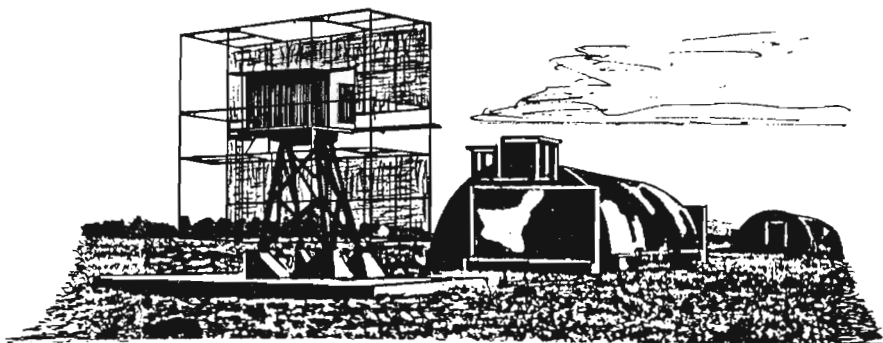




131 RADAR ASH ISLAND

1942-46



131 Radar - the RWG

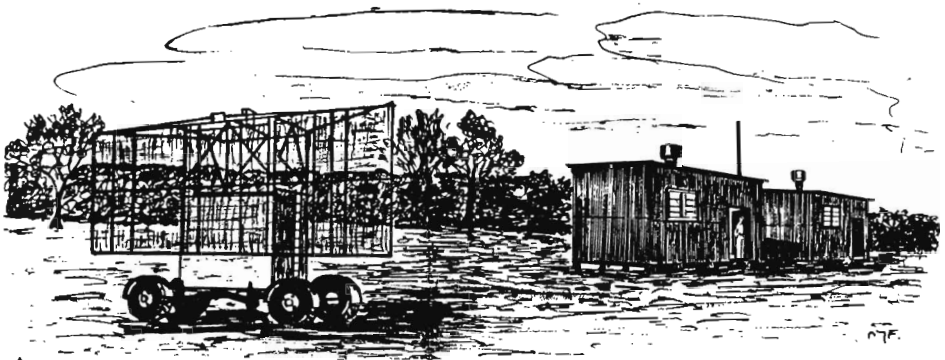
EDITOR - MORRIE FENTON

The History and Stories
of
131 RADAR
ASH ISLAND
1942-46

DEDICATION.

Dedicated to All Who

Remember the Island Life.



131 Radar - the Mk. V.

EDITOR - MORRIE FENTON

131 RADAR

ASH ISLAND

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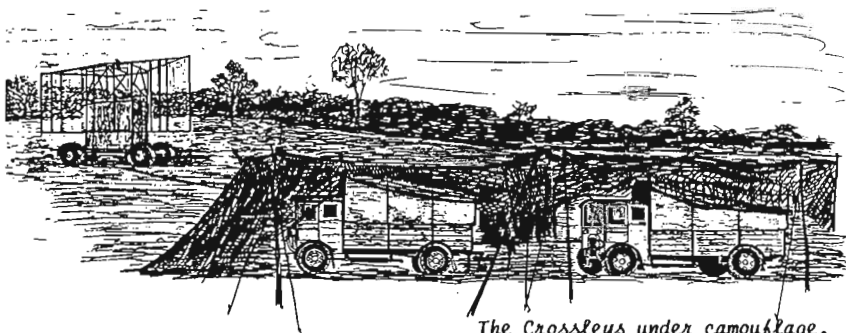
131 RADAR

131 Radar on Ash Island was fairly typical of the small RAAF stations on watch along the east coast of Australia, set up quickly when the threat of enemy action was at its greatest.

A very early Ground Control Interception (GCI) unit - formed in 1942 with English mobile equipment and an all male complement, the station was on watch over Newcastle for several years during which time its equipment was changed twice - finishing its service in 1945/46 with the most modern Canadian GCI set, well protected in an almost impregnable concrete igloo operations room. More significantly perhaps, in that time the operators' crews had become almost entirely WAAAF personnel - and the competence and application to duty practised by the girls - and the girls of supporting musterings on the station with them - could be described as a first class example for all radar stations, and to the highest traditions of RAAF Radar.

At the same time, there was time for fun, entertainment, relaxation - and even romance - and all these received due mention in the various stories contributed by one-time station personnel.

131 Radar was a small unit of less than fifty. Its history also is small - but all who served on the station can be proud of their essential and careful war-time watch over Newcastle which was then one of Australia's largest and most vulnerable war equipment factories.



The Crossleys under camouflage.

ACKNOWLEDGEMENTS.

This small record of the history and stories of 131 Radar, Ash Island, has been compiled to mark the historic visit to the Ash Island radar site by ex-radar personnel of WW II in August 1995 as part of the programme of the BLIPS Radar Reunion.

The booklet has been compiled only because of the co-operation, contributions and encouragement of those whose names are recorded below, and can best be described as a truly combined effort.

RAAF Historical	Joan Bale
Wal Cornish	Max Trahair
Beryl Mainon (Walker)	Miriam Cooke
Joy Rice (Little)	Ed Simmonds
Elva Pascoe (Noble)	Morrie Fenton
Jean Petrie (Sefton)	Graeme Steinbeck
Gordon Mills	Jack Fraser
John Wallace (1st. C.O.)	The Aviation Society Newcastle
Connie Bradley	RAAF Discharged Personnel Records
David Bernard	"My Life in the WAAF, 1942-45" (Beryl Mainon)
Warren Mann (C.O. Dec '43-June '44)	Edith McGrail (Barker)
Helen Mann (Serpell)	

The photographs have been lent by Beryl Mainon, Elva Pascoe, Jack Bettess, Helen Mann and Jack Fraser. Edith McGrail also has several photos.

Special thanks to Wing Commander Pete Smith of 3CRU, Williamtown, and to the President and Committee of BLIPS Reunion, 1995.

And special thanks to our Historian-in-Chief, Ed Simmonds.

Edited by Morrie Fenton.

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FOREWORD

Serious histories of the Second World War give credit to radar as one of the principal factors in the eventual ascendancy the Allies established over the Axis powers. Certainly, victory in the Battle of Britain owed much to Sir Robert Watson-Watt and his team of 'boffins' who developed and installed a radar screen along the east coast of Britain in a period of time which still seems incredible, and which certainly could not be emulated in the political and industrial climate of the 1990s.

Here in Australia, an analogous, if not so spectacular development took place. The entry of the Japanese into the war with the attack on Pearl Harbour in December, 1941, and the subsequent push by its armies through Hong Kong, the Philippines, Burma, Malaysia, Singapore, the Dutch East Indies (now Indonesia) and New Guinea, caused growing disquiet among Australians. The more-or-less academic interest in radio direction finding and radio location among CSIR and university scientists seems not to have been paralleled by interest from the armed services until the advent of the Japanese threat. Early in 1942, attitudes changed and action was swift.

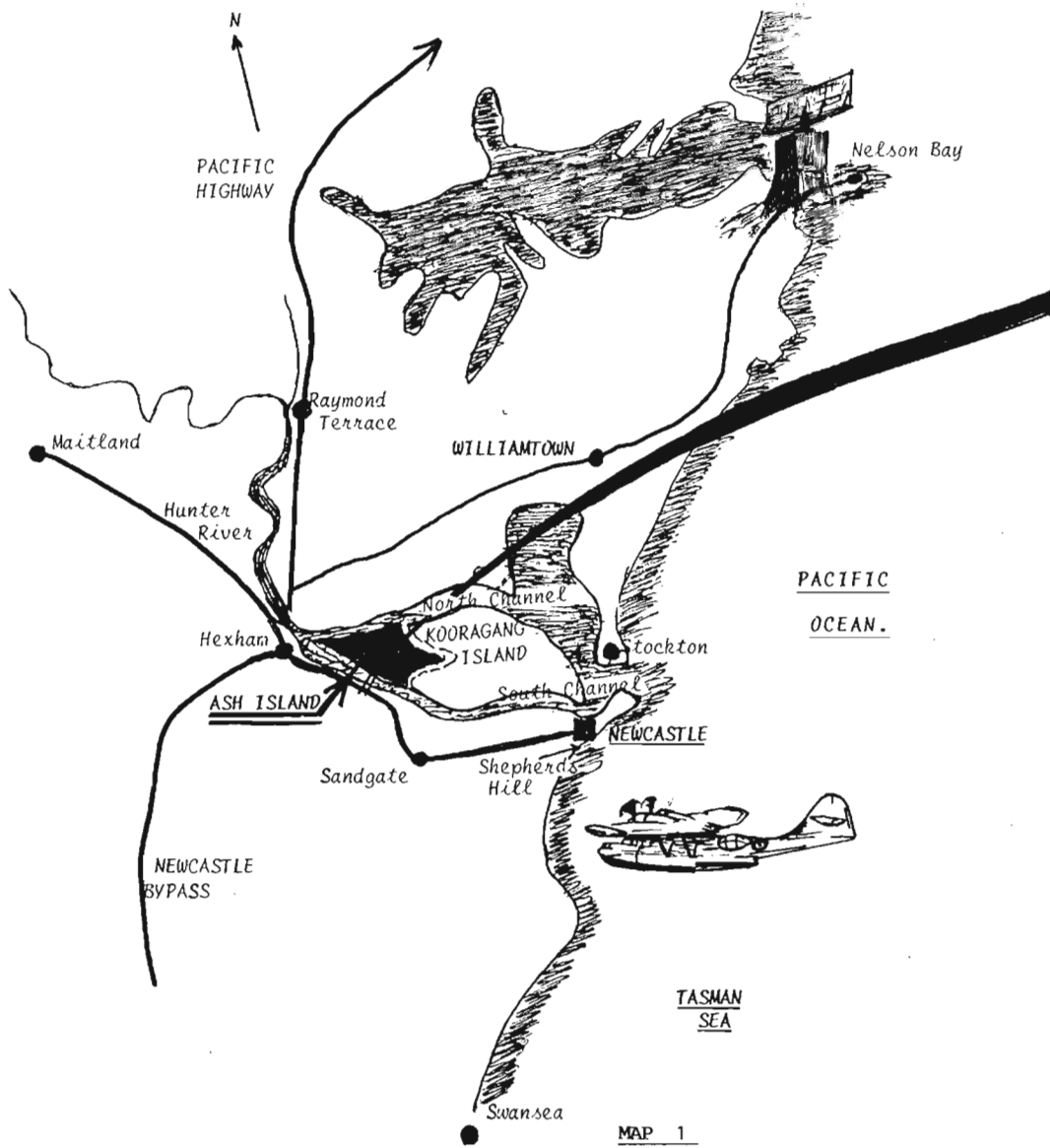
By the end of the year, there existed an extensive (though not yet comprehensive) network of early warning (AW) radar units as well as some units devoted to ground controlled interception (GCI). During that year, most of those who eventually manned (including 'womanned') the very effective radar screen around the vulnerable sections of Australia and who took the technology to the task of rolling back the Japanese 'carpet' were recruited and had at least begun their training. During that year also, Australian science and industry designed and began constructing the mobile equipment which was essential to the nature of the Pacific warfare to come.

The earlier units were equipped with overseas equipment, first from Britain, then later from Canada and USA. Amongst the earliest GCI units was 131 Radio Location - 131 Radar from some time in 1943. Its equipment was first British, then later, after it settled at Ash Island, the 'state-of-the-art' Canadian RWG unit. Its staff at the beginning included many of the first group of WAAAF radar operators to be trained at Richmond, several of the first group of 'Bailey Boys' to be trained as officers at Sydney University, and some of the first radar mechanics that were trained, also at Richmond. Their stories and those of their colleagues and successors on the unit make an interesting sidelight to the history of Australia at war, and it is commendable that Morrie Fenton and his helpers have seen fit to collect some of them for publication in this booklet.

In it can be found historical and technical information about the unit, with some assessment of the role it played in the wartime history of radar in Australia. Even more fascinating - for me at least - are the memories of those who spent time on Ash Island, many of them during my own stay there. I should be surprised and disappointed if the booklet did not prove interesting reading for the generations for whom the War is only history.

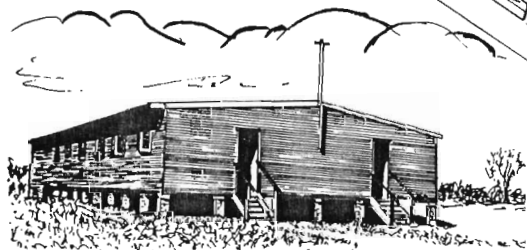
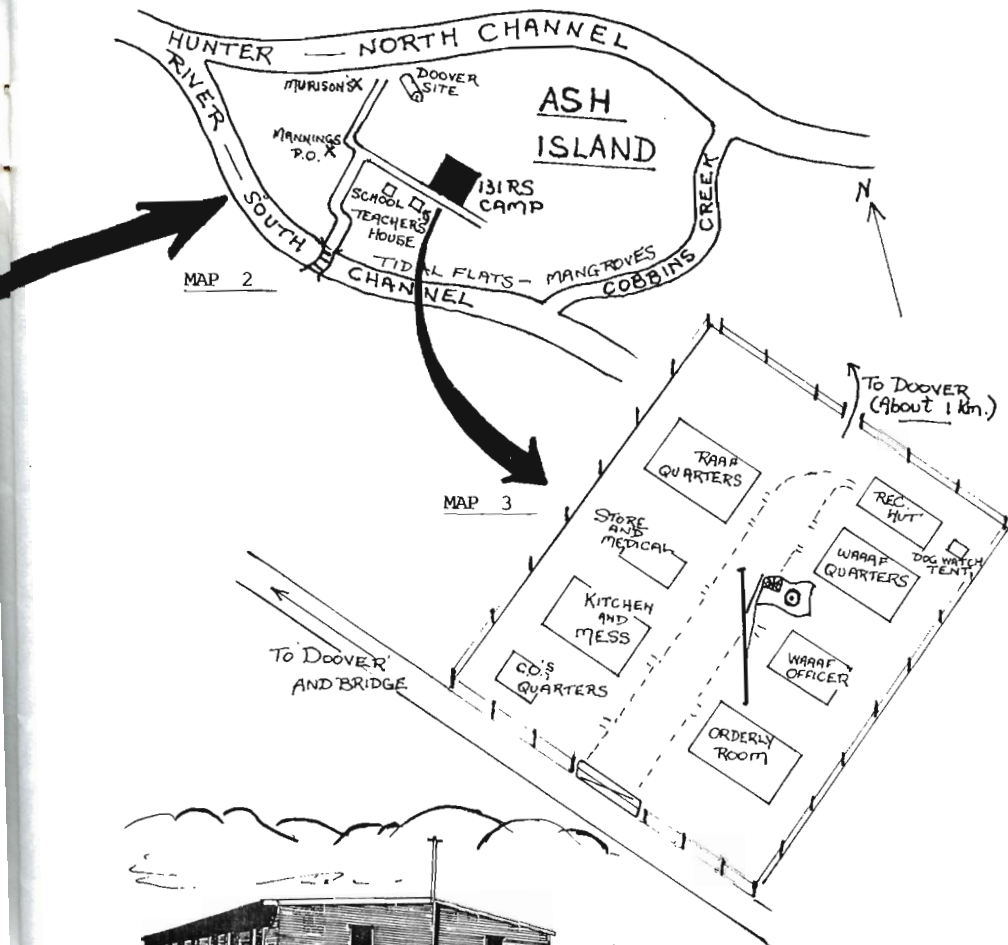
Warren Mann.(C.O. 1944.)

MAP 1, NEWCASTLE AREA.



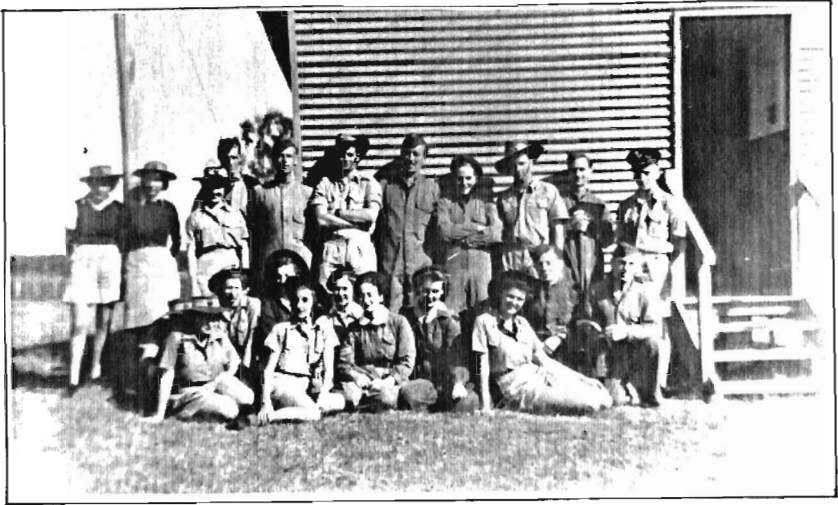
MAP 1
"Mud Map" by Gordon Mills.

MAPS 2 & 3, ASH ISLAND AND 131 RADAR CAMP.



WAARF'S QUARTERS - ASH ISLAND

Maps 2 and 3 have been drawn as accurately as possible from the combined recollections of Gordon Mills, Warren and Helen Mann, Elva Pascoe, Joy Rice and Beryl Mainon.

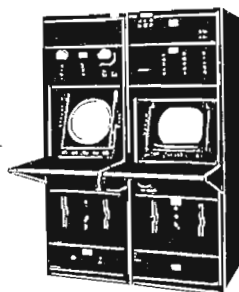


Above : Outside the 131 Radar Orderly Room - The Commanding Officer Pilot Officer W. Mann at the right.

Below : 131 Radar - the station transport.
L to R. Beryl Walker, Gordon Lee, Mary Bale and Joan Bale.



The prime purpose of WW II radar was to detect, intercept and hopefully destroy enemy bombers before they reached their target. During the Battle of Britain, interceptions were directed and controlled by the Fighter Sector based on information passed to them by the English Chain Home (CH) and Chain Home flying (CHL) stations with the former giving an estimate of the height of the planes. The English invention of the Plan Position Indicator (PPI) tube led to a new type of radar - the Ground Controlled Interception (GCI) which emerged in December 1940. Operators could obtain grid references of plots direct from the PPI tube. Time was saved because they did not have to calculate the co-ordinates from range and bearing. The introduction of switching the upper and lower parts of the aerial so that they could be fed either in phase or anti-phase created two overlapping lobes in the vertical plane. A second operator, on the range/height tube, would assess the ratio of the signal strength from one lobe compared with the other, and from calibration charts an estimate of the aircraft's height was obtained. The controller - usually a fighter pilot - stood behind the operators and could vector his fighters to an interception in a very short time because he was in direct contact with them.



RAAF radar used three types of GCI sets. The first was an English Mk.V GCI and the aerial and cabin was hand turned by an operator sitting in the cabin and being directed by an operator on the console to turn the aerial left or right via bell signals. For mobility, the first English sets were housed on the back of trucks, while the aerial and cabin were mounted on a trailer. Later the same sets were housed in huts. The second was a Canadian GCI - the RWG was only an acronym to indicate that it was made by the REL Company in Canada. It was a permanent installation and was a marked improvement for operators as the aerial was electrically turned and controlled from the console, as well as hand controlled by Selsyn motor for greater accuracy when needed. The third type was an Australian made lightweight - LW/GCI - which was a portable unit. These were only stationed in North West Area and Borneo. The GCI had another advantage, namely, being able to assist friendly aircraft in approaching aerodromes in bad weather - giving them their height and course directions so that they could get down safely. It was the forerunner of the Ground Control Approach (GCA) type of radar which was and still is used extensively for civil aviation.

At Ash Island, 131 RS was equipped with two of the types mentioned - the first English Mk.V was a mobile station, mounted on 4x4 Crossleys. Afterwards a second Mk.V was installed in huts and the Crossleys then left the island. Then concrete igloos were constructed, and an RWG/GCI was installed. The igloos also were of English design intended originally as underground operations rooms, but in Australia these were mostly built on site in normal fashion, though a few had steps up the tower leading - nowhere.

At the time, the Ash Island GCI's were in the forefront of technology. Wherever GCI's were stationed, they fulfilled a valuable role in RAAF radar.

#####

NEWCASTLE.

On June 7th., 1942, six months after war broke out in the Pacific, a Japanese submarine shelled Newcastle, and although negligible damage was caused, the vulnerability of the city and its industrial section to enemy action was made very obvious.

Newcastle was already a key centre in Australia's total war effort when the attack took place, and the importance of the industrial city was to steadily increase as the war progressed. Its giant coal and steel output brought many other essential war industries to the second city of New South Wales and into the many factories and heavy industries around its port. Newcastle's metallurgists quickly found the means of producing bullet-proof steel when overseas assistance was suddenly cut off, and Australia soon began producing armoured vehicles. Then came heavy guns, high explosive shells and ammunition, and the essential rare metals necessary for war. Shipping and small craft were built, aircraft sections and many components of their engines - locomotives, heavy and light machine guns - and a host of other parts and products essential to every aspect of Australia's war effort were produced and manufactured at Newcastle.

No wonder then that this giant Australian arsenal had to be adequately watched over and protected; and to this end, as part of the armed forces of the area, Australia's first RAAF radar station was set up at Shepherd's Hill just south of the city in January 1942 where it operated 'on trial' for a few months.

Three RAAF radar stations were then established in the area - 20 Radar at Tomaree in April 1942, and 208 Radar at Swansea was set up in February 1943. 131 Radar - the mobile GCI for the area's fighter defence, was formed at Richmond on 19th. June 1942 - twelve days after Newcastle was shelled - and the station moved to its site on Ash Island two months later in August 1942.

#####



Looking out over the tidal flats and swamps between the river and the schoolteacher's house which became the first WAAAF quarters.

Ash Island, a very flat area between the north and south channels of the Hunter River at Hexham, was first explored in 1801 when it was the home of the Garuargal tribe of Aborigines. The explorers found trees resembling the English Ash, and they named the island after these trees which they found excellent for making oars. Other trees were used to build boats, and so started the denuding of trees on the island.

Alexander Scott, a naturalist, came to the island in 1829 and took up land. Until this time the natives were undisturbed except for occasional hunting visits by notables from Newcastle. The depression of the 1840's later caused Scott to abandon his holdings, and his orchards became dairy farms which were taken up largely by newly arrived immigrants from England and Ireland. Among these were the families of Grice, Green, Maher, Jackson, Lintott and Sandeman. My grandfather, William Grice, was one of the early dairy farmers, and my mother and her eleven brothers and sisters were all born there between 1869 and 1892.

The increase in population, largely due to the number of children in each family, and the lack of transport to Hexham, made the need for a school urgent. As a result, John Jackson became the first schoolteacher on Ash Island in May 1868, and remained for five years. In 1875 he returned to the island for a short period, and then again in April 1885 he was appointed teacher until 1893. Movement of teachers was controlled by a central authority.

There was a 'great flood' in 1893, but the islanders had experienced floods before, and the farms continued. At the turn of the century the Grice family had expanded their activities and were selling water to the sailing ships in Stockton Bight. Windmills pumped the water from wells into ship's type tanks loaded in a flat bottomed punt which was then rowed down river to the ships on the run-out tide. Then they had to wait for the run-in tide to return. In 1920 the family grew millet and made old-style brooms for local sale.

The need for a bridge grew. In 1909 the first bridge linking Ash Island to Hexham was opened with great ceremony. Another flood in July 1920 caused this bridge to collapse but it was soon replaced. The substantial bridge now in service is the third in that position.

Despite flooding, dairy farming continued for many years. In 1955, a larger flood than usual caused six feet of water to flow through homes. After this the residents were forced from their farms to make way for industry. As part of the grand plan many of the islands in the Hunter River were combined by the Public Works Dept., and the single island, constructed for industrial development, was named Kooragang. However, Ash Island, although joined to Kooragang, retained its identity as the industry plans did not reach it. Now, many years later, there are plans to turn the island into wetlands. This is disputed by remaining residents who run cattle and horses there now. The only remaining signs of habitation are the remains of the radar station, the schoolmaster's house, and the residence of the Ken Maher family.

Only time will reveal the island's fate. Descendants of the original settlers would like to see it returned to its pristine state.

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131 RADAR.

A SUMMARY OF THE STATION'S STORY.

131 Radar at Ash Island first formed as a mobile GCI station at the Richmond Air Base, NSW, on 19th. June 1942, its English Mk.V equipment being mounted on heavy Crossley trucks beneath canopies which effectively converted the vehicles into roomy vans. These then became weatherproof and darkened operations rooms, if not entirely draughtfree and weatherproof. The station number and the date of formation indicate that 131 RS was Australia's first GCI unit, the story being that several of these mobile English units came to Australia as a proven method of fighter control with the renowned Spitfire fighter planes - and the station Diary reveals that the controlled interception system was continuously practised and improved until direct R/T communication and control of aircraft was achieved.

The station was first taken in hand by three junior officers, However, as P/O Phillips was admitted to hospital, P/O J.Wallace became the first Commanding Officer while P/O Katz acted as Technical Officer, an arrangement which continued for the first two months while the personnel assembled and commenced operating the new equipment. The restricted range, and the method of altitude estimation would have been new to the operators; also the method of turning the aerial by hand which involved one operator being closeted in the aerial box and cranking a pedal-like contraption to a series of bell commands from the receiver van.

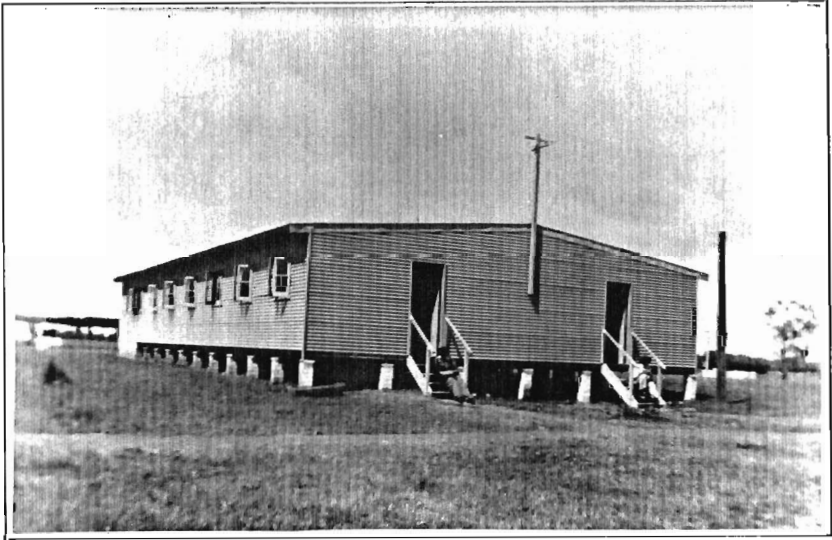
In August, P/O Phillips was appointed C.O., and 131 RS now took to the road to move to Beverley Park at Kogarah, then on to Kyeemagh, just south of Mascot Airport where a series of testing flights were logged while the performance of the gear was checked and assessed. Then in September, instructions were received to move to Ash Island. Once there on its permanent site, 131 RS assumed its primary and all important role as nerve centre for the defence of Newcastle and its heavy industries which were of crucial importance to Australia's total war effort. An adequate fighter defence, with New Lambton as Fighter Sector and 131 RS as the Ground Control station, was essential until any potential threat to the city and its industrial might had passed.

As the war progressed, and the likelihood of any attack became far less likely, 131 RS assumed its important secondary role as a training and demonstration centre for Radar Officers, Controllers, Filter Officers, recorders, operators and mechanics - and even for Commanding Officers who seemed to arrive, assume command, then move on again at an astonishing rate. Meanwhile, the WAAAF Officers and Radar Operators of the station carried on with the regular day by day duties. They were the mainstay of the unit.

The entries in the station Diary clearly reveal how 131 RS moved through three distinct operating periods : as a mobile GCI : then as a Mk.V GCI with far more suitable huts as the 'Doover,' - and finally as a big RWG/GCI with a commodious concrete igloo housing the very sophisticated Canadian gear, while outside the big double box-kite aerial turned smoothly and accurately, now controlled by Selsyn and electric motors.

But hardly was this exotic new equipment 'on air' than the instruction came to go on standby, and the station complement was promptly reduced. However, the daily life of the station seems to have continued in much the same fashion until it went on to 'Care and Maintenance' in January 1945 when 102 FCU closed, and the 131 RS staff reduced to just a few with Section Officer E. Lee-Steere in charge, finally disbanding in January 1946.

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Above : The WAAAF Quarters on Ash Island were built in 1943. This was the first of the 'permanent' camp buildings.

Below : Ash Island 1980. The remains of the concrete igloos, with the base of the RWG aerial in the foreground. These rooms were built in 1943 to an English design for underground operations.



131 RADAR - HISTORY NOTES MAINLY FROM THE STATION DIARY.

1942.

June 19th. *131 Radio Station began to form at Richmond - Commanding Officer P/O Wallace, with P/O's Katz and Phillips attached. P/O Phillips was admitted to hospital. The technical personnel posted to the unit commenced operating the new equipment, mounted on Crossley trucks.

Early in August, P/O Wallace was posted to 138 RS and P/O Katz to 13 RS. P/O G. Phillips was then appointed C.O. of 131. The unit now took to the road and moved to an open site near the Kogarah railway station. After only two weeks there came another move - to Kyeemagh. During this last month some thirty test flights were logged to prove the new equipment and to improve operating skills.

In September, 131 RS moved to Ash Island and a large detachment of 20 guards was attached. At the new site, the camp comprised tents only, and the site was very muddy.

During October, a Chev utility was taken over from 2 Fighter Sector at New Lambton; the station guards were reduced in number to seven, and a direct phone line was established to 2 FS. The station was now able to pass plots by the direct line.

November saw considerable operating practice take place - Test Flight 76 was logged - and the first night interception was attempted as well as several daytime practice interceptions.

Very bad interference was noted during December and normal operating became almost impossible. The Air Officer Commanding Eastern Sector, Air Vice Marshal Anderson also arrived to inspect the unit - a visit by a high ranking officer was always a notable event at a small Radar station. New test equipment was received, also new W/T. equipment which was then kept on standby to communicate with 2 FS.

The operating staff was now at full strength - 2 officers, 25 RAAF and 22 WAAAF, and 131 RS commenced a 24 hour watch on 16th. December. Bad interference was again a problem at the end of the month.

1943.

January commenced with the unit title now '131 Radio Direction Finding Station,' and for four days Temperature Inversion was a recurring factor with abnormal ranges being logged. Already a new 'Temporary' station was being planned - 2 diesel generating units arrived and the construction of several timber and iron buildings was commenced. At the end of the month the new Mk.V transmitter and receiver arrived from 1 RIMU, to be installed in the new 'Doover' huts.

February saw the mobile station 'off air' and the new station 'on air' on the 10th. The Crossley mobile left the island on 17th., - meanwhile tradesmen from the Dept. of Interior worked on towards the completion of the new station buildings. At the end of the month 20 RS at Tomaree went 'off air' and 131 RS commenced a search pattern from 0 to 230 degrees. And this month saw the WAAAF complement outnumber the RAAF for the first time. On 9th. March, F/O A. Williams took over as C.O. and F/O Phillips left for 136 RS. Vertical polar diagrams were traced and drawn, and before the end of the month more tradesmen arrived to commence the construction of concrete 'igloos' as permanent buildings for 131 RS.

April began with an unusual echo noted at 3 miles, 142 degrees. It was decided that it was caused by the terrific heat rising from the BHP furnaces. And despite the completion of the new Orderly Room, it could not be occupied due to flooding around the area. A practice interception attempted with a Vultee Vengeance and Spitfires failed unfortunately, the reason being explained as 'too many aircraft to control!'

1943. (April continued.)

At the end of the month, an Avro Anson obliged the station by making a calibration flight to check the efficiency of its readings.

Early in May the new Administration building was at last occupied as the flooded area dried out; but then the direct line to 2 FS failed for two days, and plots were passed by R/T - until the battery charger failed! Ordinary PMG phone lines were then used.

At the end of May, P/O K.Drummond was appointed C.O., and F/O Williams was posted to 135 RS.

Air Vice Marshal Anderson, the AOC Eastern, inspected the camp in June, and the station mechanics were on the job to correct the transmitter which had been frequently tripping off. A faulty V1901 was finally located and diagnosed as the cause. And the Fitter DMT had quite a job when No. 2 diesel was U/S with a torn coupling disc and couplings. Then fierce gales made the aerial turning task very difficult indeed - in fact the station had to close down for an hour.

This month also saw the arrival of Acting Section Officer M.E.Cowan and the departure of S/O V.Mayall for RAAF H/Q. A Controllers' course lasting four days commenced on 20th. June.

July commenced with a most unusual event for a GCI - a convoy of ships was picked up and followed for fifty minutes - a sure indication of strong Temperature Inversion. The height calibration was tested and checked, and the receiver picked up severe electrical storms. At the end of the month repairs to the turning gear of the aerial became necessary.

August proved very uneventful, except that violent gales moved through the area.

September... and the term 'RADAR' was now adopted for all stations.

F/O Drummond took leave on two occasions.

October proved pretty busy. Mk. III IFF equipment was installed and tested - the new concrete igloo technical rooms were completed, power was connected and then they were promptly handed over to the C.O. An installation party was soon on the job to instal new RWG equipment. Meanwhile in the midst of all this activity, more Controllers' courses commenced.

In December a new R/T call sign was adopted, and the camouflage cover for the new rooms was inspected for effectiveness. Gravel was laid around the operations area - then around the barracks - and a nine days Controllers' course was completed. The initial installation of the RWG was finally finished at the end of the month, during which F/O Drummond had been posted to command 155 RS, a new mobile GCI, and P/O Ling took command of 131 RS - but only for five days before he too was posted to command 161 RS, a new LW/GCI station. P/O W.Mann now became C.O. of 131 RS, with a complement of 27 WAAF and 16 RAAF.

1944.

Early in January, 152 RS arrived by road for matching and field tests, attended to by F/Lt. George Day from 1 RIMU. This was a new mobile GCI with Mk. V equipment in International vans, later to see service in New Guinea. Matching and phasing also commenced for the RWG, and an Allied Works Council party arrived to lay linoleum throughout the Tx and Rx rooms to reduce the dust problem. In February more testing was carried out - and in March a new R/T transmitter was installed. P/O Mann took leave during this period and was relieved by P/O Warford Mein.

April was highlighted by the visit of a Meteorological Officer to carry out tests on the RWG for its effectiveness in tracking upper level winds,

1944. (April continued.)

using balloons and dipoles; and with the installation of new High Frequency Tx and Rx equipment for the R/T, direct communication with aircraft became a reality.

In May the decision was made to dispose of the discarded Mk.V GCI; and a party from 208 RS at Swansea arrived on a visit with P/O Coggins their C/O. P/O Surman was Rlg. C.O. of 131 RS during this visit. The calibration of the RWG was attended to during this period.

The AOC Eastern, (now Air Commodore Charlesworth) visited the station on inspection, and the old Mk.V equipment was removed to 1 RIMU.

131 RS was now instructed to revert to full time standby, and the station complement was promptly reduced by seven.

In June, P/O Mann was posted to command 166 RS and P/O K.S.While assumed command of 131 RS. A fan system was installed in the operations room to improve conditions. The station complement now stood at 15 RAAF and 15 WAAAF.

S/L Davison, C.O. of 102 FCU at New Lambton made a familiarisation visit in early July and at the end of the month F/O Brown of Survey Dept. arrived to check the RWG aerial bearing and its height above sea level, this being part of the precise checking necessary to ensure operating accuracy.

Meanwhile, 155 RS, a new mobile GCI in International vans, arrived under the command of **F/Lt Ken Drummond and left the island again after some three weeks, its new destination being N.W. Cape, Exmouth, W.A.

August brought about a big change in reporting - the station now reported to 101 FCU at Bankstown. A course for recorders was conducted, and several Dutch servicemen visited to witness a practice interception.

September saw two more ***Controllers' courses, and a new plotting table was installed in the Operations Room; while in October, P/O McCulloch assumed command of the station. More courses were held, and instructions were issued that 'On Duty' operators were to remain in the Operations Room at night, even though the station was on standby..

Advice was received in November that 102 FCU personnel would 'lodge' at 131 RS, and to facilitate this arrangement, prefabricated huts were erected to accommodate thirty personnel and four officers. Section Officer E. Lee-Steere arrived as Officer in Charge WAAAF's at 131 RS.

1945-46.

25th. January. 131 Radar reverted to 'Care and Maintenance.' 102 FCU ceased to function. Unit accounts were closed, P/O McCulloch was posted to 168 Radar and Section Officer Lee-Steere remained in charge of 131 RS. The station was officially disbanded in January 1946.

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* In 1942, the new units were described as 'Radio Stations.' In 1943, the term 'Radio Direction Finding' was adopted. In September 1943, all stations became known as 'Radar Stations.'

** F/Lt. Ken Drummond was already a sick man while at Ash Island. After forming his new station, 155 RS, he stayed with it when it was transferred to Exmouth in W.A., but in October 1944 was admitted to 4 MRS at Broome. He died shortly after an emergency appendicitis operation.

*** The story of F/O W.W. (Snow) Waldron, who attended these courses, would be fairly typical. He next appeared at 132 Radar Darwin on practice interceptions, then at 150 Radar at Adelaide River. In February 1945 he became C.O. of 154 Radar at Truscott, also acting as Controller.

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131 RADAR, ASH ISLAND.

The names of Personnel who 'formed' with the station in June and early July, 1942, have been supplied from Discharged Personnel Records, Air Force.

P/O J.Wallace, (First C.O.)		AC1	E.M.Jeffkins,	DMT
P/O G.Phillips.		Cpl	K.Fogarty,	Guard.
P/O B.Katz.		LAC	C.F.Harris,	Messman.
F/Sgt J.H.Alford,	Med. Ord.	LAC	D.McNicol,	"
Cpl E.J.Allen,	Cook	LAC	H.R.Britton,	Cook.
AC1 D.P.Timothy,	Gen. Hand.	AC1	W.J.Fadvrin,	Guard.
Cpl C.D.Dearness,	Clerk.	AC1	W.L.Watkins,	"
AC1 K.L.McNamara,	Gen. Hand.	AC1	K.J.Johnson,	Radio Mech.
LAC D.Kennedy,	Mess Stew.	AC1	G.F.Nettle,	"
AC1 S.O.Phillips,	Med. Ord.	AC1	A.M.Day,	"
LAC N.Fitzpatrick,	Clerk Gen.	AC1	A.W.Greenhill,	"
AC1 L.R.Jones,	Gen. Hand.	AC1	R.Peel,	Guard
AC1 F.W.Kain,	Guard.	AC1	S.H.Shaw,	"

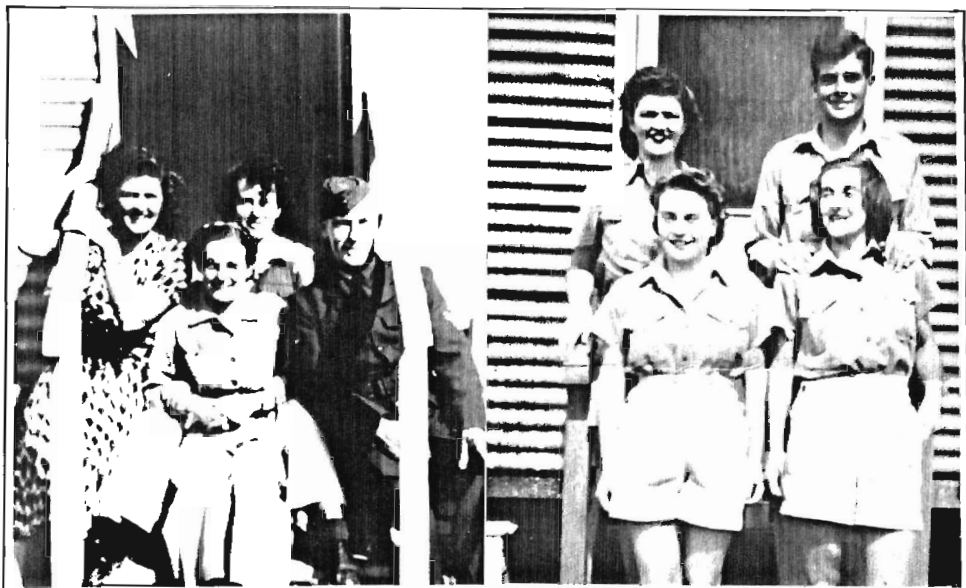
The incomplete record of Personnel that follows has been compiled from the Station Diary, and from the records and recollections of Beryl Mainon.

Commanding Officers.

		LAC Ken Barr	Radar Mechanic
P/O J.Wallace,	19.6.42	LAC Harry Turner,	"
P/O G.P.Phillips,	3.8.42	LAC Allan Dennison	"
P/O A.Williams,	9.3.43	Sgt K.Fogarty,*	Guard
P/O K.Drummond,	30.5.43	LAC Terry Cooper,	"
P/O T.J.Ling,	15.12.43	LAC Maurie	"
P/O W.Mann,	26.12.43	LAC Lauder	Radar Mechanic
P/O K.S.While	30.6.44	Sgt Helen Serpell,	" Operator
P/O E.McCulloch,	9.10.44	Sgt Beryl Williamson,	"
S.O E.Lee-Steere	25.1.45	Cpl Val Edwards,	"
P/O D.Warford Mein,	Rlg.Officer	Cpl Nan Morrieson,	"
P/O F.Surman,	"	Cpl Margaret Plunkett,	"
P/O R.Coggins,	"	ACW Barbara Wilson,	"
S.O. V.Mayall,	I/C WAAAF's	ACW Pat Pebbles,	" e
Act. S.O. M.E.Cowan	"	ACW Joan Bale,	"
S.O. E.Lee-Steere,	"	ACW Mary Bale,	"
Act.S.O. Wood,	Rlg. I/C WAAAF's.	ACW Beryl Walker,	"
S.O. Stead,	I/C WAAAF,s	ACW Elva Noble,	"
Cpl Jean Sefton,	Clerk General	ACW Dulcie Kelly,	"
Sgt Shirley Haigh,	Clerk Stores	ACW Betty Welman,	"
Cpl Allan Woods,	Medical Orderly	ACW Lorna Olsen,	"
ACW Laurie Lee,	"	ACW Connie Bradley,	"
Cpl Arthur Mears,	Fitter DMT	ACW Yvonne Paulig,	"
ACW Joy Little,	DMT	ACW Irene Power,	"
ACW Edith Barker,	"	ACW Peg Frazer,	"
Cpl Bertie Britton,*	Cook	ACW Pat Edwards,	"
Sgt Ernie Allen,	"	ACW Elsa Francis,	"
Cpl Cliff Harris,	Mess Orderly	ACW Noreen Stubbs,	"
LAC Pat Murphy,	"	ACW Maxine Lang,	"
ACW Miriam Cooke,	"	ACW Daphne Cahill,	"
Sgt Rowley Thomas,	Radar Mechanic	ACW Jean Meyers,	"
Cpl Gordon Lee,	"	ACW Joan Puddicombe,	"
Cpl Will Shearman	"	LAC Gordon Mills,	"
LAC Ray Ellicott,	"	LAC Max Trahair,	"
		ACW Betty Ritchie,	"

*Cpl Britton,(cook) and Sgt Fogarty,(guard) appear in the list of the 'formation' Personnel above.

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Above.

Left. Elva Noble, Beryl Walker, the D.M.T. and Bertie the cook.

Right. Elva Noble, Brian Hamilton, Dulcie Kelly and Margaret Plunkett.

Below.

Left. Bert Britton, Miriam Cooke, and Cliff Harris at the kitchen.

Right. "Lo - the Morn!" Betty Ritchie and Helen Serpell salute the rising sun.



My Five Weeks with 131 Radar at Richmond.

John Wallace (first C.O.)

As I recall, (a bit dimmed by the mists of 52 years,) Bernie Katz and I were posted to 131 RS (26th. June 1942 in my paybook) - on completion of our Radar course at Richmond. No definition was made then of either of us being Commanding Officer. Meanwhile, other personnel were being progressively posted to the unit.

The GCI equipment which had by some mysterious organisation arrived at Richmond, consisted of three Crossley trucks, two for transmitter and receiver the third for towing and general purposes. There were trailer mounted Lister generators and GCI-type antenna system. We got busy setting all this up in a roped-off corner of a sports ground area at the rear of the base, with our guards posted round the clock.

I recall that the Crossley trucks had the general appearance of being a World War I military design, having a great display of large individually finned radiator tubes across the front; massive gate-type gear levers and oversize pantechnicon-type van bodies. They were, however, in showroom condition. I also recall the generating sets had to be started the hard way, with two handed heaving on massive crank handles, followed by the precise release of a decompression lever. Wrong timing resulted in a kick back like a mule.

By mutual consent, Bernie worked on adjusting the equipment, while I checked what the Yanks called 'logistics,' learning that one should call the unit a 'detached squadron,' (the manual never having envisaged Radar stations) and made plans to raid the main Stores Depot in Sydney. We accordingly set off for Sydney in the spare Crossley, and after some negotiations, essayed the task of backing the monster down a steep and narrow inclined ramp into their loading bay. **CRASH!** A low portal beam had produced a neat bent-back profile to the top of the van! I gather that my report of this incident.... .."could easily be rectified by backing the vehicle into a similar obstruction in the opposite direction" caused some slight administrative difficulty later. Sorry about that! A further logistic exercise involved filling in forms whereby a Federal Civilian Department would in the fulness of time supply polished timber tables, chairs and filing cabinets befitting a so-called 'detached squadron.' I think the unit eventually got them. A more immediate benefit, we thought, would be a phone connection for getting things organised, and then hopefully for a spot of reporting aircraft movements. My Memo requesting this, and saying it was operationally important, merely resulted in being summoned to the august presence of the Senior Admin. Officer of the Base, who explained the supreme unimportance of mere junior P/O's, particularly those who wrote terse and insufficiently respectful Memos about their unimportant concerns.

About this time the unit received a visit from a suspected spy - in the uniform of a Flight Lieutenant who, lacking our local password, was given the "Who goes there?" at bayonet point by our guards as per their standing instructions. I was urgently summoned, and the spy eventually convinced me that he was the newly appointed Eastern Area Radar Officer - and anyway, why was I apparently acting in charge and not Bernie Katz? I was not therefore surprised to find myself shortly thereafter posted to form another Radar Station - 138 - destined for the wilds of New Guinea - but that is another story!

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When our men were needed to defend islands to the north of Australia, the women's auxiliary services came into being to free them, and recruiting advertisements appeared in the papers. I was attracted to such an advertisement for operators to be trained for 'radio location' units, but no information was available. Being curious, I applied, and after 'rookies' found myself on the first course to train WAAAF operators for what was then called RDF, and later Radar, at Radio School, Richmond, NSW. On completion, we were posted to different units and I was among those posted to 131 Radar being formed in the Kogarah area.

We were billeted in a church hall near the unit. With no WAAAF officer or NCO that I can recall, we must have been the most informal unit in existence but we were all very conscious of our responsibility, so self-discipline and enthusiasm for our new role was adequate. G. Paul Phillips was CO and the radar unit was mobile, with the receiver in a lumbering 4WD canvas-covered Crossley. At this stage, the CO, mechanics and operators were all 'new chums' and we probably got fairly generous leave just to have us out of the way while initial technical problems were resolved; otherwise we became familiar with the equipment and operating techniques, rotating from one task to another including the hand-turned aerial, heavy in a strong wind. Getting to know Sydney especially so soon after the 'invasion' of the harbour by the Japanese mini subs was exciting and a great change from the grey years of the depression when many 'bread-winners' were unemployed and their families struggling, as had been the experience for many of us. To be involved in something as 'hush-hush' as radar and have the security of service life was an experience of lasting significance.

After some weeks the order came for the unit to relocate to Ash Island, and we had visions of sandy beaches, palm trees etc. We left on 7th. August, my 19th. birthday. It was somewhat disenchanting to drive across the bridge at Hexham and discover mud and mangroves inhabited by huge striped spiders and swarms of crabs whose burrows were exposed at low tide, allowing them to feed on the mud flats. And we mustn't forget the mosquitoes - huge Hexham greys and vicious little black ones. At first we were accommodated in tents while the cookhouse, with minimum weather protection of corrugated iron sheets, was HQ for our cooks, Ernie Allen and Bertie Britain and their cat Lousy. Carrying a plate of food from the cook-house to the mess-tent on a windy day was likely to result in food being blown off the plate, but if there was no wind, the blow-flies were an even worse hazard.

Vera Mayall arrived as WAAAF officer and we were moved to the schoolmaster's house near the bridge where we were more protected from winter winds. 'Mod Cons' were sparse, and it's as well we were on shifts as there was one chip heater and an old tin bath for all female staff. Toilet facilities were equally limited.

Several of us had bought bicycles and on days off enjoyed exploring the countryside. The discovery of the sandpit at Tomago, filled with beautiful clear water, provided us with a favourite destination on hot days, and as the area was deserted, a skinny-dip refreshed us for the ride home. But why did the training planes from Williamstown fly so low, we wondered, as we floated lazily on our backs? Otherwise we made our own entertainment. For example, clowning outside the tent reserved for the crew coming off

night shift (photo of Helen Serpell and Betty Ritchie in gas masks.) Yes, we were issued with gas masks, and we went to the rifle range from time to time to train to handle and use 303's; Jeanie Sefton gave the bull's eye quite a punishing, though the boys claimed that she shut her eyes before pulling the trigger! We were all quite competent, but thankfully we didn't have to use our skills. A guard was always on duty at the Doover and their presence at night was welcome when on aerial turning duty.

After some months I was posted to Melbourne for a stint on the operation table at Fighter Sector located at Preston Town Hall, followed by a period at Victoria Barracks, AFHQ, D/Radar, attached to Wing Commander Cardale, a RAF Radar officer seconded to the RAAF. Then a posting came through for me....BACK TO ASH ISLAND....And I'd been hoping to get to a northern station. We arrived an hour or two late in Newcastle, and I was met by an impatient CO, Warren Mann, DMT and ute. Not a good start! The mud, mosquitoes etc were all the same but a new Doover was in the offing; a flash concrete 'igloo' and the latest Canadian equipment, even a motor driven aerial. DMT's turned out cheerfully for shift changes at midnight and 0600 hours, and whenever possible during the day, otherwise we walked across the paddocks.

By then the unit had settled down. The equipment, the new Canadian RWG, gave reliable results, and the operators were experienced and working as competent teams. Inevitably, the unit was used as a training centre for officers, mechanics and operators moving to more forward positions.

The new barracks provided adequate accommodation, and a wood fired copper heated water for showers, quite luxurious when two buckets were used, the first for soapy water, the second for rinsing. It didn't take long for me to be reconciled to my second stint at Ash Island, and I even developed a better relationship with the CO, despite the mosquitoes, and we used to enjoy long walks at night. We became engaged two months after his posting to form 166 Radar, which he later took to Labuan. Before he did so, we were married, and that was the end of my stint at Ash Island.

We were all grateful to Ash Island residents for hospitality (hot scones, jam and cream were such luxuries!) and to Mrs Bramble and her daughter Mary, of New Lambton who had a supper dance every Sunday evening, with delicious food. It must have taken them all the week cleaning up and preparing for the following Sunday. Guests attended from Fighter Control Unit giving us an opportunity to meet those we contacted by phone when reporting plots.

The only time I was ever nervous was an occasion when I caught the last tram to Mayfield, and missed the transport back to camp. The road was very dark and deserted and soon after leaving the urban area I heard dreadful screaming - a horrible sound. After some time I realised that pigs were being slaughtered at the local abattoirs. It was with great relief that I crossed the bridge and arrived 'home.'

In general, we were content with our lot; a routine was established and we had all our basic needs provided. One sunny day a load of hay was delivered to refill our palliasses; as I emptied the crushed hay from mine there amongst it was a flattened mouse. Sorry mouse...no harm was intended!

"The stars at night are big and bright,

Here on our muddy island." (To the tune of Deep in the Heart of Texas)

Does anyone remember the rest of it?

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One Operator - Two Stations, Ash Island.

Gordon Mills.

I was first posted to 131 RS from Radio School in October 1942 with Max Trahair with instructions to proceed to Newcastle by train and report. We arrived at the station about 5 p.m., where we were approached by a DMF RAAF type. We gave him our instructions which seemed to somewhat confuse him. He and his mate had a whispered conversation, and then said we had better go with them.

Travelling in their Chev ute, Max in the front and me in the back, we were halfway to Mayfield when they found out we were operators, and decided we were not the people they were looking for, so we returned to Newcastle station. This was on the basis that all operators at Ash Island were WAAAF's. I think those blokes were hoping to find two more...but that was not to be and we eventually arrived at the island.

The original 131 GCI was English equipment mounted in Crossley 4 wheel drive vehicles. That was about the middle of 1942. The mobiles were replaced with galvanised huts, and the mobiles moved to Maroubra as 134 RS in March 1943 to cover the Queen Mary in Sydney Harbour after bringing home the 7th. and 9th. Divisions. The huts were in turn replaced by igloo buildings of concrete 3 feet thick, and they look like they will last as long as the pyramids.

155 Radar formed at Richmond in early 1944. The station moved to Ash Island by road convoy for a bivouac. There were the Tx and Rx International trucks, two diesel trailers, one aerial trailer, a double dual wheeled GMC and one semi-trailer loaded with camp equipment and about 50 personnel. There could have been more vehicles. Also the Orderly Room vehicle, a Chev Van. We travelled from Richmond across to Hornsby, then by the Pacific Highway to Hawkesbury Ferry, arriving there about lunchtime. The ferry operating on this day was the type with the island control in the middle of the ferry. Our driver did not think the semi-trailer could be driven on and off the ferry around the control station, but authorities said it would get through, and he was instructed to proceed. The result was that the total vehicle got onto the ferry with the tail of the trailer jammed between the control cabin and the outside rail of the ferry, and the vehicle could not be moved forwards or backwards. Of course, there was no shortage of suggestions on what we could do....the best one was that we should grease the surface of the ferry and slide the semi through.

While all this was going on, the total highway traffic north and south came to a complete standstill. Eventually we had to unload the semi and carry everything out to the north bank, unhook the trailer and drive the prime mover off, then by sheer manpower, the trailer was lifted clear of the ferry and moved back into the entrance gate. The ferry then turned round, the trailer was rolled off and attached to the prime mover again. We loaded up and proceeded to Gosford past the south bound traffic which had banked up for miles. Those people must have had a good day.

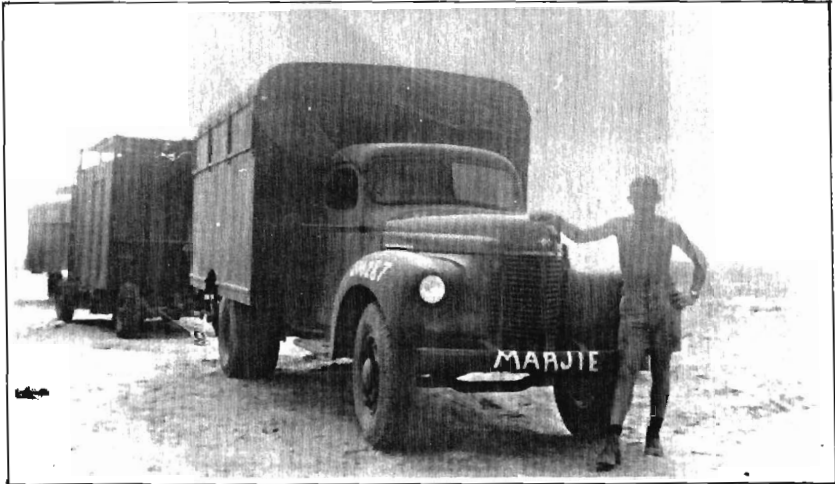
We arrived at Gosford after dark and proceeded to the showgrounds to camp for the night. A few bodies set off in the GMC to find something to eat - became lost - tried to drive up a very steep hill, and found the GMC could not make it. For the second time that day, we had to unload and carry the load up the hill. I don't remember what happened about our tea. We arrived at Ash Island the next day and set up camp about $\frac{1}{2}$ mile from the WAAAF living quarters while the Dover vehicles were installed beside the 131 Radar Station about $\frac{1}{2}$ mile north of the camp.

Our camp was set up in normal fashion - kitchen, Messroom, Orderly Room truck, and our tents for sleeping. The showers had hessian walls and the bucket shower had a plug in the bottom controlled by a rope. It was mighty cold during the winter.

Then we had the flood. I'm not sure whether it was caused by excessive rain or just a high tide, but we woke in the early hours one morning to find about 6 inches of water in our tents. Fortunately we had stretchers to sleep on. And by interfolding three blankets we got three thicknesses on top and three underneath with some newspaper as a mattress.

I was going to say we did not socialize with 131 RS in the few weeks we were there, but then I remember one of our fellows became engaged to a WAAAF from 131, so obviously there must have been some fraternisation. There was plenty of entertainment for the troops in Newcastle....a Red Cross dance etc.

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155 Radar 'On the Road.' These Australian assembled units were an improvement on the earlier Crossleys which came from England. The big International trucks were finished with a lined operations cabin, and a small air conditioning unit resembling a radiogram in appearance was installed on the near side. The biggest improvement was the electrically operated turning gear for the aerial, which operated both electrically and by hand, i.e., by Selsyn motor, all of which was controlled by the PPI operator. After its short stay on Ash Island, 155 Radar left for W.A. by ship and then by road almost one thousand miles to Exmouth, the equipment suffering somewhat on the journey. In February 1945, a cyclone almost destroyed the unit.

It has been reported that when the Fitter DMT in charge arrived at Exmouth with the Internationals, he had acquired some wire netting, a bag of chook food, and six chooks. A true Radar man !.

[Photo - J. Bettess.]

My period in command of Ash Island covered the first half of 1944. It was my first command, and it included my 21st. birthday. How youthful we all were, yet how seriously we approached the responsibilities with which we were entrusted! The organisational structure of the unit was quite settled when I arrived, though the change to the new Canadian RWG equipment occurred in my first month or so. With competent and experienced technical and operating staff, all went as smoothly as could have been expected.

Twenty-four hour operation was covered by four six-hour shifts, each comprising five operators and a mechanic, though there was a shut-down of up to an hour for maintenance each day as arranged with the filter room at the fighter sector headquarters. The operators and mechanic formed a cohesive unit for each shift, working very closely together. The successes, and let's face it, occasional failures were never those of individuals, but always of the team; each depended very much on the others.

One operator was responsible for the antenna rotation, one for the plan position indicator tube (PPI), one for the range/height tube, the fourth worked at the plotting table and was in contact with the filter room by phone, and the fifth kept a running record of all plots and heights. The functions were rotated each half-hour. The antenna for the RWG was both motor-driven and manually operable; my memory is that manual operation was found to be more reliable, and was used whenever an interesting target was being plotted. Separated by a partition from the receiver was the transmitter, the principal focus of attention for the mechanic. The whole complex was powered by two large, interchangeable Lister diesel generators which were housed some distance away to reduce the distraction of noise. A fitter/DMT was on strength to maintain them.

The C.O. was technically trained, and he, with the senior mechanic, was responsible for supervising the maintenance and effective operation of the equipment. The WAAAF officer was his adjutant, and was responsible for the well-being of the female staff. There were two senior NCO operators who supervised the operator shifts and acted as assistants to the WAAAF officer. Ancillary staff included cooks and mess orderlies, a medical orderly, drivers, stores and clerical staff, and a group of guards who provided security for the equipment on a 24-hour shift basis.

The life of the unit revolved around the operational shifts. The crew on the 'dog watch' (midnight to 6 am) needed to sleep during the day, and were provided with separate tents far enough from the main camp to avoid disturbance. The kitchen staff provided meals flexibly when they were needed. Transport was supplied by a Chev. utility with a removable canopy, with many of its trips being to Newcastle, half an hour or so away. It changed the night shifts and, when it was available, those during the day also. Beyond that, it was used occasionally for recreational purposes, taking troops swimming or to evening functions.

By the time I arrived, the camp itself was well established. Big huts provided sleeping quarters for WAAAF and RAAF; there was a recreation hut, kitchen and mess huts; an orderly room-cum-adjutant's office and quarters, a C.O.'s office and quarters, stores and medical sections and huts for toilets and ablutions. The site of the radar operations, normally referred to as the 'Doover', was about three-quarters of a mile (twenty minutes walk) across the paddocks, or a bit further around the road, from the camp itself. The British Mark V equipment, which was operational when I arrived, was housed in two separate timber-framed huts for receiver and transmitter, with

a lean-to for the generators. The new equipment went into the massively constructed 'igloos' that are, I gather, the principal remaining evidence of the unit.

Ash Island was used both as a training ground and as an experimental unit, as well as serving a serious purpose in the defence of a major industrial centre crucial to the war effort. Technical staff, officers and mechanics mainly, went from there to overseas postings. An interesting research project was conducted during my tenure. Drs R. Giovanelli of SCIR and F. Mercer, from, I think, the Bureau of Meteorology, spent some time at the unit carrying out experiments with meteorological balloons and suspended dipole structures, getting radar plots from them at heights of up to about 100,000 feet. It was a challenge to the skill of the operators, as particularly accurate estimates of height were needed, and afterwards the researchers expressed themselves more than satisfied with the results they got.

It will be obvious that 131 RS played an important part in my life. I learned much of lasting value about human relations and the principles of management, as well as about technical problem solving. And there it was that I met the girl who became my wife at the end of 1944, less than six months after leaving Ash Island.

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131 RS - DMT.

Edith McGrail.

When I arrived at Ash Island, we lived in tents with wooden floors and mangrove swamp under us. So we wore gum-boots. Vera Mayall was our WAAAF officer - I was DMT and drove the crews to and from the 'Doover' in a ute called 'Toots.' We had to fit chains to the tyres to prevent 'Toots' bogging in the mud. Then the WAAAF and RAAF huts were built, also a proper Mess-hut.

We had a CO:- a Madam:- one Orderly Room clerk, Jeanie Sefton who did all the book work. We had a Medical Orderly, Alan Wood, and an equipment clerk, Shirley Haig. And we had two cooks - Bertie was one - and a steward named Cliff. Another steward was Miriam Cooke.

We were not allowed pets, but I was given a lovely dog which I called 'Asha' for Ash Island. It was given to me by the publican of the hotel at Hexham - I used to take our mail and his to Hexham Post Office and collect mail for him and the station.

For our recreation, we would put mangrove fronds round our waists and pretend we were Hula Islanders. And there was a quarry over the Hunter River on the way to Raymond Terrace, and on hot days we would ride bikes or get a lift to swim in the quarry which was very deep and very cold.

I used to take Madam and the ute full of personnel to the dances up at the Singleton Army camp. Also Brambles Removalists in Newcastle would open their house to service personnel every Sunday, and we would go over and enjoy dancing and a cup of coffee or tea.

On very hot days we had some swimming parades on Newcastle beaches - quite often at Merriweather Beach.

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131 RAAF Radar, Ash Island.

David Bernard.
(Reprinted with permission TAS
(Journal, Newcastle.)

Ash Island is situated in the south channel of the Hunter River, and it is reached by bridge from Maitland Road at Hexham. Prior to WW 2, it was a dairy area with a number of farms, public school and a sub-post office, operated by a Mrs. Manning. The farm on which the station (131 RS) was built was owned by a fourth generation farmer, Mr. Alex Murison, and his family owned the land from 1840.

The island was an ideal site for a radar station, swampy and surrounded by water, inducing a good reflection of signals. The station comprised above-ground concrete buildings housing the radar and operations rooms and other equipment. The vertical flat mesh antenna screen was at the top of a 6 metre-in-height steel mast and was rotated by a 5 hp electric motor. The total weight of the structure was 12 tonnes.

The personnel, mostly WAAAF, lived in huts on site. Mrs Jean Butler, of Corlette, and daughter of Mr and Mrs Murison, told me they used to visit the farmhouse to play the pianola, have their hair washed and enjoy her mother's cooking. After the war, some continued to send Christmas cards and later, photos of their children. Mrs Joan Paterson of Kotara was the Post Mistress at Hexham then and tells of similar visits from service personnel. She still has the pianola rolls the girls bought for her. The station used to pick up mail direct from the post office.

Father Joe Walsh retired, (known as the flying priest, a licenced pilot with many hours) tells me he used to visit the public school on the island for scripture lessons. A number of the WAAAF attended church at Mayfield and he and the Anglican minister used to arrange transport back. He never visited the site.

The public school at New Lambton had been evacuated, the building being set up as the RAAF Fighter Control Centre receiving signals from Ash Island and, I believe, from RAAF Swansea, (not to be confused with RAAF Rathmines). This station was at Mine Camp, a small mining village near Catherine Hill Bay. It was called an ACO station. New Lambton then sent signals on to RAAF Williamtown, Richmond and Bankstown.

All that remains of 131 RAAF Radar Station on the island today are several concrete structures and foundations. I personally remember seeing the station whist serving in the Air Force but never visited it.

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Ash Island, 1942.

Max Trahair.

I was at 131 RS, Ash Island in late 1942 and early 1943 when it was a mobile unit of three Crossley trucks, - the transmitter in one, receiver in another, while the third was used as a workshop and general purpose vehicle. Each truck was equipped to tow the aerial or the two diesel generators.

The accommodation was American bell tents, six RAAF bodies (I think) to a tent. I remember we burnt cow pats in the tent at night to clear out the Hexham grey mosquitoes which were huge.

I left Ash Island in early '43 to help set up 134 RS at Maroubra with Gordon Mills and Kevin Johnson. F/Lt Lamb was C.O. After preliminary work, the mobile Crossley units from Ash Island joined us.

Hope this is of some help.

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Above.

Left. Elva Noble manages a happy face despite being on station fatigue duties.

Right. Helen Serpell finds the bike a good way to see the surrounding district. Notice the bell type tent in the background.

Below.

Dulcie Kelly on the chopping block duties. The girls regularly chopped the wood for the coppers, otherwise cold showers could be expected.



My Stay at Ash Island - Year 1943.

Connie Bradley.

On completion of my "Rookies," I was temporarily posted to the VAOC in Brisbane. Then after 2½ months came another posting, this time to Radar School at Richmond.

On completion of the Radar course I was posted to Fighter Sector at Bankstown for two months, so imagine my delight when at last I was posted to 131 RS, a real Radar Station.

Posted alone, my movement order was to the Newcastle Railway Station when I had thought maybe Ash Island was perhaps some exotic Pacific Island. There I was met by Mrs. Mayall, the charming WAAF Officer, who came herself to meet me because I was alone. I was very impressed by this. Having met, we headed by tender, a utility truck called "Toots", along what was then called the Maitland Road, which is now part of the Pacific Highway. We crossed a longish wooden bridge just on the Newcastle side of Hexham onto an island, one of many among the mangrove swamps of the Hunter River.

Our quarters then were the old school house and a number of large tents. As I was an extra and there didn't seem to be any bed for me, I was given the bed in the kitchen of the old cottage belonging to a girl on leave. During the night I heard this tearing scratching sound next to my bed. In the morning I discovered that a rat had crawled into my highly prized briefcase and demolished a block of chocolate. What a beginning!!

The next day I was taken up to the "Doover" which at that time was housed in a corrugated tin shed, the equipment being GCI. Outside the Doover was the mobile aerial which was rotated by an operator turning the handle for half an hour. There were four operators on shift and one mechanic. One operator was on the PPI tube; one on the Range tube, one on the plotting board and one was outside turning the aerial by hand. The shift lasted four hours and each position was rotated ½ hourly.

Later on during my stay our barracks were built and the equipment was housed in two concrete igloos.

Summer on the island was quite hot and we also had to contend with the famous "Hexham Greys," - huge mosquitoes which almost picked you up and carried you off. Winter however was very cold as the island was below sea level and was extremely muddy. A large notice put up by some of the operators on the notice board read..."WHEN GOING ON LEAVE, PLEASE DON'T TAKE THE ISLAND WITH YOU."

The local people were very hospitable to us and many happy times were spent at the 'Travellers Rest,' now a McDonalds, which was then a Pub situated across the bridge on the mainland. Although the majority of us in those days were not drinkers, we were made very welcome with pots of coffee, tea and many "goodies" to eat.

Another family extremely kind to us were the Brambles of New Lambton who had 'open house' for service people of the district every Sunday night, and many a happy time we spent there.

Despite what might appear to be hardships, those early days on the island were some of the happiest times I spent in the Air Force.

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In the early days all personnel lived in tents out in one of the fields. Things were very primitive and very muddy. By the time I arrived, in June 1943, more permanent buildings had been erected. One long corrugated iron hut provided living quarters for the 25 WAAAF with a similar one for the 20 RAAF. A shower room ran across one end of each hut. Toilet blocks were some distance away and were of the old pan system. Another iron hut served as a communal recreation hut and yet another as the Mess and kitchen. Our one WAAAF officer and one RAAF officer (Commanding Officer) each had self contained quarters in close proximity to our huts. The Orderly Room was another small building and was run by a WAAAF clerk and the WAAAF officer as Adjutant. The unit transport was one utility with a canvas canopy. There were no compounds and the farm animals were allowed, indeed encouraged, to wander around the area as part of the camouflage. We had a medical orderly to attend to minor complaints but anything of a more serious nature meant a trip by tender to Rathmines Base. We also travelled to Rathmines for any clothing issue or booster injections. If there was any spare room on the tender one might hitch a ride in the hope of gaining a "joy flight" at Rathmines. It was under these circumstances that I had my very first flight. I managed to talk myself aboard a Catalina with a pilot who was on a conversion course and spent an hour doing "circuits and bumps." That was quite an experience. We were also allowed use of the tender if sufficient of us desired to attend a Sunday Church Service in town. I seem to remember the Army trucks brought all our food supplies. Being such a small unit, there was complete integration and it worked very well. We worked together, ate together, spent our off-duty time together - and what a harmonious unit we had!

There were three radar units in the Newcastle area - each with different equipment and therefore varying roles. 20 RS at Tomaree, because of its position and steep cliffs, was at the time manned only by RAAF, but 208 RS at Swansea was manned by RAAF and WAAAF. Our task was to track all aircraft approaching Newcastle from all directions. All Radar could plot direction and range but we had the extra advantage of also gauging height. This extra information was essential to the fighter aircraft stationed at nearby Williamstown Base if they were to intercept any approaching enemy aircraft. There was much local flying activity at Williamstown and nearby Rathmines flying boat Base. We kept an eye on these planes doing their training and could always report there were 10 plus aircraft in the vicinity of both bases. We learned to identify the friendly steady beat of the Catalina "blip" as we watched them do their circuits and bumps and their navigational exercises. We were paramount in bringing one lad safely back one night when he had strayed well off course and was trying to find his way into a blacked-out Sydney - mistaking it for Newcastle. Despite repeated assurances from Rathmines that all their planes had returned, we insisted they had a "lost" plane much further south, circling and obviously confused. Finally action was taken and the wayward one headed north and landed safely at base. We received a message of thanks some days later from the crew. We got to know the regular civilian flights, few though they were by comparison with today's air traffic - and were able to give perfect tracks of them, and even "visuals" as they passed overhead.

One night we plotted 5 plus aircraft well out to sea, moving at a steady speed and at zero height. Fighter Sector assured us we were plotting a storm.

What a perfect track it was making, travelling at the speed of aircraft, a steady beat and at about 1000 feet. I was sure we were about to be attacked but Fighter Sector still maintained it was a storm. I have never known such frustration, as we could tell it was a flight of aircraft, but nobody would listen. Plots were passed every two minutes, but still no action. Finally the "storm" disappeared from the screen over Sydney. Next morning the headlines announced "Squadron of RAAF Sunderland Flying Boats arrived from the U.K. last night and landed at Rose Bay after a Wave Hopping Flight." I smiled and felt good - Fighter Sector must have known and for security reasons had let us go on plotting a "storm."

While water was laid on to our hut for washing, hot water certainly was not. To fill this need we were provided with an old fashioned wood copper at the rear of the hut. This was kept filled and fuelled by the off duty crews so that hot water was always available. Taking a shower was quite an experience. One filled a bucket from the copper - cooled the water to the required temperature - placed the bucket on the shelf in the shower cubicle - quickly undressed, then operated the pump handle with one hand while lathering with the other - quite a trick of co-ordination. One had to judge when to stop lathering to allow enough water for the final rinse. Our toilet block was a handsome structure of galvanised iron, standing some distance from the living quarters. It comprised about 6 cubicles and was of the pan variety, with flaps at the rear for removal. The pans were changed regularly by a couple of cheerful chaps who were always thoughtful enough to give fair warning before removing the pan.

As total personnel on our unit was only about 47, and because of shift requirements, one crew being on duty, one sleeping, and one on leave, there was never a great number of people available at any one time for parades etc. As a result on Pay Day people wandered at random to Orderly Room to collect their pay. One C.O. decided this had become too sloppy, and that our dress and bearing should be smartened up. He therefore decreed that on the next Pay Day we would dress correctly and present ourselves for a Pay Parade. At the appointed time we all lined up, suitably dressed, all 15 of us, outside Orderly Room. The C.O. called us to order and started to tell us of our misdemeanours. At this stage a wily old draughthorse came wandering along looking for a drink. He sniffed the fresh water in the copper beside the nearby RAAF hut and without hesitation took the lid handle in his mouth, dropped the lid to the ground with a clatter, thrust his head into the copper and began to drink as noisily as only a thirsty draughthorse can. The parade dissolved into hysterics and the poor C.O. lost all control. He ordered the Sgt. Mechanic, the senior NCO at hand, to take us on a 5 mile route march as punishment. We fell into step and marched very properly out of sight, over the bridge and along the highway towards the Hexham pub. Here the sergeant called a halt and we spent the next hour or so sitting in the shade chatting, while a few of the troops downed a cool ale. After an appropriate lapse we fell back into line and marched back to camp - apparently very chastened!

When I arrived at Ash Island in June 1943 the GCI equipment was housed in timber and iron huts. Early in 1944 two large concrete igloo buildings were completed, and new equipment was installed. The previous unit was then packed up and removed from the site. We had a good deal more room in our new quarters, with the receiver and transmitter housed in one igloo, and the emergency power unit in the other. These two structures still stand on

Ash Island today, the only reminder of the RAAF Radar Station.

Life on 131 Radar Station was a wonderful experience, and my 13 months there stand out as my happiest days in the service, and many friendships forged there are still strong today.

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Above"A" Crew gardeners - Mary Bale, Joan Bale and Beryl Walker.

"A diversion started by one Commanding Officer was our vegetable garden. An area was dug over and divided into five long plots, each about a metre wide. Each crew was given a plot - marked by a painted wooden peg. We were provided with seeds and seedlings and were expected to spend some of our spare time tending and watering our plots. Unfortunately "A" crew did not have any keen gardeners, so we were usually well behind with results. We usually knew when there was to be an inspection, so it was simply a matter of someone slipping out to the garden to exchange our marker peg with that of the crew which was on duty. I doubt that we really fooled the C.O."

(Beryl Mainon.)

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Mainly "Off Duty" Time at Ash Island.

Elva Pascoe.

Our equipment on Ash Island was GCI housed in a large concrete igloo with walls 3 feet thick! It was well camouflaged with netting, and was out of bounds to all personnel other than those trained in Radar. "Outsiders" were not aware of 'what went on' within those walls. The igloo was situated a good $\frac{3}{4}$ mile from the barracks. During the day shifts we walked across the paddocks, many times being scared stiff of the cows - and more so by the bull! On night shifts we were driven around the road in 'Toots' the covered-in utility. Joy Little was our popular DMT.

'Toots' was also used for recreational purposes - to take those off duty to the Newcastle Surf Beach, or to the disused sandpit situated just off the main road to Raymond Terrace. First we would have to cross the Hunter River on the Hexham Punt. We had a wonderful time there - swinging on the end of a rope attached to a tree, out over the water and dropping!

"Toots" also transported us to entertainment in Newcastle every Saturday night. Most popular were the Pictures and the Roller-skating. I had gained a fair amount of expertise in my home-town of Maffra, Vict., and it was through me that roller-skating became a past-time. One of the supervisors always booked the 'Evening Three-step' dance on skates with me - and because of him I got the nick-name 'Eggie.'

Another place of interest for some of the party-wise girls was the Beresford Officers' Mess at an Army Camp just west of the island. I did not go, and I never did find out what went on, but I believe plenty! But I can remember a dance being held in the Hexham Hall when Ken Drummond and his 155 RS boys were on bivouac on Ash Island. The boys outnumbered the girls by three to one! I was a shocking dancer, but I wasn't a wallflower that night!

On another occasion, we (those not on duty) were attempting to get a game of cricket under way, but it was tough getting a team together. They were all doing their own thing in the Recreation Hut, until we glimpsed Mary Cowan, the WAAAF Officer, and the Salvation Army Welfare lady walking up the path towards us. As they walked in, suddenly everyone became interested in the cricket team and we all marched out. For some reason, Mary thought we had insulted the Welfare Officer and reported the incident to F/Lt. Drummond who was then C.O. He was outraged and quickly informed Sergeant Shirley Haig to call a C.O.'s Parade. All she would say was that we were in terrible trouble. What could it be? Maybe leave would be cancelled!

Anyway, we assembled. Mr. Drummond had an unfortunate speech impediment, and his anger made it much worse. He spelt out the reason for the parade, and then the punishment: - A ROUTE MARCH AROUND THE ISLAND! We almost died trying to contain our mirth. We set forth in a great frame of mind I think it was Shirley Haig who took us. As she diligently issued her orders to "Quick March" - "Right Turn" - "Left Turn" etc. many pretended not to hear. You can imagine the chaos - running into fences, cows etc. That proved to be a great day's fun.

Mary Cowan took her responsibilities very seriously, and in hindsight looked after the interests of her girls very well. It must have been a lonely life for her. Later she became a warm-hearted friend - not that remote WAAAF Officer you tried not to tangle with. Sometimes it was unavoidable. One time we were to go to Williamtown on "Clothing Parade." Most Air Force personnel will remember those terrible WAAAF stockings which eventually washed into a sickly pale yellow. But that wasn't sufficient reason for replacement! So the concrete steps made a good rasp until there was practically no feet left. But I hadn't counted on Mary inspecting them! She

gave me a blast for not attempting to mend the holes!

I remember one day three or four of us hired a rowing boat at Hexham, then rowed all the way into Newcastle where we tied up at a small wharf in Stockton Harbour.

We visited the shops - no doubt bought a parcel of prawns which were then in plentiful supply. We had rowed down the northern arm of the Hunter River around the island when the tide was going out, then waited for the tide to turn and take us home the same way - had we come up the southern arm officialdom might have sighted us. It was more than ten miles, and we were exhausted but exhilarated after achieving what we had set out to do.

Another time Kell (Dulcie Kelly), Yvonne Paulig, Irene Power and I set off to look over the all-male Radar station at Tomaree, which was centred in a restricted military area. At the time, the C.O. of Tomaree was Ray Oldfield who told us if we got there under our own steam he'd show us over his station. What a challenge! So the four of us set out from Ash Island to hitch-hike.

Kell and I stuck together and arrived at Stockton Punt before the others. Immediately the Marines from an American truck pounced! "Where ya goin' Gals?" "To Tomaree." "Hop aboard." But whatever their wicked designs were, they were thwarted by some Aussie sailors also on the punt in their vehicle and who thought we would be safer with them. We took their advice and accepted their offer.

Somewhere along the route there was a check-point. Sometimes vehicles were stopped and sometimes not - so they hid us under a tarp. Just as well, for the vehicle was stopped and checked.

They took us as far as the township on the west side of the Bay, but we had only walked 50 yards when an American jeep picked us up, and we sat up on that back seat and felt like celebrities, and saluted the astonished Yanks as they came to life! I still vividly recall those wolf-calls as we were driven those few miles around the Bay to the Tomaree Radar Station. The C.O. got one helluva shock - but the boys treated us like royalty and opened up the canteen "On-the House." Incidentally, the other two girls arrived during the afternoon.

I was on the last shift of operators to leave Ash Island in 1945. It comprised Dulcie Kelly, myself and two others, plus a mechanic who remained on the island for 'Care and Maintenance.' Prior to leaving, two of us slept at the Doover near the equipment, knowing that at any time during the night, Fighter Sector could call us 'on air.'

I well remember the day we left Ash Island. As we crossed that long white bridge for the last time we were all sobbing - it is impossible to describe the feeling of sadness and grief. Ash Island had been our home for nearly two years.

Strangely, we were never allowed to give anybody - not even our parents - any idea where we were situated. So we'd have to say "We went onto the mainland to the main city or town etc." Yet on most school atlases there was Ash Island properly named. And strangest of all, our mail was addressed to "Ash Island," even though it was collected at Hexham.

I'll conclude with a page of small 'poems,' put together for one of the Christmas Dinner celebrations by the mechanics :-

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Ash Island Ditties; Christmas 1943. (From the Radar Mechanics)

Jean Petrie.
Elva Pascoe.

Jeanie Sefton sweet and mild,
Often thought of as a child.
But when she looks at her Sergeant fair
It's not the way a kid looks at a teddy bear!
Stick to him, Jeanie with the light brown hair.

(J.P. ... I did...and we were wonderfully happy until his untimely death
in 1978.)

Medical Orderly Laurie Lee,
With that wave of her hand
Said..."Don't tell me
You've hurt yourself, you do look ill.
I think you'll die..here, take this pill."
At a thousand yards it's a moral to kill.

Corporal Morrison - Nan to you -
Sipping a cup of Clifflie's brew.
At ten o'clock you'll find her there
Using the dirt tin for a chair.
And saying - "Got a cigarette there?"

Phantom Haigh - wait till you've missed her
I really think she's Mandrake's sister.
She'll be there one moment, then with dashing
smile,
She'll appear somewhere else; perhaps she'll
travel a mile.
Once she went for four weeks,
That's an awful long while.

Yvonne Paulig and Irene Power,
Are seldom apart for a single hour.
They seem to be like Siamese twins
Bound together with invisible fins
Till a man comes in view - then the best girl wins.

Little Johnnie a gaiety girl,
Spends her life in one mad whirl
Going here and there
She dances more than Fred Astaire
I'd say she's getting the lion's share.

Peggy Peachey - Fraser now,
Returned from her honeymoon looking a wow,
Sunburnt skin and eyes that shine
Like bubbles in a glass of wine.
Wonder does Hubby look so fine?

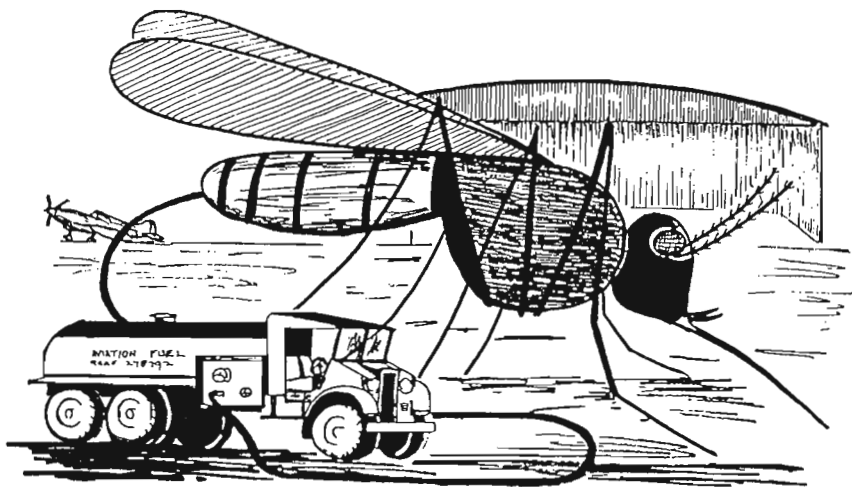
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THE LEGEND OF THE HEXHAM GREY.

Now gather round - a tale I'll tell
Of Radar plots at 1-3-1, and Red Alert as well,
As flying in formation from bearing one four five,
They climb to Angels twenty one - and then prepare to dive.
Those nerveless flying Bandits in mad pursuit of prey,
More feared than any fighter plane - the dreaded Hexham Grey.

Ash Island on the port beam - and Williamtown ahead,
Let's stop awhile - refill our tanks - take off again when fed.
There's mainly WAAAF to feed on, no richer fuel you'll find,
Let's buzz the bunks and strafe the showers and feast on form divine.
We're fearless flying Bandits in lustful chase of prey,
More feared than any fighter plane - the dreaded Hexham Grey.

(M.F.)



A Hexham Grey on the Tarmac at Williamtown.

Ash Island was notorious for a large mosquito called the 'Hexham Grey.' It had a very large appetite and was very aggressive.

There was a story going around our camp that one had landed on the strip at Williamtown one evening and the Duty Personnel raced out and refuelled it before they realized it was a Hexham Grey!

(Gordon Mills.)



IN CONCLUSION.

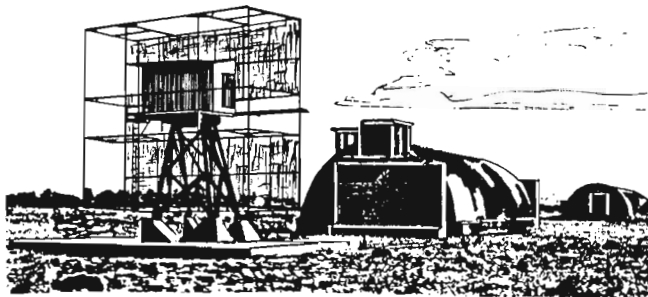
Hopefully, this story of the RAAF 131 Radar Station on Ash Island, near Newcastle, gathered in from so many people who actually knew the place during World War II, will assist all who visit the site as part of the programme for the National 'BLIPS' Radar Reunion of 1995 - a memorable occasion when the men and women of Australian World War II Radar Units gather together at Port Stephens in August 1995 - 'Australia Remembers' year. To mark the visit, a commemorative plaque will be fixed and unveiled on one of the old station concrete 'igloo' rooms. These rooms will have a more active and busy role in the future when they become an educational centre for the proposed new island life, and also a repository for the history and story of the island.

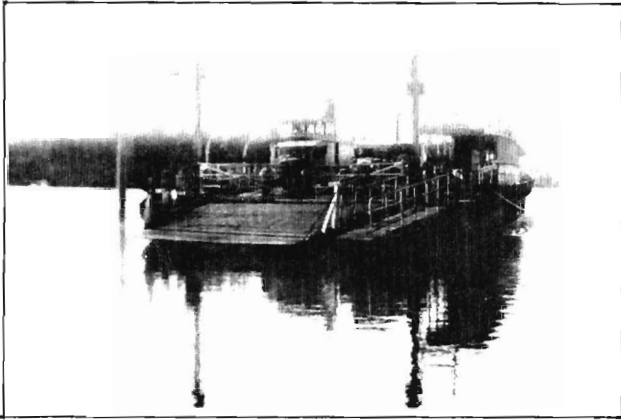
A re-afforestation and wetlands programme is proposed - also it is hoped that Ash Island will become a new recreation area, with canoeing, walking, fishing and other outdoor activities.

Altogether, ninety three schools are participating in the scheme for the Kooragang Island Wetlands Rehabilitation Project, Ash Island being the westernmost part of the project, and five schools are preparing seedling trees to be planted in this part of the scheme.

Perhaps the stories of the small RAAF station - staffed mainly by WAAAF operators - and in the actual words of those who were involved in station life on the island back in the years from 1942 to 1946 will, as the years pass, become part of the island folk history.

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The Hexham Punt, 1944.