

# 2017 ANNUAL REPORT







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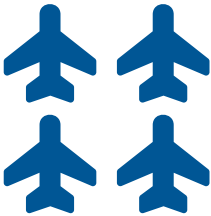
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Our purpose is to deliver aerial support to NAFC Members through national collaboration and cooperation; delivering excellence and a safe, effective and efficient aerial capability; supporting and enhancing fire and emergency management in Australia.

# Highlights 2016-17



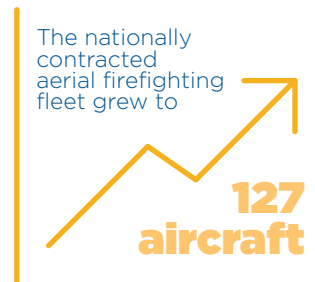
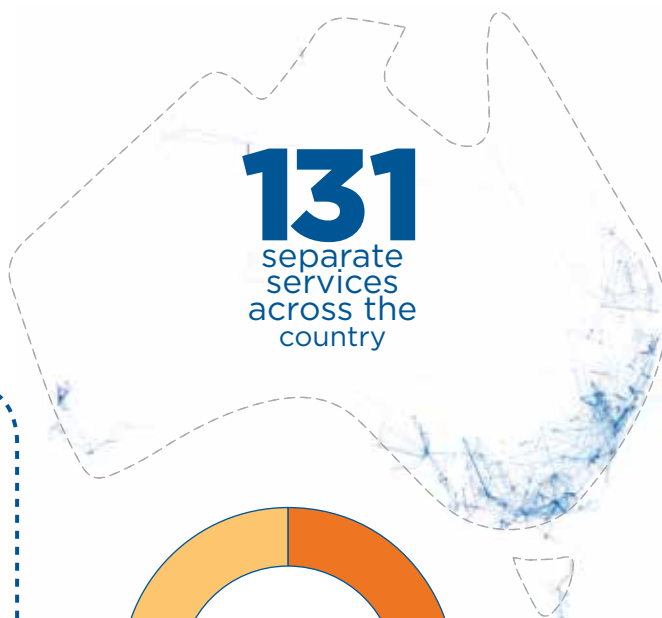
NAFC contracted aircraft commenced on 02 July 2016, with the final service finishing up on 30 April 2017



Incorporation of 4 fixed wing strategic intelligence and reconnaissance services (RFP ASIR 2015+) for Victoria and New South Wales.



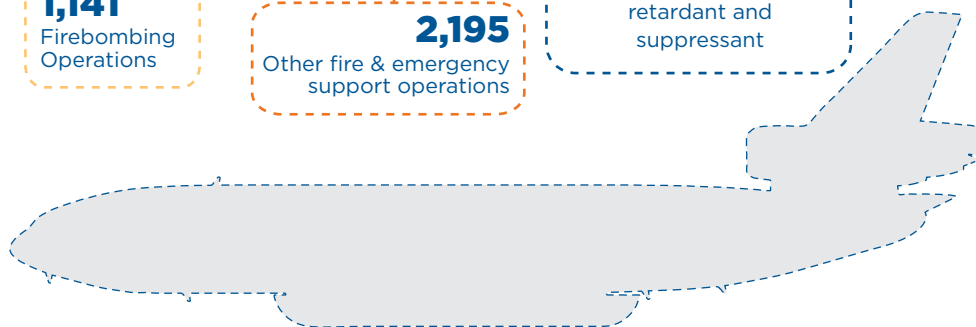
NAFC continued to host the **National Resource Sharing Centre** that was initiated to improve processes for the sharing of all categories of resources between Australian jurisdictions and internationally.










National Fleet aircraft made more than **18,000 firebombing drops**




Delivering in excess of **42 million litres** of retardant and suppressant



For the second year, the nationally contracted aerial firefighting fleet included a Very Large Airtanker.

	 <b>250</b> Operators	 <b>1400</b> Crew	 <b>850</b> Aircraft (approx 50:50 RW and FW)
 <b>300</b> Equipment (fuel trucks, EO/IR cameras, burning equipment)	 <b>1700</b> Users	 <b>800</b> Locations (airports, airbases and helipads)	 <b>2801</b> Dispatches (in 2016-2017 mainly NSW)

Dear Members,

It is with great pleasure that I present the 2016-17 Annual Report of the National Aerial Firefighting Centre (NAFC). This year has seen some exciting progress on key initiatives at NAFC, including the continued development of our collaborative national information system, ARENA. This unique system implements a national approach to the management of information to support and improve the use of aviation in fire and emergency management.



A significant milestone occurred during the year, with the 50th anniversary of operational firebombing in Australia. We have included in this year's annual report an article by aviation writer James Kightly which describes the fledgling operations back in 1967 and reflects on how far we have come since that time.

Having established and refined resource sharing systems over more than a decade, NAFC was also delighted to play a part in developing improved arrangements for national sharing of resources other than aircraft by hosting the newly formed National Resource Sharing Centre (NRSC) for an initial trial period.

There were several changes to the NAFC Board during 2016-17. Joe Buffone resigned from the Board in August 2016 following his resignation from the Victorian Country Fire Authority (CFA) and Mark Ashley resigned from the Board in May 2017 following some organisational changes in Bushfires NT.

In May 2017 the NAFC Directors were pleased to welcome Executive Director of Bushfires NT, Collene Bremner to the NAFC Board and CFA incoming Chief Fire Officer Steven Warrington in November 2016.

NAFC remains intent on providing the best possible support to the fire and emergency management sector and to communities. On behalf of the Board I extend special thanks to our partners in the aviation industry, and to NAFC CEO Stuart Ellis, General Manager Richard Alder and the NAFC team. As Chair of the Board, I am proud to be part of an innovative and focussed organisation that is providing leadership in aerial firefighting and leading the development of some innovative and ground breaking initiatives.

The NAFC Board would also like to gratefully acknowledge the Australian Government's valuable financial support for national aerial firefighting arrangements, through Emergency Management Australia.

I very much look forward to the year ahead.

Yours sincerely,



Greg Nettleton  
Chair

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# General Manager's Report

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Contracted operational firebombing commenced in Australia in 1967 when two Piper Pawnee aircraft were dispatched from a new base in Benambra to deliver fire retardant to a small fire in Victoria's high country. This year we celebrate the 50th anniversary of organised operational firefighting and recognise the significant role it plays in fire management across the nation. On that hot and dry February day in 1967 thirteen loads of fire retardant were delivered while firefighters walked through thick bush to the location. Firebombing was credited with stopping the lightning-caused fire from getting out of hand. This significant event, 50 years ago, represented the start of a new era, during which we have continued to grow and develop effective aerial techniques to support our firefighters on the ground. Today we can access over 100 specialised firefighting aircraft, some of which can deliver a load of retardant 100 times the volume of those early Pawnees. On page 19 James Kightly examines how far we have come since Benambra, 1967.

Back in the present, the 2016-17 bushfire season had a moderate level of aerial firefighting activity, although there were some busy periods.

While there was less total aviation activity in comparison to previous years, the bushfire season was long. The first contracted aircraft commenced service in the Northern Territory on 2nd July 2016 with the final service finishing in South Australia on 30th April 2017.

Following the completion of the NAFC Request for Proposals for Airborne Strategic Intelligence and Reconnaissance, four additional fixed wing services were incorporated into the nationally contracted fleet for 2016-17. These four services, based at Nowra, were primarily shared between New South Wales and Victoria, and provide highly sophisticated infra-red mapping systems. Two additional fixed wing aircraft were contracted for the Northern Territory and Tasmania.

NAFC again contracted a DC10 Very Large Air Tanker (VLAT) for the bushfire season. As part of a two year trial funded by the New South Wales Government the DC10 and a Lockheed Martin L100-382G Large Air Tanker (LAT) were engaged by NAFC on behalf of the New South Wales Rural Fire Service. The trial assessed the technical and economic aspects of larger fixed wing airtankers and evaluated their suitability for aerial firefighting in Australian conditions.

A Lockheed Martin C130Q and Avro RJ85 were contracted on behalf of Victoria and based at Avalon. All contracted LATs responded to bushfires outside of their home states on several occasions [see page 9].

The nationally contracted fleet was the largest to date with a total of 131 services. The fleet comprised 63 fixed wing and 68 rotary wing services, supplied by 127 individual aircraft. More detail is provided in Table 1.

## Thanks

The tremendous efforts and continued support of our stakeholders including Members, contractors and industry partners is appreciated. In particular I would like to thank Emergency Management Australia (EMA) for their ongoing support over the last 12 months.

I acknowledge the NAFC Board, and welcome two new Directors Collene Bremner and Steven Warrington. I thank Greg Nettleton for his continued service and valued contribution as Chair of the Board.

Special thanks to the dedicated NAFC team for their hard work and commitment to ensure the national arrangements continue to succeed and develop, to provide Members with the best possible aviation support.

We have a big year ahead. With the commencement of a number of major procurement processes to secure resources for Members over the next five years, along with the further development of ARENA, and a new approach to move forward with research and development projects, it promises to be an exciting time.



Richard Alder AFSM  
General Manager

**Table 1:** Nationally contracted Services 2016-17

State	Service ID	Aircraft	State	Service ID	Aircraft
ACT	RW13018	Bell 412SP2	QLD	RW13001	Bell 214B <sup>1</sup>
ACT	RW13019	Eurocopter AS.350-BA	QLD	RW13002	Bell 214B <sup>1</sup>
NT	FW13525	Air Tractor AT-802	QLD	RW13003	Bell 204*
NT	FW13526	Air Tractor AT-802	QLD	RW13051	Eurocopter AS355
NT	FW13527	Air Tractor AT-802*	QLD	FW14617	Air Tractor AT-802A*
NSW	FW15601	DC-10-30	QLD	FW14629	Air Tractor AT-802A*
NSW	FW15602	Twin Commander 690B	QLD	FW14627	Cessna 210H*
NSW	FW15603	LM L-100-30 (382G)	SA	HV13406	Erickson Airplane S64E
NSW	FW15604	Twin Commander 690B	SA	RW13032	Eurocopter AS350 BA
NSW	HV13401	Erickson Airplane S64E	SA	RW13033	Eurocopter AS350 BA
NSW	RW13006	Bell 206 L	SA	FW13509	Air Tractor AT-802A
NSW	HV13402	Erickson Airplane S64E	SA	FW13510	Cessna Caravan 208B
NSW	RW13004	Eurocopter AS365	SA	FW13511	Air Tractor AT-802A
NSW	RW13005	Eurocopter EC145	SA	FW13512	Air Tractor AT-802A
NSW	RW13007	Bell 214B	SA	FW13513	Air Tractor AT-802A
NSW	RW13008	Bell 214B	SA	FW13514	Air Tractor AT-802A
NSW	RW13009	Bell 412SP	SA	FW13515	Air Tractor AT-802
NSW	RW13010	Bell 412SP	SA	FW13516	Air Tractor AT-802A
NSW	RW13011	Kawasaki BK 117*	SA	FW13517	Air Tractor AT-802
NSW	RW13012	Kawasaki BK 117*	SA	FW13518	Cessna 182
NSW	RW13013	Kawasaki BK 117	SA	FW13519	Cessna 182
NSW	RW13014	Eurocopter AS350-B3+	SA	FW13520	Air Tractor AT-802A
NSW	RW13015	Bell 206 L	SA	FW13521	Air Tractor AT-802A
NSW	RW13016	Eurocopter EC145	SA	FW13540	Cessna 182
NSW	RW13017	Kawasaki BK 117	SA	RW15351	Eurocopter AS350 B2
NSW	RW13018	Bell 412SP2	TAS	RW13026	Eurocopter AS350 B3
NSW	FW13501	Air Tractor AT-802F (Fireboss)	TAS	RW13027	Eurocopter AS350 B3+
NSW	FW13503	Air Tractor AT-802	TAS	RW13028	Bell 214B
NSW	FW13504	Air Tractor AT-802	TAS	RW13029	Bell 214B <sup>1</sup>
NSW	FW13505	Air Tractor AT-802 <sup>1</sup>	TAS	RW13030	Eurocopter AS350 FX2
NSW	FW13506	Cessna Caravan 208B	TAS	FW14616A	Air Tractor AT-802AF*
NSW	FW13507	Air Tractor AT-802	TAS	FW14616B	Air Tractor AT-802AF
NSW	FW13508	Air Tractor AT-802	TAS	FW15619	Air Tractor AT-802F
NSW	FW13535	Air Tractor AT-802	VIC	HV13403	Erickson Airplane S64E
NSW	FW13536	Air Tractor AT-802 <sup>1</sup>	VIC	RW13020	Bell 206 L3
NSW	FW13539	Cessna C182-T	VIC	HV13404	Erickson Airplane S64E

State	Service ID	Aircraft
VIC	RW13021	Bell 206 L3
VIC	RW13023	Sikorsky S61N
VIC	RW13024	Sikorsky S61N
VIC	FW14601	Air Tractor AT-802F
VIC	FW14602	Air Tractor AT-802F
VIC	FW14603	Air Tractor AT-802F
VIC	FW14604	Air Tractor AT-802F
VIC	FW14605	Air Tractor AT-802F
VIC	FW14606	Air Tractor AT-802F
VIC	FW14607	M-18T Dromader
VIC	FW14609	Air Tractor AT-802AF
VIC	FW14610	Air Tractor AT-802AF
VIC	FW14611	M-18T Dromader
VIC	FW14614	Air Tractor AT-802F
VIC	FW14618	Air Tractor AT-802F (Fireboss)
VIC	FW14620	Cessna 337-G
VIC	FW14623	Cessna 337-H
VIC	FW14624	Cessna 337-G*
VIC	FW14625	Cessna 208-B
VIC	FW14630	Air Tractor AT-802F*
VIC	FW14631	Air Tractor AT-802F*
VIC	FW14650	Lockheed Martin (Coulson) C-130Q
VIC	FW14651	Twin Commander 690B
VIC	FW14655	Avro RJ85
VIC	RW15301	Eurocopter AS350BA
VIC	RW15302	Eurocopter AS350FX2
VIC	RW15303	Eurocopter AS350B3
VIC	RW15304	Eurocopter AS350B3e
VIC	RW15305	Bell 206 L3
VIC	RW15307	Eurocopter AS350B3e
VIC	RW15310	Eurocopter AS350FX2
VIC	RW15311	Bell 206L3
VIC	RW15312	Eurocopter AS350B2
VIC	RW15327	Eurocopter AS350B3
VIC	RW15328	Bell B212
VIC	RW15329	Eurocopter AS350B2

State	Service ID	Aircraft
VIC	RW15330	Bell B206L3
VIC	RW15331	Bell B212
VIC	RW15332	Bell B212
VIC	RW15333	Bell B212
VIC	RW15334	Bell B204B
VIC	RW15335	Bell B214B
VIC	RW15336	Bell B212
VIC	RW15337	Bell B412 <sup>1</sup>
VIC	RW15338	Bell B412 <sup>1</sup>
VIC	RW15339	Bell B212
VIC	RW15340	Bell B412*
VIC	RW17341	Sikorsky S76B
WA	HV13407	Erickson Airplane S64E
WA	RW13036	Bell 214B
WA	RW13037	Bell 214B
WA	RW13038	Bell 214B
WA	RW13039	Bell 214B
WA	RW13040	Bell 214B <sup>1</sup>
WA	RW13041	Bell 214B
WA	RW13052	Eurocopter AS355
WA	FW13523	Air Tractor AT-802AF
WA	FW13524	Air Tractor AT-802F
NSW	FWASIR16001	Gates Learjet Corporation 35A/36A
VIC	FWASIR16002	Gates Learjet Corporation 35A/36A
NSW/ VIC	FWASIR16003	Gates Learjet Corporation 35A/36A / Beechcraft Super King Air B200T
NSW/ VIC	FWASIR16004	Gates Learjet Corporation 35A/36A / Beechcraft Super King Air B200T

\* Partial Availability Services

1: Aircraft used to provide more than one service

A pictorial guide to the aircraft types contracted through NAFC is available on page 14.





Nationally contracted aircraft made more than 18,000 firebombing drops across the country delivering in excess of 42 million litres of retardant and suppressant. Table 2, below, provides a comparison of total amounts delivered over recent years. It should be noted that the total number of aircraft contracted through NAFC has increased over that time.

**Table 2:** National Fleet statistics 2012 to 2017

Year	Aircraft Contracted	Firebombing Activations	Number of Drops	Amount of Suppressant (millions of litres)	Other Activations	Total Activations
2012-2013	52	1,452	26,773	53.7	721	2,173
2013-2014	73	1,674	39,214	86.45	1,344	3,018
2014-2015	94	1,487	23,198	54.7	1,010	2,497
2015-2016	123	2,525	29,575	68.63	2,411	4,936
2016-2017	127	1,141	18,214	42.05	2,195	3,329

Notable aircraft redeployments during the 2016-17 season included:

- Large Air Tankers and Supervision Aircraft from New South Wales moved to Victoria on several occasions during November and December
- Firescan Aircraft from Victoria moved to New South Wales in February
- An Aircrane from Victoria moved to New South Wales in January
- Large Air Tankers and Supervision Aircraft from Victoria moved to New South Wales on several occasions during January and February.



## Support Systems

NAFC's National Aviation Management Support Systems (NAMSS) program leapt ahead this year. The NAMSS program, amongst other things, is developing the ARENA national collaborative information system. Key milestones in NAMSS included the implementation of event reporting requirements for contracted aircraft through the Australian Fire Aircraft Monitoring System (AFAMS). During 2016-17 NAFC has continued to work closely with our aviation service providers and the global aircraft tracking industry to ensure that appropriate hardware and software solutions for event reporting are available. All firebombing aircraft are now able to report fill and drop events in real time. This is also providing a valuable store of data which will underwrite future improvements in effectiveness and efficiency through performance monitoring and post-event analysis.

Meanwhile development continued apace on the ARENA integrated information system, which is described in more detail on page 16.

ARENA will soon move from the development phase to the sustainment phase. As ARENA is already being used to deliver business critical functions for our Members, such as aircraft dispatching, this process will involve the establishment of service level agreements for the provision of ongoing technical support and user support.

## Research and Development

NAFC was commissioned by the New South Wales Rural Fire Service to undertake an assessment of the effectiveness of the VLAT and LAT that were deployed as part of a two year trial funded by the New South Wales Government. NAFC delivered the final report to New South Wales in June 2017. The report includes an operational evaluation, an economic evaluation and a number of case studies. More detail is provided on page 18.

During October 2016, NAFC led a team of Member representatives to visit a range of locations in France and the United States of America to analyse in detail technical aspects of large airtankers and the current market for this class of aircraft. The visit also examined systems for measuring performance of aerial firefighting assets, as well as aspects of aerial firefighting at night. The information gathered has already been used to design subsequent procurement processes for aerial firefighting services in Australia.

NAFC provided support to a trial of rotary wing firebombing at night using Night Vision Imaging Systems implemented by Victoria during Autumn 2017. NAFC also contracted an additional rotary wing helicopter for this trial. Unfortunately progress was limited by regulatory considerations, and it is expected that the trial will continue in 2017-18.



## Memberships, Partnership and Alliances

Throughout 2016-17, NAFC maintained partnerships or memberships with the following organisations:

- Fire Management Actions Alliance
- International Flight Safety Foundation
- Bushfire and Natural Hazards Cooperative Research Centre
- International Association of Wildland Fire
- United Nations International Strategy for Disaster Reduction Wildland Fire Advisory Group
- International Fire Aviation Working Group

General Manager, Richard Alder continued to Chair the International Fire Aviation Working Group (IFAWG).

## National Resource Sharing Centre (NRSC)

NAFC continued to host the National Resource Sharing Centre (NRSC) as part of a 12 month trial during 2016-17. The NRSC was established to fulfil the coordination function and to prepare and maintain agreements for deploying fire and emergency services capability across Australian jurisdictions and overseas. On completion of the 12 month trial the NAFC Board recommended that the NRSC be positioned in AFAC.

## AFAC

NAFC continued to partner with AFAC for the provision of support services. AFAC provides administrative support services and infrastructure to NAFC under a management services agreement. In turn NAFC has continued to provide executive support for the AFAC Fire and Emergency Aviation Technical Group (FEAT), a sub-group of AFAC's Rural and Land Management Group.

NAFC would like to particularly acknowledge the contributions of AFAC Chief Executive Officer, Stuart Ellis; Business and Finance Director, Trevor Essex; Financial Controller, Kate Eagles, Finance Officer, Anna Nikitina and administrative support provided by Margaret Staples and Caitlyn Quinn.

## NAFC Operations

### Major procurement

Significant procurement activity continued throughout 2016-17. A large number of NAFC contracts became due for review and extension, with associated due diligence work. The process for procurement of fixed wing Airborne Strategic Intelligence Reconnaissance services was finalised during 2016-17. This resulted in an additional four highly specialised fixed wing services shared between New South Wales and Victoria, based at Nowra, New South Wales.

Considerable effort went into preparing for the major procurement process for Aerial Firefighting Services for 2018 Onwards (ITT AFS 2018+) which is expected to commence in early 2017-18. This will be the largest and most complex process conducted by NAFC. Similarly work commenced on preparing for the upcoming Request For Proposals for Large Airtanker Services.

Significant progress was made towards developing a national approach to Call When Needed (CWN) procurement. CWN workshops were held in April and September 2016 to refine service specifications and to develop requirements for a future CWN procurement system. In the meantime NAFC provided support to Members' Call When Need processes.

### General operations

NAFC attended a range of stakeholder meetings, contractor briefings, jurisdictional workshops and launches throughout 2016-17, including meetings with key aviation industry associations. NAFC staff participated in internal and external tender assessment panels and presented at various conferences. General Manager, Richard Alder presented at the Aerial Firefighting Asia Pacific Conference held in Adelaide and Glenelg in September 2016 and also at the Aerial Agricultural Association of Australia (AAAA) Convention held in Glenelg in May 2017.

NAFC was invited to make a submission to an Inquiry convened by the Australian Senate Environment and Communications References Committee regarding the Tasmanian Bushfires of January 2016. In November 2016, and provided evidence at a public hearing of the Inquiry.

NAFC, in partnership with AFAC, made a submission to an inquiry convened by the Senate Rural and Regional Affairs and Transport Reference Committee into the regulatory requirements that impact on safe use of Remotely Piloted Aircraft Systems. In June 2017 Mr Alder appeared on behalf of AFAC and NAFC at the Senate References Committee public hearings on this matter.

NAFC staff continued to review and update several organisational policies. A review of NAFC's Research and Development (R&D) Framework, the operation of the NAFC R&D Committee and the operation of the NAFC R&D Fund was completed. As a result the NAFC R&D Committee will be re-formed during 2017-18, and NAFC will engage a contractor to assist with consolidating research questions, developing a plan to action appropriate research and development activity, and to identify linkages with other research programs and organisations.

During early 2017, consulting firm KPMG undertook an economic evaluation of NAFC and the national arrangements for the provision of aerial resources. The report provided by KPMG was overwhelmingly positive about the national arrangements and indicated that the investment by Members and the Commonwealth returned significant financial and economic benefits. NAFC intends to extend the study, during 2017-18, to examine the economics of aerial firefighting more broadly.

### Staffing

NAFC farewellled Anthony Griffiths in December 2016, following a secondment from the Victorian Department of Environment Land Water and Planning. NAFC would like to thank Anthony for his valuable contribution, particularly to the multi-agency ARENA working group.

NAFC was pleased to welcome Josephine Stirling in May 2017 as a Procurement Project Officer. Josephine will assist NAFC with forthcoming major procurement processes.

## Finance and Funding

At the conclusion of 2016-17 financial year, NAFC remained in a sound financial position. Audited details of NAFC's finances are provided in the accompanying special purpose financial report.





## New Joined-Up Approach to Airborne Strategic Intelligence and Reconnaissance

Following a complex procurement process, in September 2016 NAFC engaged four new highly specialised fixed wing aircraft services from Air Affairs Australia to provide Airborne Strategic Intelligence and Reconnaissance (ASIR), primarily in New South Wales and Victoria. This new contract represents a major milestone at several levels. Although both Victoria and New South Wales have operated specialised airborne infra-red linescanning services before, this is the first time that two Members have directly collaborated to jointly fund shared contract services. The result is greatly improved access to scanning aircraft, more products and far more productive and sophisticated intelligence gathering services. The additional capacity, and the turnkey nature of the service, will also provide the other states and territories with greater access to strategic bushfire mapping.

The contract provides for up to four Learjets (or three Learjets and one Beechcraft KingAir) equipped with highly sophisticated linescanning systems along with airborne image processing and transmission capabilities. The scanner systems on board the aircraft detect and record fire activity by sensing

the infra-red radiation generated by bushfires. The scanners pinpoint the location of fire edges, burnt out areas and spotfires and identify assets at risk. They also record background information such as terrain, streams and roads, and vegetation cover. Geo rectified information is conveyed to servers on the ground via satellite link, and is rapidly processed into products such as “quick-look prints” and automatically incorporated into the fire agency’s GIS and Common Operating Picture systems, all in very close to real-time. Incident management teams and regional co-ordinators will normally be able to get comprehensive fire maps within around ten minutes of scanning, even at night or when the fire is obscured by smoke. The scanning technology is also handy for other emergencies, and can easily be used for tasks such as rapid flood and oil spill mapping

Unique in the world, the Learjet scanners are mounted in custom built underwing pods, reflecting Air Affairs heritage in equipping and operating Learjets for a multitude of specialised tasks including towing of target drones for military exercises. For scanning bushfires, the Learjets’ speed and flexibility, coupled with the wide angle of view of the scanners, provides accurate mapping of bushfire over tens of thousands of hectares per hour.

# 2016-17 National Aerial Firefighting Fleet

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The 2016-17 national aerial firefighting fleet comprises approximately 130 contracted aircraft primarily made up of types illustrated here. These aircraft, contracted by NAFC on behalf of State and Territory governments, are supplemented by additional state owned, state contracted aircraft and other aircraft hired to meet peak demand across Australia.



# 2016-17 National Aerial Firefighting Fleet



**Eurocopter AS355F1 Twin Squirrel – “Firebird”**  
Roles: Firebombing, supervision, utility. Twin turbine engines. Five passengers. 680 litre capacity bucket. 230km/h, 840hp.



**Bell 206L-3 LongRanger – “Firebird”**  
Roles: Supervision, reconnaissance, utility. Single turbine engine. Six passengers. 220km/h, 650hp.



**Eurocopter EC120B Colibri – “Firebird”**  
Roles: Supervision, reconnaissance, utility. Single turbine engine. Four passengers. 220km/h, 500hp



**Cessna 182T Skylane – “Firespotter”**  
Roles: Reconnaissance, supervision, utility. Single piston engine. Three passengers. Commonly used for fire spotting patrols. 270km/h, 230hp.



**Eurocopter AS350B3 Squirrel – “Firebird”**  
Roles: Firebombing, supervision, fire crew insertion, utility. Single turbine engine. Five passengers. 1100 litre capacity bucket or belly tank. 200km/h, 850hp.



**MBB/Kawasaki BK 117 – “Helitak”**  
Roles: Fire crew insertion, firebombing, transport, utility. Twin turbine engine. Eight Passengers. 270KG, 75m winch. 900 litre capacity bucket. 215km/h, 1500hp



**Eurocopter EC145 – “Helitak”**  
Roles: Fire crew insertion, firebombing, transport, utility. Twin turbine engine. Eight Passengers. 270KG, 91m winch. 910 litre capacity bucket. 220km/h, 1500hp



**Eurocopter AS365N2 Dauphin – “Helitak”**  
Roles: Fire crew insertion, firebombing, transport, utility. Twin turbine engine. Eight Passengers. 270KG, 100m winch. 1025 litre capacity bucket. 260km/h, 1500hp



**Cessna 337G Skymaster – “Birddog”**  
Roles: Supervision, reconnaissance, utility. Twin piston engines, centre line thrust, high wing. Three passengers. 250km/h, 420hp.



**PZL M18T (Hubler) Dromader – “Bomber”**  
Role: Fire bombing. Single engine, turbo prop air tanker. 2375 litre capacity. Drops water, foam, gel or fire retardant solutions. 230km/h, 1000hp



**Air Tractor AT802F Fireboss – “Bomber”**  
Roles: Firebombing, amphibious, single engine, turbo prop air tanker. 3200 litre capacity. Scoops water from lakes and rivers, adds foam, gel before dropping. 275km/h, 1600hp



**Cessna 208B Grand Caravan – “Birddog”**  
Roles: Supervision, reconnaissance, transport, utility. Single turbine engine, high wing. Nine passengers. 300km/h 675hp



**Rockwell Turbo Commander 690B - “Birddog”**  
Roles: Supervision, reconnaissance, transport, utility. Twin turbine engine, high wing. Five passengers. 500km/h 1430hp



**Bell 412SP – “Helitak”**  
Roles: Firebombing, fire crew insertion, transport, utility. Twin turbine engine. 10 passengers. 270KG, 75m winch. 1400 litre capacity belly tank. 225km/h, 1800hp.



**Bell 212 – “Helitak”**  
Roles: Firebombing, fire crew insertion, transport, utility. Twin turbine engine. Fourteen passengers. Rappel equipment, 1475 litre capacity belly tank. 185km/h, 1800hp.



**Bell 204B – “Helitak”**  
Roles: Firebombing, transport, utility. Single turbine engine. 14 passengers. 1290 litre capacity long-line bucket. 185km/h, 1400hp



**Air Tractor AT802F – “Bomber”**  
Role: Fire bombing. Single engine, turbo prop air tanker. 3200 litre capacity. Drops water, foam, gel or fire retardant solutions. 350km/h, 1600hp



**Bell 214B Big Lifter – “Helitak”**  
Roles: Firebombing, transport. Single turbine engine. Fourteen passengers. 2650 litre capacity belly tank or bucket. 240km/h, 2950hp



**Sikorsky S61N – “Helitak”**  
Roles: Firebombing, fire crew insertion, transport. Twin turbine engines. Two pilots. Eighteen passengers. 4000 litre capacity belly tank or 2850 litre power fill bucket. 225km/h, 3000hp.



**Beechcraft King Air - B200T**  
Roles: Fire Scanning, reconnaissance, utility. Twin engine turboprop. Single pilot, one system operator. Infrared and multispectral line scanner, satellite broad band data transmission, 2+ fire agency radios, Satellite tracking. 450km/h.



**Gates Learjet 35A**  
Roles: Fire Scanning, reconnaissance, utility. Twin engine turbofan. Two pilots, one system operator. Infrared and multispectral line scanner, satellite broad band data transmission, 2+ fire agency radios, Satellite tracking. 650km/h.



**Erickson S64E AirCrane – “Helitak”**  
Role: Firebombing. Twin turbine engine. Two Pilots. No passengers. Hover Fill and sea skimming snorkels. 7560 litre capacity tank 215km/h, 9000hp.



**Avro RJ85 airtanker – “Bomber”**  
Role: Firebombing. Four turbo fan engines. Two pilots. 11,350 litre retardant capacity tank. Drops foam, gel or fire retardant solutions. 680km/h, 12,700kg thrust.



**Coulson C130Q airtanker – “Bomber”**  
Role: Firebombing. Four turbo props engines. Two pilots and one flight engineer. 15450 litre retardant capacity tank. Drops foam, gel or fire retardant solutions. 545km/h (loaded), 18,000hp.

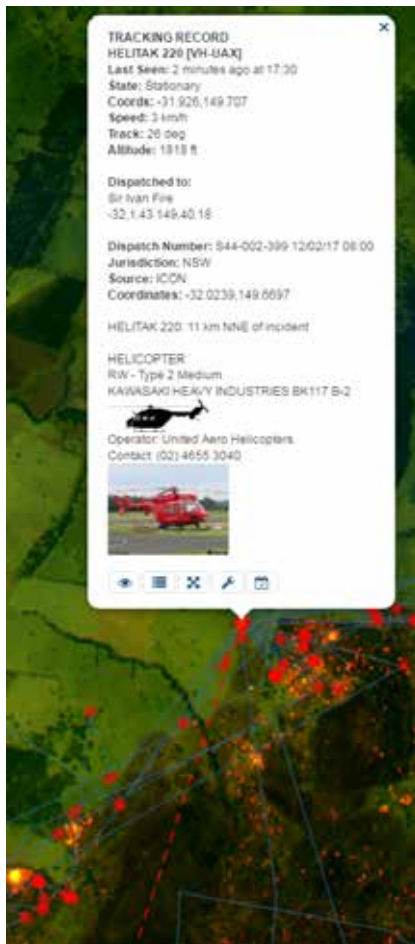


**Lockheed Martin L100-30 airtanker – “Bomber”**  
Role: Firebombing. Four turbo props engines. Two pilots and one flight engineer. 15450 litre retardant capacity tank. Drops foam, gel or fire retardant solutions. 545km/h (loaded), 18,000hp.



**McDonnell Douglas DC10-30 – “Bomber”**  
Role: Firebombing. Three turbo fan engines. Two pilots and one flight engineer. 43,900 litre retardant capacity tank. Drops foam, gel or fire retardant solutions. 650km/h (loaded), 73,000kg thrust.

# In Brief



## ARENA national inter-agency management support system

ARENA is the national inter-agency aviation management system for fire and emergency agencies, hosted by NAFC. The development of ARENA has been implemented under NAFC's National Aviation Management Support Systems (NAMSS) program, which was initiated to coordinate the development and integration of a suite of projects that support the management and administration of safe, effective and efficient application of aviation resources.

ARENA is by any measure a unique, innovative and ground breaking system, having been developed and implemented on a collaborative basis across the nation.

ARENA now provides a central hub for quality information to support and improve the use of aviation in fire and emergency management.

ARENA has been designed to:

- harness, synthesise and present quality information to support optimum decisions for deployment and application of aviation resources
- provide and utilise a single source of quality managed data
- improve efficiency by aligning business practices and standards
- improve interoperability and provide opportunities for inter-jurisdictional support and surge capacity
- reduce the total effort and resources required to manage information and reduce duplication of effort across all user jurisdictions
- provide assurance around the integrity of administration of high-value aviation resources.

The high-reliability ARENA system employs cloud based architecture and is hosted on multiple redundant servers. Information is accessible from a wide range of devices and locations. ARENA has been designed to be fully interoperable with, and to exchange data with, other systems operated by NAFC Members and by data providers.

The first production version of ARENA was rolled out during 2014-15 and development of added functionality has continued through 2015-16 and 2016-17. Great strides were made during 2016-17, which saw New South Wales using ARENA exclusively for real-time dispatching of aircraft to emergency



incidents. ARENA was also used by Members to support a number of major Call When Needed procurement processes. Also during 2016-17:

- Version 3 of the core registry function was completed. This function is now fully implemented.
- Version 2 of the Availability section was implemented. The Availability section allows aircraft operators to enter details regarding the status and availability of their aircraft for emergency response.
- The Airdesk section was completed. The Airdesk section now incorporates sophisticated mapping functionality.
- Version 1 of the Decision Support module was completed. Decision Support is a complex module that assists Airdesk operators with identifying aircraft that will be quickest or most cost-effective to respond to incidents and planned situations.
- The procurement process support functionality for the Procurement Section was completed. Procurement process support provides the workflow for electronic procurement processes, and allows aircraft suppliers to partition aircraft data that has been entered for procurement purposes only, maintaining probity and confidentiality. The module now provides reports of tendered aircraft for tender Evaluation Groups.
- The Mapping module was updated to provide for the incorporation of event data. As an example, the module now allows the location of firebombing drops to be displayed on the ARENA map in near real-time.
- The Reporting function was further developed to incorporate mapping. This allows operational or financial aspects of aircraft usage to be displayed on maps in real-time, and also provides for effective post-incident reporting and analysis.
- Key components of the functionality required for automating administrative tasks and for the provision of electronic Flight Operations Returns (“eFORs”) were developed. This includes the development of the workflows for accepting and approving flight records; and testing and finalisation of the “state engine” which determines the status of aircraft resources from tracking and related data.
- A “Forms” App was developed in conjunction with NAFC’s tracking data integrator TracPlus Global Pty Ltd. This allows simple data entry in the field using forms on a mobile device.

One of the key advantages of the national collaborative approach to ARENA, and using a common system, has now been demonstrated on several occasions during 2015-16 and 2016-17. ARENA has allowed airdesk staff from other states and territories to seamlessly assist Members with their airdesk functions during busy times – both on-site and remotely.

By the end of 2016-17 ARENA had more than 1700 registered users and recorded the details of approximately 250 aircraft operators, 850 aircraft and 1400 pilots.

During 2017-18 it is planned that the outstanding components of the development works plan will be completed and the foundation ARENA system will transition to a sustainment phase. Additional functionality will be added according to the requirements of Members, as finances and resources are available.

ARENA has been a huge project for NAFC, which would not have been possible without the able and committed support of the working group of representatives from Members. NAFC would particularly like to acknowledge the input and efforts of Anthony Ferguson from the NSW Rural Fire Service, who has been a key champion of ARENA; and Anthony Griffiths who was seconded to NAFC from the Victorian Department of Environment, Land, Water and Planning during 2016-17 to support the working group. Acknowledgment is also due to Stock Software Pty Ltd who continued as the prime contractor for development work in ARENA during 2016-17.

ARENA now provides Members with significant efficiencies in the application of aviation resources and in the support and administration of those resources, and promises to underwrite further improvements. ARENA potentially reduces operational risks (e.g. an inappropriate or incorrect dispatch) and organisational/administrative risks (e.g. by automating record keeping and minimising the possibility of probity issues). This results in a reduction in overall costs of aviation resources and in the costs of providing support for managing and administering those resources.

For more information on ARENA contact the NAFC office or go to <http://arena.nafc.org.au>



## LAT/VLAT 2016-17

A two-year trial of a Large Air Tanker (LAT) and a Very Large Tanker (VLAT) to supplement aerial bushfire suppression capability and capacity in New South Wales was conducted over the 2015-16 and 2016-17 bushfire seasons.

This trial was funded by the New South Wales Government, and implemented by the New South Wales Rural Fire Service (NSW RFS). NAFC was asked to coordinate an independent evaluation of the trial on behalf of NSW RFS. The outcomes of this trial are shared in the spirit of collaboration to advance the understanding of aerial firefighting effectiveness in Australia.

The LAT and VLAT trial aimed to evaluate the suitability of large fixed wing aircraft for firebombing and to understand how these air tankers could supplement the capability of the existing aerial fleet.

Following a tender process, the aircraft selected for the trial were:

- A Lockheed Martin L100-30 (Model 382G) Large Air Tanker (LAT), Callsign *Bomber 132*. (The Lockheed Martin L100 is the civilian version of the well-known C130 “Hercules”)
- A McDonnell Douglas DC10-30 Very Large Air Tanker (VLAT), Callsign *Bomber 910*
- Two Twin Commander TC690 light fixed wing aircraft to provide aerial supervision and to act as Lead Planes for the LAT and VLAT.

The bushfire activity across these two bushfire seasons in NSW provided very good opportunities to assess the LAT and VLAT in a wide range of operational situations. The evaluation was based on qualitative and quantitative information that was gathered as part of the standard operation of each LAT and VLAT deployment to bushfires. The deployments of the LAT and VLAT to bushfires were requested by local Incident Controllers and approval to dispatch the aircraft was given by the NSW RFS State Operations Controller. Deployments were not made specifically for undertaking a scientific or field-based replicated trial of the capability of the aircraft.

Over the course of the trial the LAT and VLAT operated in a diverse range of bushfire situations from building retardant lines in remote Alpine National Parks in southern NSW and the dry Pilliga forest of north-western NSW, to defending coastal towns and protecting assets on the outskirts of western Sydney.

The most significant, multi-day deployments in NSW were to the Terraborra North fire in December 2015; the Lone Pine – Racecourse Rd (Cessnock) fires in November 2016; the Sir Ivan fire in February 2017 and the Carwoola fire in February 2017.

The evaluation of the trial provided an operational assessment and an economic assessment. The evaluation also examined a number of case studies in detail.

The trial concluded:

- The LAT and VLAT engaged for the 2015-16 and the 2016-17 trial provided a new and increased capability for NSW. The trial demonstrated that the LAT and VLAT were effective in achieving incident control objectives in a variety of situations.
- Whilst the cost of the aircraft is significant, the analysis indicates that an appropriate large airtanker capability is economically justified. The percentage of avoided losses required to offset the costs of the aircraft in an average fire season is realistic and achievable.
- Large air tankers represent a form of insurance for the protection of community and assets and can be used efficiently and effectively to reduce bushfire damage, even during an average bushfire season.
- Both aircraft demonstrated that they can successfully respond over long distances and can operate across a very diverse geographic area, including in a single day; as well as providing support to the Asia-Pacific region. This potentially offers an opportunity to further develop a national approach to procuring and positioning these assets.

# From little things...

## A Half Century of Australian Aerial Firefighting

50  
FIFTY YEARS  
1967 • 2017

*By James Kightly*

This year's fire season completed a full half-century of operational firebombing operations in Australia. While it is not realistic to cover every notable event and achievement in those fifty years of aerial firefighting development, here we present some key highlights.

The answers to tomorrow's challenges aren't always currently self-evident, and history shows us that yesterday's solutions have sometimes come from unexpected quarters, including everything from the highest of cutting edge technology right to individual aircraft operators turning spanners and welding new tools which, with regulatory approval, develop practical solutions for wider adoption.

So there is great value in reviewing how we got to where we are today and how the achievement and challenges of yesteryear were overcome. One fascinating aspect that quickly became evident while compiling this review was how sometimes things we take for granted today were a greater achievement at the time – and also that 'yesterday' was sometimes a bit longer ago than remembered!

The first recognised, official operational firebombing drops were near Benambra in north-eastern Victoria during 1967. On a hot, dry February day that year, two Piper Pawnees made the first operational drops of retardant on a small lightning-strike fire burning in rugged, heavily forested country. This marked what has since become a classic application of firebombing: they were able to contain a remote fire until the ground crews completed their walk in some five hours later to ensure it was 'safe'.

Even before then there had been a number of experimental trials and explorations in aerial firefighting in Australia over the preceding decades. In the thirties, it was realised that water, while the obvious fire suppressant, wasn't much use when dropped from the air as it dispersed and evaporated too quickly. After World War Two, RAAF Mustang fighters were used to drop an ammonium sulphate solution on a test fire with 'fair to good' results for accuracy. Over the next twenty years numerous trials were carried out and some basic principles were established.

Further trials led in the 1960s to a mix with the key ingredient of diammonium phosphate (DAP), which was chosen to equip two selected bases of Benambra and Snowy Plains in Eastern Victoria, leading to that first operational mission on the February Monday in 1967.

Of course, back in the earliest days there wasn't the capacity to suppress a fire by aerial attack alone, while even with today's vastly greater capability, aerial firefighting remains, and has to be, an element in an integrated approach to firefighting.

Early statistics are easily misinterpreted, but using data from the NAFC co-ordinated national fleet, we can contrast the beginning and end of the recent decade of 2006 with 2016. In 2005-6, the then new national aerial firefighting fleet of 23 specialised aircraft (among many other aircraft still state contracted) delivered 18 million litres of suppressant and retardant. In 2015-16, the nationally contracted aerial firefighting fleet grew to 123 aircraft supplying 127 separate services across the country with the incorporation of 24 additional rotary wing services. In that year national fleet aircraft made more than 29,500 firebombing drops, delivering in excess of 68 million litres of fire retardant and suppressant across the country.

As the capability of aerial firefighting has developed over the last five decades, it is interesting to note that different states have led in different specialities, and with the central coordination of the resources on a national level by NAFC, this has ensured that cutting edge technology and capability is available across the nation, including to the states and territories unable to justify funding this level of attack capability on their own. This is what lies behind the fact that resource sharing across state borders is now a regular feature of the bushfire season, to the extent that in the 2014-15 season, contracted Large Air Tankers (LAT) were used across several states and territories in a single day. Earlier, the introduction of high volume helicopters with the Erickson Aircranes (the first actually being 'Millie' - not 'Elvis!') in the 1996-97 season, was followed in 2001 with huge publicity for aerial firefighting when the telegenic Airplane 'Elvis' was shifted from Victoria to New South Wales when serious bushfires threatened part of greater Sydney, putting aerial attack into the awareness of many, many more Australians.

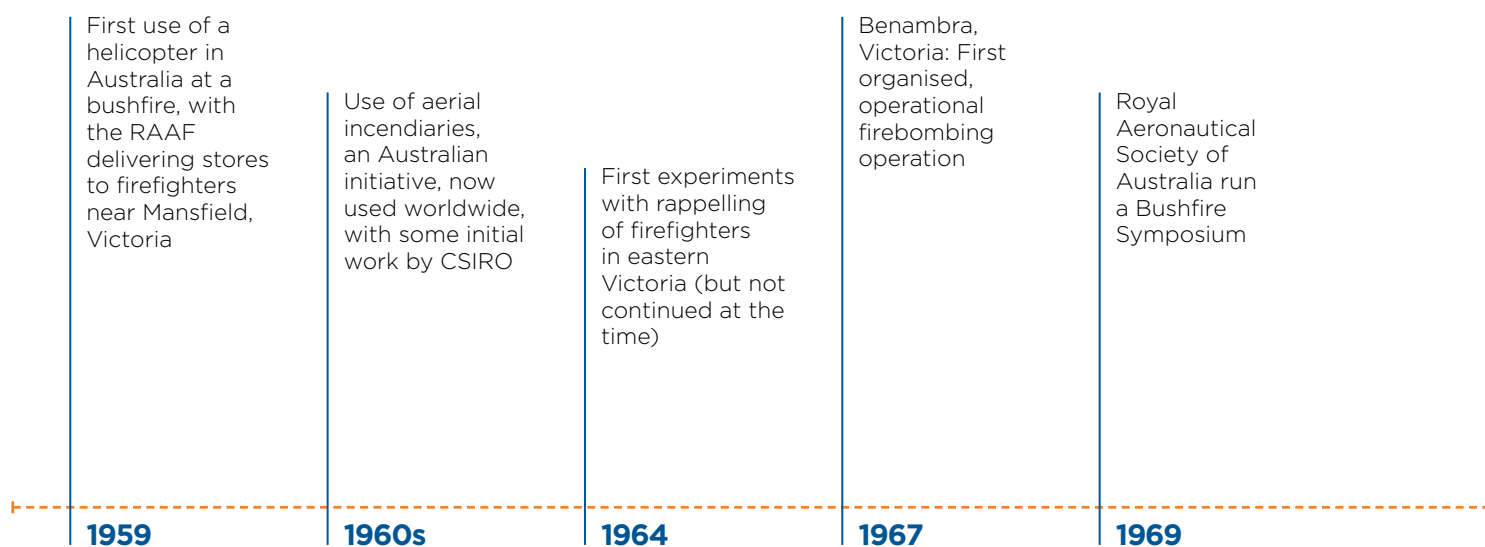
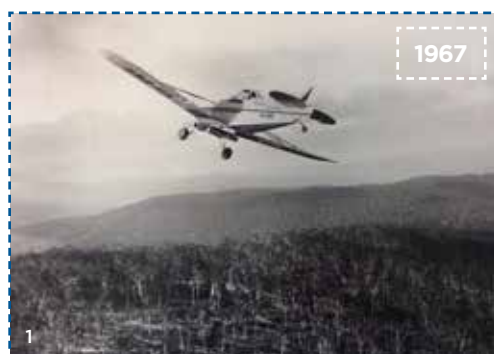
While many of the main direct attack developments over the decades have taken place in New South Wales and Victoria, it is notable that South Australia led the way with semi-automatic dispatch of aircraft assets, while in Western Australia, the generally flatter terrain and a state level air-mindedness (going back to the earliest days of aviation in Australia) meant that aerial surveillance was pioneered as a regular system of fire detection there.

The remarkable expansion of the National Safety Council of Australia's Victorian division in the eighties delivered actual benefits by enabling the testing and trialling of resources that hadn't previously been available. Significantly larger and more capable helicopters were deployed, along with infra red equipment for fire mapping and detection. Rappelling of crews into remote fires with the (then) Forests Commission of Victoria was introduced. These developments proved beneficial to the growing use of aerial firefighting although over-shadowed by financial mismanagement by the NSCA.

Australia is now indeed a global leader, as NAFC General Manager Richard Alder says, in 'cost effective approaches to aerial firefighting' by matching resources to requirements. This has been regularly re-examined by regular international reviews, including the seventies Churchill Fellowship of Conrad Wood to learn from and bring back overseas expertise, and the 2006 NAFC 'Best Practice Visit' tour of the United States, Canada, and France. This has also directly fed into supporting those international links in both directions, exemplified by the public awareness of firefighters going to British Columbia, Canada in this latest northern hemisphere fire season. This was a part of an ongoing loan of expertise and practical assistance in both directions, as well as the same with many other states and nations.

A summary like this can easily give the impression of steady, logical progress achieving greater effective capability over five decades. The origins are often obvious in hindsight, but what is going to develop into an effective useful tool, method or system is usually anything but obvious when first tried. Aerial firefighting development depends on innovation and original thinking from many people and organisations, with numerous, sometimes abortive or inconclusive, trials and live experimentation. From national support at the top levels, right to aircraft operators trying things themselves on fire bases while awaiting the next call, aerial firefighting has always been a challenging and intriguing task. Still built on the same fundamental basis, with aircraft operators around the country providing the foundation, over the last half-century aerial firefighting in Australia has certainly moved from an ad hoc, local effort to a professional, world standard, national approach.

## Australian Aerial Firefighting Timeline



*The Timeline features a selection of notable events, but is not a comprehensive listing. Many trials and experiments were undertaken in earlier years before the operational era highlighted here.*





Conrad Wood's Churchill Fellowship brings back overseas ideas and techniques

Western Australia commence operating their own aircraft for an aerial fire detection and surveillance system

National Safety Council of Australia, Victorian Division: Provides resources previously unavailable including medium helicopters, infra red linescanning, rappelling of crews to remote fires

CSIRO infrared mapping of fires using sensor on Fokker F27

CSIRO's 'Project Aquarius' examines the cost/benefit of aerial firefighting with experiments using test fires on blocks in rural Victoria

First trials of RAAF C130 Hercules with Modular Airborne Firefighting System (MAFFS)

Ash Wednesday: Extensive use of aircraft including the RAAF Hercules with the MAFFS system

1970s

1980s

1981

1981-2

1983

1983-4

1. National Aerial Firefighting Centre 2. Tom Crawford 3. Geoff Goodall 4. South Australia Aviation Museum Collection



Introduction of use of semi-automatic dispatch servicing the Adelaide Hills in South Australia, reducing response times

The fires 'ringing' Sydney resulted in first major aerial firefighting assistance from interstate

Full introduction of high volume helicopters with Erickson AirCranes

Australian firebombing aircraft provide assistance to Indonesia

Use of AirCane 'Elvis' during Sydney bushfire emergency results in huge publicity for aerial firefighting

World leading real time satellite aircraft tracking introduced in Victoria: Resource & Aircraft Tracking System (RATS)

← 1992 1994 1996-7 1997 2000s 2001



Formation of NAFC, integrating a national approach, mainstreaming the sharing aviation resources across Australia

NAFC's 'Best Practice Visit' tour of US, Canada, & France

Establishment of the AFAC Wildfire Aviation Technical Group (WATG, now the Fire and Emergency Aviation Technical Group)

Type 1 helicopter service successfully trialled in WA

NAFC members employ a national standard for tracking and event reporting for firefighting and related operations aircraft

Aircraft used extensively throughout the major bushfire season as an embedded, standard resource

2003

2006

2005-6

2008

2009

2010

6. National Aerial Firefighting Centre 7. Brad Bourke, Department of Biodiversity, Conservation and Attractions, WA  
8. Walt Bilault, McDermott Aviation





9



10



2010

11

Trials of DC-10  
Very Large  
Airtanker (VLAT)

National fleet  
aircraft utilised  
in flood, storm  
response and  
recovery in QLD,  
WA, Victoria &  
NSW

Large fixed-wing  
airtankers (LAT)  
integrated into the fleet

LAT aircraft used across  
several states and  
territories in one day

First production  
version of ARENA  
national, collaborative  
aviation management  
information system  
implemented

Australian  
contracted  
LAT provides  
international  
assistance to  
Indonesia

2010

2010-11

2014-15

2015-16

9. James Kightly 10. Ned Dawson on behalf of the Country Fire Authority, Victoria 11. National Aerial Firefighting Centre

# Special purpose financial report

# Directors' report

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The directors of National Aerial Firefighting Centre ("NAFC") submit herewith the annual financial report of the Company for the financial year ended 30 June 2017. The directors report as follows:

The names of the directors of the Company during or since the end of the financial year are:

## **Name**

- Mr M Ashley (resigned 25 May 2017)
- Ms C Bremner (appointed 25 May 2017)
- Mr J Buffone (resigned 9 August 2016)
- Mr S Fewster
- Mr S Fitzsimmons
- Mr G Freeman
- Mr D Lane
- Mr G Nettleton
- Mr S Warrington (appointed 25 November 2016)
- Mr M Wassing

Directors have been in office since the start of the financial year to the date of this report unless stated otherwise.

## **Chief Executive Officer**

Stuart Ellis held the position of Chief Executive Officer during the whole of the financial year and since the end of the financial year.

## **Company Secretary**

Trevor W Essex held the position of Company Secretary during the whole of the financial year and since the end of the financial year. Mr Essex is a Fellow of CPA Australia, an Associate Member of the Governance Institute and holds a Bachelor of Business (Accounting).

## **Principal activities**

The principal activity of the Company during the financial year was coordinating and managing the acquisition and deployment of a national aerial firefighting fleet. No significant change in the nature of these activities occurred during the year.



### Short and long term objectives of the entity

Objectives of the organisation are defined in the Constitution (revised Nov 2011). The objectives for which the Company has been established are all or any of the following:

- to support collaboration and cooperation between members with respect to the sharing of resources and information for the purposes of fire and emergency management;
- to coordinate and manage the acquisition and deployment of fire and emergency resources and logistical support on behalf of members in order to benefit the community; and
- to raise funds by any lawful means for the achievement of its objects including, without limitation, securing funding from Federal or State Government bodies, or other entities.

### The entity's strategy for achieving its objectives

- Maintain a Funding Agreement (with the Australian Government)
  - A Funding Agreement was executed on 1 July 2013 and maintained throughout 2016/17.
- Maintain a Resource Management Agreement with members
  - A Resource Management Agreement was executed on 1 July 2013 and maintained throughout 2016/17.
- Procure aircraft services and maintain contract supply arrangements (Supply Agreements) with aircraft service suppliers, as required by members
  - Supply Agreements maintained with aircraft operators to supply services (including secondary or reserve agreements).
- Range of other activities to support harmonisation, collaboration, communication and cooperation and to promote best-practice.



### Key performance indicators used by the entity

- NAFC is recognised for its good governance practices:
  - all regulatory requirements are met
  - feedback from stakeholders endorses Company structure, governance and operations
- NAFC structure meets the needs of stakeholders:
  - stakeholder lists are maintained
  - stakeholders continue to resource and support NAFC
  - structure is reviewed and options are considered
- NAFC resource management meets stakeholder expectations:
  - members are satisfied with resource allocation
  - Commonwealth expectations are met
  - members participate in the Aerial Suppression Operations Group
- NAFC risk management is best practice:
  - up-to-date risk register is in place
  - risk plan is reviewed regularly
  - risks are treated
  - standards are benchmarked with industry
- NAFC fosters national collaboration and sharing in support of aerial fire management:
  - NAFC facilitates member participation
- NAFC facilitates continuous improvement and innovation in aerial fire management:
  - NAFC collects and measures data to support evidence-based decisions
  - NAFC contributes to and influences appropriate research and development

### Review of operations

A review of the operations of the Company during the financial year and the results of those operations found that during the year, the Company continued to engage in its principal activity, the results of which are disclosed in the attached financial statements.

The surplus of the Company for the financial year amounted to \$483,850 (2016: \$347,470).

### Changes in state of affairs

There was no significant change in the state of affairs of the Company during the financial year.

### Subsequent events

There has not been any matter or circumstance occurring subsequent to the end of the financial year that has significantly affected, or may significantly affect, the operations of the Company, the results of those operations, or the state of affairs of the Company in future financial years.

### Future developments

The Company expects to maintain the present status and level of operations.

### Environmental regulations

The Company's operations are not regulated by any significant environmental regulation under a law of the Commonwealth or of a State or Territory.

### Dividends

The Company's constitution precludes the directors of the Company from recommending payment of any dividend.

### Information on directors

The information on directors is as follows:

**Mr M Ashley**  
Executive Director  
Bushfires NT  
Department of Environment and Natural Resources

**Ms C Bremner**  
Executive Director  
Bushfires NT  
Department of Environment and Natural Resources

**Mr J Buffone**  
Chief Fire Officer  
Country Fire Authority, Victoria

**Mr S Fewster**  
Deputy Commissioner, Capability Command  
Department of Fire and Emergency Services, Western Australia

**Mr S Fitzsimmons AFSM**  
Commissioner  
New South Wales Rural Fire Service

**Mr G Freeman AFSM**  
Deputy Chief Officer  
Tasmania Fire Service

**Mr D Lane**  
Commissioner  
Australian Capital Territory Emergency Services Agency

**Mr G Nettleton**  
Chief Officer  
South Australian Country Fire Service

**Mr S Warrington**  
Chief Officer  
Country Fire Authority, Victoria

**Mr M Wassing**  
Deputy Commissioner  
Queensland Fire and Emergency Services



#### Meetings of directors

Directors	Number eligible to attend	Number attended
Mr M Ashley	4	3
Ms C Bremner	1	1
Mr J Buffone	0	0
Mr S Fewster	5	2
Mr S Fitzsimmons	5	4
Mr G Freeman	5	5
Mr D Lane	5	4
Mr G Nettleton	5	5
Mr S Warrington	3	1
Mr M Wassing	5	4

#### Member's guarantee

The Company is limited by guarantee. Upon winding up each member is required to contribute a maximum of \$10 towards meeting any outstanding obligations of the company. At 30 June 2017 there were 8 members (30 June 2016: 8).

#### Indemnification of officers and auditors

The Company has provided and paid premiums for Directors' and Officers' Liability insurance. The insurance is in respect of legal liability for damages and legal costs arising from claims made by reason of any omission or acts (other than dishonesty) by them, whilst acting in their individual or collective capacity as Directors or Officers of the Company. The total amount of insurance contract premiums paid during the year was \$6,415 exc GST.

The Company has not otherwise, during or since the financial year, except to the extent permitted by law, indemnified or agreed to indemnify an officer or auditor of the Company or of any related body corporate against a liability incurred as such by an officer or auditor.

#### Proceedings on behalf of the Company

At this time there are no legal proceedings active or pending against NAFC, or in which NAFC is involved. Further, NAFC has not issued any legal proceedings against any entity or individual.

The Company was not a party to any such proceedings during the year.

#### Auditor's independence declaration

A copy of the auditor's independence declaration as required by Subdivision 60-C of the *Australian Charities and Not-for-Profit Commission Act 2012* is set out on page 29.

Signed in accordance with a resolution of the Board of Directors.

On behalf of the Directors

Mr G Nettleton (Chair)  
Director  
Melbourne, 17 August 2017



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17 August 2017

The Board of Directors  
National Aerial Firefighting Centre  
Level 1, 340 Albert Street  
EAST MELBOURNE VIC 3002

Dear Board Members

### **National Aerial Firefighting Centre**

In accordance with Subdivision 60-C of the *Australian Charities and Not-for-Profits Commission Act 2012*, I am pleased to provide the following declaration of independence to the directors of National Aerial Firefighting Centre.

As the lead audit partner for the audit of the financial statements of National Aerial Firefighting Centre for the financial year ended 30 June 2017, I declare to the best of my knowledge and belief, there have been no contraventions of:

- i. the auditor independence requirements of the *Australian Charities and Not-for-Profits Commission Act 2012* in relation to the audit; and
- ii. any applicable code of professional conduct in relation to the audit.

Yours sincerely

*Deloitte Touche Tohmatsu*

DELOITTE TOUCHE TOHMATSU

*Alison Brown*

Alison M Brown  
Partner  
Chartered Accountants

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Member of Deloitte Touche Tohmatsu Limited

## **Independent Auditor's Report to the Members of National Aerial Firefighting Centre**

### **Opinion**

We have audited the financial report, being a special purpose financial report of National Aerial Firefighting Centre, (the "Entity") which comprises the statement of financial position as at 30 June 2017, the statement of profit or loss and other comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information, and the directors' declaration as set out on pages 9 to 21.

In our opinion, the accompanying financial report of the Entity is in accordance with Division 60 of the *Australian Charities and Not-for-profits Commission Act 2012* (the "ACNC Act"), including:

- (i) giving a true and fair view of the Entity's financial position as at 30 June 2017 and of its financial performance for the year then ended; and
- (ii) complying with Australian Accounting Standards to the extent described in Note 3, and Division 60 of the *Australian Charities and Not-for-profits Commission Regulation 2013*.

### **Basis for Opinion**

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Entity in accordance with the auditor independence requirements of the ACNC Act and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the "Code") that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### **Emphasis of Matter – Basis of Accounting**

We draw attention to Note 3 to the financial report, which describes the basis of accounting. The financial report has been prepared for the purpose of fulfilling the directors' financial reporting responsibilities under the ACNC Act. Our report is intended solely for the members of the Entity and the *Australian Charities and Not-for-profits Commission* (ACNC) and should not be distributed to or used by parties other than the members and the ACNC. As a result, the financial report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

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Member of Deloitte Touche Tohmatsu

### **Other Information**

The directors are responsible for the other information. The other information comprises the directors' report for the year ended 30 June 2017, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### **Responsibilities of the directors for the Financial Report**

The directors of the Entity are responsible for the preparation of the financial report that gives a true and fair view and have determined that the basis of preparation described in Note 3 to the financial report is appropriate to meet the requirements of the ACNC Act and the needs of the members. The directors' responsibility also includes such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Entity to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

### **Auditor's Responsibilities for the Audit of the Financial Report**

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.



- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

*Deloitte Touche Tohmatsu*

DELOITTE TOUCHE TOHMATSU

*Alison Brown*

Alison Brown  
Partner  
Chartered Accountants  
Melbourne, 17 August 2017





# Directors' declaration

As detailed in Note 3 to the financial statements, the company is not a reporting entity because in the opinion of the directors there are unlikely to exist users of the financial statements who require information specific to their needs. Accordingly, these special purpose financial statements have been prepared to satisfy the directors' reporting requirements under the *Australian Charities and Not-for-Profits Commission Act 2012*.

The directors declare that:

- (a) in the directors' opinion, there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable; and
- (b) in the directors' opinion, the attached financial statements and notes thereto are in accordance with the *Australian Charities and Not-for-Profits Commission Act 2012*, including compliance with accounting standards and giving a true and fair view of the financial position and performance of the company.

Signed in accordance with a resolution of the directors made pursuant to s.60.15 of the *Australian Charities and Not-for-Profits Commission Regulation 2013*.

On behalf of the Directors



Mr G Nettleton (Chair)  
Director  
Melbourne, 17 August 2017

# Profit or loss and other comprehensive income

## Statement of profit or loss and other comprehensive income for the year ended 30 June 2017

	Note	2017 \$	2016 \$
Revenue	4	16,344,306	16,381,699
Disbursements made under the federal Attorney General's Department Funding Agreement		(14,433,887)	(14,933,889)
AFAC Staff Support and Office expenses		(972,314)	(787,362)
Consultant expenses		(154,513)	(118,499)
Travel expenses		(102,016)	(50,663)
Other expenses		(197,726)	(143,816)
Surplus before tax		483,850	347,470
Income tax expense	3(a)	-	-
<b>Surplus for the year</b>	5	<b>483,850</b>	<b>347,470</b>
<b>Other comprehensive income</b>			
Net fair value gain/(loss) on investments		(18,421)	11,009
<b>Total comprehensive income for the year</b>		<b>465,429</b>	<b>358,479</b>

Notes to the financial statements are included on pages 38 to 45.

# Financial position

## Statement of financial position at 30 June 2017

	Note	2017 \$	2016 \$
<b>Current assets</b>			
Cash and cash equivalents	13(a)	11,104,760	10,463,205
Trade and other receivables	6	317,789	277,187
Goods and services tax recoverable		1,097,183	1,422,966
Other financial assets	7	2,280,149	2,222,516
Other assets	8	6,786	6,271
<b>Total current assets</b>		<b>14,806,667</b>	<b>14,392,145</b>
<b>Non-current assets</b>			
Property, plant and equipment	9	1,092	559
Intangible assets	10	923,527	541,579
Total non-current assets		924,619	542,138
<b>Total assets</b>		<b>15,731,286</b>	<b>14,934,283</b>
<b>Current liabilities</b>			
Trade and other payables	11	11,548,712	11,217,138
<b>Total current liabilities</b>		<b>11,548,712</b>	<b>11,217,138</b>
<b>Total liabilities</b>		<b>11,548,712</b>	<b>11,217,138</b>
<b>Net assets</b>		<b>4,182,574</b>	<b>3,717,145</b>
<b>Equity</b>			
Fair value reserve		13,522	31,943
Retained earnings		4,169,052	3,685,202
<b>Total equity</b>		<b>4,182,574</b>	<b>3,717,145</b>

Notes to the financial statements are included on pages 38 to 45.

# Changes in equity

## Statement of changes in equity for the year ended 30 June 2017

	Fair value reserve \$	Retained earnings \$	Total \$
Balance at 1 July 2015	20,934	3,337,732	3,358,666
Surplus for the year	-	347,470	347,470
Net fair value gain on investments	11,009	-	11,009
Total comprehensive income for the year	11,009	347,470	358,479
<b>Balance at 30 June 2016</b>	<b>31,943</b>	<b>3,685,202</b>	<b>3,717,145</b>
Surplus for the year	-	483,850	483,850
Net fair value loss on investments	(18,421)	-	(18,421)
Total comprehensive income for the year	(18,421)	483,850	465,429
<b>Balance at 30 June 2017</b>	<b>13,522</b>	<b>4,169,052</b>	<b>4,182,574</b>

Notes to the financial statements are included on pages 38 to 45.

# Cash flows

## Statement of cash flows for the year ended 30 June 2017

	Note	2017 \$	2016 \$
<b>Cash flows from operating activities</b>			
Receipts from Members		364,679	360,000
Operating grant receipts and other revenue		15,986,603	15,779,049
Supply agreement disbursements		(14,433,887)	(18,181,313)
Payments to suppliers and employees		(1,020,027)	(1,063,087)
Interest received		197,965	201,461
Net cash generated by/(used in) operating activities	13(b)	1,095,333	(2,903,890)
<b>Cash flows from investing activities</b>			
Payments to acquire financial assets		(76,054)	(64,420)
Investment distributions		80,240	100,084
Purchase of property, plant and equipment		(1,178)	-
Purchase of intangible assets		(456,786)	(291,758)
Net cash used in investing activities		(453,778)	(256,094)
<b>Net increase/(decrease) in cash and cash equivalents</b>		641,555	(3,159,984)
<b>Cash and cash equivalents at the beginning of the year</b>		10,463,205	13,623,189
<b>Cash and cash equivalents at the end of the year</b>	13(a)	<b>11,104,760</b>	<b>10,463,205</b>

Notes to the financial statements are included on pages 38 to 45.



# Notes to the financial statements

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## 1. General information

National Aerial Firefighting Centre is a company limited by guarantee, incorporated and domiciled in Australia.

National Aerial Firefighting Centre's registered office and its principal place of business are as follows:

Level 1, 340 Albert Street  
EAST MELBOURNE VIC 3002

## 2. Adoption of new and revised Accounting Standards

### 2.1 New and revised AASBs affecting amounts reported and/or disclosures in the financial statements

In the current year, the Entity has applied a number of amendments to AASBs and a new Interpretation issued by the Australian Accounting Standards Board (AASB) that are mandatorily effective for an accounting period that begins on or after 1 July 2016, and therefore relevant for the current year end.

AASB 2014-4 Amendments to Australian Accounting Standards – Clarification of Acceptable Methods of Depreciation and Amortisation

The amendments to AASB 116 *Property, Plant and Equipment* prohibit entities from using a revenue-based depreciation method for items of property, plant and equipment. The amendments to AASB 138 *Intangible Assets* introduce a rebuttable presumption that revenue is not an appropriate basis for amortisation of an intangible asset.

As the company already uses straight-line method for depreciation and amortisation for its property, plant and equipment, and intangible assets respectively, the application of these amendments has had no impact on the company's financial statements.

AASB 2015-1 Amendments to Australian Accounting Standards – Annual Improvements to Australian Accounting Standards 2012-2014 Cycle

Amends a number of pronouncements as a result of the IASB's 2012-2014 annual improvements cycle.

The application of these amendments has had no effect on the company's financial statements.

AASB 2015-2 Amendments to Australian Accounting Standards – Disclosure Initiative: Amendments to AASB 101

The amendments clarify that an entity need not to provide a specific disclosure required by an AASB if the information resulting from that disclosure is not material, and give guidance on the basis of aggregating and disaggregating information for disclosure purposes.

The application of these amendments has not had a material presentation impact on the financial performance or financial position of the company.

# Notes to the financial statements

## 2. Adoption of new and revised Accounting Standards (cont'd)

### 2.2 Standards and Interpretations in issue not yet adopted

At the date of authorisation of the financial statements, the Standards and Interpretations listed below were in issue but not yet effective.

Standard/Interpretation	Effective for annual reporting periods beginning on or after	Expected to be initially applied in the financial year ending
AASB 9 Financial Instruments	1 January 2018	30 June 2019
AASB 15 Revenue from Contracts with Customers, AASB 2014-5 Amendments to Australian Accounting Standards arising from AASB 15, AASB 2015-8 Amendments to Australian Accounting Standards – Effective date of AASB 15, 2016-3 Amendments to Australian Accounting Standards – Clarifications to AASB 15	1 January 2018	30 June 2019
AASB 16 Leases	1 January 2019	30 June 2020
AASB 2016-2 Amendments to Australian Accounting Standards – Disclosure Initiative: Amendments to AASB 107	1 January 2017	30 June 2018
AASB 2017-2 Amendments to Australian Accounting Standards – Further Annual Improvements 2014-2016 Cycle	1 January 2017	30 June 2018

The potential effect of the revised Standards/Interpretations on the Company's financial statements has not yet been determined.

# Notes to the financial statements

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## 3. Significant accounting policies

### Financial reporting framework

The company is not a reporting entity because in the opinion of the directors there are unlikely to exist users of the financial report who require information specific to their needs. Accordingly, these special purpose financial statements have been prepared to satisfy the directors' reporting requirements under the *Australian Charities and Not-for-Profits Commission Act 2012*.

For the purposes of preparing this financial report, the company is a not for profit entity.

### Statement of compliance

The financial statements have been prepared in accordance with the *Australian Charities and Not-for-Profits Commission Act 2012*, the basis of accounting specified by all Australian Accounting Standards and Interpretations, and the disclosure requirements of Accounting Standards AASB 101 'Presentation of Financial Statements', AASB 107 'Cash Flow Statements', AASB 108 'Accounting Policies, Changes in Accounting Estimates and Errors' and AASB 1054 Australian Additional Disclosures.

### Basis of preparation

The financial statements have been prepared on the basis of historical cost, except for the revaluation of certain non-current assets and financial instruments. Cost is based on the fair values of the consideration given in exchange for assets. All amounts are presented in Australian dollars, unless otherwise noted.

### Critical accounting judgments and key sources of estimation uncertainty

In the application of the company's accounting policies, which are described below, the directors are required to make judgments, estimates and assumptions about carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The following significant accounting policies have been adopted in the preparation and presentation of the financial statements:

#### (a) Income Tax

The company is exempt from income tax under Subdivision 50-B of the Income Tax Assessment Act 1997.

#### (b) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, cash in banks and investments in money market instruments net of outstanding bank overdrafts.

#### (c) Revenue

Government grants are assistance by the government in the form of transfers of resources in return for past or future compliance with certain conditions relating to the operating activities of the entity. Government grants, when there is a non-reciprocal transfer, are recognised as income when the Company obtains control or the right to receive a contribution, it is probable that the economic benefits comprising the contribution will flow to the Company and the amount of the grant can be measured reliably.

Other revenue is recognised when the right to receive the revenue has been established.

Interest revenue is recognised on a time proportionate basis that takes into account the effective yield on the financial asset.

All revenue is stated net of the amount of goods and services tax (GST).

# Notes to the financial statements

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## **(d) Goods and Services Tax (GST)**

Revenues, expenses and assets are recognised net of the amount of goods and services tax (GST), except:

- where the amount of GST incurred is not recoverable, from the taxation authority, it is recognised as part of the cost of acquisition of an asset or as part of an item of expense; or
- for receivables and payables which are recognised inclusive of GST.

The net amount recoverable from, or payable to, the taxation authority is included as part of receivables or payables.

## **(e) Payables**

Trade payables and other accounts payable are recognised when the entity becomes obliged to make future payments resulting from the purchase of goods and services.

## **(f) Plant and equipment**

Plant and equipment are stated at cost less accumulated depreciation.

Depreciation is calculated on a straight-line basis so as to write off the net cost or other revalued amount of each asset over its expected useful life to its estimated residual value. The estimated useful lives, residual values and depreciation method are reviewed at the end of each annual reporting period, with the effect of any changes recognised on a prospective basis.

The gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

The following useful lives are used in the calculation of depreciation:

Plant and equipment                      2 – 5 years

## **(g) Financial Assets**

Investments are recognised and derecognised on trade date where purchase or sale of an investment is under a contract whose terms require delivery of the investment within the timeframe established by the market concerned, and are initially measured at fair value, net of transaction costs.

Other financial assets are classified into the following specified categories: financial assets 'at fair value through profit or loss', 'held-to-maturity' investments, 'available-for-sale' financial assets, and 'loans and receivables'. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

### *Effective interest method*

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees on points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis for debt instruments other than those financial assets 'at fair value through profit or loss'.

### *AFS financial assets*

AFS financial assets are non-derivatives that are either designated as AFS or are not classified as (a) loans and receivables, (b) held-to-maturity investments or (c) financial assets at fair value through profit or loss.

Units in managed funds held by the Company that are traded in an active market are classified as AFS and are stated at fair value. Gains and losses arising from changes in fair value are recognised in other comprehensive income and accumulated in the investments revaluation reserve, with the exception of impairment losses, interest calculated using the effective interest method, and foreign exchange gains and losses on monetary assets, which are recognised in profit or loss. Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss.

# Notes to the financial statements

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Dividends on AFS equity instruments are recognised in profit or loss when the Company's right to receive the dividends is established.

## *Held to maturity investments*

Bank bills and other deposits with fixed or determinable payments and fixed maturity dates where the Company has the positive intent and ability to hold to maturity are classified as held to maturity investments. Held to maturity investments are recorded at amortised cost using the effective interest method less impairment, with revenue recognised on an effective yield basis.

## *Loans and receivables*

Trade receivables, loans, and other receivables are measured at amortised cost using the effective method less impairment.

## *Impairment of financial assets*

Financial assets are assessed for indicators of impairment at each reporting date. Financial assets are impaired where there is objective evidence that as a result of one or more events that occurred after the initial recognition of the financial asset the estimated future cash flows of the investment have been impacted.

## *Derecognition of financial assets*

The entity derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the entity neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the entity recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the entity retains substantially all the risks and rewards of ownership of a transferred financial asset, the entity continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

## **(h) Intangible Assets**

### *Internally-generated intangible assets - research and development expenditure*

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development (or from the development phase of an internal project) is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognised, development expenditure is recognised in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

The following useful lives are used in the calculation of amortisation:

Software                      10 years

### *Derecognition of intangible assets*

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset are recognised in profit or loss when the asset is derecognised.



# Notes to the financial statements

	2017 \$	2016 \$
<b>4. Revenue</b>		
Operating grants – Attorney General’s Department	14,804,000	15,304,000
Fees collected from Members	364,679	360,000
Investment income	80,240	100,084
Interest received	197,965	201,461
Other revenue	897,422	416,154
	16,344,306	16,381,699
<b>5. Surplus for the year</b>		
Surplus for the year has been arrived at after charging the following items of expense:		
Depreciation expense	(645)	(604)
Amortisation expense	(74,838)	(37,156)
<b>Remuneration of the auditors for:</b>		
Audit services <i>The auditor of the company is Deloitte Touche Tohmatsu</i>	(9,500)	(6,200)
<b>6. Trade and other receivables</b>		
Trade receivables and other receivables	305,579	264,977
Related party receivables	12,210	12,210
	317,789	277,187
<b>7. Other financial assets</b>		
Available for sale investments carried at fair value	2,280,149	2,222,516
	2,280,149	2,222,516

# Notes to the financial statements

	2017 \$	2016 \$
<b>8. Other assets</b>		
Prepayments	6,786	6,271
<b>9. Plant and equipment</b>		
Plant and equipment at cost	4,093	2,915
Accumulated depreciation	(3,001)	(2,356)
	1,092	559
<b>10. Intangible Assets</b>		
Software at cost	1,035,521	578,735
Accumulated amortisation	(111,994)	(37,156)
	923,527	541,579
<b>11. Trade and other payables</b>		
Trade payables	6,975,787	8,950,182
GST payable	55,980	175,486
Accruals	4,024,606	1,096,834
Prepaid fees from Members	372,339	364,679
National Aircraft Registry	120,000	400,000
National Resource Sharing Centre	-	229,957
	11,548,712	11,217,138

## 12. Economic dependency

The majority of revenue is received by way of recurrent grants from the Commonwealth Government.

# Notes to the financial statements

## 13. Cash and cash equivalents

### (a) Reconciliation of cash and cash equivalents

For the purposes of the cash flow statement, cash and cash equivalents includes cash on hand and in banks and investments in money market instruments, net of outstanding bank overdrafts. Cash and cash equivalents at the end of the financial year as shown in the cash flow statement is reconciled to the related items in the balance sheet as follows:

	2017 \$	2016 \$
Cheque account	3,732,264	10,027,580
Term deposits	7,372,496	435,625
	11,104,760	10,463,205

### (b) Reconciliation of surplus for the year to net cash flows from operating activities

	2017 \$	2016 \$
Surplus for the year	483,850	347,470
Depreciation and amortisation	75,483	37,760
Investment distributions recognised through profit or loss	(80,240)	(100,084)
<i>Movement in working capital</i>		
(Increase)/decrease in assets:		
Trade and other receivables	(40,602)	94,599
Goods and services tax recoverable	325,783	(35,704)
Other assets	(515)	(507)
Increase/(decrease) in liabilities:		
Trade and other payables	331,574	(3,247,424)
Net cash generated by/(used in) operating activities	1,095,333	(2,903,890)

## 14. Member's guarantee

The company is limited by guarantee. Upon winding up each member is required to contribute a maximum of \$10 towards meeting any outstanding obligations of the company. At 30 June 2017 there were 8 members (2016: 8).

## 15. Subsequent events

There are no significant events subsequent to the reporting date.



**Stuart Ellis**  
NAFC Chief Executive  
Officer



**Richard Alder**  
NAFC General Manager

#### Members as at 30 June 2017

Australian Capital Territory  
Northern Territory  
State of New South Wales  
State of Queensland  
State of South Australia  
State of Tasmania  
State of Victoria  
State of Western Australia

#### Company Directory

National Aerial Firefighting Centre  
ACN 105 736 392  
ABN 96 105 736 392

#### Registered Address

Level 1, 340 Albert Street  
EAST MELBOURNE VICTORIA 3002

#### Auditor

Deloitte Touche Tohmatsu  
550 Bourke Street  
MELBOURNE VICTORIA 3000

This report has been prepared in accordance with Section 9 of the NAFC Constitution while satisfying the reporting requirements of the *Australian Charities and Not for Profits Commission Act 2012* (Cth). It also satisfies, in part, the requirements of Section 9 of the Funding Agreement between the Commonwealth of Australia and NAFC.

#### Contact Information

Postal: Level 1, 340 Albert Street  
EAST MELBOURNE VICTORIA 3002  
  
Phone: 03 9419 2388  
Email: [info@nafc.org.au](mailto:info@nafc.org.au)  
Website: [www.nafc.org.au](http://www.nafc.org.au)  
Twitter: @nafcaus

#### Directors as at 30 June 2017



**Mr Stephen Fewster**  
Deputy Commissioner –  
Capability Command,  
Department of Fire and  
Emergency Services,  
Western Australia



**Mr Shane Fitzsimmons AFSM**  
Commissioner  
New South Wales  
Rural Fire Service



**Mr Steven Warrington**  
Chief Fire Officer  
Victorian Country Fire  
Authority



**Mr Gavin Freeman AFSM  
FIFireE**  
Deputy Chief Officer  
Tasmania Fire Service



**Mr Michael Wassing AFSM**  
Deputy Commissioner  
Queensland Fire and  
Emergency Services



**Mr Dominic Lane**  
Commissioner  
Australian Capital Territory  
Emergency Services Agency



**Ms Collene Bremner**  
Executive Director  
Northern Territory  
Bushfires NT



**Mr Greg Nettleton**  
Chief Officer and Chief  
Executive Officer  
South Australian  
Country Fire Service



NAFC would like to thank the following people for their photo and illustration contributions to the 2016-17 Annual Report:

Inside front cover  
and contents page: Wayne Rigg, Country Fire Authority, Victoria

Page 9: David Brown via New South Wales Rural Fire Service

Page 10 & 11: Liam Davis via FieldAir

Page 14-15 fold out: Illustrations by Bill Dady (Clavework Graphics)

Page 17: Air Affairs

Page 18: New South Wales Rural Fire Service

Page 26: Wayne Rigg, Country Fire Authority, Victoria

Page 28: Grant Roberson via Truenorth Helicopters

Page 33: Dunn Aviation

Page 47: McDermott Aviation





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East Melbourne VIC 3002

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