAT FIRE IN THE OPEN ... HAVE YOU ...</p> <ul style="list-style-type: none"> ● PREPARED THE NECESSARY FIRE BREAKS. ● MADE SURE YOUR FARM FIRE FIGHTING EQUIPMENT IS IN GOOD ORDER. ● ADVISED YOUR COUNCIL OF YOUR INTENTION TO BURN. ● NOTIFIED NEIGHBOURS AND YOUR NEAREST FIRE CONTROL OFFICER. DID YOU CHECK IF THERE IS A FIRE BAN IN YOUR DISTRICT?
SUPER 2. 'MAINTAIN FIRE FIGHTING EQUIPMENT'.	
SUPER 3. 'ADVISE COUNCIL OF INTENDED BURN'.	
SUPER 4. 'NOTIFY YOUR NEIGHBOURS AND FIRE CONTROL OFFICER'.	
SUPER 5. 'CHECK FIRE BANS IN YOUR DISTRICT'.	
SUPER 6. HEADQUARTERS, CFS REGIONAL.	<p>FOR INFORMATION ON RULES FOR BURNING OFF, CIRCULARS ARE AVAILABLE FROM YOUR LOCAL DISTRICT COUNCIL OFFICE OR ... YOUR LOCAL COUNTRY FIRE SERVICES REGIONAL HEADQUARTERS ... OR REGIONAL OFFICER.</p>
SUPER 7. 'PREVENT BUSHFIRES' CAR STICKER.	

WHERE IS THIS WORTHLESS LAND?

By Neil Stevens

The annual losses from bushfires are never insignificant. Even in the mildest years the value of assets which go up in smoke represent a small fortune in any man's language. But although the figures are always impressive and sometimes frightening, they are quite unrealistic as an appraisal of the actual cost of uncontrolled fires.

Many of the fire reports which reach CFS headquarters bear the final assessment 'no damage'. Usually they refer to fires which burnt only a few acres of pasture or a couple of fence posts, or to a blaze which was more extensive, but was confined to scrubland.

Typical of the fires which cause 'no damage' is one which burnt through an extensive belt of native bushland before threatening a neighbouring farm. Fire-fighters stopped the blaze at the boundary, although it did filter through the fence in three or four places and destroyed five posts as well as several hectares of pasture. To the landholder these losses were quite insignificant. After all, a little earlier he had faced the prospect of the fire destroying most of his property, including kilometres of fencing, sheds, fodder reserves and perhaps even his home. Through the co-operation and efficiency of his friends and neighbours all this had been saved. So, feeling very relieved and grateful at having escaped serious losses, he told the CFS officer who makes out reports that the damage was not worth worrying about. In the back of his mind, perhaps, was the thought that he had plenty of feed to carry him through the season and a stack of spare posts in the yard. And so another 'no damage' report was on the way to be recorded in the season's statistics.

How much did this fire really cost? The pasture, whatever the quality, must have been worth something. Posts cost money, whether they are urgent requirements or spares, and valuable time is needed to erect them. And what of the effects of the fire on the wire? It was still serviceable, but in several spots the heat had destroyed the galvanising, greatly reducing the wire's life.

Nine men attended the fire with the local CFS unit and two private vehicles from neighbouring properties. Quite a few man hours were spent in quelling the blaze and running costs and depreciation on the vehicles added to the cost of the fire.

And what of that 'worthless' scrubland? Perhaps we live too close to the wood to see the trees, but people in other lands look at the Australian bush with envious eyes.

There is a glimmer on the horizon of a great tourist trade for Australia. Already many visitors are coming to see our unique flora and fauna and within a few years the steady trickle could become a gushing stream. They won't come to see the Blanchetown Bridge or even the Sydney Opera House. Tourists want to see things that do not exist in other places and our wonderful wildlife is a great attraction for them—and their money!

How do you value a bird, or a koala? Many of our native finches and parrots would fetch \$50 each, some \$500 or more each, on the international markets if we were stupid enough to allow them to be exploited. The least we can do is to value them at the price others would be willing to pay for them. While it is impossible to estimate the loss of wildlife in fires, it is as well to remember that most of our fires occur from November to February, when many young birds are confined to their nests. The mammals too, must suffer heavily, for they are confined to their 'concentration camps' and are seldom welcome in the surrounding farmlands.

Some of our native plants withstand fire, others do not. Who can tell what benefits may one day come from a native plant which is now considered useless. The history of medicine contains hundreds of examples of great discoveries from plants, and we will never know how many extinct plants could have provided a simple solution to one of our great problems.

Perhaps one of our scrub fires which caused 'no damage' has wiped out a struggling species which could have provided a cure for cancer. Or maybe the plant lingers on, and it remains to be seen whether we can discover it before we destroy it.

Last year's losses in rural fires were stated as \$3 491 772. I wonder how much we really lost.

Kids Day at Cleland

A 'Kids Day' at Cleland Conservation Park highlighted the K.E.S.A.B. (Keep South Australia Beautiful), 1982 Campaign Launch, Friday, 29 January. K.E.S.A.B. promoter Mrs Helen Woods with 'Raggedy Anne and Andy', SAS 10 Early Birds personalities 'Fat Cat' and Ian Wilson, TV character 'Clarence W. Wallaby', National Parks and Wildlife Service rangers, St John personnel and members of the Greenhill CFS brigade told stories and demonstrated how we must all work to protect and preserve parks and various species of wildlife from bushfires; and to help keep parks, beaches and cities litter free.

With children being the main concern, the K.E.S.A.B. 1982 Campaign will concentrate on the following:

- (1) Educating children on litter prevention, particularly the young ones.
- (2) Involvement of some 300 branches of the Country Women's Association in the Tidy Towns Competition.
- (3) Place emphasis on keeping national parks and wildlife areas clean and free from the hazards of bushfires.
- (4) Place more emphasis on keeping South Australia's Beaches clean and safe.

The program involving Children's Education will aim to set standards for the young, and will impress on them the need for a tidier environment for future generations. Through the support of the Country Women's Associations, an important step in achieving community involvement across the whole of the State will be made.



Greenhill CFS Cadets, Firemen and Firewomen displayed their fire power at the KESAB 1982 Publicity Launch, at Cleland Conservation Park.



As part of the 'Kids Day' program, on Fire Protection and Prevention, children were given the opportunity to play 'Firefighter' on the end of the Greenhill CFS fire appliances' 25 mm hose reels. Continued page 14...

CFS BADGES OF RANK

Following the publication of the Badges of Rank for CFS Brigade officers in the December 1981 issue of the *Volunteer* there has been many requests made to amend the fire helmet rank markings.

Subsequently, the CFS Board have now revised both the helmet and overall sleeve rank markings and Brigades will be circulated with full details of uniform requirements and the new badges of rank.

Refer pages 24 and 25



To the delight of the children, celebrities 'Clarence W. Wallaby', Ian Wilson and 'Fat Cat' were visited on stage by a Cleland National Parks and Wildlife Services Officer with a member of Smokey Koala's family.



Spelling out KESAB, ie., 'Keep South Australia Beautiful' and also free from Bushfires, are children from the audience, assisted by Raggedy Anne and Andy and Helen Woods.

WHERE WOULD WE BE WITHOUT THEM?

by Ted Chapman, MP
Minister of Agriculture

The life of a CFS firefighter is a paradox.

Each winter, while he, or she, is training for the coming summer, the public pays little attention to them.

But each summer, with its accompanying bushfire threat, these same volunteers who have foregone winter leisure time to keep their skills sharp turn out quickly and efficiently to protect the lives and properties of all citizens.

On high risk days there can be some fifty brigades across South Australia answering grass and house fire reports.

Even in winter the brigades are still ready for action if needed.

The Government recognises that without the willing participation of 11 000 volunteers there would be no Country Fire Services. It would be beyond the combined resources of the State and local governments to fund a professional full-time service of such magnitude.

Together the CFS firefighters make up the largest voluntary organisation in the State, and comprise a unique and disciplined organisation dedicated to the protection of lives and property, while accepting the personal risks involved.

Where would we be without them?

FARMING, NATIONAL PARKS CAN 'LIVE SIDE BY SIDE'

CFS Inspection of Kangaroo Island

Examples of co-operation which exists on Kangaroo Island between some members of the farming community and the National Parks and Wildlife Service showed that the two 'could live side by side', even if, on occasion, there were differing views on fire protection.

The Chairman of the Country Fire Services Board, Professor Peter Schwerdtfeger, made this observation this week when commenting on the Board's recent visit to Kangaroo Island, including a two-day inspection of most of the island following its monthly meeting held at Kingscote.

The members were welcomed by the Mayor, Cr Judith Morris prior to the meeting being opened by the Minister of Agriculture, Mr Chapman, whose electorate includes Kangaroo Island. The Minister subsequently chaired a public meeting in the evening when Board members and local fire-fighting organisations discussed fire protection and hazard reduction programs.

Professor Schwerdtfeger said the island had established itself as a major landmark in South Australia's tourist industry, and the national parks, which extends over one-tenth of Kangaroo Island, were a focal point for tourists.

The other important aspect of the island's economy was its established agriculture.

He said that as part of their fire protection program, farmers used fire as a tool to clear or reduce hazards and to help towards better agricultural management and production.

National park officials, on the other hand, were cautious about fire being used as a 'housekeeping' tool as it required careful assessment of the impact on the island's flora and fauna, especially in the understory of bushland.

Fortunately, most of the national parks are surrounded by roads which separate them from the farming areas. While these roads form firebreaks which should be adequate to contain carefully planned agricultural burns, there is much greater danger when farmland lies directly adjacent to parks and bushland areas.

Professor Schwerdtfeger said that, as a scientist and environmentalist, he had noted the

problem of salinity being experienced by landholders in the lower-lying areas of the island.

In the main, the salinity appeared to have been caused by excessive run-off of water, from cleared higher areas, which leached salt from the soil. If the practice of maintaining—or providing—greater tree and ground cover, even to the extent of selective afforestation, on the higher levels were followed, this could help alleviate the worsening problems of those on the lower areas.

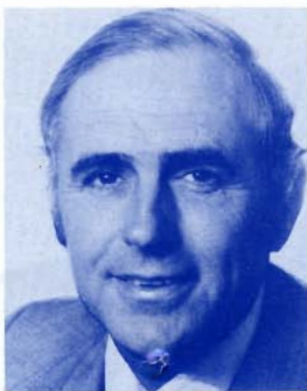
This is but one more example in which the protection of forest stands by the CFS, the National Parks and Wildlife Services and others can be seen to be of untold benefit to the surrounding farming community. The conditions on Kangaroo Island are very similar to those prevailing in south-western Australia, where the continued viability of established agricultural areas and water catchments have been closely linked to the concept of maintaining a sufficient proportion of the land as healthy forest. The price to pay is, of course, the care and maintenance of a potentially greater fire-hazard but the alternative is the insidiously creeping loss by salinity encroaching on presently valuable farming and grazing land.

Kangaroo Island with an area of almost 5 000 km² has a small population of only 3 000 but many of its features represent irreplaceable assets to South Australia as a whole, and I believe we must be prepared to offer every assistance in times of emergencies.

The maintenance of an accessible, scenic environment generates a heavy burden on the 'Islanders' who are entitled to the support of all other South Australians, Professor Schwerdtfeger added.

The Chairman said the Board had been most impressed by the community spirit evident among all sections of the island's population; by the interest and co-operation shown to the Board by farmers, the National Parks and Wildlife Service, local government and CFS volunteers, as well as by the dedication of the local CFS brigade members and their obvious pride in their fire units and equipment, much of which had been designed and built locally.

Minister's Comments



MR TED CHAPMAN, MP
MINISTER OF AGRICULTURE

Minister of Agriculture and Member for Alexandra, Mr Ted Chapman commented on the meeting of the Country Fire Services Board, the first to be held at Kingscote, Kangaroo Island, Tuesday, 26 January.

APPRECIATION OF PROBLEMS

Touring the Island meeting property owners, executives of two District Councils, local Fire Control Supervisors and Officers of the National Parks and Wildlife Service provided the CFS Board with a first-hand appreciation of the particular problems experienced on the Island.

Some interesting observations were made in regard to fire prevention and suppression.

AWARENESS PLAN

The Board Meeting on Kangaroo Island was part of the overall plan of the CFS Board to move around South Australia to become even more aware of local conditions and to have personal contact with the men and women responsible for fire control in the various districts and regions of our vast State.

CONSULTATIONS

As Minister of Agriculture, I have pursued a policy of grass roots consultations with producers and departmental staff in rural areas. This has meant considerable travelling but it has provided me and the department with important feed back on the true field situation through out the State.

MULTI-LINGUAL FIRE BAN WARNINGS

One of the matters that does concern me about our bushfire risk is the broadcasting of fire warnings on radio.

At present these are only in English language, so many members of ethnic communities who were unable to understand spoken English could miss important fire warnings and could inadvertently be responsible for lighting fires when they were banned.

I appreciate there are some problems in arranging translations of all fire warnings, but a start could be made with 'Red Alerts', which cover the whole State.

In Victoria a total fire ban warning announcement is made in English, Greek, Italian, Spanish, Turkish and Serbo-Croatian.'

BRIGADE TURN-OUT INFORMATION?

One of the functions of the Headquarters Operations Room is to action fire calls from the public, Metropolitan Fire Service and S.A. Police. The difficulty of deciphering information received and sorting out which brigade to turn out depends on the accuracy of the information supplied.

BRIGADE TURN-OUT INFORMATION? continued...

The calls received by CFS Headquarters Operations Room come in various formats:

The public can report fires directly to brigades on the local alarm number or to CFS Headquarters on 297 9111. The other more usual source of public calls from the Adelaide telephone district is via 000.

The call to 000 is directed by Telecom to the Metropolitan Fire Service who then pass details to CFS Headquarters Operators. Having received the information the operator needs to determine what area the fire is in, and which brigade should be notified. This is often not easy to do as the information given by the caller can be sketchy and brief, not to mention inaccurate.

Some of the locations given have been, 'east of the Happy Valley Reservoir', 'on the Freeway near Stirling', 'on the Main South Road, south of Noarlunga', 'vehicle fire on Main South Road near the Victoria Hotel'. (The last one turned out to be the Victory Hotel near Sellicks Hill.) Trying to use this type of fire location to turn out a brigade is not easy and errors have occurred in turning out the wrong brigade. (This, however, still results in the fire being put out, and perhaps a nose or two.)

Smoke sightings are even worse to handle, at least we have a chance of cross referencing from a second spotters sighting, but if all that is received is 'smoke at 45 degrees from Mount Lofty, about 40 kilometres away', several telephone calls must often be made to try and complete the call. This is why it is appreciated when brigades give early notice of any fires they attend. Through the brigade giving early notice of any fires they attend, unnecessary extra phoning is avoided, and up-to-date information can be provided to the Police and other CFS brigades.

Information may be given by phone or a brief call on channel 2.

Another important function to be filled is that of informing the media who call CFS Headquarters for information when smoke is sighted or reported to them. Having accurate and up to date information on hand for them is essential.

On fire ban days the CFS 'Smokey' patrol is in the air (usually between 1 200 and 1 600 hours) and can be diverted from normal patrol between Kuitpo Forest and Kersbrook to provide specific fire location and movement details.

Whatever the source of the fire call the action and follow up is the same. To minimise turn out time automatic dialling facilities have been installed in the Headquarters Control Centre. These devices will dial a stored number at the push of one button, thus ensuring accurate dialling and allowing the operator extra time to collate the information. Each dialler stores thirty-four numbers and it has already proved to be an asset in turning out of brigades. The numbers stored are those of brigades most often called by the Control Centre.



The automatic diallers can be seen here mounted alongside the wall phone through which they operate.

Continued page 16...



Control Centre Operators Neil Ellis (on the phone) and Brian Bilney follow up a smoke sighting reported on radio by the 'Smokey' patrol to the CFS Headquarters Operations Room.

TEA TREE GULLY FIRE SUBSTATION, YATALA VALE COMMISSIONING



It was a proud moment for volunteer members of the Tea Tree Gully CFS Brigade (pictured above) when they attended the commissioning of the Tea Tree Gully CFS Fire Substation at Yatala Vale on Friday, 11 December 1981.

The Fire Substation Building was generously provided by the City of Tea Tree Gully and Local Government, in the interests of fire protection for the local community.



On parade—the CFS Ladies Tea Tree Gully Auxiliary joined the ranks of the firefighters to witness the handover ceremony of the new Fire Substation.

The Ladies Auxiliary attended to the catering of the Fire Substation commissioning. Other activities involve the raising of funds for firefighting equipment, operation of communication equipment, telephones and generally catering to the needs of the firefighters on the fire line.



Mr Bryan Leaney (pictured right), new Captain of the Yatala Vale (Tea Tree Gully Fire Substation) and previously Captain of Tea Tree Gully CFS for five years, was awarded a Life Membership Certificate and presented with chevrons for sixteen years service by Mr Lloyd Johns, CFS Director, during the ceremony. Acknowledgement was also made to Bryans' ten years secretarial duties performed for the Brigade. Looking on, from left, His Honour the Mayor of the City of Tea Tree Gully Mr Don Stuart and senior Tea Tree Gully CFS Brigade members.



Recipients of 'Life Membership Certificates' awarded during the commissioning ceremony were pictured with, from left: R.O. Richard Keynes (Region 1) and CFS Director Lloyd Johns. 'Life Membership' was presented to Don Spence, former station sub-officer Hope Valley CFS (fourteen years service), Warren Carr, F.C.O., Lieutenant in charge of communications and brigade president (fourteen years service), and Bryan Leaney, F.C.O. and Captain of new fire substation (sixteen years service).



Pictured in front of the Tea Tree Gully Fire Appliances are from left, R.O. Richard Keynes (Region 1) with brigade members of the Hope Valley CFS substation, Maarten Nieuwenhoven, Rex Hannaford, Don Spence and Jim Deering.

NEW DUAL PURPOSE FIRE APPLIANCE FOR CEDUNA

The growth of urban centres in predominantly rural areas has created the need for a 'new breed' of firefighting appliance, capable of serving both urban and rural requirements.



One of the first of the new appliances designed to Country Fire Services specifications went into service to give added fire protection to the Far West Coast towns of Ceduna and Thevenard and surrounding rural areas.

The new unit has been jointly purchased by the Murat Bay District Council and the Ceduna-Thevenard CFS and will greatly upgrade the firefighting capacity of the brigade.

Built on an International Acco 610 A chassis, the unit has a 4 x 4 drive and short wheelbase for operating in rugged terrain or across country when fighting rural fires.

For urban firefighting it has foam making equipment, breathing apparatus, and two high pressure hose reels, each with 80 metres of hose, for quick attack on any type of fire.

Other features include a 2 700 litre water tank, incorporated as an integral part of the body structure; and a mid mounted hi-lo pressure Darley water pump for both stationary and moving vehicle operations.

The appliance will also carry an auxiliary pump. Additional hose lengths, and other equipment will be carried in side lockers, while an extension ladder and suction hoses, are carried above the water tank.

Crew accommodation is in the large full width cabin and in an open crew seating area behind the cab.

CFS Director, Mr Lloyd Johns, who inspected the appliance in Adelaide, said the CFS Board was delighted that the Murat Bay District Council and the Ceduna brigade had invested in a high quality vehicle with equipment, which technologically, was equal to world standards.

The all-aluminium welded body provided strength, with lightness.



It's quick action water power from the Ceduna CFS new fire appliance's own pumps, with Senior Fireman Tony Flavel and Brigade Captain Bill Kavanagh, manning the hoses. The new appliance, the first combined urban-rural unit to be purchased by a CFS brigade, was put through its paces at CFS Headquarters before being driven to Ceduna. In the background watching the hose drill were Headquarters Appliance and Equipment Officer Russell Gear and CFS Director Lloyd Johns.

BOOBOROWIE CFS—Members assembled Friday, 18 December for official handover ceremony of a new fire unit built by Carey Gully Engineering. The truck, an International 4-wheel-drive V8 (petrol) is one of most modern around. Following speech Mr Johns handed keys of unit to Mr A. Seekamp, President, Booborowie CFS. Also present at ceremony were Chairman District Council Burra, Mr J. Hawker, Jamestown R.O., G. Polomka and Mr P. Wotton (truck builder). New vehicle cost \$18 837, body cost \$15 902 and the transceiver \$668. Mr Angus McInnes praised the sincere and dedicated CFS members and the rigid training programs followed. Mr Hawker's speech referred to the original formation of the Booborowie EFS in 1956, with a truck in the district since 1957, the second unit was delivered in 1967. Membership now numbers eighty-seven, which incorporates a ladies auxiliary.

CLEVE CFS—Recognises the need for a 'new breed' of fire-fighting appliance, capable of servicing both urban and rural requirements, (refer: editorial on 'New dual-purpose Fire Appliance for Ceduna').

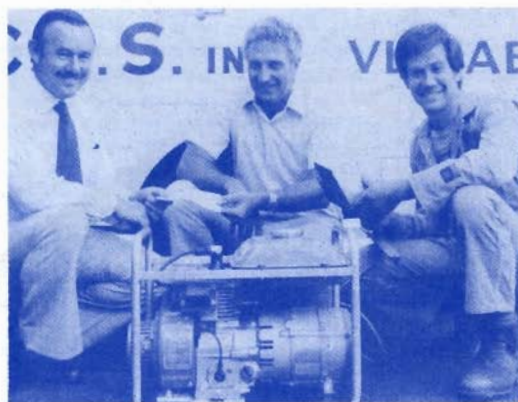
EIGHT MILE CREEK CFS—New truck has been purchased by Port MacDonnell District Council for \$5 000. A budget of \$15 000 has been set aside to buy a replacement unit. Some funds will upgrade truck at end of fire season.

GLENCOE CFS—New fire appliance commissioned by R.O. Murray Sherwell (Region 5), at Millicent Council Chambers, Tuesday 9 February will serve a dual purpose for both rural and town protection. Mayor of Millicent Mr J. F. Altschwager was delighted with the service provided by Mr Sherwell and keenness shown by CFS Brigades. *Talking with brigade members it can be seen that young people were taking an interest and this was good to see.* The new appliance was placed in the care of District CFS officer Mr Mike Kemp.

Continued page 19...



GOOLWA CFS—Received donation of \$800 from Goolwa Lions Club for purchase of a firefighting pump, money was raised from a bowls day. Pictured above with the new pump are Lions' President Frank Tuckwell, Fire Officer Graham Flanagan and Goolwa CFS Captain Frank Hough, photograph courtesy *Victor Harbor Times*.



HAHNDORF CFS—Generator purchased with funds from Hahndorf Lions Club has already been an invaluable aid to the Hahndorf CFS where floodlighting used at the Alpine Lodge Restaurant fire enabled the firefighters to work safely at the scene. Pictured above, treasurer, Hahndorf Lions Club, Mr Phil Guscott presents a cheque for the new generator to CFS President Mr Mike Pickering and (right) Captain John Kaesler, photograph courtesy *Mount Barker Courier*.

Continued page 18...

HINDMARSH ISLAND CFS—Had commissioned a new A13 four-wheel-drive International fire unit by Port Elliot/Goolwa District Council Fire Supervisor Mr Bun Basham, before seventy-five people. The Island's growing population necessitated a larger replacement unit for the Landrover. Money was raised by the Hindmarsh Hall Committee, locals and the CFS. The new unit was bought as a cab-chassis and built up by Hindmarsh Island and Goolwa CFS members. About 1 000 man hours had been spent on the vehicle.

LACEPEDE CFS—Has received Council approval to establish a Control Room in the Old Council Chambers, and also to use the back room for CFS Meetings.

LOCK CFS—New fire shed and extensions opened by CFS Director Mr Lloyd Johns. Official party included President Mr J. Zerk, R.O. P Ferris and Chairman of District Council of Elliston, Mr W. Hitchcock. People of the district were commended for the voluntary work done to complete project. Without a substantial donation from the Lock Murdinga Progress Association, the fire shed may not have been built. Presentation of service awards, chevrons and ten and twenty year certificates to members followed an historical reference to the establishment of the Lock CFS Unit. In 1952 established the Lock and Districts Emergency Fire Service, 1956 the first fire unit, a Ford V8 army 'Blitz' was purchased. Membership fee was five shillings, today it is \$3 for township and \$5 for farms. A replacement unit came in 1964, a further unit was purchased recently. Recognition was given to the late Mr M. Mundy, foundation member, deputy supervisor and senior fire control officer, and Mr D. Dickens for the many services rendered. As a team competitor in 1965, brigade was placed sixth (6th) in Statewide Competition for the Best and Most Efficient Appliance Crew, in 1970 conducted regional competitions recorded as the best in the State, 1972 saw Lock winning the *Advertiser* competition for region 6. Acknowledgement was also given to Mrs Ona Millard for her dedication as the base radio operator at the fire shed.



MYLOR CFS—Commissioned new fire unit at Coopers Reserve in a background of trees burnt in 1980 Ash Wednesday Fire. CFS Director Mr Johns commissioned the vehicle and complimented the volunteers. *'The best equipment in the world is no use without trained and educated firefighters'*. Mylor CFS President Mr Fred Ewing, Chairman Stirling District Council, Mr Lloyd Leah and representatives from other Hills CFS units attended. Unit was purchased with \$4 000 donated by people of Mylor, \$7 000 from Stirling Council and \$10 000 from a CFS subsidy. Mr Ewing recorded the service of former CFS volunteers, Ned Brogan, George Barney, Keith Flynn, Bruce Shearer, Joe Plummer, Norm Semmler and present members. Mr Lloyd Leah *'commended the people of Mylor for their contribution, spoke on the strength of the CFS groups and hoped that council will be able to make provision for a new fire shed in its next budget. Mylor CFS is one of the greatest assets we have in the district and I appreciate the thousands of hours you have put into your work.'* Twenty year awards were presented to foundation members of the Mylor ladies auxiliary, Mrs Kay Ewing, Joan Kingdon, Evelyn Feder, Valmai Kemp, Margaret Fidock and Florence Ewing. Mrs Irene Semmler received a 10 year service award and Mr John Kadin, ex Roseworthy and Padthaway CFS received a 20 year service award. Pictured above beside the new Mylor fire unit (from left) Messrs Fred Ewing, Michael Perry, Chris Schultz, Lloyd Johns (CFS Director), and Bert Ewing, photo courtesy *Mount Barker Courier*.



MANNUM CFS—New number two fire unit was officially handed over by District Council, Monday 14 December 1981, following fitting out by the CFS members. Cost of the second-hand truck was just over \$4 800, with fittings and replacement parts totalled \$6 400. Voluntary labour by CFS members totalled 1 800 hours. Work involved rubbing down, prime coating vehicle, fitting of panelled side, making and fitting rear step, painting underbody, masking etc. . . Many materials and resources were generously donated by local business. *'The CFS must be congratulated not only for their own benefit but for the benefit they've given to the whole community'* District Council Chairman Cr Rosenzweig said. Pictured above, Mannum District Council Chairman Cr Avon Rosenzweig hands over keys of the new back-up fire unit, to Mannum CFS Captain Don Greening, on the truck are crew members Alan Greening (left) and Geoff Gobbett, photo and editorial courtesy *Murray Valley Standard*.

MINLATON AND YORKETOWN CFS—Are to receive a large portion of the proceeds of this season's Yorke Peninsula Champion Barley Quest for the purchase of 'Emergency Rescue Equipment.' The special hydraulically operated cutting equipment is designed for use in motor vehicle accident emergencies. CFS units control and operate equipment similar to that in operation at Ardrossan and Maitland. Barley Quest is being sponsored by the Lions Clubs of Ardrossan, Maitland, Yorketown with assistance from Moonta Lions.

ORROROO—District Council has been presented with a CB Radio by a private donor Pro-Motors, as a backup to CFS radio systems. The emergency channel 5, on the UHF 40 CB radio will be monitored by the District Council for fire purposes and emergency situations. Most land owners have CB radios installed in their farm vehicles, so if someone spots a fire they simply contact the Council. The CB radio will also be used to help co-ordinate CFS and private units at a fire.



OAKBANK-BALHANNAH CFS—Commissioned its new locally built \$40 000 fire appliance, Sunday 6 December 1981. This is the third unit since the brigade was formed in 1953. Mr Ern Boulton, Captain, paid tribute to the late Mr Evan Edwards who started the drive for the new vehicle and took no credit for his sterling efforts. A surprise presentation of life membership was made to Mr Boulton, by CFS Director Mr Lloyd Johns. Volunteer brigade members were also presented with 10 year service honours, and chevrons for 2 years service. Pictured above the Oakbank-Balhannah CFS men and the new appliance (complete with high pressure pumps, sprays and other modern innovations), Captain Ern Boulton receives his life membership and congratulations from CFS Director, Mr Lloyd Johns, Chairman Onkaparinga District Council, Mr Cliff Pfeiffer is in background; photo courtesy *Mount Barker Courier*.

Continued page 19 . . .



PORT ELLIOT CFS—Firefighting equipment has been boosted with the addition of a \$800 pump for its second unit. Pictured above testing the new equipment are Fire Control Officer, Ern Willats and District Fire Supervisor, Bun Basham, photo courtesy *Victor Harbor Times*.

RIVERTON CFS—Profits from the annual CFS/SES shindig will go towards a new water pump for the CFS appliance and outfitting the new rescue unit for the SES.



STIRLING CFS—Urban/Bushfire unit costing \$67 000 was commissioned on Saturday 7 November 1981 by CFS Deputy Director Mr Peter Malpas. With increasing urbanisation Stirling was in need of a vehicle capable of giving protection to buildings, as well as for fighting rural fires. The unit can pump 1 000 gallons/minute. The equipment with the vehicle made it necessary for Stirling CFS members to learn new techniques. Councillor Colin McDonnell accepted the unit on behalf of the Stirling Council and paid tribute to the fund raising efforts and support of the CFS ladies auxiliary and volunteers. Cr McDonnell then handed the keys to Brigade Captain, Bob Hunter. Pictured above from right: CFS Deputy Director, Mr Peter Malpas, handed over keys of new Stirling CFS appliance to Deputy Chairman, Stirling Council, Mr Colin McDonnell with Brigade Captain, Mr Bob Hunter, photo and editorial courtesy *Mount Barker Courier*.

STRATHALBYN CFS—Formerly EFS, formerly FFA, and the Town Fire Brigade is one of the oldest organised volunteer fire services in South Australia, being established shortly after the disastrous fires in 1939. The present fire shed has a history as long as if not longer than the service. In 1951 it was officially opened as a fire station, before the present control room it was the walk-through shed for the council's horse-drawn roller and tip-drays. Originally the shed housed only the 'Blitz', the Beresford Pump (now in the local museum) and the Morphet Virtue pump and tank, a far cry from the modern appliances, trailer, etc., which are now garaged at a total value of around \$100 000. Aware of overcrowding and arduous conditions faced by the volunteers, having relocated its offices the Council handed over the old council office to the CFS and SES. A sum of \$22 000 budgeted will convert the old chamber to a Fire Station. Construction commenced on the toilet and shower complex in September 1981, garage will be completed end of March 1982, interior alterations—changing offices into the radio room, control room, kitchen and lecture theatre, are expected to be completed in June 1982.

TILLY SWAMP CFS—Fire appliance body constructed by B. Crooks' Engineering, Naracoorte for \$8 020. Pump and motor are a separate cost.

TOTHILL CFS—Unit in Tothill region, Saddleworth and Auburn District Council, has been formed from recent meetings of land holders in the area. Unit is currently raising finance to fund purchase of a suitable truck to be equipped for firefighting purposes.

TRURO CFS—Have installed a new fire alarm system which gives a continuous ring for six seconds, to enable crew members to answer call before siren is sounded. Recruitment is under way for young trainees with a cadet team of young volunteers. Any young people over eleven years wishing to join the cadets can obtain details each Tuesday at the Truro Fire Station from 7.00 p.m. (1900 hours) when regular training is held. Vacancies also exist for Junior Firemen in the 16 to 18 year age bracket.

UPPER HERMITAGE CFS—New \$11 500 fire station building opened and a \$25 000 fire unit provided by Gumeracha District Council was commissioned 1 November 1981. The sixth new vehicle provided by Council in the past six years, brings the number of firefighting vehicles now in Council area to fourteen. New unit will also cover the Tea Tree Gully Council area. In 1979-1980 fire season, twenty-one fires were attended by Hermitage CFS crews. Todd MP, Mr Scott Ashenden, opened the station building, *praised the first class firefighting facilities now available and the voluntary CFS crews who provide an invaluable service to all residents in the community, ... the members give unstintingly of their time.*

GLENCOE CFS continued ...



Pictured above are Glencoe CFS members, left to right back—Fire Officer Les Sporer, Secretary Lyle Thomas, Gordon Telfer and Fire Officer Lindsay Widdison. Front—Regional Officer Murray Sherwell (Region 5), District Officer Mike Kemp and Deputy Supervisor Edgar Johnston. Photo courtesy *The South Eastern Times*

SHANGHAIED INTO CFS ... 27 YEARS AGO

Oakbank-Balhannah CFS member Mr Bob Weidenhofer who was presented with life membership says he was 'shanghaied' into joining his brigade.

That was twenty-seven years ago, in 1954.



Pictured above, Bob Weidenhofer receives his life membership from CFS Regional Officer, Mr Richard Keynes watched by Onkaparinga District Council Chairman, Mr Cliff Pfeiffer, photo courtesy *Mount Barker Courier*.

Town clerk steps down as CFS group captain



CAMPBELLTOWN Town Clerk Denis Morrissey has reluctantly retired from Athelstone Country Fire Service.

The former group captain said the increasing pressure and responsibility of council work had forced the decision.

'After twenty years with the CFS I am certainly going to miss it,' Mr Morrissey said.

'Not only does it give you the chance to protect your community, but it builds great com-

radeship among the members.

'Through competitions and some of the bigger fires, you get to meet and work with other units and I've made many friends in other areas'.

Mr Morrissey said the CFS would always have a vital role to play in rural areas.

'I believe it is an essential part of rural fire control,' he said.

CFS director Lloyd Johns paid tribute to Mr Morrissey's fine record.

'His service has been exemplary,' he said.

'His dedication to the Athelstone CFS contributed significantly to the high standard attained by its officers and members,' Mr Johns said.

'He was very highly regarded by the CFS Board and its directors—past and present.

'It's people like him who are prepared to put their professionalism into the service that make it so effective.

'I am sure he has mixed feelings over his retirement and he will be sadly missed in the Campbelltown area.'

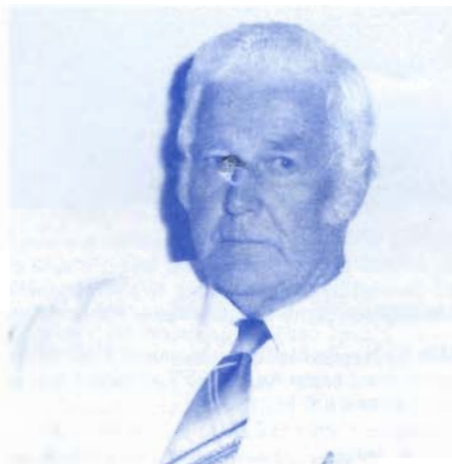
Editorial courtesy: *Payneham News Review*, and *Messenger Newspaper*.

'Bob' Powell's services recognised

BY NOEL MCROSTIE

Mr Robert 'Bob' Charles Powell, 63, of Robe has been recognised for his services to local government and the community.

In the New Year's honours list Mr Powell was awarded the British Empire Medal and he is recipient of an Australia Day Citizen's Award of Robe District Council.



He served as District Chairman from 1961 to 1969—a period when many significant achievements were acclaimed in local government.

'Bob' as he is affectionately known, has been closely involved with other local associations.

EFS

'The Robe EFS was formed in 1949, following a public meeting convened by Council when Mr Vic Dawson was elected president and myself as secretary,' Mr Powell said.

He said the brigade had little equipment other than a hand operated Ajax pump and a tank. However, after the brigade was formed the Emergency Services in Adelaide contributed a Rex 10m. pump (although there were no means of transport other than the Council tip truck. A Ford blitz truck was then offered on loan to the Brigade from Mr Ted Lines, with Robe brigade paying the registration). It was then at this stage that the Chief Fire Control Officer, Mr Allan Dawson, recommended the purchase of a Ford 3-ton truck from Mr Ken Nunan, to which the pump and guard rails were fitted. 'The truck was painted red, and Robe had its first EFS unit,' Mr Powell said.

The truck did not function as well as anticipated, so a new motor was to be fitted; while the engine was out of the truck Safcol factory (Robe) caught fire and the truck had to be towed to the scene of the fire... 'a most embarrassing situation for the Robe EFS', Mr Powell said (although grinning at the memory).

FACTORY DESTROYED

The factory was completely destroyed and it was then the EFS recommended to the District Council that they buy a four-wheel drive Army blitz truck, which was a more efficient unit but slow to reach the

outlying areas of Konetta and Biscuit Flat. These areas had small fire units and tanks used on farmers' vehicles.

Mr Powell said he had been very concerned at the risk that volunteer firefighters placed themselves in when fighting fires, so when elected to Council (representing South Ward) in 1958 I was able to support the CFS to get better equipment; Council decided to borrow money for the purchase of a really good unit—a Bedford four-wheel-drive 6 ton truck with an 800 gallon water tank and a very efficient pump (powered by a Volkswagen engine) 'This unit was displayed at the Royal Adelaide Show and one that Robe could be justly proud of,' Mr Powell said. 'A few years later Council purchased another of these units from the Greenways area and with a Government subsidy of 50 per cent, were real value for money.' Council has since purchased two very efficient units and has a good radio network;

'It is very pleasing to see Charlie Cook and crew in Robe and Ray Wendelborn and wife Marline (secretary) at Bray and the Greenways Brigade giving our town and district excellent fire protection.'

Other offices held by Mr Powell, were past President of the Bray Progress Association, President of the Robe RSL sub-branch, member of Legacy since 1962, past member of the Robe District Council, District Chairman, member of the Government's Underground Water Advisory Committee, Secretary of the Robe Methodist Church and Manse Trust, President, Robe Soldiers' Memorial Kindergarten, charter member of the Lions Club of Robe, Vice-President, Aged Homes Advisory Committee.

Photograph and Editorial courtesy *The Kingston Leader*.

Train Derailment at Rhynie-Mid North

(photos courtesy *The Flinders News*)

A 75 tonne diesel engine known as the *Clare Flyer* lived up to its name when it left the rails and crashed down an embankment at 12.45 p.m., 21 January 1982. The train was towing two goods vans, a fuel tanker and a guards van.

A fire started in the engine cabin and spread to a small area of grass, which was put out by the train crew and the Riverton CFS who arrived quickly on the scene. The Riverton CFS unit extinguished the engine fire with foam and sprayed the fuel tanker with water to cool it in 43°C heat.



The fuel tanker containing over 10 000 litres of petrol and over 10 000 litres of diesel fortunately remained upright. An inspection was made of the tanker for damage and leakage by CFS Director Lloyd Johns.

The area was cordoned off by police, to prevent sparks from igniting petrol vapours.

With the assistance of the Saddleworth CFS the petrol was transferred to road tankers at approximately 6 p.m., and the tanker carefully flushed out with water.

Riverton CFS remained on duty until the temperature dropped, to ease the danger of sparks causing an explosion during the shifting of the engine, trucks and tanker.

TECHNICAL ARTICLES

An index on, 'Technical Articles' that have appeared in previous issues of the 'The volunteer', has been prepared below for CFS Brigades, local councils and interested readers; as an easy means of referral:

Category Index	Title	Volume	Month of issue	Page Nos	Category Index	Title	Volume	Month of issue	Page Nos
Accident/Rescue	'New Zealand Accident/Rescue Kit	7	Oct. 1980	26	House protection	Advice to women	8	Dec 1980	35 and 36
Breathing Apparatus	'Breathing Apparatus—its importance and useage	10	July 1981	9	House protection	Danger in trend to wood stoves	10	July 1981	24
Breathing Apparatus	Mobile B.A. Chamber	9	March 1981	10	House protection	Danger in trend to wood stoves	11	Oct 1981	22
Equipment	A Guide to farm fire units	11	Oct 1981	24	House protection	Home fire safety check list	12	Dec 1981	10
Equipment	An easy way to take the back-ache out of loading fire tanks	4	Dec 1979	7	House protection	In the home—fire safety	8	Dec 1980	45
Equipment	Fire extinguisher guide	12	Dec 1981	26	LPG	LPG is safe but . . .	6	June 1980	11
Equipment	Friction loss in fire hose	11	Oct 1981	5	Mapping	Elementary map reading	4	Dec 1979	25
Equipment	From fog to . . foam branch	9	March 1981	13	Operations	A glossary of common fire service terms/commands	4	Dec 1979	41 and 42
Equipment	Front mounted pumps	7	Oct 1980	26	Operations	Butane gas lighters	6	June 1980	11
Equipment	How much water in that tank	1	March 1979	13	Operations	Calculation of water supplies	7	Oct 1980	28 and 29
Equipment	How to use a fire extinguisher	4	Dec 1979	19 and 20	Operations	E.&W.S. hydrants for fire-water	1	March 1979	3
Equipment	Hydroblender—New Zealand	11	Oct 1981	23	Operations	Fire service terminology	1	March 1979	5 and 6
Equipment	Maintenance of knapsack sprays	10	July 1981	15	Operations	Fuel reduction burning	11	Oct 1981	20 and 21
Equipment	Water fog streams	3	Sept 1979	10	Operations	Improved aerial ignition sytem USA	8	Dec 1980	54
Extinguishing liquids	World trend in the use of Halons Part 1	6	June 1980	19	Operations	Mopping up	3	Sept 1979	10 and 11
	World trend in the use of Halons Part 2	7	Oct 1980	30 and 31	Operations	Quickly assess all factors	12	Dec 1981	14
	World trend in the use of Halons Part 3	9	March 1981	29, 30, 31 and 32	Operations	Safe burning—a planned one boss operation	2	June 1979	13
Fire Bans	Fire bans—what they mean!	8	Dec 1980	14	Operations	Smoke columns and fire behaviour	1	March 1979	12
Fire protection	A philosophy of fire protection	12	Dec 1981	24 and 25	Operations	Some aspects of rate of spread of fire	2	June 1979	4
Fire protection	Before the fires start	8	Dec 1980	32, 33 and 34	Spark arrestors	Dangers from exhausts	12	Dec 1981	8
Fire protection	Fire safety in your caravan	4	Dec 1979	21	Spark arrestors	Spark arrestors and the law	11	Oct 1981	23
Fire protection	Fire uses . . and opinions	8	Dec 1980	30 and 31	Vehicle	Car fires up, fewer carry extinguishers	7	Oct 1980	23
Fire protection	Four o'clock Fires	12	Dec 1981	26	Vehicle	CFS fire appliances: standard CFS colours, and identification	4	Dec 1979	33
Fire protection	Hazard clean-up urged in unscathed hills areas	5	March 1980	16 and 17	Vehicle	Driving advice to CFS officers	3	Sept 1979	13
Fire protection	Planning for property fire protection	12	Dec 1981	31 and 32	Vehicle	Equipment and vehicle maintenance	3	Sept 1979	13
Fire protection	Trees want you to protect them from bushfires	10	July 1981	23	Vehicle	Fire survival for motorists	4	Dec 1979	7
Fire protection	Trees want you to protect them from bushfires	11	Oct 1981	11	Vehicle	Petrol vaporisation in spark ignition engines	9	March 1981	24
Fire protection	The CFS and the farmer	12	Dec 1981	18	Weather forecasting	Fire weather forecasting	7	Oct 1980	22 and 23
Fire protection	Who will take the blame	5	March 1980	11	Weather forecasting	Fire weather forecasts	11	Oct 1981	10
Fire protection	Why clean up?	8	Dec 1980	12	Weather forecasting	Fire weather season S.A. 1980-1981	12	Dec 1981	38 and 39
Fire protection	You and forest fires	4	Dec 1979	35 and 36					
Fire station	Britains futuristic design	8	Dec 1980	43					
First-aid	First-aid hints for fire emergencies	3	Sept 1979	15					
Hazchem	Dangerous substances hazard	11	Oct 1981	4					
Hazchem	Hazchem in Australia	9	March 1981	12					
Hazchem	The evacuation of Mississauga Part 1	7	Oct 1980	18 and 19					
Hazchem	The evacuation of Mississauga Part 2	8	Dec 1980	26, 27 and 28					
Health	Blessings for burns victims	10	July 1981	8					
Health	Heat stress—what is it?	11	Oct 1981	15 and 16					
Health	Physical fitness for fire fighters . . .	2	June 1979	15 and 16					
Health	Physical fitness for fire fighters . . .	3	Sept 1979	15					
Health	The effect of heat and smoke on the human body	9	March 1981	26 and 28					
Hospitals	Country hospitals fire protection procedures	6	June 1980	18					

STANDARDS ASSOCIATION OF AUSTRALIA AND FIRE PROTECTION

Roy Thompson, Manager S.A. and N.T. Branch, SAA

Standards Association of Australia (SAA) is an independent, non-profit organisation which is incorporated by Royal Charter. The purpose of SAA is 'To prepare and promote the general adoption of standards relating to structures, commodities, materials, practices, operations, matters and things, and from time to time revise, alter and amend the same'. It can be seen that 'fire protection' is not specifically mentioned.

The term 'fire protection' is widely used and accepted at all levels in the community, but the precise connotation of the term varies from one context to another. A dictionary-type meaning might be something like 'defence against fire'. In this narrow sense, fire protection could be taken to mean merely the immediate action, in the event of fire, to defend against personal injury or property damage. A more positive and extensive approach would be to include fire prevention within the term 'fire protection'. A great many Australian standards do have fire prevention as one of their major objectives.

In fact, SAA work in the broad field of fire protection embraces many different aspects of standardisation including, terminology, test methods, specifications for firefighting equipment, appliances that involve heating, and codes of practice for operations, installations, plant and equipment that may present a fire risk.

To embrace all these and other activities of SAA related to fire protection, that term must be taken to include the prevention, detection, suppression and extinguishment of fire and the evacuation of people, in order to minimize the possibility of injury or death or property damage.

The SAA committees working under the title of 'Fire Protection', with the basic committee identification of FP/-, do not of course cover all these aspects. Their task lies mainly in the preparation of standards related to the detection, suppression and extinguishment of fire. If fire could be prevented these committees would be out of work. Complete prevention of fire is obviously impracticable, not only insofar as human failings may lead to fire, or as natural phenomena such as lightning may generate fire, but even more in the sense that many applications of technology inevitably carry with them some fire risk.

It is because of this last consideration that SAA work in fire prevention extends over almost every area of its technical activities. In the electrical area, a basic purpose of the SAA Wiring Rules is to minimise the risk of fire due to electrical installations, while most of the approval and test specifications for electrical appliances either include specific fire risk tests, or include provisions aimed at preventing overheating or arcing that could lead to fire. In the area of the chemical industry, the flammable and combustible liquids code and the cryogenic fluids code are two of several standards aimed at reducing the hazards associated with the handling and use of flammable substances. In the mechanical area, the code for fire precautions in welding and cutting is one of a number of standards intended to assist in the prevention of fire.

Work in the area of fire detection falls directly on the committee on Automatic Fire Alarm Installations. Currently the standards for fire alarm installations and thermal detectors are being revised. Standards are being prepared for smoke detectors, flame detectors and fire indicator boards.

Suppression of fire is another aspect which extends over a wide range of SAA committees. The standard on sprinkler installations deals directly with detection and suppression. The specification for fire doors serves an obvious purpose, while Part 1 of the standard for ventilation and air conditioning deals with the prevention of spread of fire and smoke through a building by way of the mechanical ventilation system.

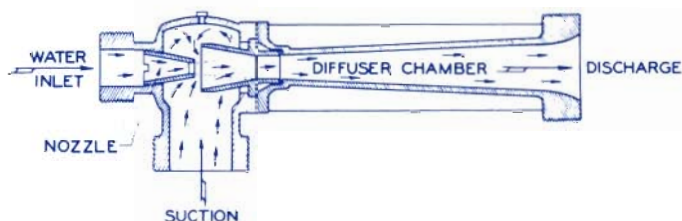
The preparation of standards relating to the extinguishment of fire rests almost entirely within the FP/- group of committees. Standards exist for all types of fire extinguisher, for knapsack sprays, for fire hose reels and for fire hydrant systems. In accordance with SAA policy, these standards are continually under review in order to keep them abreast of current developments.

Provisions for evacuation of people from buildings in the event of fire is primarily a matter for building regulations, but several Australian standards are related to the subject. These include for example, the report on the use of lifts in emergencies, emergency warning systems and emergency lighting systems in buildings.

Through the wide range of committees dealing directly or indirectly with fire protection, nearly all the organisations in Australia concerned with fire have a voice in such SAA work. These include firefighting authorities, the Fire Protection Industry Association, the Insurance Council of Australia, the Commonwealth Fire Board and the Department of Housing and Construction, as well, of course, as other industrial undertakings and government instrumentalities concerned with fire risks in particular types of plant or buildings.

Even this cursory survey of SAA activities related in one way or another to fire supports the view that the widest meaning must be given to the term 'fire protection' when the work of the Association in this field is being assessed.

WATER EJECTOR



HYDRAULIC EJECTOR

If water sources cannot be used because of the suction lift or off-road conditions, a hydraulic ejector may assist materially. This simple, inexpensive device has no moving parts and employs a simple engineering principle. Water is pumped in a conventional manner from a tanker to the water inlet of the ejector and passes through a nozzle restriction as a high-velocity stream, as shown in the straight-type ejector. This jet stream then picks up additional water through the suction port and delivers the combined flow through the diffuser chamber and out the discharge port under lower pressure.

EJECTOR USES

The ejector can be used advantageously in situations where drafting becomes critical, on lifts of seven metres, as in deep cisterns or off comparatively high bridges. In other situations, where there is not too much lift but where the tanker or portable pumper cannot be spotted in easy drafting hose reach, an ejector can be used up to three hundred metres from the pumper. A few small leaks in the hose are not critical, since the entire hose lay to and from the ejector is under pressure, not vacuum. For short lifts, especially with centrifugal pumps, it will probably be more efficient to draft.

EJECTOR SELECTION

Ejectors should be selected to match the pressure and flow output of the pump to be used. Secondary consideration must be given to the usual 'head' requirements. Unusual circumstances or a variety of problems may alter particular needs, but crews usually speak of 'high and low-head' assignments.

EJECTOR PURCHASES

Generally speaking, manufacturers produce a straight type of ejector, like the Penberthy, illustrated, or a 'U' type, like the Berkeley. Since ejectors are sold commercially for a number of different jobs, the base stock item must be modified into an acceptable piece of fire gear. For example, the suction port will be equipped with a spring-type foot valve to prevent the loss of water and a strainer to prevent the entry of foreign material. The inlet and discharge ports are furnished in iron pipe threads and must be adapted to fire hose threads. A female swivel is required as an inlet connection.

The above article was reproduced courtesy of the Water Handling Equipment Guide. Local manufacturers, suppliers of various types of water ejectors have one to suit your requirements. Further information is available from R. O. Russell Grear, Headquarters Appliance and Equipment adviser, telephone (08) 297 6788.

CFS Appeal

'DO NOT RELAX FIRE VIGILANCE'

by Lloyd C. Johns, Director
S.A. Country Fire Services

The start of Autumn would not herald the time to be complacent about the State's continuing bushfire danger.

Any substantial reduction in the bushfire risk would occur only after the State had received significant rains.

'We have had a very lucky spell insofar as fires during the Summer months, but there is still considerable volumes of dry growth in many areas, and all we need is another hot spell to again lift the fire danger rating to very high or extreme.

'South Australia is not yet ready for people to relax their vigilance and need for fire safety this season.

Even though the burning off of stubble was occurring in some areas, fire ban warnings would continue to be issued for some considerable time.

In recent years serious fires had been experienced as late as April and May because of the lack of general rains.

'While people may think it is time to relax, the Country Fire Services does not, and we will still be kept on our toes.'

Recent fires in the Adelaide Hills had shown that even though temperatures have been in the pleasant mid-20s, outbreaks still occurred and were none the less difficult to contain and extinguish than when they happened during the Summer.

CFS CONFIRMS YELLOW OVERALLS FOR SAFETY

The Country Fire Services Board is to gradually phase in the introduction of yellow overalls as a greater safety factor for its 11 000 firefighters.

CFS Director, Mr Lloyd Johns, said that the yellow overalls would replace the khaki overalls used by the volunteers for many years.

He said the Board's confirmation of the change to yellow had allowed it to make bulk purchase arrangements identical to those already existing for buying khaki overalls.

'The yellow overalls will become available after April and as brigades order new or replacement overalls these will be supplied in the yellow fabric.

'The Board's decision does not mean that brigades are required to immediately dispose of existing overalls. The change to the new colour will be a gradual phasing in over a period of time,' Mr Johns said.

A number of interstate rural fire authorities have already changed to yellow overalls and the favourable acceptance of this colour by those bodies assisted the CFS Board in its decision.

The new overalls will be available in two fabrics including one treated with retardant chemicals and which, although more expensive, may be considered by some brigades to offer more protection.

However, Mr Johns said the Board had had no evidence of burns being suffered by wearers of standard overalls which could be attributed to the material of these overalls.

STOP PRESS

YELLOW OVERALLS FOR FIREFIGHTERS

An article in both the December issue and this issue of the *Volunteer* relating to the decision of the CFS Board to phase in yellow overalls may have confused some brigades in relation to the changeover from khaki to yellow.

It is not intended that brigades dispose of serviceable khaki overalls in preference to yellow. The intention is that, as soon as yellow overalls become available from the supplier, brigades ordering replacements will receive the yellow overalls. Khaki overalls which are still serviceable should continue to be worn.

The most important thing to remember is—WEAR THEM, not the T-shirt, shorts and thongs we are seeing all too frequently on the fire ground!

LLOYD C. JOHNS,
Director, Country Fire Services

'PROBAN'

PROPOSED ALTERNATIVE FABRIC FOR FIREFIGHTER'S COVERALLS

Among the man-made fibres, nylon melts and drips when in contact with flames but will not burn unless there is also present some flammable material such as cotton sewing thread or trimmings, or unless treated with certain dyes and finishing agents. Polyester and acrylic fibres also melt and drip in contact with flames and can show limited burning, again particularly in the presence of other flammable materials. Even wool and silk will burn readily where they are used in blends with other fibres, whether natural fibres such as cotton or the man-made fibres, viscose rayon burns as readily as cotton.

Cotton, which is very durable and easily laundered, burns readily unless it is given a flame resistant finish.

The temporary flame proofing of cotton has been practised for years. But the treatment must be renewed after each wash. A flame resistant finish for cotton which will last for the life of the garment has only been achieved with the perfection of the 'Proban' finish.

'Proban' Flame Resistant and Smoulder-proof Finish

When cotton fabric burns it gives off certain gases and tars as the cellulosic cotton fibre decomposes. It is the task of the 'Proban' finish to transform a high proportion of these gases and tars into non-inflammable carbon char.

Advantages of 'Proban' treated all-cotton fabrics are—

1. 'Proban' treated cotton which is best described as 'flame resistant' rather than 'flame proof' will not support combustion and is not subject to afterglow.
2. The finish is NOT REMOVED BY REPEATED LAUNDERING OR DRY CLEANING. Tests carried out by trade associations in England show that the condition of the material in respect to flammability after sixty washes is similar to its condition before washing.
3. 'Proban' is non-dermatitic, non-toxic and smooth to the skin. Treated fabrics may be chewed by small children with impunity.
4. Treated fabrics retain their high tensile and tear strengths and have good resistance to abrasion.
5. Garments made from treated fabric have good wearing properties and retain normal elasticity and resilience.
6. 'Proban' treatment adds no more than 10 per cent to the fabric weight.
7. Treated fabric has high air permeability (i.e. it 'breathes' easily) and has the same moisture absorbency as untreated cotton fabrics.
8. 'Proban' treated fabrics do not soften, melt or drip at high temperatures and do not build up static electricity.
9. 'Proban' treated fabrics are easy to sew; no special threads are required and garments do not pucker at the seams.

NEW PRODUCTS NEW LIFESAVING AIR BAGS

A new range of special air bags with both lifesaving, crash rescue and commercial applications are now available in Australia.

These air bags will lift vehicles, debris and collapsed steel constructions to free trapped people. They can also prise apart iron bars or open jammed lift doors.

Used in conjunction with chains, they can provide the leverage to help prise vehicle wreckage apart.

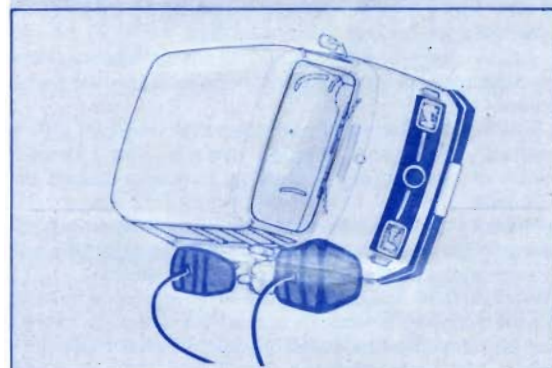
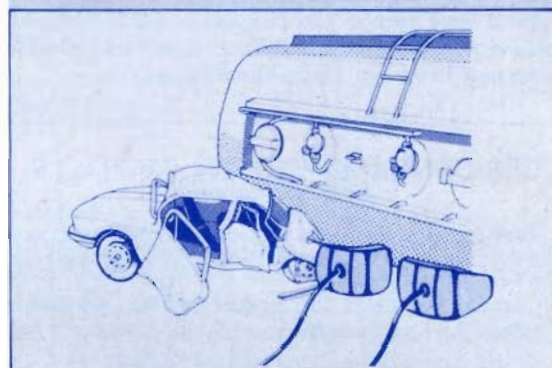
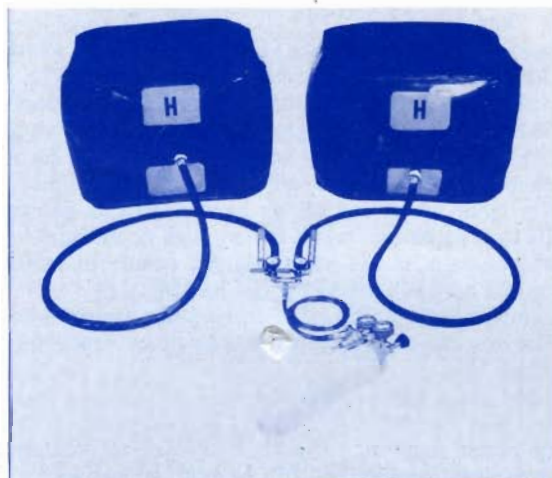
As well as their rescue equipment role, air bags can be used extensively in commercial applications.

They are particularly useful in areas of soft or marshy ground, on which they provide a 'snowshoe' effect when lifting overturned buses or trucks or helping to align heavy concrete or metal pipes.

The 'Holmatro Bags' marketed in Australia by Fire-fighting Enterprises (Aust) Ltd, are available in four (4) sizes with lifting capacity (in pairs) of four, six, nine and 16 tonnes. The smallest bags inflate from six centimetres to 43 centimetres and the largest bags from six centimetres to 76 centimetres.

'Vetter Power Lifting Bags' distributed by Drager Australia are available in nine (9) sizes with a lifting capacity of 10, 12, 18, 24, 24 (long), 31, 40, 54 and 68 tonnes. The 'Vetter' air bags come complete with a dual safety controller, two safety hoses and a pressure reducing valve.

Air bags come with an anti-slip finish for safety, and can be inflated in a matter of seconds from air or gas cylinders.



This series of photographs illustrate (top) the application of pressure air bags used to raise an overturned tanker off a crushed vehicle (centre) helping to right an overturned van (bottom) raising a low-loader with cargo, for mechanical repairs.

CFS Circular J 1/1/82

CFS BRIGADE UNIFORM RANK AND SERVICE BADGES REGULATIONS

The CFS 'Volunteer' Volume 12, December 1981, published on page 34 and 35, an article setting out CFS Brigade Officers badges of rank to be worn on dress uniforms, fire and field dress, CFS helmets, and described the Service Stars and Chevron awards.

Members are advised that due to requests from a number of Fire Fighting Associations, CFS District Committees and CFS Brigades, the CFS Board has approved an alteration to the Rank Markings to be worn on CFS white helmets.

The alteration will ensure that CFS rank markings on helmets now have a common element with the rank markings worn on the CFS Dress Uniform and Fire Field dress. (See diagrammatic illustration—next page).

The Group Captain or Deputy Group Captain may be appointed as Fire Supervisor and Deputy Fire Supervisor, by the Council for the district.

CFS Captains and Lieutenants whose appointment has been published in the *Government Gazette*, are *Ex Officio* Fire Control Officers.

CFS members below the rank of Lieutenant who have been appointed Fire Control Officers, should display the letters F.C.O. on each side of the helmet in 25 mm high red lettering.

Fire Supervisors, Deputy Fire Supervisors and Fire Control Officers, Fire Party Leaders *who are not uniformed CFS members*, may wear the authorisation of office on their helmets, in accordance with Regulation 17 (b) of the Regulations under the Country Fires Act, 1979. Other requirements of Regulation 17 apply to *every* appointed Fire Control Officer.

CFS BRIGADE OFFICERS BADGES OF RANK

(1) Dress Uniform—CFS Green

CFS CIRCULAR NO. J1/1/82

Rank designated by chrome badges on shoulder epaulettes of CFS jacket and woven silver badges on slip-on green epaulettes on shirt when in summer dress.



Group Captain



Deputy
Group Captain



Captain



Lieutenant



Senior Fireman
1 red bar
7 mm wide

(2) Fire and Field Order of Dress

Rank designated by rings of red braid on right sleeve, 70 mm above the cuff.



Group Captain
1 ring 22 mm wide
2 rings 7 mm wide
10 mm apart



Deputy Group
Captain
1 ring 22 mm wide
1 ring 7 mm wide
10 mm apart



Captain
3 rings 7 mm wide
10 mm apart



Lieutenant
2 rings 7 mm wide
10 mm apart



Senior Fireman
1 ring 7 mm wide

(3) CFS Helmet Rank Badges

Rank worn on white helmet. CFS Star transfer or metal badge worn on front of helmet in a central position.

CFS members below the rank of Lieutenant who have been appointed Fire Control Officers should display the letters F.C.O. on each side of the helmet in 25 mm high red lettering.



CFS Group Captain
1 x 25 mm red band
2 x 10 mm red bands
(10 mm apart)



CFS Deputy Group
Captain
1 x 25 mm red band
1 x 10 mm red band
(10 mm apart)



CFS Captain
3 x 10 mm red bands
(10 mm apart)



CFS Lieutenant
2 x 10 mm red bands
(10 mm apart)



Senior Fireman
1 x 10 mm red band

4. CFS Service Stars And Chevrons

CFS 10/20 Year Service and Efficiency Star worn on the LEFT sleeve, 80 mm above cuff edge.



When Chevrons have been awarded after a 10/20 Year Star, these are to be worn approximately 10 mm ABOVE THE STAR.

CFS Service and Efficiency Chevrons worn on the LEFT Sleeve, 70 mm above cuff edge.



CFS Cap
Badge



(5) *Badges: Cap, Beret*—Metal 44 mm authorized CFS insignia. *Cap*—(Male and Female officers) CFS metal badge is placed in front centre, with lower edge 18 mm above the lower edge of the cap leather band. *Beret*—The CFS metal badge is to be placed so as to be above the left eye when the beret is worn, with the lower edge of the badge 12 mm above the top edge of the head band.

(5) *Firemanship Proficiency Badges (Field Dress)*: For use up to and including Senior Fireman rank. Worn on right sleeve.

For further information and advice on CFS Uniforms, Rank and Service Markings, contact Country Fire Services Headquarters, Keswick—Telephone: 297 6788.

CFS PROFICIENCY BADGES
(1st and 2nd Class Firemanship)



A sympathetic look at trees

by Professor Peter Schwerdtfeger
Chairman
South Australian Country Fire Services Board

During the long period of intensive agricultural development in Australia, the bushland was regarded as both an obstacle and a potential fire-hazard. In every State of the Commonwealth, ever increasingly efficient means of clearance were devised, in most instances with little feeling for the ultimate consequences. The larger trees were often used for buildings and fences and indeed, even in northern South Australia today many structures still in use bear mute testimony to formerly substantial tree trunks being abundant in now bare environments.

While in the last few years community appreciation of and concern for bushland reserves and maintenance of Australia's unique landscapes has increased, the availability of efficient tools of destruction has kept pace, even though world wide shortages of timber and fuel suggest growing caution.

The value of trees in the countryside can be considered under many headings. Fundamental to all other considerations, is the need to maintain a 'bank' of species under suitable conditions, to ensure that future uses which may develop will be catered for, especially by the pharmaceutical industry. The inventory of valuable chemicals generated by plants is almost endless. Purchasers of timber need hardly be reminded of the escalating prices which reflect on an accelerating global shortage of suitable trees. Similarly, the message of the world's diminishing petroleum resources has been emphasised not only at the petrol pump but through a seven-fold increase in the price of heating oil over the past ten years. Already rural councils, especially those closer to population centres, have had to brush up their by-laws dealing with the use of timber from road-side reserves and other public places. Those farmers who conserved their mallee roots in earlier years as an investment in fuel for the future can now afford to smile, at least for their lifetime. Country people concerned for the future of their children are now planning viable wood-lot strategies.

Although South Australia, in recent years, has reserved representative areas of bushland for conservation purposes, there have been attendant problems of fire-protection and pest-management. These two factors are probably the two most important to many farmers in their reasoning for eliminating bush and scrub from their own properties. There is no doubt that the maintenance of substantial areas of trees on farms can lead to significant costs in fencing and pest eradication, particularly rabbits. On the other hand, there are also substantial benefits, which include protection from wind and water erosion, shade for stock and weed suppression by suitable species, quite apart from the destructive conversion to fuel and building materials or passive, aesthetic considerations of scenery.

On a larger, community scale the maintenance of water quality for reservoirs becomes important. Wind and water erosion from individual properties may adversely affect neighbours whose own management may be exemplary. Leaching of natural salt from the soil by excess water run-off from over-cleared areas has now been recognised as a serious problem in many parts of western and southern Australia. The salinisation of the soils in adjacent lower country can wipe out pastures and crops and thus force many unfortunate people off their farms, through no fault of their own. In these situations, conservation and similar forest reserves can serve farmers, especially if the former protect the hydrology of high country and agriculture is pursued in the same catchments at lower altitudes.

What has all this got to do with the CFS? Simply, it means that scrub, bushland and trees represent major, stabilising assets, which are no more expendable than many other areas on which the annual return is more readily calculated. Because of the possible fire hazard represented by significant stands of trees, farmers and rural communities need the assistance of the CFS in planning a safe method of living with these more enlightened environments as well as an assurance that methods of protection in cases of emergency are adequate.

Volunteer members of the CFS will have observed that publicity material and media releases have kept abreast of community attitudes by increasingly emphasising the broad diversity of values

manifested in the South Australian rural environment. The joint CFS-NPWS journey through N.E. South Australia in September 1981, quite apart from the information and experience gained, was a public expression of the CFS Board's interest in all of South Australia and its protection from fire.

PROJECT AQUARIUS

by RO Tony Crichton
Research and Fire Protection Branch
Country Fire Services Headquarters

Project Aquarius is a research program planned by the CSIRO to evaluate the effectiveness of suppressing forest fires in Australia by dropping water and fire retardants from large air tankers as compared with conventional firefighting techniques.

Under the direction of Project Leader, Phil Cheney, the aim of Project Aquarius is to provide Fire Control Authorities with information to make decisions on the utilisation of large air tankers to control bushfires by evaluating:

- the effectiveness of large air tankers and fire retardants for suppressing fires of varying intensity.
- the effectiveness of conventional techniques under similar conditions.
- a cost benefit analysis of forest and bushfire suppression in Australia.

An extremely important phase of the experiment will be to determine the upper limits of fire intensity and weather conditions beyond which aerial bombing techniques are ineffective as well as the conditions where conventional techniques are equally or more effective. Until now detailed knowledge of fire behaviour in Australia has been concentrated at the lower end of the fire intensity scale and predictions of fire behaviour at high fire danger levels have been made by extrapolating from data on low intensity fires and checked with observations on wild fires. Areas where information will be sought are:

- Acceleration Phenomenon—the time required for high intensity fires to reach a steady state of spread.
- Crown Fire Initiation—the importance of fuel and weather variables which initiate and sustain crown fires.
- Spot Fire Behaviour—the number of spot fires and their distribution and distance thrown downwind are crucial to the success of any fire control method.

Another aspect of research will concentrate on evaluating the actual performance of air tankers and fire retardants.

Evaluation of fire suppression by conventional techniques will run concurrently with other aspects of the program. These techniques include fireline construction by hand tools, bulldozer, ground tanker and hoselay using water, fire retardants and wetting agents, or combinations of the three methods.

Associated studies which may be possible are:

- the evaluation of fitness standards for fire fighters.
- the effect of protective clothing on firefighting performance.

The CSIRO will be working closely with State forestry and fire control bodies as Aquarius swings into gear.

This summer the CSIRO's Fokker F27 is being tested as a flying observation platform during test fires conducted in the A.C.T. The aims of these trials are to calibrate a sensitive infrared scanner in the plane to be used to monitor the development of test fires in Western Australia.

In 1982-83, CSIRO and the Western Australia Forests Department will study co-alescence; the joining of two fires, often resulting in the development of fires of much higher intensity and outbreaks of spot fires ahead of the main front. It's planned to study twenty high intensity burns in Western Australian forests.

Aquarius will wait until the summer of 1983-84 before actually conducting trials with aircraft. Some thirty fires are scheduled for Victoria, comparing aerial and ground attack and plain water with various retardant mixes.

It is expected that Project Aquarius will provide practical guidelines that will enable fire control authorities to decide when it would be appropriate to use such techniques with due regard to considerations of cost effectiveness.



1982 CFS ANNUAL COMPETITIONS —NOMINATION FORM—

Please fill in and return the NOMINATION FORM to CFS Headquarters, Box 312,
GOODWOOD 5034 NOT LATER THAN 15 MAY 1982.

Brigade Region

DATE Signed

Please indicate by figures, number of teams, etc. competing in each regional event. If you require Drill circulars for the Competition events, please indicate by ticking the appropriate column.

REGIONS

Events	1	2	3	4	5	6	7	Drill Circular Required (Tick)
"A" Grade Dry Hose and Wet Pump Drill								
"B" Grade Dry Hose Drill								
"C" Grade Hose Drill (Cadets and Ladies)								
Portable Pump Alarm Race								
One Man Hose Drill								
One Man Ladder Drill								
Three Man and Captain Wet Ladder Drill								
Best and Most Efficient CFS Appliance and Crew (State Title)								

COMPETITION ASSISTANCE: Please indicate where you can give assistance to the Competitions.
*Judges and Timekeepers: Please show Region Nos. and names for each individual event where assistance can be given.

JUDGES	TIMEKEEPERS	REGIONS
"A" GRADE (Dry)		
"A" GRADE (Wet)		
"B" GRADE		
"C" GRADE		
P.P.A.R.		
1 M.H.D.		
1 M.L.D.		
4 M.L.D.		