

CHAPTER I

MESOPOTAMIA—THE FIRST AUSTRALIAN AIRMEN ON SERVICE

At the date of the declaration of the war the air-fighting arm, still a mere infant development in Great Britain, was to all intents and purposes unknown in the oversea dominions. In Australia some efforts were being made in civil and military flying, and, shortly before the war, as one of several important measures adopted for the defence of the Commonwealth, a Central Flying School had been established at Point Cook, near Melbourne. Two airmen, H. A. Petre¹ and E. Harrison,² selected in England, had been given honorary commissions as flying instructors, and the Defence Department had acquired five aeroplanes for training purposes at Point Cook. The first course of war-flying instruction, which lasted three months, began on the 17th of August, 1914.³ It was attended by four officers, who all qualified as pilots—Captain T. W. White,⁴ of the 60th Infantry, Australian Military Forces, Lieutenant G. P. Merz,⁵ an officer of the Melbourne University Rifles who had just completed his medical course at the University, Lieutenant R. Williams,⁶ later squadron-commander and wing-commander in Palestine, and Lieutenant D. T. W. Manwell.⁷

The Australian Flying Corps owes the beginning of its career of service to an inquiry from abroad. On the 8th of February, 1915, the Commonwealth Government received

¹ Maj. H. A. Petre, D.S.O., M.C. Aviator; of South Yarra, Melbourne; b. Ingatestone, Essex, Eng., 12 June, 1884.

² Group Capt. E. Harrison; Aust. Flying Corps (afterwards R.A.A.F.). Aviator; of Melbourne; b. Castlemaine, Vic., 10 Aug., 1886.

³ See Appendix No. 3.

⁴ Lieut.-Col. Hon. T. W. White, D.F.C., V.D.; Aust. Flying Corps. Minister for Trade & Customs, since 1933. Manufacturer; of Melbourne; b. North Melbourne, 26 April, 1888.

⁵ Lieut. G. P. Merz; Aust. Flying Corps. Medical practitioner, of Melbourne; b. Prahran, Melbourne, 10 Oct., 1891. Killed in action, 30 July, 1915.

⁶ Air Marshal R. Williams, CB, CBE, DSO, p.s.a. Commanded No. 1 Sqn., A.F.C., 1917/18; 40th Wing, R.A.F., 1918/19; Chief of the Air Staff, R.A.A.F., 1920/39. Of Moonta, S. Aust.; b. Moonta, 3 Aug., 1890.

⁷ Capt. D. T. W. Manwell, M.B.E.; No. 1 Sqn. Staff Officer for Equipment, A.F.C., London, 1918. Commission agent; b. Queenscliff, Vic., 23 Aug., 1890.

from the Government of India a message asking whether Australia could provide for service in Mesopotamia any trained airmen, flying machines, and motor-transport. Two days later the Australian Government replied that the Commonwealth could furnish some airmen and necessary mechanics and transport, but no aeroplanes.⁸

The available pilots in Australia were the four newly-trained officers above mentioned, the two British instructors, and Lieutenant W. H. Treloar,⁹ of the 72nd Infantry, Australian Military Forces, who had learned to fly in England and had returned to Australia just before the outbreak of war. Four were selected to go as pilots with the Mesopotamian Half-Flight (as it was called), namely, Petre (in command), White, Merz, and Treloar.

At that stage of the war the organisation of a flying unit was still undeveloped; the Australian Government suggested (and the Indian Government approved) that mule-transport as well as motor-transport should accompany the force. For personnel, besides the four officers, there were selected forty-one of other ranks, including eighteen air-mechanics.¹⁰ The sergeant-major, staff-sergeant, and sergeant were from the Central Flying School; the quartermaster-sergeant and the farrier-sergeant were from permanent artillery units in New South Wales. The corporals, drivers, and mechanics were obtained from the A.I.F. training camp at Broadmeadows, in Victoria.

A few of the non-commissioned officers only had had any experience of aeroplanes, but the mechanics were carefully chosen from numerous volunteers at Broadmeadows who had worked in motor-engineering shops, and the riggers from those who possessed good credentials as carpenters and joiners. Under the guidance of skilled instructors the motor-mechanics and carpenters were soon able to undertake the repair and maintenance of aeroplanes; later, on active service, these held their own against the best air-mechanics of the Royal Flying Corps. The two repair-shop lorries which accompanied the unit were built on heavy motor-lorry chassis at the

⁸ See Appendix No. 2.

⁹ Lieut. W. H. Treloar; Aust Flying Corps. Motor mechanic; of Albert Park, Melbourne; b Fairfield Park, Melbourne, 8 Aug., 1889.

¹⁰ See Appendix No. 2.

Newport Railway Workshops, and were equipped with lathes, drilling-machines, welding-plant benches, and circular saws.

The little force was organised and equipped in haste. Uniforms were with difficulty obtained only two days before departure, and some necessary small stores had to be purchased at Adelaide and Perth *en route* to India. Captain Petre left Melbourne on April 14th for Bombay as advance officer; White then took temporary command and sailed with Treloar and thirty-seven other ranks in the *Morea* for Bombay on April 20th. The quartermaster-sergeant and three mechanics were despatched with the motor-transport in the *Ulysses* on May 3rd, and the horses and mules followed later in another ship. Merz was detained on instruction duties at Point Cook, and did not rejoin the Half-Flight till June 13th at Basra. At Bombay the drivers and the farrier-sergeant were left in barracks to await the arrival of the mules,¹¹ and the remainder of the force was despatched in the *Bankura* to Basra, where it arrived on May 26th.

At Basra the Australians found two Indian Army airmen (Captains P. W. L. Broke-Smith¹² and H. L. Reilly¹³) and a few mechanics. White, giving his impressions on arrival in the theatre of war, writes:—"These two officers, with about four British and five Indian mechanics, formed the Indian Flying Corps, which was supplemented by an Indian Army reserve lieutenant as engineer officer, and six British motor-transport drivers. They possessed two motor-lorries and a few spare aeroplane parts. With the assistance of Indian pioneers a road of date-palm logs had been made from the Shatt-el-Arab (the canal on which Basra is situated) across a swamp to an Arab cemetery, where tents had been pitched and a small aerodrome was in the making." Another flying officer attached was Lieutenant W. W. A. Burn,¹⁴ a New Zealander sent by the New Zealand Government. There were also present two Maurice-Farman Shorthorn

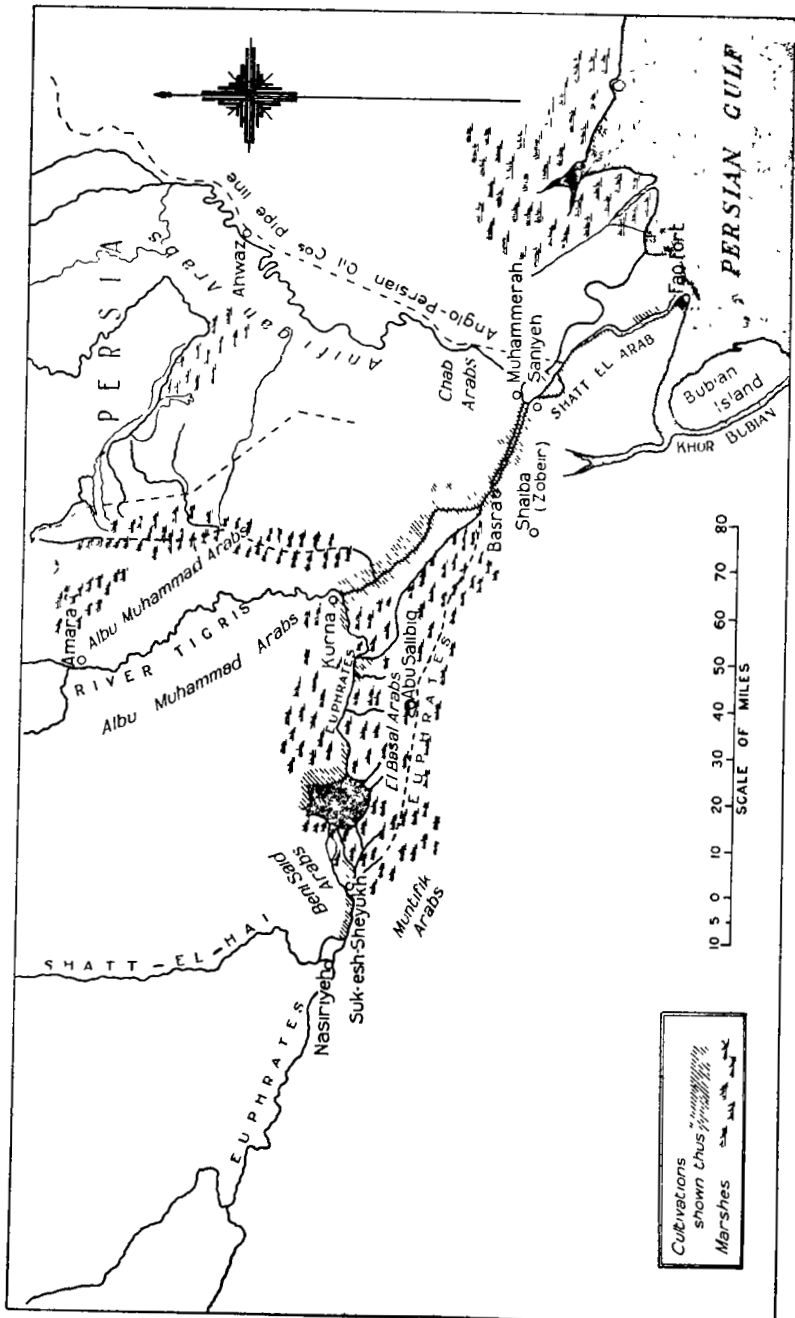
¹¹ The mule transport was useless in Mesopotamia during the flood season, and remained in India till September. The drivers were there trained with British horse artillery.

¹² Brigadier P. W. L. Broke-Smith, D.S.O., O.B.E., R.E. Officer of British Regular Army, of Cheltenham, Eng.; b. Plymouth, Eng., 27 Aug., 1882.

¹³ Group Capt. H. L. Reilly, D.S.O.; R.A.F. (previously Indian Army). Of Bedford, Eng., b. Takapau, Hawkes Bay, N.Z., 18 Oct., 1886.



¹⁴ Lieut. W. W. A. Burn. Of Christchurch, N.Z.; b. Gippsland, Vic., 17 July, 1890. Killed in action, 30 July, 1915.

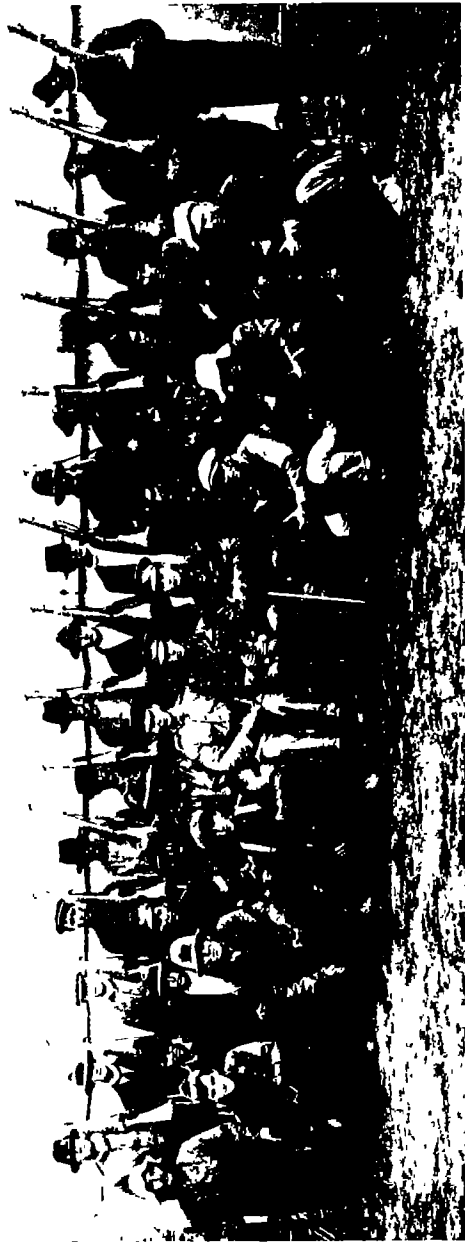
Map No. 1



MESOPOTAMIA (SOUTH-EASTERN PORTION), SHOWING AREA IN WHICH OPERATIONS OF AUSTRALIAN HALF-FLIGHT OPENED

PRWIGHTMAN

Cultivations shown thus 
Marshes 

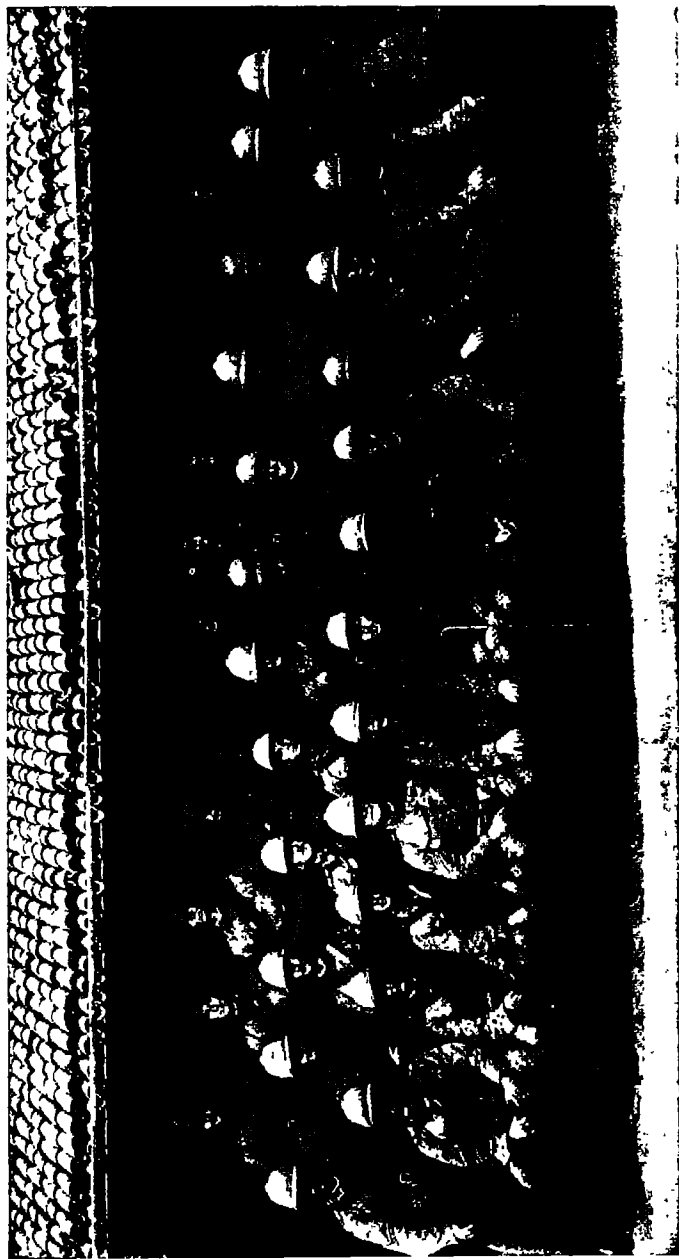


THE FIRST HALF-FLIGHT OF THE AUSTRALIAN FLYING CORPS IN CAMP AT POINT COOK,
VICTORIA, MARCH 11, 1915

The objects in the centre are Lieutenant G. P. Merz (on left, holding kitten) and Captain
T. W. White (right)

Lent by Capt I B White *And Half Flight*

To face p 4



THE AUSTRALIAN HALF-FLIGHT AT BOMBAY, MAY, 1915

The officers in centre are Captain T W White (left) and Lieutenant W H Treloar (right)

Lent by Capt T W White, Aust Half-Flight.

biplanes—"bought" (says White caustically) "with money given by the Rajah of Gwalior for the purchase of two up-to-date aeroplanes"—and a Maurice-Farman Longhorn, which had seen considerable service in Egypt and subsequently spent most of its time in the workshops. There was not much time to lose, for General Sir John Nixon,¹⁵ the newly-arrived commander of the Tigris Expeditionary Force, had ordered the advance up-river from Kurna for May 31st. In the four days' interval, despite shortage of stores, great heat, and the unsettlement inevitable upon arrival, the joint flying force had finished levelling the tiny aerodrome floor, banked back river flood-waters, and set up the machines and tested them.

The deplorable muddle of the first Tigris campaign involved every department of the army, the flying service as well as units fighting on the ground. Administration on the spot amounted simply to making the best of what there was, administration at distant bases of supply has been heavily castigated by the Royal Commission on Mesopotamia appointed by the War Office. The aeroplanes sent to Mesopotamia were quite unfitted for any sort of war service, least of all for war in such a climate. Their type was primitive. Machines were not provided in sufficient numbers; the supply base did not make proper allowance for casualties. Some machines were defective when they arrived, or were without necessary spare parts and instruments. Some were even second-hand. The engines were a constant source of trouble and anxiety. The machines were not fitted with machine-guns; there were none of the improved types to spare from the main fighting front in France. Such bombs as were dropped upon the enemy were, for a time, 2-lb. infantry hand-bombs thrown out by hand; when 20-lb. aeroplane bombs ultimately arrived, they were frequently found to have been damaged in transit. Bomb-racks supplied from England would not fit, and were unserviceable; these had to be repaired locally; and in some instances the only way in which the bombs could be dropped was through a hole cut out in the floor of the cockpit. In general the sole service to which these machines could be put was reconnaissance, and reconnaissance had to be performed in conditions of wind and

¹⁵ Gen. Sir John Nixon, G C M G, K.C.B. Commanded Mesopotamian Exped. Force, 1915. Officer of Indian Regular Army, b 16 Aug., 1857. Died, 15 Dec., 1921.

heat such as no aeroplane designer had hitherto imagined. The flying speed of these aeroplanes on a calm day did not exceed fifty miles an hour; at times when a strong wind blew they simply moved backwards in the face of it.

The Mesopotamian force was officially called "Force 'D,'" a short title for "Indian Expeditionary Force 'D.'" Turkey was known to be inclined to join in the war on the side of Germany, and the first troops of Force "D"—the 16th Brigade of the 6th (Poona) Division, Indian Army—sailed from India in mid-October. Turkey declared war against Great Britain on October 31st, and a solitary British gunboat, the *Espiègle*, remained in the Shatt-el-Arab below Basra to guard the oil dépôts and other British property at Muhammerah. On November 6th the 16th Brigade arrived off Fao, at the mouth of the Shatt-el-Arab; a Turkish infantry force was driven off, and Fao was captured without loss on the British side. Force "D" then landed, and gunboats entered the river. A week later the whole 6th Division had arrived, and Lieutenant-General Sir A. A. Barrett¹⁶ took over command at Saniyeh, on the right bank opposite Muhammerah. On November 17th the division attacked, and put the Turks to flight from their trenches at Sahil, before Saniyeh. Basra was occupied by the evening of November 21st. River reconnaissance by gunboats disclosed that the enemy had retired to Kurna (the traditionally accredited site of the Garden of Eden), at the junction of the Tigris and Euphrates, and were entrenching there. A rapid advance by a small mobile column up the left bank of the Shatt-el-Arab threatened to cut off Kurna, and the Turks hastily evacuated it, leaving some prisoners and guns in British hands. This happened on December 8th. For the next three months the position of Force "D" was precarious. The Turks greatly outnumbered it, and gradually organised two threatening flank movements—one along the Karun River from the direction of Persia, which, if unchecked, would probably have raised the friendly tribes of the Sheikh of Muhammerah against the British; the other west of Basra, from the direction of Nasiriyeh. This second danger was the more immediate, for by April the Turks were in force at Shaiba, ten miles south-west of Basra. At this

¹⁶ Field-Marshal Sir Arthur Barrett, G.C.B., G.C.S.I., K.C.V.O. Commanded Northern Army, India, 1916/20. Officer of Indian Regular Army; of Sharnbrook, Bedfordshire; b. Carshalton, Surrey, 3 June, 1857. Died, 20 Oct., 1926.

juncture the 30th Brigade of the 12th Indian Division arrived at Basra, was sent to attack the Turks at Shaiba, and after a hot fight completely defeated them. The enemy, harassed by Arabs, fled back to Nasiriyeh. A few days later there arrived the remainder of the 12th Division under Major-General G. F. Gorringe¹⁷, and with it General Nixon, who was to take over the command of the whole force. Simultaneously Major-General C. V. F. Townshend¹⁸ was appointed to command the 6th Division. Towards the end of April the 12th Division supplied a strong column to operate up the Karun River towards Ahwaz and ensure the safety of the oil-pipe line. All was now clear for the projected advance up the Tigris. The Australian Half-Flight, as has been related, arrived just in time to take part in the operations.

The advance began on May 31st with an attack upon the Turks at Kurna. It was a curious battle. Both navy and army participated, and both were afloat. The whole country hereabouts has been flooded in April, May, and June of each year since the days of Noah. The infantry had to attack in Arab war-canoes locally called "bellums," and of these there were over 500 engaged. Mountain batteries were on rafts and the heavier guns on barges and steamers. As the river was mined, two launches swept for mines while the gunboats and the weird raft-and-canoë fleet conducted the battle. Petre and Burn (observer), and Reilly and Broke-Smith (observer), reconnoitring from a landing-ground south of Kurna, brought in useful intelligence on the first day of the battle, and Reilly and White on the second day (June 1st) discovered the Turkish retreat and dropped news of it to the navy. Soon after midnight of June 2nd the gunboat *Comet* steamed into Amara, carrying General Townshend and Captain W. Nunn,¹⁹ R.N., who, with twenty-two men, bluffed the surprised Amara garrison into surrender. The army was fifty miles in rear down-stream, and did not arrive at Amara till next day. The battle of Kurna was a signal success; two Turkish gunboats were sunk, and seventeen guns, nearly

¹⁷ Lieut.-Gen. Sir George Gorringe, K.C.B., K.C.M.G., D.S.O. Commanded 12th Div., 1915; III Indian Army Corps, 1916, 47th Div., 1916/19. Officer of British Regular Army; b. Southwick, Sussex, 10 Feb., 1853.

¹⁸ Maj.-Gen. Sir Charles Townshend, K.C.B., D.S.O. Commanded 6th Indian Div., 1915/16. Officer of British Regular Army, b. 21 Feb., 1861. Died, 18 May, 1924.

¹⁹ Vice Admiral W. Nunn, C.B., C.M.G., C.S.I., D.S.O., R.N. Commanded H.M.S.'s *Aurora* and *Curlew*, in Harwich Force, 1917/19; H.M.S. *Ramilles*, 1924/25. Of London; b. Ripon, Yorkshire, 10 Dec., 1874.

2,000 prisoners, and much material were captured. The aeroplanes caused consternation among the enemy on the river during the retreat; one launch full of fleeing Turks, which had narrowly escaped being hit by a small bomb dropped by Reilly and White, construed this misdirected shot as a warning to surrender, and accordingly ran ashore. There it waited quietly, and gave itself up to the first British launch which came up.

The freeing of Kurna from the proximity of the enemy enabled a landing-ground to be made there on an island. From this place the machines returned each evening to Basra dépôt, now styled the aircraft-park, and took with them the Army Commander's reports and despatches to be cabled to India.

Lieutenant Merz arrived from Australia on June 13th. In order that the composite force might work in harmony, the Australasian officer-pilots were granted commissions in the Royal Flying Corps according to their rank, and were temporarily appointed to the Indian Army.²⁰ Under this arrangement the two Indian Army officers, Broke-Smith and Reilly, took precedence and were promoted temporary majors, the former to be Deputy-Assistant-Director of Aviation, and the latter Flight-Commander. White was appointed adjutant of the half-flight and officer commanding the aircraft-park. At Basra a brick workshop for the overhaul of engines and the manufacture of spare parts was erected by Arab labour. Tents were replaced by an iron hangar and huts made of rushes. The Australian repair-shop lorries proved invaluable, and supplied all necessary power until stationary power-engines were obtained from India.

The heat in Mesopotamia is intense, and, owing to the swamps and the myriads of mosquitoes, malaria and other tropical diseases soon appeared. Quinine had to be used every second day. Cases of sunstroke were frequent, and all ranks were supplied with spine-pads and dark glasses for protection against the rays of the sun. In Basra during the summer manual work was possible only in the early morning, late afternoon, and night. Parades and work extended from

²⁰ Capt White writes:—"We were merged into the R.F.C., but retained our own uniforms and always wore our 'Australia' shoulder-badges. Our pay and allotments were paid by the Australian Government, the Indian Government reimbursing Australia. When we were captured by the Turks, we automatically reverted to the permanent supernumerary list A.I.F."

5 a.m. till 9 a.m., and began again at 4 p.m. The aircraft-park diary and log-book showed that the average temperature during the months June-September, 1915, was 105 degrees in the shade. This heat, together with the fierce and dust-laden northerly "shamal,"²¹ caused much trouble to the air-cooled aeroplane engines.

The engines of the three Maurice-Farman machines were 70-h.p. Renaults. One of them had seen considerable service in Egypt before being brought to Mesopotamia, and the others, though fitted to new aeroplane bodies, were second-hand. Engine failures were consequently frequent, and, as predatory Arabs roamed the whole country outside the entrenched camps and line-of-communication posts, the dangers of engine-failure were very real. On July 4th arrived two Caudron machines, with 80-h.p. engines. These were regarded as very frail for active service in such a country, but were gratefully received as an improvement upon the Maurice-Farmans.

After the capture of Amara, General Nixon turned his attention to the Turks in the west at Nasiriyeh. Further advance towards Kut from Amara required that Nasiriyeh should first be cleared, and this work was assigned to Gorringe with a mixed column of troops from the 6th and 12th Divisions. After preliminary reconnaissances over the western end of the long marshes of the Euphrates by Petre and Burn (observer) and by Reilly and Treloar, the Suk-esh-Sheyukh position was captured in an assault by Indian infantry on July 6th. The two Caudron machines, C.1 and C.2²² were then ordered up from Basra. Reilly and Merz made a preliminary reconnaissance in one of them, and Nasiriyeh was captured on July 24th by a decisive attack on both sides of the river. The Turks abandoned all their guns, and their losses in stern hand-to-hand fighting in the trenches were very heavy. The battle was fought "in a shade temperature of 113 degrees, and in an atmosphere of the heaviest and densest humidity," writes Edmund Candler,²³ alluding to the sufferings of the

²¹ "Shamal." Begins about June 15. This is a strong seasonal N.N.W. wind which blows at thirty or forty miles an hour, and "when it blows" (records the Aviation Staff Officer with the I.E.F.) "a machine of the Maurice-Farman type moves backwards when flying at 600 to 1,000 feet"

²² The machines were numbered after the arrival of the Caudrons, and are referred to by their service titles—C.1, M.F.7, Martinsyde 9—for simplicity. The point of the whole story of their work lies in their frequent break-down and consequently their limited usefulness.

²³ *The Long Road to Baghdad*

infantry. To the airmen the heat of the marshes was equally exhausting. Land machines were never meant for operations in this region; yet water-planes there were none.²⁴

On the first flight towards Nasiriyeh during the action, Reilly, in one of the Caudrons, was forced by engine-failure to land in the flood waters near Suk-esh-Sheyukh. A small garrison there helped him to save his machine. In reconnaissance patrols before the fighting and during the actual battle the engines of both Caudrons behaved indifferently. On the homeward journey to Basra on July 30th the pilots of the two machines had agreed to keep together, but soon lost touch. Reilly and a sergeant-mechanic flew in one, Merz and Burn in the other. Owing to renewed engine-trouble Reilly landed near a village about twenty-five miles from a refilling station at Abu Salibiq, an island in the southern marshes midway between Basra and Nasiriyeh. Fortunately the Arabs were sufficiently impressed by the recent British victory not to molest him. But Merz and Burn were never seen again. According to reports of Arab eye-witnesses, their machine descended in the desert about twenty miles from the refilling station. They were immediately attacked by a number of well-armed Arabs, and, recognising that they could not defend their machine—which, like all aeroplanes in Mesopotamia at that time, carried no machine-gun—they retreated in the direction of Abu Salibiq. The two airmen had no weapons but revolvers, and after a running fight of about five miles, during which they killed one and wounded five of their adversaries, one of the officers was wounded, and his comrade died fighting beside him. Such was the story told by friendly Arabs. Search parties were sent out from Abu Salibiq and Basra, but no trace of the missing airmen was ever found, though the machine, hacked to matchwood, was discovered by Reilly when on special reconnaissance a few days later.

A punitive expedition, which White accompanied on behalf of the Australian Flying Corps, searched the villages

²⁴ As early as 12 April, 1915, the Deputy-Assistant-Director of Aviation reported —“ Land aeroplanes until August (the end of the flood season) can be used only to a limited extent along the Kurna and Tigris line up to Ezra's Tomb, beyond which point they can be employed more freely. Between Kurna and Suk-esh-Sheyukh (Euphrates marshes) aeroplanes fitted with floats only can be employed, unless the risk of losing a machine by every enforced landing, even though not in the presence of the enemy, is to be faced.” It remains to be said that no seaplanes arrived till late in August, and then they were of little use, the flood having subsided, and the seaplanes being confined to the meandering line of the river.

where the Arab murderers were believed to be domiciled. No signs of the officers' effects were, however, to be found, and the principal culprits had fled. By way of vengeance the houses of the Sheikh were burnt. The loss of Burn and Merz was a severe blow; both were capable pilots, and, as a medical man, Merz had rendered conspicuous service in the understaffed hospital at Nasiriyeh on the night before his last flight. After this experience of the Arabs, long flights between towns on the line of communications were forbidden until better aeroplanes should arrive.

The period between the capture of Nasiriyeh and the attack on Kut (July-September) was occupied by the preparation of communications up-river for the intended advance. For the airmen it was a long chronicle of destroyed hangars under the force of the "shamal," of repairing engines badly overhauled in England or Egypt, of working desperately to get first one machine to fly and then another. Tent-hangars were so frequently blown down that they were soon destroyed. The material used in their manufacture was of poor quality, and the tent-sides were soon split into ribbons. For a time the machines, except at the Basra park, where a corrugated iron hangar had been built, were simply pegged down in the open. An effort to convert one Maurice-Farman into a water-plane proved unsuccessful. Meanwhile, for the coming advance, the flight fitted out two barges—the one with a broad deck capable of holding two aeroplanes, the other as a floating workshop. It also arranged an elaborate scheme of signals for co-operation with artillery. This was rendered the more difficult by the fact that, under the peculiar climatic conditions, Very lights were invisible from the ground when fired at more than 5,000 feet, and the only possible working signals were pre-arranged turns of the observing machine and smoke-balls.

In August the flight received reinforcements and became a squadron—No. 30 Squadron, R.F.C. Four Martinsyde biplanes (single-seater scouts) were landed at Basra on August 24th, together with the Australian workshop-lorry and stores-lorry—which eventually proved to be too heavy for the sandy country—and a number of motor-boats. About the same time there arrived from East Africa the nucleus of a seaplane

flight, composed of three seaplanes under Major R. Gordon;²⁵ a third flight was promised from India. The first Martinsyde was tested by Petre on August 29th, and its performance was very disappointing; it took twenty-five gallons of petrol and twenty-three minutes to climb 7,000 feet, where its best speed was only fifty miles an hour.

During early September the whole of Force "D" was moving up-river and concentrating at Ali Gharbi, more than half-way between Kut and Amara. Ali Gharbi was the base for the Kut attack, and an advanced aeroplane landing-ground was also made at that place. By mid-September Townshend had his advance-posts as far forward as Sanniyat, twenty miles from the Turkish entrenched position at Es-Sinn, and twenty-seven miles down-river from Kut. No. 30 Squadron was greatly crippled by lack of serviceable machines, and possessed at this time at Ali Gharbi only four machines—M.F.1, Caudron 3, and Martinsydes 5 and 6. M.F.1 was smashed by a British pilot in a bad landing on September 11th at Ali Gharbi. Misfortunes with the other machines followed. On September 13th Martinsyde 5 crashed while being tested in a high wind, and three days later Caudron 3, flown by Treloar with Captain B. S. Atkins²⁶ of the Indian Army as observer, developed engine-trouble while reconnoitring Es-Sinn, and was forced to land behind the Turkish lines. The airmen were roughly handled by mounted Arabs, and finally were taken by the Turks as prisoners to Baghdad. Martinsyde 6 was the only machine now left with Townshend's division, and Petre and White were at once ordered up from Basra with any available machines. Two seaplane barges were already proceeding up-river—one with two seaplanes on board, and the other with the third seaplane and Martinsyde 9 in a case. White flew M.F.7 from Basra up to the first seaplane barge, and Petre flew Martinsyde 8, but smashed it on arrival in landing outside the prepared ground at Sanniyat.

The voyage of the seaplane barges was full of incident. Above Amara a strong wind caught them and blew them into a bank, where M.F.7 was damaged by overhanging trees. The first barge arrived at Sanniyat on September 25th, and

²⁵ Air Commodore R. Gordon, C.B., C.M.G., D.S.O.; R.A.F. (previously Royal Marines and R.N.A.S.). Of Sutherlandshire, Scotland; b. Burma, 22 Jan., 1882.

²⁶ Major B. S. Atkins, Officer of Indian Regular Army; of Lowestoft, Suffolk, Eng.; b. Kimberley, Norfolk, Eng., 4 April, 1885.

M.F.7 was there repaired in time for the battle. The land machines were then ordered on to Nakhailat, a short distance up-stream from Sanniyat, whither Townshend's force had advanced. Petre's accident left only Martinsyde 6 and M.F.7 available for the attack on Es-Sinn. The seaplanes, working from the river, were attached to the artillery.

Photographs of the Turkish position were taken on September 26th from M.F.7, but these were of little use, for the only available photographic printing-paper was worthless. The ordinary printing-out paper sent from England was old—as most other stores appear to have been—and therefore inferior. The bromide paper obtained at Basra was entirely useless. The reconnoitring airmen had, therefore, to rely on their own eyes alone. Reconnaissance was made next day of the extreme left flank of the enemy's position, and, while this was in progress, the long-prepared attack on the Kut defences began.