

*The*  
*Flying Surgeon Service*

*Longreach, Queensland*

**1959 - 2000**

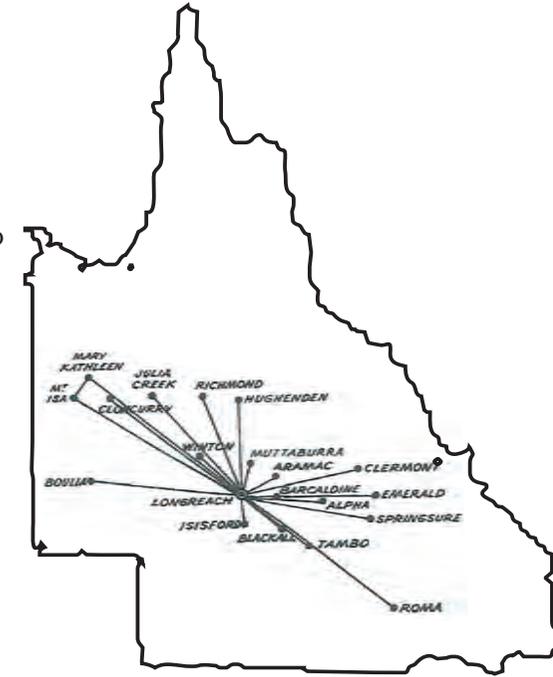
**by Ron Entsch 2006**

# THE FLYING SURGEON SERVICE

THE SERVICE, BASED AT LONGREACH IN CENTRAL QUEENSLAND, WAS UNDER CONTRACT TO THE QUEENSLAND DEPARTMENT OF HEALTH TO HAVE A SURGEON REGULARLY VISIT INLAND HOSPITALS AND TO OPERATE AND ASSIST LOCAL DOCTORS.

THE SURGEON VISITED UP TO 25 COUNTRY HOSPITALS WITH 16 TO 80 BEDS, COVERING AN AREA OF 200,000 SQUARE MILES, ABOUT ONE-THIRD OF QUEENSLAND AND GREATER THAN THE BRITISH ISLES.

IN THE FIRST 21 YEARS THE SURGEONS HAD PERFORMED 15,600 OPERATIVE PROCEDURES OF WHICH NEARLY 2,000 WERE EMERGENCIES, AND 37,400 PATIENTS WERE SEEN IN CONSULTATION.



Flying Surgeon team members conferring beside their first all-weather aircraft Cessna 310B VH-BPS, parked in front of the original QANTAS hangar at Longreach which is now in the care of the Qantas Founders Outback Museum.

LtoR: Pilot John Bartrum, Surgeon Dr Chris Cummins, F.R.C.S (Ed), F.R.A.C.S, the world's first flying surgeon, and Anaesthetist Dr Wally Biggs, M.B., B.S. These doctors started the Flying Surgeon Service in 1959, with a single-engine Cessna 182 capable of flying only in daylight hours and fair weather conditions. Dr Cummins retired in 1965.



Dr Leaming with a country patient. Patients were prepared for surgery, in readiness for the flying surgeon, by local medical staff. Local, inexperienced doctors welcomed the Service and learned, in practice, from the Surgeon.



The Flying Surgeon team parked next to a Trans Australia Airlines Fokker Friendship before leaving for a hospital visit.

LtoR: Pilot John Bartrum, Surgeon Dr Donald Leaming, M.S., F.R.C.S., F.R.A.C.S., who served from 1965 to 1969, and Anaesthetist Dr Graham Smith, M.B., B.S.



Welcoming the latest Cessna 310 VH-BPI for the Flying Surgeon Service were LtoR: Sir Sydney Williams O.B.E. Chairman of Bush Pilots Airways Ltd, Dr Llew Edwards Deputy Premier of Queensland and Minister for Health whose department provided the Service, and Flying Surgeon Dr A.C.M (Tony) Paul, F.R.A.C.S, A.M., O.A.M., who served from 1969 until he retired in 1998, almost 30 years.

In 1980 a second aircraft was based at Roma to assist the Longreach surgeon. Re-named Air Queensland in 1981, and taken over by T.A.A. in 1985, Bushies ceased operating the service in 1987, after 28 years.

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## **The Flying Surgeon Service**

### **Preface**

This history was compiled for the Qantas Founders Outback Museum at Longreach as a recognition of the dedication and service to the residents of outback Queensland provided by a succession of flying surgeons who were based in Longreach and with whom the author, Ron Entsch, had a close contact during his service (1959-1984) with Bush Pilots Airways which won and held the successive State government contracts for 28 years, from the inception of the unique service.

Dr Chris Cummins	1959 – 1965
Dr Don Leaming	1965 – 1969
Dr Tony Paul	1969 – 1980 Longreach
	1980 – 1998 Roma
Dr Ross Finnemore	1980 – 1988 Longreach

### **Introduction**

The unique Flying Surgeon Service started in June 1959, using the QANTAS hangar at Longreach as its airport base. A single engine Cessna 182 was contracted from Bush Pilots Airways (BPA) by the Queensland Department of Health to fly a surgeon and an anaesthetist to more than 20 country towns in inland Queensland.

No other surgeon in the world would have a practice covering an area about three times the size of Victoria, or larger than the British Isles. To the flying surgeon, flying 1,000 miles in a day was no rarity, especially when he had an emergency flight added to a full day's operating at one of the hospitals.

### **Scope of the Service**

In its first 21 years (1959 – 1980), the Longreach-based flying surgeon had performed 15,600 operative procedures, nearly 2,000 of which were emergencies; 37,400 patients had been seen in consultation, 12,050 hours had been spent in the air, and over 1.9 million miles were flown. In November 1980, another team was based at Roma, with two flying surgeons providing virtually all the surgery in remote areas of Queensland whether by deed or in consultation.

The towns visited included Alpha, Aramac, Barcaldine, Blackall, Boulia, Clermont, Cloncurry, Collinsville, Emerald, Hughenden, Isisford, Julia Creek, Muttaborra, Mitchell, Quilpie, Richmond, Roma, Springsure, Surat, Injune and Winton.

The hospitals were small, from 16 to 80 beds, and facilities varied accordingly. But they were well equipped with air-conditioned operating theatres adequate for major surgery. During the first five years of the Service, all of the hospitals underwent major building improvements, and were provided with additional surgical and radiological equipment. Another duty of the flying surgeon was to report to the Health Department on each hospital's standards.

### **Conception of the Service**

These hospitals had one doctor and no specialist services. The doctor's nearest colleague may be at least 100 miles away. Thus the problem of a major surgical emergency was hard to solve. Have a risky evacuation of the patient? Or, have an inexperienced doctor perform an operation with a dubious outcome?

The solution was conceived by Dr Harry Noble, who was then the State Minister of Health. He visited the remote hospitals and asked the doctors, many of them young and inexperienced, what they thought was required to improve medical services in rural areas. All of them wanted a surgeon. So the novel idea of flying a surgeon to their patients was developed. The Director-General of Medical Services, Dr (later Sir) Abraham Fryberg was responsible for implementing Dr Noble's solution, in 1959.

A government contract was let and an aircraft acquired for the first flying surgeon, Dr Christopher F.A. Cummins, F.R.C.S. (Ed), F.R.A.C.S., and his anaesthetist, Dr Walter W. Biggs, M.B., B.S., to travel to and from work each day. The first pilot was Captain Dick Sara. Only one pilot was required under the contract and during weekdays he would fly the team as programmed: but would be on standby at all times in case of a medical emergency. As the task expanded, this proved to be extremely onerous and stressful.

### **Flying by Day**

The aircraft and pilot were only able to fly under Visual Flight Rules (VFR) which was a limitation when emergencies arose. VFR precluded flying at night or in bad weather. However, the civil aviation regulations allowed a pilot to deviate from the

statutory flying and duty time limits by declaring a “medical emergency” flight provided that normality and statutory rest periods were restored when the emergency ended.

In accordance with a normal schedule, patients would be prepared for their operations in advance by the local medical staff. Hence the reliability of the aircraft was important. On arrival, the team would be met and driven to the hospital, where the surgeon and anaesthetist would “scrub up” and the pilot would find a quiet place to rest until all of the operations were complete. Then the team would fly home to Longreach, to be ready to fly out again the next day, subject to weather.

Thus it was possible for the sick and injured to stay close to home, providing significant social and economics benefits which were seldom heralded. Unlike the Royal Flying Doctor Service, which enjoyed extensive public exposure, the Flying Surgeon Service quietly went about its business. As it was funded wholly by the Queensland Government it did not advertise or seek public sponsors and donations.

As the demand increased, it was essential that the surgeon spend less time in the air and more time at the hospitals. In order to do this, he needed a faster aircraft and one that could fly in all weather, by Instrument Flight Rules (IFR). This necessitated an upgrade to a larger twin-engine IFR-equipped aircraft with a pilot trained and qualified to fly on instruments, at night and in foul weather.

This upgrade alleviated the situation when an emergency occurred in the middle of the night at any of the remote towns, causing the schedule for the next day to be thrown into turmoil because of the pilot’s mandated rest period. It was difficult to

catch up on the schedule causing inconvenience to the patients who had been prepared for surgery.

The surgeon's case for the Service to be upgraded received government approval, and then began the process of issuing a revised contract for the IFR aircraft.

### **Flying by Night**

Night flights were sometimes necessary. Some of the airstrips were equipped with landing lights and a navigational aid. But, where there were no landing lights, paraffin flares or car headlights were used. Help was brought quickly to the beleaguered doctor who may be facing a major surgical emergency entirely on his own.

The faster, all-weather twin-engine aircraft selected for the revised contract was an IFR Cessna 310B, purchased by Bush Pilots Airways when it had won the renewal of the revised contract. The aircraft was registered VH-BPS and went into service in February 1961.

With no major engineering facilities in Longreach, about every 3-4 months, the aircraft was ferried to Bush Pilots' Cairns or Brisbane engineering facility to have its mandatory 100 hourly maintenance checks carried out along with occasional major inspections of components. During this time a replacement aircraft was substituted.

Coincidentally, at the larger facilities, the pilot was able to undertake instrument flight training to ensure competency at night flying. The competency and efficiency of the

pilot and the aircraft was an integral part of the flying surgeon team and its ultimate performance upon which so many outback people relied.

### **First Five Years**

June 1, 1964, saw the completion of the first five years' work of the Flying Surgeon Service, and with close to half a million miles covered in this time. It was apparent that Dr Noble's successful experiment became established as an integral part of the government medical services in Queensland, providing consultant surgical services to 24 hospitals and 33 doctors in the west of Queensland.

The object of this Service was always to give clinical support to isolated practitioners and, as far as practicable, to enable patients to receive major surgery in their home towns near to their relatives, thus avoiding the expense, separation and inconvenience of a trip of up to a thousand miles to a major coastal hospital.

### **One Pilot's Perspective**

The team endeavoured to give a service which was as fast as, or faster than, metropolitan services. For example, six hospitals were within 35 minutes flying time from Longreach, which compared more than favourably with the time it took to reach a major hospital in Brisbane during peak-hour traffic. One patient was severely injured in a gelignite explosion at Winton, 106 miles from Longreach. From the time when the telephone call was received by the team, to the time when the surgeon entered Winton hospital, 59 minutes had elapsed.

Another emergency was a severe head injury at Barcaldine. The surgeon took exactly 29 minutes to cover the 65 miles and be in the operating theatre.

One of the longest days started at first light at Mary Kathleen where the surgeon had landed the previous night, just on last light. Next morning the team had flown to nearby Cloncurry to refuel, and took-off for Quilpie, 760 kms south, the flight being negotiated for the latter part in a bedourie (dust storm). At Quilpie an operation was performed and the team then proceeded to Collinsville, another 760 kms to the north east, through storm weather activity. They had intended to stay at Collinsville that night but had to return to Longreach, 490 kms to the south-west, because of an emergency there. They had to retrace their steps through the storm front (which had built up considerably in the meantime), to land at Longreach, in the dark, after some 7 hours and 45 minutes of flying time.

The pilots assigned to the Service soon learned that the flying surgeon's work embraced the whole field of surgery, and that he had to be thoroughly experienced. Also, he had to be a man of great mental and physical endurance to stand up to the constant travel day and night. Some flights were quite uncomfortable in turbulent weather conditions. On those occasions he was unable to use 'in air' time to do paper-work, or correspond using his portable typewriter.

Further, the surgeon had to be a student of human nature and, above all, a man of sound common sense. His decision to go to a certain case when there were two or

more emergencies was weighed against the experience and the facilities of the hospitals concerned.

Every three to four months, when the aircraft underwent its periodic maintenance check, the surgeon and his anaesthetist took a welcome few days' break on the coast. However, the team always remained 'on duty' in the event of an emergency and, under the contract provisions, a replacement aircraft was required to be on standby.

### **Aircraft Upgrade**

The surgeon sought the ability to transfer seriously ill patients from the smaller hospitals back to the Longreach hospital, in his aircraft. The existing Cessna 310B aircraft VH-BPS was incapable of loading a stretcher patient. Consequently, the next contract renewal included a specification for the aircraft to have this capability.

In 1967, Bush Pilots was again successful in its contract bid, based on a later model Cessna 310K aircraft, registered VH-BPA. It had been purchased in Puerto Rico and was ferried across the U.S.A. and the Pacific Ocean to its new home.

This aircraft was more modern and a little faster. It was fitted with a large baggage door through which a stretcher-patient could be loaded, tie down points in the floor of the cabin secured the stretcher. It was carried, folded, in a wing locker and could be installed in a few minutes when necessary; but it was seldom used.

Subsequent contract renewals specified aircraft with improved performance, such as having pressurization, higher speeds, longer range and greater payload.

Bush Pilots ended its association in 1987, after 28 years of being a member of the Flying Surgeon Service team. Subsequently, other operators successfully tendered for the government contract but none was to maintain such a close and effective relationship as that which Bush Pilots developed with the various surgeons.

### **The Surgeons**

After six years, the first flying surgeon Dr Chris Cummins retired. He was succeeded in mid-1965 by Dr Don Leaming, M.S., F.R.C.S., F.R.A.C.S., who returned to private practice in Brisbane after serving in Longreach for four years. Whilst there, Dr Leaming was joined by anaesthetist Dr Graham Smith, M.B., B.S. who replaced Dr Wally Biggs, the first flying anaesthetist.

In April 1969 Dr A.C.M. (Tony) Paul, F.R.A.C.S., resident surgical registrar at the Cairns Base Hospital, was appointed flying surgeon. In 1980 he re-located to Roma when the second aircraft was introduced. Dr Paul retired in September 1998, after almost thirty years of continuous medical service to outback communities. He was awarded an O.A.M (Medal of the Order of Australia) and an A.M. (Member of the Order of Australia). Though he was not a Rotarian, Dr Paul was awarded Rotary's prestigious *Paul Harris Fellowship*.

In 1980 when Dr Paul re-located to Roma, his replacement at Longreach was Dr Ross Finnemore, B.DSc., M.B., B.S., F.R.C.S. (Eng), F.R.A.C.S. who served until 1988.

Dr Finnemore attended the hospitals adjacent to and to the east and north of Longreach, whilst Dr Paul attended to those adjacent to Roma and to the south and west. More than half of outback Queensland had a remarkable mantle of medical expertise.

In 1970, Dr Leaming provided a comprehensive report to *The Medical Journal of Australia* and the following excerpts provide intimate details of the Service and an understanding of its operation:

#### Flying

*The flying conditions are generally good, but turbulence may be severe. The temperature ranges from below freezing in winter to well over the century in summer. Dust reduces visibility on occasions to such an extent that flights have to be made on instruments. Maintaining the aircraft and its sophisticated electronic equipment in these conditions in the relative isolation of the bush presents great problems. Time is set aside for regular routine inspections and maintenance, but delays due to unserviceability occur from time to time.*

#### Work

*Each hospital has a routine visit from the Flying Surgeon each month. A few days before the visit the local doctor phones the surgeon and discusses the patients likely to be operated upon who have been seen in consultation at a previous visit. An estimated time of arrival is agreed so that the doctor can meet the surgeon at the airstrip. The patients for operation are examined in consultation with the anaesthetist and the local doctor, and any problems of management are discussed.*

*Between operations the surgeon examines in-patients and out-patients in consultation with the doctor. If any patient who requires an operation on a future occasion is an anaesthetic risk, the anaesthetist*

*examines him at that time and a plan of campaign is arranged to minimize that risk. The local doctor assists the surgeon with the major operations, but where possible, the surgeon assists the local doctor.*

*The range of routine work is wide and includes some orthopaedics, gynaecology, operative obstetrics, and urology in addition to general surgery. The post-operative care is in the hands of the local doctor who has immediate access to the surgeon by telephone. If any complication occurs the doctor immediately informs the surgeon.*

*The Service is on call night and day at all times for emergencies. If the matter is very urgent the surgeon may be contacted in flight through the radio facilities of the Department of Civil Aviation. If an immediate visit is necessary, routine work is abandoned. If the matter is not so urgent but requires a call that day, the routine work may be completed before leaving. In addition to the urgent cases, time has to be found to see those patients who do not require an immediate visit but whose condition is moderately urgent. The scope of the emergency work is wider than that of the routine work, as there may be not time to transfer patients for specialized emergency treatment.*

#### Telephone Consultations

*A great deal of help is given to the doctors in the area by telephone consultation. The surgeon is always available, night and day, to discuss any problems. The doctors and the surgeon get to know each other well and there is a good rapport. The surgeon decides the outcome of each consultation.*

*Many of the doctors in the towns visited are young and relatively inexperienced, and they appreciate a shoulder to lean on. When they first arrive in a country town, they are pleased to find that they can contact the surgeon at any time for any reason, and the sense of isolation and helplessness is to some extent relieved.*

*Each visit is a stimulus to the doctor and the staff and is a welcome change from the normal routine of the hospital, despite the work involved. The gratitude of the solitary doctor in the bush as he welcomes the Flying Surgeon can be imagined.*

Difficulties

*The surgeon has to be adaptable and must have training and experience to make him an adequate performer in a wide spectrum of surgery. The travelling is tiring and the work would be impossible for anyone who did not like flying. The hours are long and when a 'burst' of emergencies occurs the work can be very hard indeed.*

*The anaesthetist must be confident and competent to handle all types of patients from neonates to nonagenarians. He may have to anaesthetise sick patients with a minimum of assistance and special aids. He has to work quickly and have the patients fully awake at the end of the operation.*

*The pilot must be prepared to be on call at one hour's notice at all times of the day and night. He must be qualified and capable of flying about the rather featureless country. It is important that the members of the team be compatible. They work closely together and the efficiency of the Service depends upon mutual respect and friendship.*

*Each hospital keeps a small amount of blood, and donors are bled every one or two weeks. The blood is kept in a special blood bank refrigerator and if it is not used it is sent by air to Brisbane before the expiry date. In the big cities the supply of blood is taken for granted, but in small communities it is easy to exhaust the reservoir of rarer types of blood. In emergencies in which the patient's blood group is not known or when there is no supply of the necessary blood, group O blood cross matched by the doctor is used.*

*Shortages of nursing staff are common during the hot months. When the staff situation is unsatisfactory, routine work is cancelled. Emergencies have to be dealt with, and under these circumstances the nurses and sisters work very hard to make the postoperative period safe for the patient. The staffs of these small hospitals are tremendously loyal and when an emergency arises are always willing to work as hard and as long as necessary.*

### Finance

*The patients do not bear any part of the cost of the Service as the public patients are treated without charge, as with all public hospital patients in Queensland.*

### **Second Flying Surgeon Service**

At the Royal Australasian College of Surgeons' conference in 1979 Dr Paul reported that the work load had increased fifty per cent over the last ten years. In 1978, he saw 2,400 patients and operated on 1,060 of them, and it was becoming obvious that another service was required.

Dr Paul persuaded the State Government to base a second aircraft at Roma to share the workload and to expand surgical coverage to more towns. This was considered to be a better alternative to sending staff surgeons from regional hospitals such as Townsville, Rockhampton and Toowoomba, to the small country hospitals.

### **Silver Jubilee**

The Silver Jubilee of the Flying Surgeon Service was celebrated by a joint function, on 5 June 1984, hosted by Queensland's Minister for Health, Brian Austin, and the Chairman of Air Queensland, Sir Sydney Williams O.B.E., in the presence of the Governor, Sir James Ramsay.

Surgeons, anaesthetists, and pilots who had served over the previous twenty-five years were invited, and many attended.

### **Contract Aircraft Operators**

**Bush Pilots Airways** had won successive government tenders for the contract since 1959 and, in 1981, had changed its name to **Air Queensland**. The Flying Surgeon Service was regarded as “one of the family”, as it became an integral part of the airline’s operation. This was not to be the case with successive contractors.

When Air Queensland was taken over by Trans Australia Airlines (TAA) in March 1985, the new management changed its focus and in 1987 lost interest in operating an ‘orphan’ service with two Cessna 310 aircraft at such remote locations, Roma and Longreach, with all its attendant ramifications. Subsequently, Air Queensland, as a company, ceased to operate in April 1988. TAA changed its name to Australian Airlines and later was taken over by Qantas, so it could be said that an historical nexus was re-created with the use of the Qantas hangar by the inaugural Flying Surgeon Service at Longreach.

This provided an opportunity for **Flight West Airlines** to become the operator of the Flying Surgeon Service, in 1987, using three refurbished Beech Baron 58 aircraft, one of which was imported from the U.S.A. All had to be upgraded with electrically-driven air-conditioning that could operate on the ground to cool the aircraft prior to take-off, and also have modern navigational equipment fitted.

Flight West was owned by a Papua New Guinea company, Talair, which, in 1986, had commenced taking over some rural airline services relinquished by Air Queensland.

The new contract had been expanded to provide three aircraft, two being based at Roma, one of which was exclusively used for flying specialists in obstetrics and gynaecology. This was an entirely separate and independent service to the surgeon's.

In 1992, Flight West lost the contract to **Heli-Muster** who tendered three pressurized Cessna 421 'Golden Eagle' aircraft, a further upgrade on the previous aircraft, which provided greater comfort for the passengers. This aircraft could fly above most of the turbulent weather.

Heli-Muster was a subsidiary of Heli-Aust which was based principally at Victoria River Downs in the Northern Territory from which it had an extensive helicopter mustering and fixed wing aircraft operation.

Heli-Muster provided a Cessna 402 aircraft on standby when each Cessna 421 was being serviced. These aircraft had their servicing and scheduled maintenance done in Roma by a local aircraft engineer.

Four years later, in 1996, **Eastland Air**, based in Toowoomba, was awarded the contract with a further upgraded aircraft, the Beech KingAir C90, which had turbine engines and could fly even higher and faster than the Cessna 421. Heli-Muster was committed to a significant expansion of its helicopter operation and was unable to fund another major acquisition for turbine aircraft specified under the new contract.

In 2000, Eastland lost the contract to an Essendon operator, **Australasian Jet**, who tendered two Piper Cheyenne III aircraft which met all the upgraded specifications. These aircraft were based in Roma and had their regular maintenance checks done at Australasian Jet's major engineering workshop in Essendon in Victoria.

### **The End of the Longreach Service**

Only two aircraft were required for this five year contract because the Health Department had closed the flying surgeon base in Longreach, and the remaining structure of the Service became "a shadow of its former self".

That brought an end to the original Flying Surgeon Service, commenced in 1959, a service that provided a mantle of comfort and security to all the folk living in those remote areas for over 40 years. Also severed was the informal link with the original QANTAS hangar in Longreach, itself being preserved by the QANTAS Founders Outback Museum.

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