

*adventures by helicopter*

*DICK SMITH*

# SOLO

*around the world*



*AUSTRALIAN GEOGRAPHIC*



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# Contents

*This book is gratefully dedicated to Philippa – called by everyone Pip – without whom my personal boundaries would never have been extended. Without the patience and security she has always offered, and her willing presence and enthusiastic support in a hundred and one unlikely places around the globe, my adventures would be less fulfilling, and some might never have taken place.*



*The support of these major sponsors was vital to the success of Delta India Kilo's solo flight around the world.*

*Australian Geographic 1992*

Edited by Stuart Inder  
Design: John Witzig  
Art Direction & Production: Tony Gordon  
Director of Cartography: Will Pringle

First published 1992 by  
Australian Geographic Pty Ltd  
321 Mona Vale Road, Terrey Hills, NSW 2084, Australia  
Telephone (02) 450 2344. Fax (02) 450 2990

For additional copies of this book or its companion, *Our Fantastic Planet*, contact the publishers or an Australian Geographic shop.

Publisher: Dick Smith  
Chief Executive: Ike Bain  
Managing Editor: Howard Whelan

The photographs in the preliminary pages show:  
*Half-title:* Delta India Kilo approaching Greenland.  
*Title page:* Buldir Island, in the Aleutian chain.  
*This page:* Old Peake telegraph station, south Australia.

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National Library of Australia Cataloguing-in-Publication data  
Smith, Dick, 1944–  
Solo around the world  
ISBN 1 86276 008 X  
1. Smith, Dick, 1944– – Journeys. 2. Flights around the world – Pictorial works. 3. Polar regions – Pictorial works. Australia – Pictorial works. I. Title.  
910.41

Printed in Japan by Dai Nippon Printing Co.

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## Acknowledgements

So many people helped with *Delta India Kilo's* major flights around the world and to the North Pole that it is impossible for me to name them all. Two Australian prime ministers, the Rt Hon. Malcolm Fraser, patron for the world flight and the Hon. R.J. Hawke, patron for the North Pole flights, helped ease my burdens, as did the following sponsors who contributed in hundreds of ways: the management and staff of Qantas Airways Ltd; Mobil Oil Australia; News Ltd, especially Ken Cowley and Ita Buttrose; Bell Helicopter Textron staff, particularly L.M. (Jack) Horner, Cliff Kalister, Marty Reisch, Carl Harris, Jim Brown, Ren Lee, Frank Radspinner and particularly Harry Miller who helped throughout the world flight; Art Kelly and Peter Pain of Collins Avionics; Kevin and Joe of Field Tech; Perkins Plastics for their excellent downslides; Garry Beck and Charles Engel of Stephen L. Way International Indemnity Co. Texas, for insurance; Robert Murphy of David Clark headsets; Charles A. Floyd of Eastern Aero Marine, for safety equipment; Neil Allanach for my wonderful Multifabs survival suit.

Amateur radio operators everywhere have my thanks, as will be obvious from the text. Thank you to Janet Richardson, who was my secretary when I made my flight around the world, and to Jim Heagney, my ground coordinator for the first stage, and Gerry Nolan who undertook that task on the second and third stages.

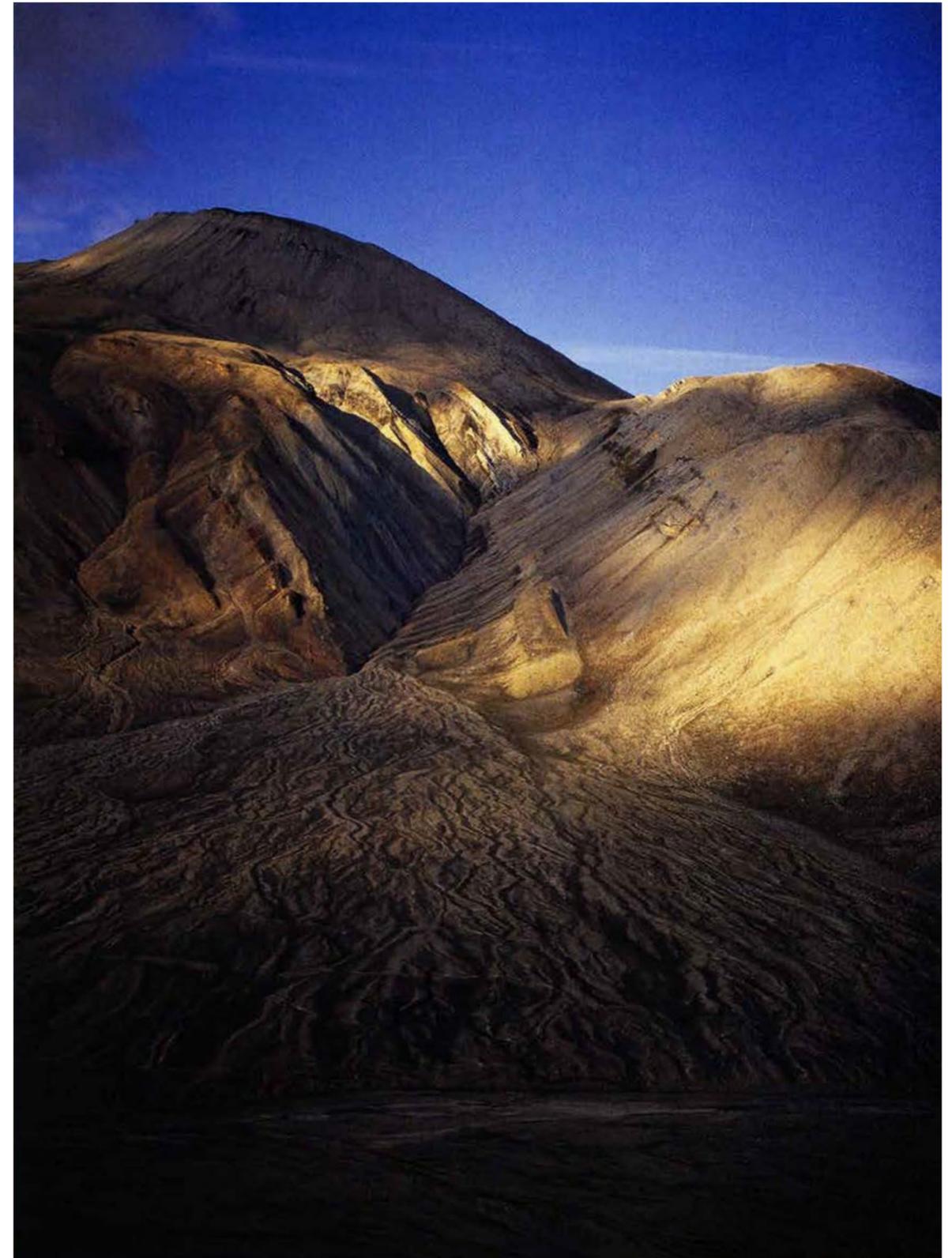
My thanks also to the following people and organisations who helped me along the way. In Athens: the tremendous Mobil team of Stathis Danielides. In Cairo: Mobil's Nabil Zidan and Eid Moussa. In Karachi: Azhah Wali Mohammed of Bell; the Director-General of Civil Aviation, Mr W.H. Hanafi. In New Delhi: my good friend Gyan Jain. In Calcutta: the wonderful Mrs Neena M. Ghosh of Qantas. In Rangoon: the then Australian Ambassador, Richard Gate. In Singapore: Brian and Laura Woodford and the helpful staff of Heli Orient. In Darwin, the welcome I received was tremendous and I want to thank the Department of Aviation staff for having quickly constructed the fantastic helipad at Parap. In Longreach: Sir James and Lady Walker. In Bundaberg: all the wonderful people of Hinkler's home town for their great welcome, particularly Paul Neville, Don Maddison and Thomas Quinn.

In the Philippines: Jordan Javier, the helicopter pilot who assisted me in Davao; in Manila, Australian Ambassador Roy Fernandez and Shirley for a wonderful welcome and lunch. Hong Kong: Michael Kadoorie, Brian Lewis and Robbie Brothers, enthusiastic helicopter pilots all. In Japan: Naoyoshi Ando of Mobil Jekivu, who in Okinawa, Kagoshima and Tokyo organised the media, became my interpreter and was the most enthusiastic supporter of any around the world; my friend Don Richards, who at short notice travelled to Tokyo to man a radio aboard ship for me; Captain Leif Rodahl and the crew of *Höegh Marlin*. In the Aleutians, on Unalaska: Colonel Ed Frey, for his wonderful welcome. Anchorage: Era Helicopters and former president Carl Brady, the late David Baumeister and most importantly, good friend Wilbur O'Brien, now president of Era Aviation Inc., and Barbara; and Dr "Rich" Pauli.

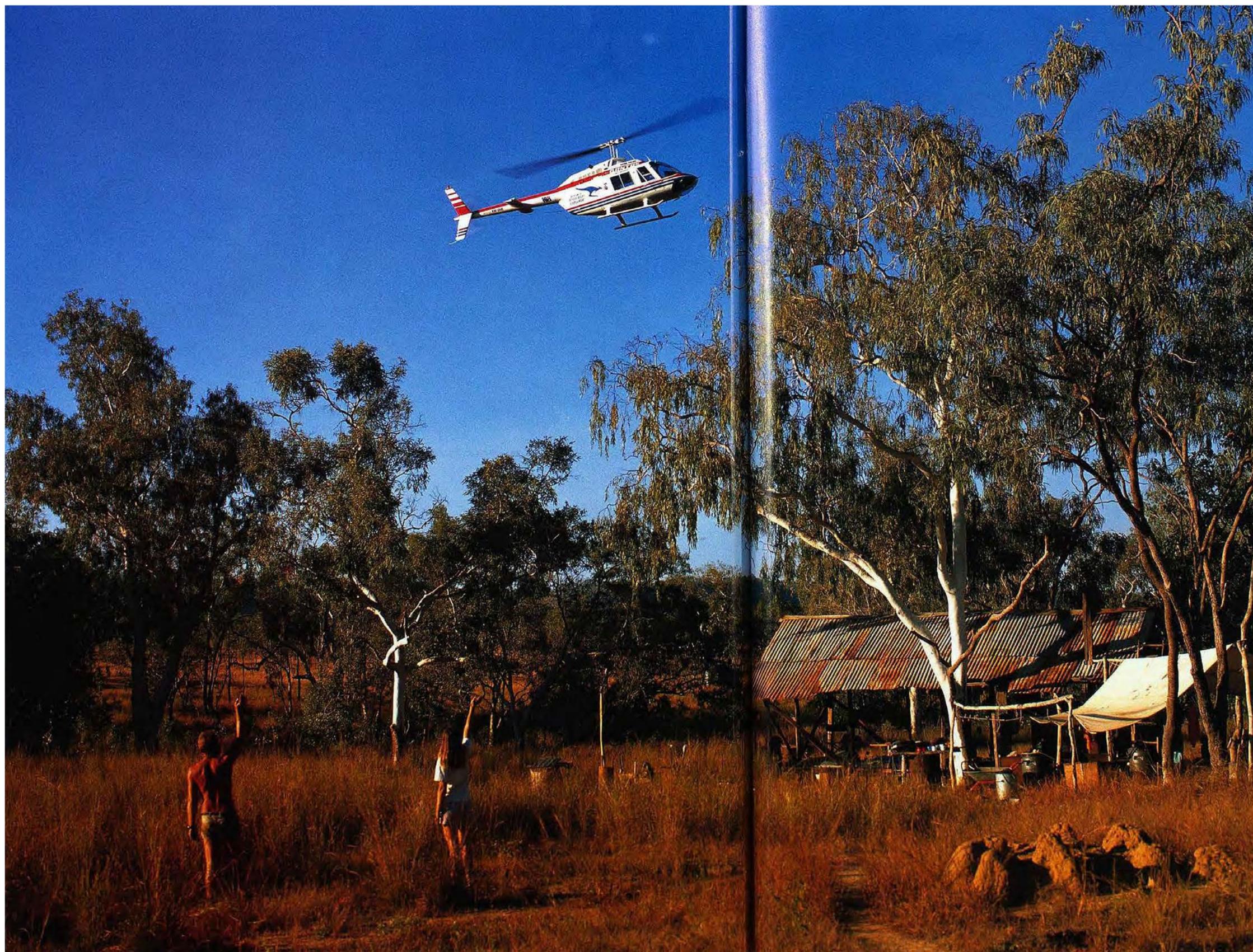
I was helped on the North Pole flights by the late Giles Kershaw, who made me the gift of the sun compass and gave me advice on Arctic flying; my thanks also to Bob O'Connor of Aero Arctic for advice and loan of equipment in Yellowknife and for help on all my attempts on the North Pole; Tom and Michelle Aneroluk at Cambridge Bay; Bezal and Terry Jeudason at Resolute; the then Canadian High Commissioner to Australia, the Rt Hon. Edward Schreyer, for arranging permission for me to refuel at Alert; in Anchorage, Wilbur O'Brien again and "Ham" Hamilton.

And thanks to my capable secretary, Jan Dalton; to Ike Bain, chief executive of *Australian Geographic*, and the journal's editor, Howard Whelan, for allowing me the time off; to Tony Gordon and John Witzig for production and design of the book and, most importantly, cartographer Will Pringle for the maps. I would also like to thank Stuart Inder for the enormous amount of hard work he has put into this volume and its companion, *Our Fantastic Planet*. Without his effort, enthusiasm and support, neither book would exist.

Dick Smith



Tanquary Fjord, on northern Ellesmere Island in Canada's High Arctic, seen from *Delta India Kilo* in July 1986 on my second attempt to reach the North Pole.



*Left:* In their isolated camp in the Kimberley, *Australian Geographic's* Year in the Wilderness couple, Michael and Susan Cusack, farewell *Delta India Kilo* after I had made an unexpected visit in October 1987. With Pip and the girl I had been flying the Canning Stock Route.

*Following spread:* The Firth River area on Canada's remote north-west coast, close to the Alaskan border. I put down in this great climbing and rafting country while returning from my successful flight to the pole in 1987.





*Right:* Summer warmth melts the snow on glacial Lake Clark Pass, in the ranges about 200 km southwest of Anchorage, Alaska. This was in July 1987, but visibility was poor when *Delta India Kilo* first negotiated the pass towards the end of my world flight in 1983.

*Preceding spread:* Reid Siding on the transcontinental railway, looking east in the late evening just before I put down at Forrest for the night.

*Following spread:* One of the family's favourite Australian holiday spots is magnificent Whitehaven Beach on Queensland's Whitsunday Island, photographed looking south. Whitsunday's beautiful waters are protected by the Great Barrier Reef, and are so clear you can look down and see giant turtles and sharks.







When I decided to put down for lunch on the Gunbarrel Highway, Western Australia, at a place called Nobb Hill near Mt Beadell, I felt certain I wouldn't be disturbed by traffic. There are days when no vehicles pass this way.

# Introduction



With a feeling of both satisfaction and sadness, I lifted off little *Delta India Kilo* from the front lawn of our house at Terrey Hills. There was a low mist in pockets of Ku-ring-gai Chase National Park as I banked to the left and soon, in the distance, saw the great arch of the Sydney Harbour Bridge come into view. Five minutes later I was in its shadow and over Darling Harbour, descending into a small carpark beside the Powerhouse Museum. From a group of watchers, museum director Terence Measham came forward as I shut down the engine and climbed out. *Delta India Kilo* had made its last flight, after 1500 hours and 280,000 kilometres of magic carpet adventure. The full meaning of that hit me as I shook Terence's hand, and I felt a bit down as we discussed whether the little aircraft might, in fact, fly again one day.

"Perhaps some eccentric museum director a hundred years from now may try taking it into the air," Terence said. Perhaps.

But *Delta India Kilo's* days of adventure have gone and in this book I tell its story. In this tiny aircraft I crossed the North Atlantic and the North Pacific, flew around the world solo and reached the North Pole. In it I circumnavigated Australia and criss-crossed its vast interior. There were many times on my adventures when my life depended on its reliability, yet it never let me down.

I love adventure. To begin with, it's exciting because it's unpredictable – you never really know what the outcome will be, and I love life to be like that. I don't want a staid, ordered existence. Secondly, good adventure must involve risk. I like to know there are odds against success in my endeavour – for it gets my adrenalin pumping. I don't mean I take wild risks: risk-taking must be responsible, with proper respect for the odds. There are, nevertheless, times during my adventures that I regret being there, and promise myself that if ever I get out I will never take such a risk again. (However, within hours of the crisis passing I am looking forward to the next.)

I was born in the 1940s in the northern Sydney suburb of Roseville. People have said that being born in Australia in that period was to have won the "lottery of life", and I agree. In my youth the Roseville area included big tracts of bush where I could disappear by myself, rock climbing and exploring. I loved getting away in it because at heart I'm a loner, and in that place and at that time youngsters could explore their environment safely. In the 1950s I would look up longingly as Vampire jets flew over our house, for I was also an avid reader of the *Biggles* books, and my particular heroes (apart from Biggles) were Australian aviation pioneers Charles Kingsford Smith and Bert Hinkler, even though both had died in crashes before I was born. I would lament that I had arrived in the world 50 years too late, and that all the great adventures had been done! It was adventure that attracted me to the Scouting movement at the age of 8. I loved it because it allowed me to be an individual, and I left it at 23 as a Queen's Scout and with a Baden-Powell award. Although I succeeded with Scouting, I was a hopeless student at school.

My first job after leaving school was simple process work in a factory, pop-riveting valve sockets to make taxi radios. I did a year of technical college part-time while I was working, but gave up the course because there was too much theory for my abilities. My first big adventure began in 1968 at the age of 22, when with \$600 saved up and \$10 from my fiancée, Pip, I started a small business selling car radios and fixing two-way

radios in taxis. An amateur radio licence gained just after leaving school was my only technical qualification, but I quickly learnt what I now call my rules for success – work hard, ask advice from everyone, be enthusiastic, motivate others. At the time I lived at home with my parents and hitch-hiked to and from work to keep expenses down. I paid myself \$40 a week for that first year, and I had absolutely no money for advertising. I set up a large sign on the roof of a car that I would park on busy roads nearby, which gave me two or three days of advertising before the police would tell me to move it. Within six months Pip and I married, and because of our Scouting and Guiding backgrounds (we met at a Scouting function) we continued to go adventuring together – caving, rock climbing, bushwalking, canyoning, cascading and skiing. Our adventuring today is merely an extension of that activity. We also shared the adventure of having a family – our two girls are now young adults.

The success of the business certainly helped provide money for our activities. The company moved into selling electronic components as well as servicing two-way radio equipment, and within 12 years we were turning over \$50 million a year, and had a staff of 500 and a chain of 50 shops.

One day I realised that I was in a situation that most people could only dream about – if I chose, I had freedom to do the things I loved. So why was I sitting in an office making more money? Against the advice of friends, I sold the business, invested the proceeds in industrial and commercial buildings and founded *Australian Geographic* – which gave me the opportunity to engage in my adventures while supporting and encouraging others in a love of Australia. Today the journal has a subscription base of 200,000 and its aims have not changed: to support scientific research, to protect Australia's environment and foster a love for it and our heritage, and to encourage a spirit of discovery and adventure. *Australian Geographic's* profitability has allowed it to put millions of dollars into science, adventure and worthwhile social causes.

I learnt to fly at 28 while building my electronics business, and although I enjoyed it I found that fixed-wing aircraft could be pretty boring, as I seldom got a clear view of interesting things I spotted on the ground, and I was rarely able to land near them. That changed the day I was taken for a flight in a helicopter owned by Sydney television station Channel 10. Bob Wilson, the pilot, had to collect film from a coastal town north of Sydney, and as we took off over the choked highway I had just escaped from, I realised this was the ultimate “magic carpet” to fly. The helicopter was smooth, quiet (I had been provided with a headset), and surely the most versatile off-road vehicle ever invented.

I ordered my own helicopter, a JetRanger, from the Bell factory at Fort Worth, Texas, and when it arrived in Australia I registered it with the identification letters *Mike India Sierra* and learnt to fly it. This took three weeks and about 50 flying hours – but that licence was really only a licence to learn. It was another two years and 1000 flying hours before I felt I was a competent helicopter pilot – the aircraft an extension of my body, going where I wanted it to go without my having to think too much about it. I flew *Mike India Sierra* all around Australia on camping trips with my family, and on one occasion to Lord Howe Island, 675 km off the east coast – one of the longest over-water helicopter flights at that time. I kept the machine in quarters I had built for it under our bedroom, and found it an easy, no-fuss way of getting to work from my house in Terrey Hills, or to travel anywhere.

Most people think of a helicopter as a short-distance machine that should never be far away from a maintenance workshop, but experience with my JetRanger taught me differently. It was excellent for long distances because it was reliable, simple in design, and its small gas turbine engine ran on aviation kerosene, available almost anywhere.

When the business was sold I had time to think about greater adventures. I decided I would order a new helicopter, a JetRanger III, and fly it home myself from the Bell factory via the North Atlantic, England and the Middle East. Smithy and Hinkler had both crossed the Atlantic and flown the England–Australia route, so it would allow me to get some feel for what my aviation heroes had put themselves through. A JetRanger had a speed and range similar to the aircraft they used, although its capabilities, reliability and navigational equipment were far ahead, of course. I would fly solo as a greater personal challenge and because I would have more freedom if I didn't have to worry about another crew member.

One day I was sitting with a friend at the kitchen table studying maps when he said: “Look, if it's possible to fly a helicopter from America to Australia, surely it can be flown around the world?”

I decided right then that this would be my commitment. Nobody had flown a helicopter around the world before, and there would, of course, be problems, but that was part of the challenge. No helicopter could cross the Pacific to Hawaii and on to the United States, for example, but I thought it might be possible to fly across the North Pacific from Japan to Alaska with a refuelling stop in the Soviet Union. And if the Soviet refused permission, I calculated I could land on a ship to refuel: from an atlas I saw there were regular shipping routes between Tokyo and Seattle.

But whatever route was taken round the world, the flight would involve very long distances over water on one engine – and my calculations showed that floats couldn't be fitted because they would make my



Above: *Delta India Kilo* dwarfed by a massive grounded iceberg in Barrow Strait, south-east of Resolute, on one of my pole attempts.

Left: Soon after returning from the North Pole in 1987 *Delta India Kilo* monitored progress of the world's first solar-powered car race, across Australia from Darwin to Adelaide. I left the cockpit occasionally to do my share of driving the *Australian Geographic* entry, *Team Marsupial*. We came fourth.

helicopter too heavy for the distances involved, allowing for safety reserves. But if this flight were successful, it would certainly prove that the helicopter had come of age – that it was a reliable long-distance machine.

It is history now, of course, that the flight was successful, but I certainly didn't foresee having the helicopter's long-distance reliability questioned so early in my adventure, and in such an unexpected way. I was in England three weeks into the flight, having successfully overcome the first major hurdle – the solo crossing of the North Atlantic. By phone from Fort Worth I was told that two Americans were about to leave there in an attempt to fly around the world in a float-equipped Bell LongRanger. They had read of my flight and decided that Americans should be the first to fly around the world in a helicopter. The two men, H. Ross Perot Jr (son of US billionaire H. Ross Perot) and Jay Coburn, an ex-Vietnam pilot, planned to take a route around the Northern Hemisphere. For a few moments I was tempted to leap into *Delta India Kilo* and head off, for excluding a catastrophe, I could easily have remained well ahead.

However, on my trip I wanted to commemorate the flights of some of the early record-holders, and I had announced on my departure from Fort Worth that I would return on 22 July 1983 – exactly 50 years after Wiley Post's solo flight around the world in a fixed-wing aircraft. I also planned to make documentary films and take photographs for a book on my adventures to cover the cost of the flight. Most importantly, I wanted to see as much as possible of the world during my great adventure, and I was flying solo. However, I was amazed when I heard the rest of the details from Fort Worth. The Americans were to be escorted on their flight by a four-engined Hercules transport chartered at staggering cost, carrying spares and a crew of 11, including divers to rescue the pilots if the helicopter came down in the sea. Here was I attempting to prove that the helicopter had come of age, while the US team would be reinforcing the old view that a cast of engineers and a fixed-wing escort were needed to keep one in the air. There could be no comparison between the two flights. (*Spirit of Texas* did circumnavigate the world, and now sits in the National Air and Space Museum, Washington DC. There is no mention of the Hercules and back-up crew that accompanied the helicopter.)

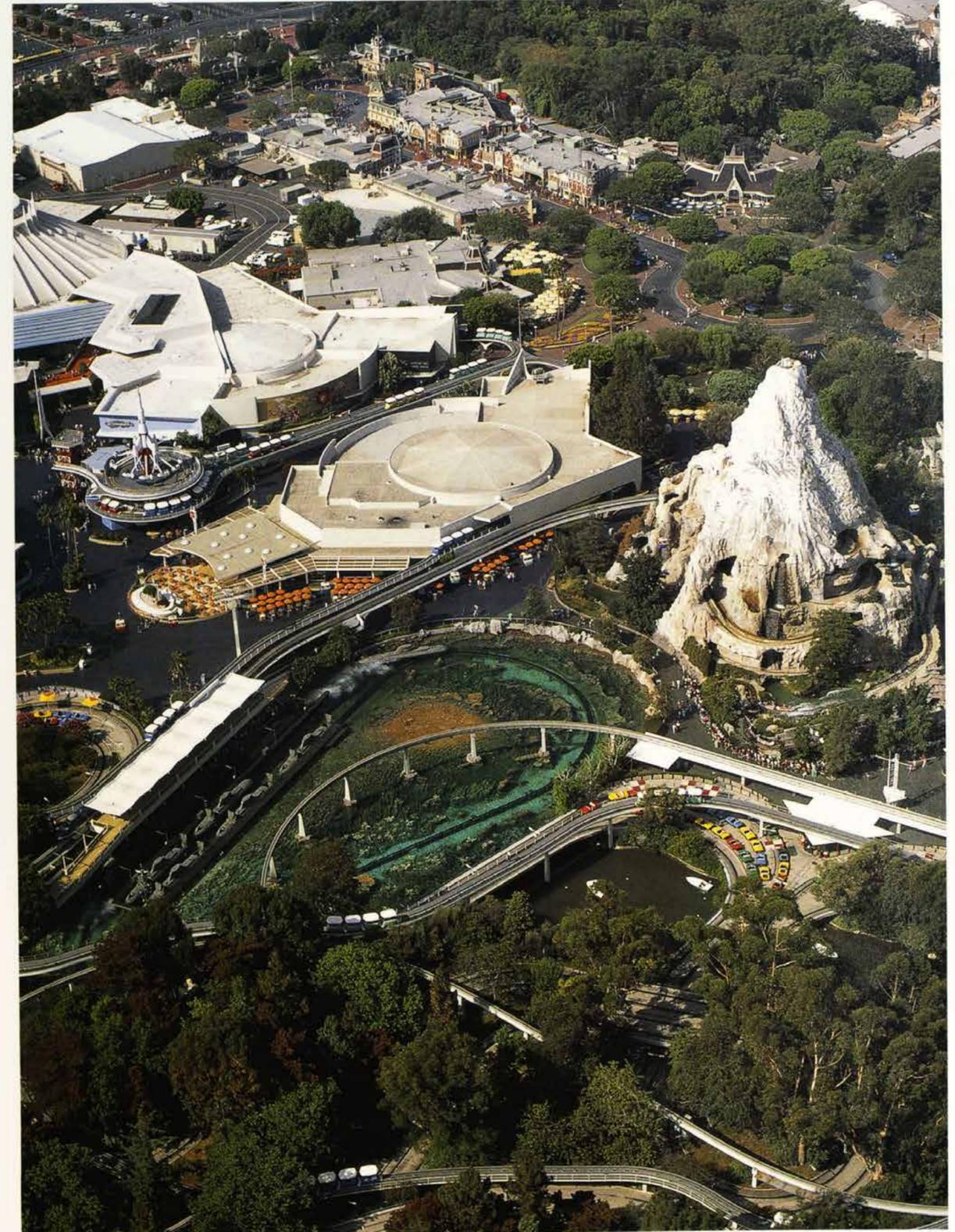
I spent over a year preparing for my flight. Working under my house and using *Mike India Sierra* as the prototype, I designed special long-range tanks and had an engineer build, test and install them. They extended *Delta India Kilo's* range from less than 400 nautical miles to 700. After I had completed the first two stages of the world flight, I made up an extra tank that increased the range to 900 nautical miles so I could make the North Pacific shipboard landing.

All the time I was preparing for the flight I was seeking approvals from the many countries I would fly through. All too often my first application was ignored, and I had to chase and chase. I also sought sponsors, knowing I would give them value for money. Mobil, which had given so much support to aviation pioneers, agreed to provide me with \$20,000 worth of fuel. Rupert Murdoch's News Ltd, which owned the Channel 10 network, agreed to pre-purchase my documentaries and to buy newspaper rights to *Delta India Kilo's* adventures for \$150,000. Qantas agreed to help with air fares for the person who would act as my ground support and fly ahead to help with the considerable paperwork. An airline pilot, Jim Heagney, undertook that task from Fort Worth to London; from London to Australia, and back to Fort Worth I was supported by Gerry Nolan, who had worked for me at Dick Smith Electronics. I could have done the world flight without ground support, but I certainly would have spent longer periods coping with the bureaucracy on the ground. I could have met the whole cost of the flight myself, but by producing the documentaries and books I had a lot more self-satisfaction for I was earning money on the way – a kind of working holiday.

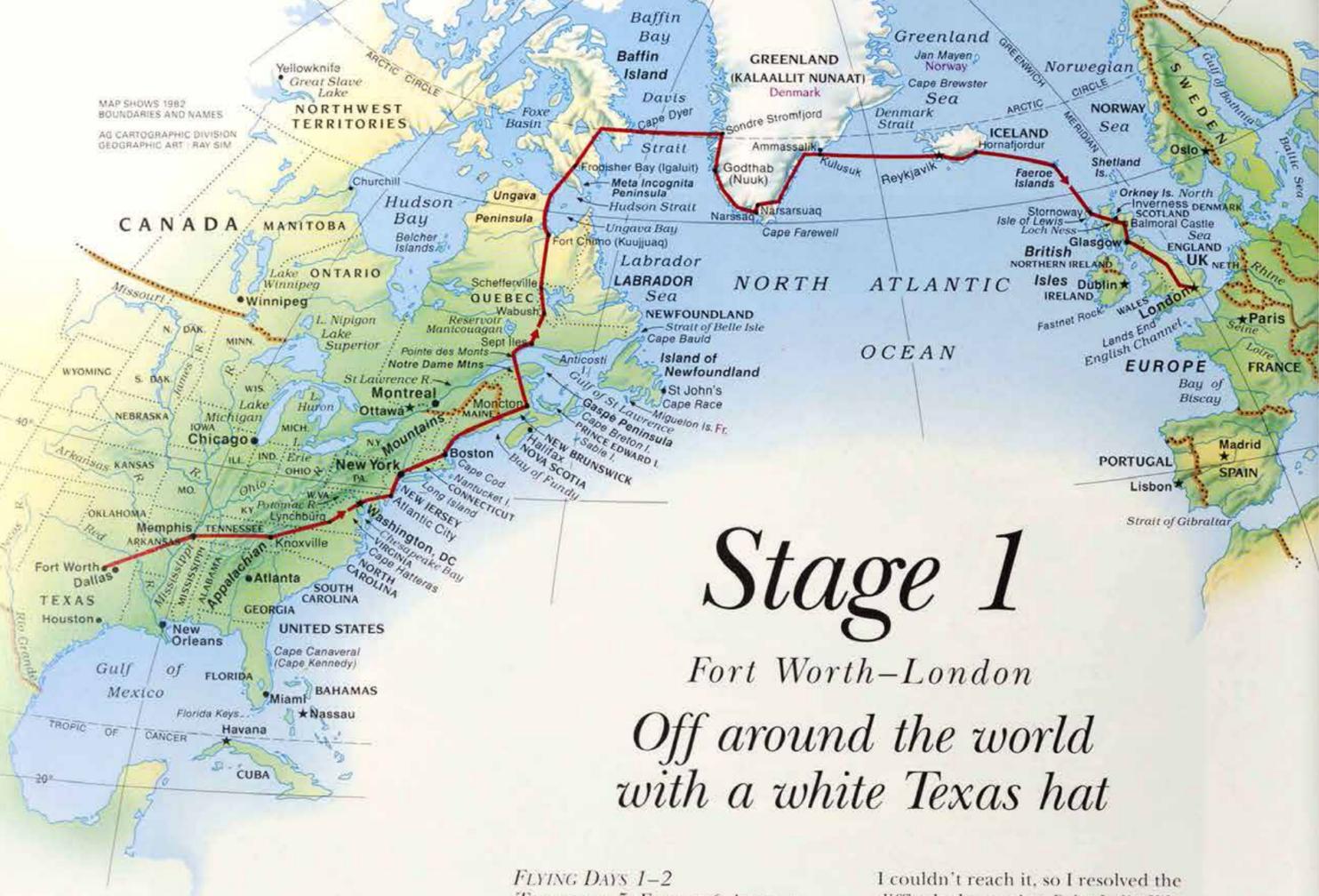
I gave a lot of attention to the problem of how to film my documentaries and take quality pictures for my book while flying a helicopter solo. I worked on designs for special camera mounts, and after about eight months experimenting I perfected a system using a small Super 8 Chinon camera mounted beside me on a simple tripod-head fixed to the helicopter. The sound from my intercom went onto the soundtrack of the film. The camera, as well as a tape-recorder mounted on my map cabinet, could be operated manually or from switches on the control column. Many countries do not allow 16 mm camera equipment in, but what I had looked like what it was – a simple home-movie outfit – and I guessed, correctly, that it would attract little attention, yet be very effective. A pocket in the map cabinet held my 35 mm still camera, which I hand-held when photographing. Also in *Delta India Kilo's* cabin, on all its flights, was my lucky talisman – a small piece of fabric from Smithy's most famous aircraft, the *Southern Cross*, which had survived so many record-breaking flights.

The aerial photographs in this book were chosen from the many thousands I took from the cockpit of *Delta India Kilo* in the eight years of its very active life. Pip also took a number of the photographs on my North Pole and Australian flights.

Today, *Delta India Kilo* soars over the main gallery of the Powerhouse Museum, in the livery it wore on my pole flights and fitted with the extra fuel tanks and my mounted film camera. My heart remains in its cramped little cabin on all those memorable journeys when there was just me and my thoughts.



Over Los Angeles early one morning in 1983 at the end of my solo flight around the world. On the flight I had flown *Delta India Kilo* over the Statue of Liberty, London's Tower Bridge, the Leaning Tower of Pisa, the Pyramids and Tokyo Tower, and I happily added Disneyland to the tally of famous places.



# Stage 1

Fort Worth–London

## Off around the world with a white Texas hat

FLYING DAYS 1–2  
THURSDAY 5, FRIDAY 6 AUGUST  
Fort Worth–Memphis–  
Knoxville–Washington

AT BELL HELICOPTER'S Fort Worth plant, Bob Bolen, the Mayor of the City of Fort Worth, presented me with a Proclamation declaring that 5 August 1982 was "Dick Smith Day" in Fort Worth; the executive vice-president of Bell Helicopter, L.M. (Jack) Horner, made a farewell speech (left); I was presented with a white Texas hat, a Texas belt and a Texas flag, and at 10.31 a.m. local time I was airborne on the first leg of my solo flight around the world. It was great to be in the air after the pressures of the past few weeks, but I admit to some apprehension. The task was all ahead of me. Meanwhile I was surprised at how rich and green the country was, and soon, to note that the magnificent Red River on the Texas–Oklahoma border really is red (it has something to do with the silt).

Approaching Memphis, Tennessee, nearly 4 hours out from Fort Worth, I found myself over Old Man River – the mighty Mississippi itself (left). While filming it, I discovered to my irritation that the book of radio frequencies I needed on this leg had fallen down behind a seat where

I couldn't reach it, so I resolved the difficulty by putting *Delta India Kilo* down on a small island in the river. (A fixed-wing aircraft couldn't do that!) After retrieving the book I ran to the water's edge and scooped up a few mouthfuls. Only later did I hear that Mississippi water is none too clean.

Knoxville, Tennessee was the end of my first day's run – 1435 km and 6 hrs 59 mins on my way – a respectable distance. *Delta India Kilo* was cruising at about 110 knots, or about 200 km/h – a bit like driving a car around the world. I had been asked to visit Australia's pavilion at the 1982 World Fair at Knoxville, but I felt increasingly foolish as I searched for the helipad. Helped by a patient controller, I finally spotted it and put down in front of a large welcoming committee. The Australian accents made me homesick and I wondered why on earth I had begun this adventure.

On my flight to Washington DC the next day, the weather turned foul and I began to regret my stopover in Knoxville. I had pictured myself making the entire flight in good weather, putting down when it became threatening, and here I was, flying in the thick of it on only my second day. It is impossible to look up complex navigation coordinates while flying a helicopter at 500 ft in poor visibility.



I abandoned a plan to fly directly over the Appalachian Mountains after I had climbed to 5000 ft and saw how dangerous it would be in this weather, and accepted air traffic control advice to divert to Lynchburg, south of Washington. From there I followed a railway line until it intersected a highway that Lynchburg tower assured me would take me to Washington. As I followed the highway for the next 60 km (above), conditions went from bad to appalling and – worse – I couldn't raise Washington tower to get clearance into the national airport. The sensible thing to do was land and phone them.



The farmer whose house I put down alongside on the banks of the Potomac River (right) was astonished at my arrival, but helpful. While I used his phone, a crowd of drenched locals gathered outside to gape at *Delta India Kilo* and her bright, foreign plumage. The Washington controller seemed amused that I was phoning from a farm for clearance, but advised me to make my approach by hugging the west bank of the river. I discovered for myself the powerlines straddling the river, which were an extra problem in such poor visibility. But as I neared the airport I had other worries as the controller's instructions became so clipped and rapid I could hardly follow them, and at the same time I was surrounded by big fixed-wing aircraft. One Boeing 727 passed within 500 ft of me as it came out of a cloud. I had no idea where the heliport was and had to be directed to it. When I finally landed – downwind and badly – I was physically and mentally exhausted, and still had to face the media interviews.



*"I couldn't raise Washington tower to get clearance into the national airport. The sensible thing to do was land and phone them."*



## Up the Atlantic seaboard to Canada

DAYS 3-4  
SATURDAY 7, SUNDAY 8 AUGUST

Washington—  
New York—Boston—  
Moncton

At dinner in Washington the previous night with Jim Heagney, my ground coordinator, I expressed some qualms about the workload I had set myself. Flying a helicopter through busy airspace while filming, taking still shots and taping a running commentary, then dealing with the media on the ground, was a burden that would get heavier. We decided Jim would concentrate more on flight details and paperwork and less on the media. For this next leg to New York up the eastern seaboard, Jim arranged permission for me to film Washington's landmarks from 500 ft, although I was instructed to keep a respectful distance from the White House. This is the Lincoln Memorial (right).

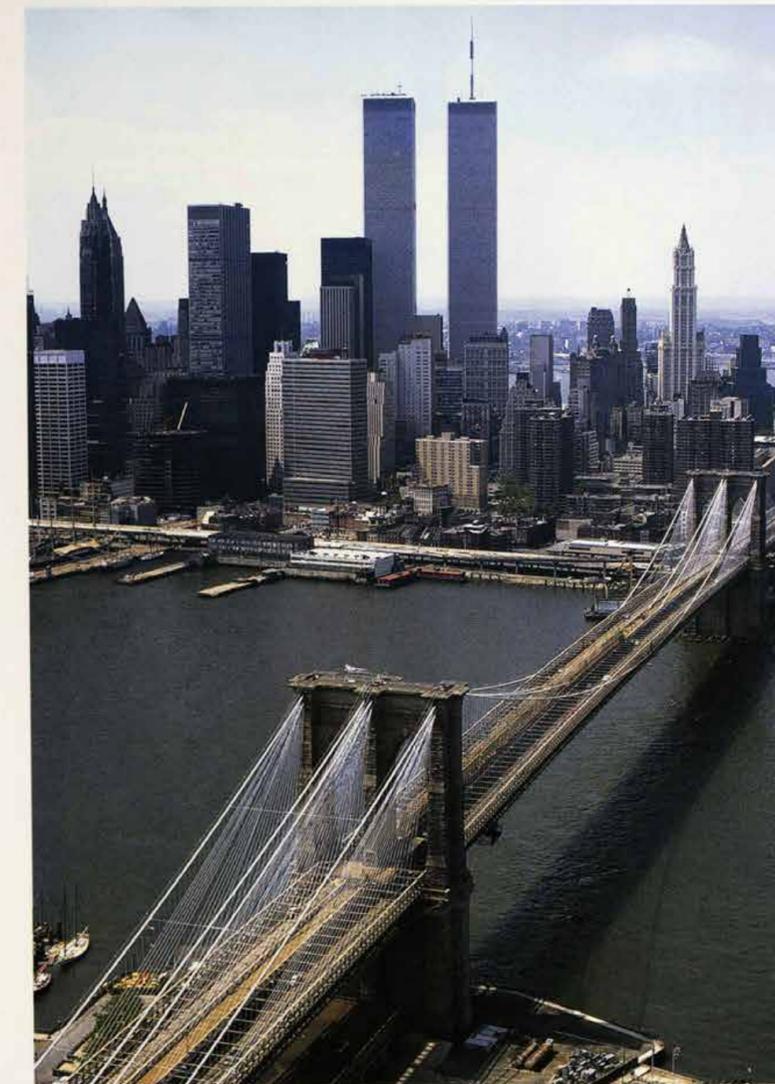
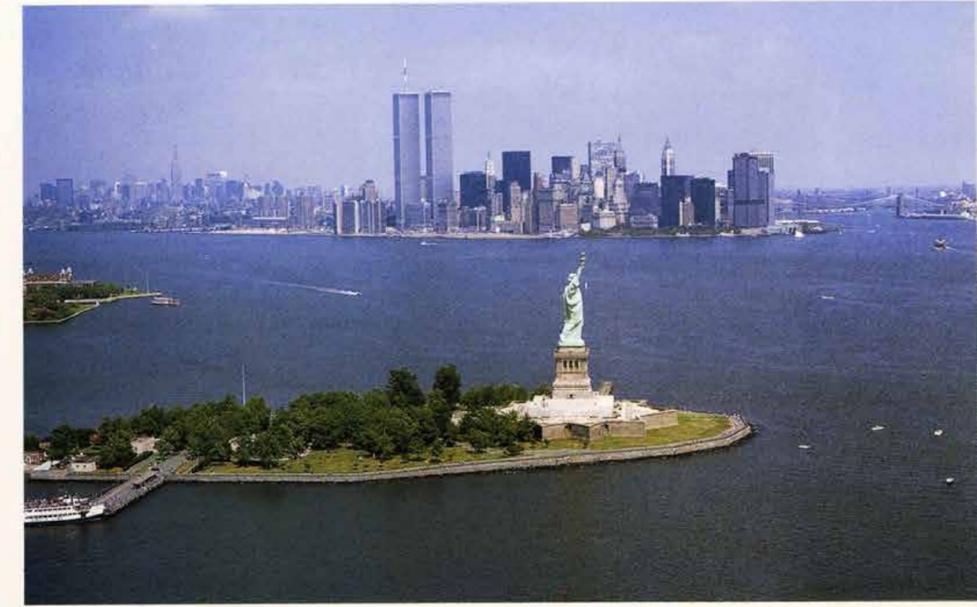


At last the Atlantic – blue-green and shimmering under perfect skies. I was going to see a lot more of this ocean, but would it retain its mood I wondered, as I passed over a crowded canal estate in Atlantic City (below) and the fun piers and mid-summer surfers thronging the beaches just north of the city (right). The famous boardwalk can be seen at the edge of the sand. What a superb day for flying!

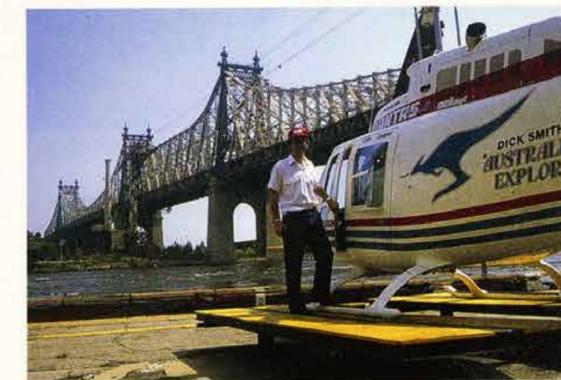


"I was instructed to keep a respectful distance from the White House."

I encountered the incredible sight of Manhattan's towers soaring into the brilliant blue sky at 1.40 p.m., about 2 hours out from Washington (right). I was very excited and will never forget this first view of Manhattan on my world flight. Within a few minutes I was circling the Statue of Liberty, filming as I went. There were lots of aircraft, like bees around a honey pot. I headed towards the Brooklyn Bridge (below) and landed beside the East River at the PanAm Metroport, a very small heliport with restricted space. At least I didn't have to contend with the heavy airport traffic, because I was using the special, very sensible, low-level lanes that keep helicopters and float planes out of the controlled traffic areas. I was met by a crowd of photographers, including one who annoyed me by insisting that I put on a display impossible with a helicopter.



While refuelling *Delta India Kilo* next morning at a helicopter "gas station" on a wharf on the East River (below), I began to have second thoughts about my chances of crossing the Atlantic in time for my Balmoral Castle appointment with Prince Charles on 19 August. The date was important because it was the 50th anniversary of the first east-to-west solo crossing, but Prince Charles could well be an added complication. I couldn't keep royalty waiting, so this was a schedule I would have to stick to!



Meanwhile I filled up with fuel without even shutting down the engine or leaving the cabin, settling the bill with my American Express card. Almost from then on, my 1059 km flight to Moncton, Canada via Boston became increasingly depressing. I was into bad weather again, and made Boston by following a jumbo in. After refuelling, I had a trying time clearing Boston's air traffic zone because they sent me off in the wrong direction. Then the rain gave way to the dreaded Newfoundland fog. The VLF Omega stopped working, the long-distance HF radio gave trouble, the cockpit was filled with the smell of burning, and the tail rotor chip detector (for detecting metal chips in the all-important gear box) indicated "on". I landed at Moncton tense, anxious and freezing. I decided the strain was too much for me to fly solo, and I phoned Pip in Sydney, in tears. Pip gave me reassuring words and suggested I sleep on it.

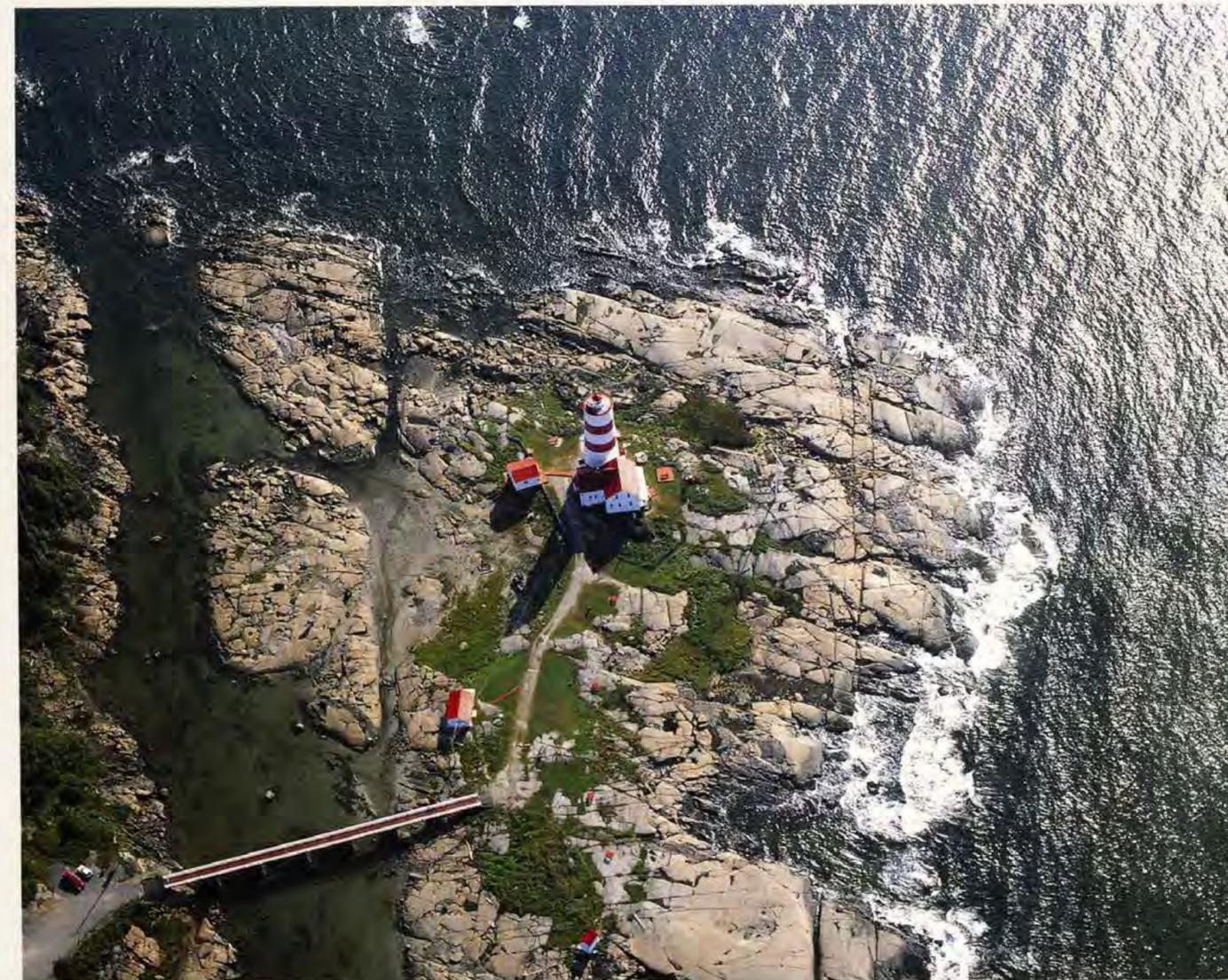
**"My flight to Moncton, Canada, via Boston became increasingly depressing."**

DAY 5  
WEDNESDAY 11 AUGUST  
*Moncton–Wabush–  
Fort Chimo–Forced down  
on Baffin Island*

I spent my first two days in Canada on the ground. The morning after my arrival I knew that I couldn't tamely ship *Delta India Kilo* home and admit defeat. And most of my problems turned out to be due to my extreme fatigue and inexperience with the equipment. The smell of burning had come from overheated perspex covering the landing light after I had accidentally knocked a switch, but there *was* a chip. "Take your time ... it's very dangerous!" the kind and helpful Moncton people told me before I headed north again on the leg to the mining settlement of Wabush, in south-western Labrador. Not cheerful advice, but sensible and well meant.

## The dreaded fog and extreme fatigue

I photographed this tranquil scene of lakeside cabins high in the Notre Dame Mountains on the Gaspé Peninsula, Quebec (*right*), and the lighthouse at Pointe des Monts, on the north bank of the St Lawrence River mouth (*below*).



## Jim Mollison: "Even now, I shudder over that flight."

**R**AIN AND FOG on my flight from Boston to Moncton prevented me from getting a clear view of Pennfield Ridge, New Brunswick, where James Mollison put down at the end of the first solo east-to-west crossing of the Atlantic in 1932. Pennfield Ridge is close to the coast, south-west of Saint John, and I had planned my route to take me over it. Mollison was a Scot who became one of Australia's pioneer aviators, a colleague of Smithy and Ulm. He took to the air in his silver de Havilland Puss Moth, *Heart's Content*, powered by a 102 hp Gipsy III, from a beach in Portmarnock, Dublin, at 6.35 a.m. on 18 August. His plan was to fly to New York via Newfoundland or Nova Scotia for refuelling. He carried no radio.

On that remarkable flight, he was at the controls for 30 hrs 10 mins. When approaching Newfoundland after running into one of the area's impenetrable fogs he did not know his position, but after identifying the coast, decided to press on without stopping, crossed Nova Scotia and got lost again while following the coast down to New York. When he finally realised that bad weather and lack of fuel would prevent him attaining his goal, he settled for a promising spot in Pennfield, landing at 12.45 p.m. on the 19th. The farmer who came out to the plane refused to believe that he had just flown from Ireland. Many years later Mollison wrote in his autobiography: "Even now I look back and shudder over that flight. In my wildest moments I would not now contemplate the prospect of flying a Puss across the ocean... You can imagine the sensations for yourself. The picture is of a man sitting in one position in a small chair for more than a day and a half. During that time he cannot sleep or rest for a moment. He is sitting in a space little wider than the spread of his shoulders. Six feet in front of him is an engine that growls and roars every hour and minute of the day and a half, making of his ear drums a numb, singing roar. Nothing to look at for 20 hours of the trip but featureless water beneath, and the expressionless faces of instrument gauges on the panel. Nobody to talk to, nothing to do but sit there and keep his eyes open, and hope, and try not to get too scared. That's flying the Atlantic by yourself."



Mollison farewelled by his wife, Amy Johnson, before taking off on his solo crossing of the Atlantic in 1932. My own flight marked its 50th anniversary.



I was heading into some wild terrain, which would get no better this side of the Atlantic. Labrador is part of the province of Newfoundland. North of the seaport of Sept-Îles I picked up a railway line (above) and followed it to Wabush, where I refuelled, and then followed the line to its terminus at Schefferville. Green soon gave way to increasingly bleak, stony country broken by many small lakes (right), and visibility was becoming so bad that I couldn't see Schefferville until I was above it. I was now heading into a huge low-pressure system that was to threaten me all the way across the Atlantic. In view of my resolve to put down if the weather turned bad, I should have sat it out in Schefferville for a week. But I decided I couldn't do that – it would make me late for Prince Charles.



The Inuit (Eskimo) village of Fort Chimo (also known as Kuujuaq) (right) came into existence as a trading post for the famous Hudson's Bay Company. I touched down there at 3.38 p.m. – 3 hrs 12 mins out of Wabush and determined to make use of the long twilight of those latitudes and push on the extra 800 km to Frobisher Bay (now Iqaluit). It would mean more than 12 hours in the air since leaving Moncton, but it would help get me back on schedule. I quickly worked out a flight plan and phoned it through while *Delta India Kilo* was being refuelled. In the deserted airport building I wondered if I could phone Pip. I dialled 9 and, to my surprise, in minutes I was connected to her in Sydney via an operator in Montreal. As always, a chat with Pip and the girls was a great tonic.



Below me after leaving Fort Chimo was the eastern coastline of the wild and rocky Ungava Peninsula, indented with fjords, speckled with lakes and uninhabited except for seals, polar bears and a few small, scattered settlements. Ahead of me were the frigid waters of Hudson Strait, about 130 km across and my longest sea crossing so far. I was very glad I was wearing my survival suit. After I crossed the strait without incident, it was on the frightening, serrated coastline of Baffin Island's Meta Incognita Peninsula that I ran into trouble. Frobisher Bay, my destination, was on the other side of icy, rain-enshrouded mountain peaks. Seeking a way through in the fading light, I flew up fjord after fjord, to be blocked by sheer rock walls climbing out of sight into ice-filled clouds. Tired after more than 11 hours in the air, I realised I was gambling with death. I sought out a flattish, if rock-strewn, stretch of ground close to the coast, landed and got out my camping gear. From my sleeping-bag during the night I could hear the rumble of icebergs crashing together in the strait, and barking that sounded like dogs but turned out to be seals. When I awoke at 5 a.m. (opposite, top), the weather had improved. An hour later, climbing to 3000 ft to clear the central mountain spine, I had time to ponder the certainty that my flight would have ended prematurely among these rocky peaks if I had pressed on.

## Uninhabited coasts cluttered with pack-ice



"Polar bears were common on the peninsula and they said no local in his right senses would camp in the open where I did without a rifle."

DAY 6  
THURSDAY 12 AUGUST

### Baffin Island–Frobisher Bay–Cape Dyer–Sondre Stromfjord

At Frobisher Bay, another of the Hudson's Bay Company's early fur-trading posts, where temperatures fall to  $-40^{\circ}\text{C}$ , I learnt from a couple of shocked Inuit that the mountains had not been my only threat the previous night. Polar bears were common on the peninsula and they said no local in his right senses would camp in the open where I did without a rifle. My forced landing had put me behind schedule, so after five hours at Frobisher I took off for Cape Dyer, 465 km across daunting, uninhabited country and coasts cluttered with pack-ice. I took this shot of the ice (right) just south of Cape Dyer. Soon after this, my world turned upside down when I ran into the most violent clear-air turbulence I'd ever encountered, and had to fight for control. As mountains and icy sea reeled around me, I was terrified that *Delta India Kilo* would actually break up. I was now north of the Arctic Circle and beginning to get a better idea of what I had let myself in for in such a tiny machine.



Cape Dyer was a link in the Distant Early Warning, or DEWLINE, chain of radar stations that guarded against possible incoming Soviet missiles (how the world has changed since my visit!). I was given a warm welcome by the station staff, who advised me to lock my helicopter because a polar bear had been wandering about. Four hours later I left Cape Dyer on the 460 km flight across Davis Strait to Sondre Stromfjord, in Greenland, in fine weather and higher spirits than I had been in for days. By the time I made landfall, the area around Sondre Stromfjord was clouded over. After an abortive effort to beat the cloud by climbing to 6000 ft, I descended and started to follow the fjord that leads to the town. But rain and swirling snow soon reduced visibility to almost zero and I was forced down to 200 ft. My situation was becoming alarming when a glow suddenly appeared about 3 km ahead: the Sondre Stromfjord controller had turned on the airport's strobe lights. I touched down thankfully – exhausted, frightened and almost frozen. The next day the weather prevented me from flying across the Greenland ice sheet to Ammassalik, on the east coast, so I resigned myself to spending the day at Sondre Stromfjord, thoroughly checking my HF radio (*below*).

DAY 7  
SATURDAY 14 AUGUST  
*Sondre Stromfjord–  
Narsarsuaq*

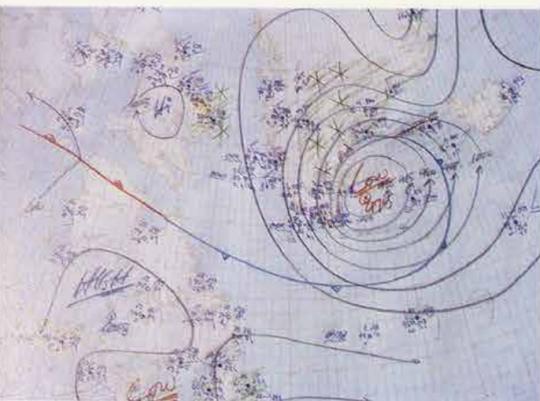
Sondrestrom Fjord (*right*) is about 160 km long, and it looked so glorious when I flew down it the following day on the 880 km flight to Narsarsuaq, towards Greenland's southern tip, that I could hardly stop photographing it. Peter Steneborg, who flew Sikorsky helicopters for Greenlandair and helped me service the radio, had persuaded me not to cross the ice sheet directly to Ammassalik, but to take the much longer, safer route around the southern coast. The ice sheet covers almost 85 per cent of Greenland and is second in size only to Antarctica's. Greenland, part of Denmark, is the world's largest island.

*“My situation was becoming alarming when a glow suddenly appeared about 3 km ahead.”*





On my flight down the west coast I reported "operations normal" every 20 minutes to the flight controllers along the way. The island is very aircraft conscious, and the safety procedures for that severe terrain are stringent. But I missed one call when dealing with a fearful bucketing from one of Greenland's notorious anticyclones that streamed off the ice sheet as I attempted to cut across one edge of it. Luckily I noticed that there was no wind pattern on the water, and escaped by dropping quickly to a few hundred feet above the sea. I had another, momentary, worry when I passed over this town (above) near the fjord leading to Narsarsuaq. It wasn't on my map, and for a few moments I was concerned about my location. I learnt later that it was Narssaq, but I don't know why it wasn't on my map.



*"They drew me a chart with a grim message: the bad weather was moving slowly eastwards, and if I left that day it would dog me right across the Atlantic."*

DAY 8  
MONDAY 16 AUGUST  
*Narsarsuaq-Kulusuk*

After a good night's sleep in friendly Narsarsuaq, which began life in World War II as a US air base, I awoke to see the surrounding peaks soaring into a cloudless blue sky. The bad news was at the weather office. A low-pressure system between Greenland and Iceland would stop me from getting into Kulusuk, the airport for Ammassalik, my next stop. They drew me a chart with a grim message (left): the bad weather was moving slowly eastwards, and if I left that day it would dog me right across the Atlantic. I spent Sunday going over *Delta India Kilo* and checking the course to Kulusuk, almost 650 km north-east, with the help of friendly Ice Patrol helicopter pilots Goran Lindmark (on the left in the picture below left) and Carl Hannisdal. There were no settlements on the stretch of wild south-eastern coastline I would be following, and they carefully pointed out where caches of food had been left on small islands along the track for travellers in trouble.

Day 8 opened with Narsarsuaq blanketed by fog, but this time there was good news from the met office: the fog would lift in a few hours, and Kulusuk's weather was perfect. Three frustrating hours later I was still fogbound, but Goran pointed to a route that could get me up onto the ice sheet clear of the fog, from where I could drop down to the east coast. Taking off with the heaviest load of fuel *Delta India Kilo* had ever

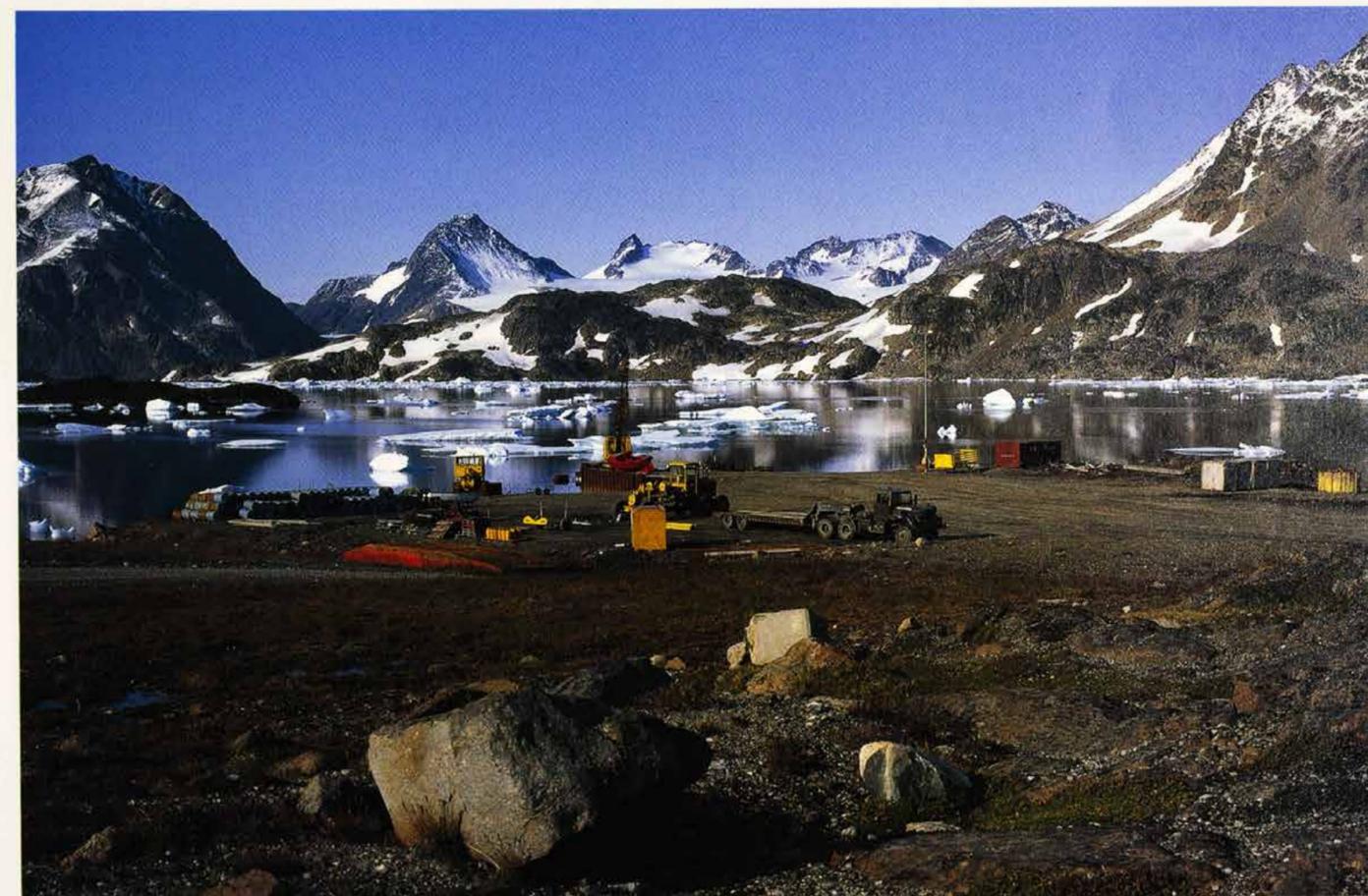
*High spirits and optimism are premature*

carried, I followed a river that dropped steeply from the mountains in a series of waterfalls. It led up to a glacier, which I followed until I emerged into sunshine at 7000 ft (below centre). In perfect flying conditions of the kind I had dreamt about but had hardly experienced so far, I cruised over the ice sheet at about 9000 ft. Never before had I flown across such remote, icy terrain of enormous glaciers and deep crevasses. From this height I could see up the jagged coast and out into the ice-strewn North Atlantic. My rendezvous at Balmoral Castle was only three days off, but my spirits were high. As it turned out, the optimism was premature.

who had flown on to Reykjavik from Iqaluit, warned me of bad weather ahead – a fact confirmed by my friends at Sondre Stromfjord met station when I phoned them. But if I didn't get through to Reykjavik that day it would be almost impossible to meet Prince Charles. After about an hour on the ground, I jumped back into *Delta India Kilo* and prepared to take off. Only then did I realise how tired and confused I was, and that it would be suicidal to fly in this state. I swallowed my pride, and to the astonishment of the waiting airport people, cut the engine.

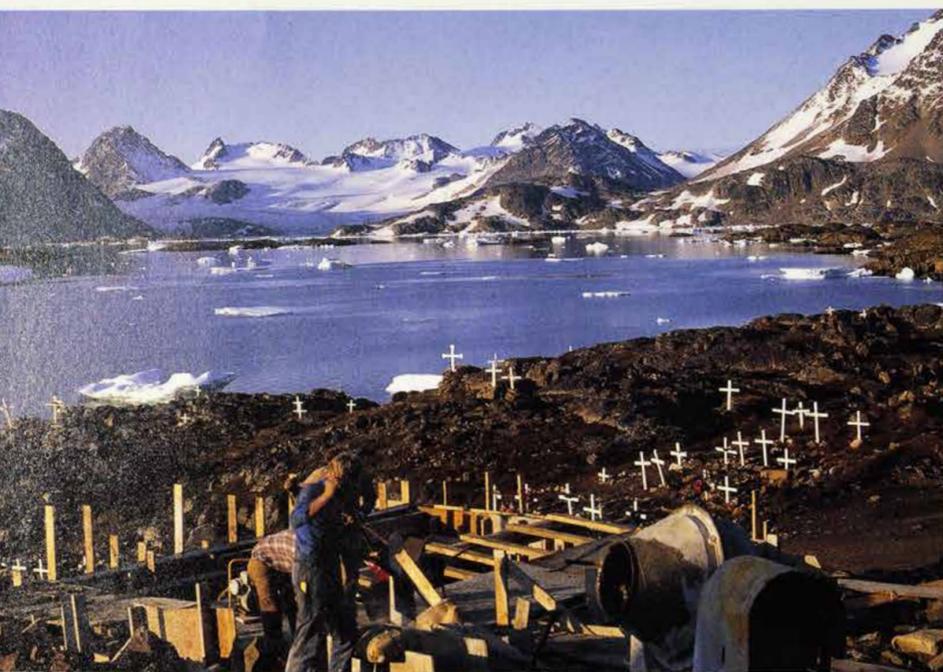


*"I swallowed my pride, and to the astonishment of the waiting airport people, cut the engine."*





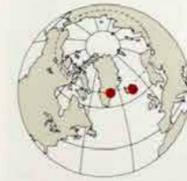
*Kids, Big Gun and the 'Kulusuk Hilton'*



DAY 9  
TUESDAY 17 AUGUST  
*Kulusuk-Reykjavik-  
Hornafjordur*

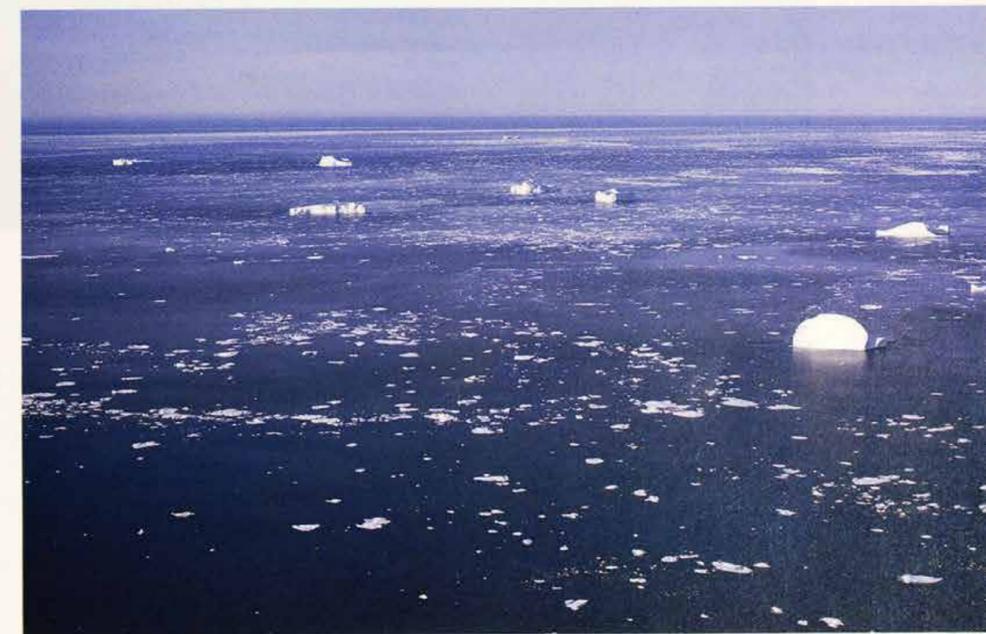
During my wait at Kulusuk, I enjoyed the company of some of the Inuit kids (above). Inuits make up 80 per cent of Greenland's population of 50,000, but I was depressed to see the conditions under which they appeared to live on this island. The small village near the airstrip was squalid - a great garbage dump with rubbish everywhere - and a number of its inhabitants seemed the worse for drink. And how sad was their rocky graveyard, with its white crosses against the crisp beauty of the mountain backdrop (left). As I departed Kulusuk early next

*"I was depressed to see the conditions under which the Inuits appeared to live on this island."*



morning, Big Gun appeared again on the eastern horizon (right). I spent the night in one of the nondescript buildings below, known locally as the "Kulusuk Hilton". Spartan, but friendly.

The first section of my long crossing of the North Atlantic began with smooth seas, sprinkled with small bergs large enough to land on if my engine gave trouble (below right). It was 740 km to Reykjavik and I calculated it would take me four hours. But after one and a half hours I ran into the most foul weather, which forced me down to 500 ft. It was absolutely frightening to have to weave through slurrings of snow with a 50-knot wind whipping up angry whitecaps. Worse, the radio warned me that the weather had closed in behind me and that conditions at Reykjavik were unsatisfactory for a landing there. I had no alternative but to keep going. Time and again during the next two hours I asked out loud why I was making this journey. I promised myself that if I was lucky enough to get to Iceland I would stop the flight there and then. Forty minutes from Iceland, the winds began to moderate, and by the time I was over Reykjavik airport a weak sun had shown itself (below). Jim Heagney, with a bag of sandwiches that I wolfed down in short order, was a welcome face on the ground.



*"I promised myself that if I was lucky enough to get to Iceland I would stop the flight there and then."*

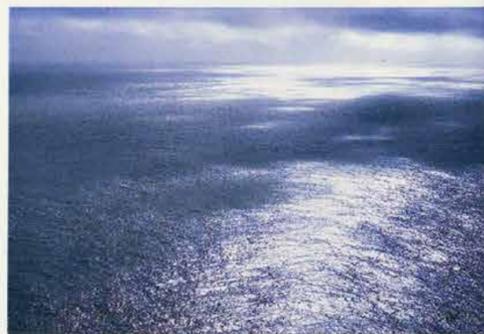


I spent only two hours at Reykjavik, by which time I had decided I was over-reacting to the stress. The weather looked reasonable to Hornafjordur, 418 km away on Iceland's east coast, and to Vagar, in the Faeroe Islands, a further 467 km, and I couldn't afford to lose another day. Iceland's climate is much milder than Greenland's because its southern shores are washed by the warm Gulf Stream. Lava flows and enormous, magnificent glaciers were features of the landscape as I followed the coast to Hornafjordur, but it was also much greener than I expected (*above*). (Since that day, I remember Greenland for its ice and Iceland for its green.) As the weather worsened, I viewed most of the scenery through breaks in the rain. At Hornafjordur I learnt that there was also rain at Vagar, and a ceiling of 700 ft. Despondent again, I decided it would be dangerous to risk going on that day.

*"Since that day, I remember Greenland for its ice and Iceland for its green."*

**DAY 10**  
**WEDNESDAY 18 AUGUST**  
**Hornafjordur–Vagar–**  
**Stornoway**

When I got away from the little town of Hornafjordur (*right*) early, I found the North Atlantic in a better mood (*below right*), but it soon deteriorated into showers that I had to weave around constantly. Staying below 1000 ft, beneath most of the cloud, I went over my drill should I have to put my tiny, single-engined machine down without floats. First I would transmit a May Day call, auto-rotate down to the surface, then attempt to put down left side first (*Delta India Kilo* was flown from the right-hand seat). I gave myself about 45 seconds to get out of the door with my life raft and inflate it before the helicopter sank. Any longer and I might go down with it. Two hours out from Iceland I sighted the very rugged Faeroe coastline, but it was another 40 minutes before I put down at Vagar airport after some confusing air traffic instructions. These took me into the mountains so that I approached from the east – the opposite of the direction I had arrived from. Even then, I almost missed the airport. What a morning!



Beautiful, neat and clean are the Faeroes, which are also self-governing and Danish. This view (*above*) is from the airport control tower. I would have liked to have stayed longer and seen more, but the weather reports were continuing to frustrate my plans, so I spent just 1 hr 22 mins on the ground, all of it in a terrible rush. My plan was to fly south-east to the Shetland Islands, where various people had flown from London to meet me, and then on to Balmoral by way of the Orkney Islands, but I now learnt that the Shetlands' weather was marginal. What to do? Vagar control told me I could enter the United Kingdom via Stornoway, on Lewis in the Western Isles of Scotland, where conditions were better. But I would have to arrive before the airport closed for the night, and that was only a few hours off. I grabbed my maps and protractor, and alongside the controller's desk worked furiously on a new flight plan to take me directly 446 km south to Stornoway. If I spent the night at Stornoway I could fly on to Balmoral in only two hours and be right on schedule. I had to grasp the chance.

I sighted 20 to 30 fishing boats on my flight to Stornoway, and flew low over some of them (*below*), noting their positions in case I might need to ditch where I could be picked up. Some of the fishermen waved, no



*Change of plans as the Shetlands' weather closes in*

doubt surprised to see a small, lone helicopter over the North Atlantic. I wondered what Stornoway's airport could do if I arrived late – I could hardly be expected to fly around it all night until it opened again. In a little over two hours I sighted the Lewis coast. Soon after 3 p.m., I saw a small lighthouse ahead, and a few minutes later a village appeared below me (*right*). I had passed over the coastline. *Delta India Kilo* and I had made the first solo helicopter crossing of the Atlantic!

Should I have reported to the Stornoway police the discovery of two bullet holes in *Delta India Kilo*? I had decided against it. Their inquiries might have prevented me from getting away on time for my meeting at Balmoral. A Stornoway fireman found one hole (*right*), in the lower part of the window on the pilot's side, not long after my arrival. The bullet would have passed within a few centimetres of me and through the open window opposite. We found the second hole in the rear window on my side, and that bullet had clearly gone into the reserve fuel tank. (In London later the Bell agents recovered a .38 calibre slug from inside the tank.) Who had fired at me, and when? I had smelled fuel while following the Greenland coast, and at Kulusuk carefully checked the fuel lines for a leak but found nothing. If somebody along the coast had fired a rifle at me I would not have heard the impact of a bullet above the noise of the engine, especially with a headset on. Or could I have been fired on while



I was circling some of the fishing boats south of Iceland? The thought that anybody would maliciously fire on a passing helicopter horrified me.

*"Who had fired at me, and when?"*

DAY 11  
THURSDAY 19 AUGUST

*Stornoway—Balmoral—  
Glasgow—London*

To help me find Balmoral Castle, I bought a road map of Northern Scotland at Stornoway. My chart merely showed a restricted airspace area where I suspected the castle was, but the road map gave me all the details I needed. The castle was near Braemar, scene of the annual Highland Games, where Pip and the girls and Jim Heagney were staying to await my arrival. The day dawned bright and clear, with rain and low cloud predicted only for the Grampian Mountains that ran across my final approach to Balmoral. My last over-water section on the Atlantic crossing — 65 km between Lewis and the mainland of Scotland on the course I had to take — was uneventful. An hour after departure I sighted Inverness, and stretching off to my right, the legendary, 36 km long Loch Ness (right). I brought *Delta India Kilo* down to 80 ft and skimmed over its waters with a feeling approaching glee. It was 50 years to the day that James Mollison made the first solo east-west crossing of the Atlantic, and now I had made the first solo helicopter crossing. And I wouldn't have to do it again!

Although they were wreathed in cloud, the Grampians gave me no trouble, for I simply used my road map to work my way through them. My worst difficulty was in trying to understand what the Scottish air controllers were saying. In America, some accents had been difficult, but I expected better in this part of the world! I circled Braemar and some of the adjoining valleys, deliberately wasting time so as to arrive at Balmoral at precisely 10 a.m.

As it happened, I put down one minute early, after a momentary panic when I couldn't see the castle among the trees. I had expected it to tower over the landscape like Windsor Castle. I came in a few hundred feet above it before I saw the welcoming party on the golf course within the castle grounds, where a large H had been laid out on the grass. I was so nervous I came in far too high and almost had to go around again. Prince Charles, in a

*A call at Balmoral Castle with the help  
of a road map of Scotland*



*“It was 50 years to  
the day that James  
Mollison made the  
first solo east-west  
crossing of the  
Atlantic ... And I  
wouldn't have to  
do it again!”*



kilt, came forward with Pip, Hayley and Jenny (opposite page top). It was all wonderful! Pip and the girls got great hugs. Prince Charles talked helicopters (he's a helicopter pilot), and about details of my flight, and examined the mysterious bullet holes. He was very friendly, and it was nearly 30 minutes before he drove back to the castle in his Range Rover and left me to talk to about 50 media people. These included a television team that had interviewed me in Fort Worth, so I plonked on my head the white Texas hat I had been given on my departure and made a speech of thanks. Then I was off to London.

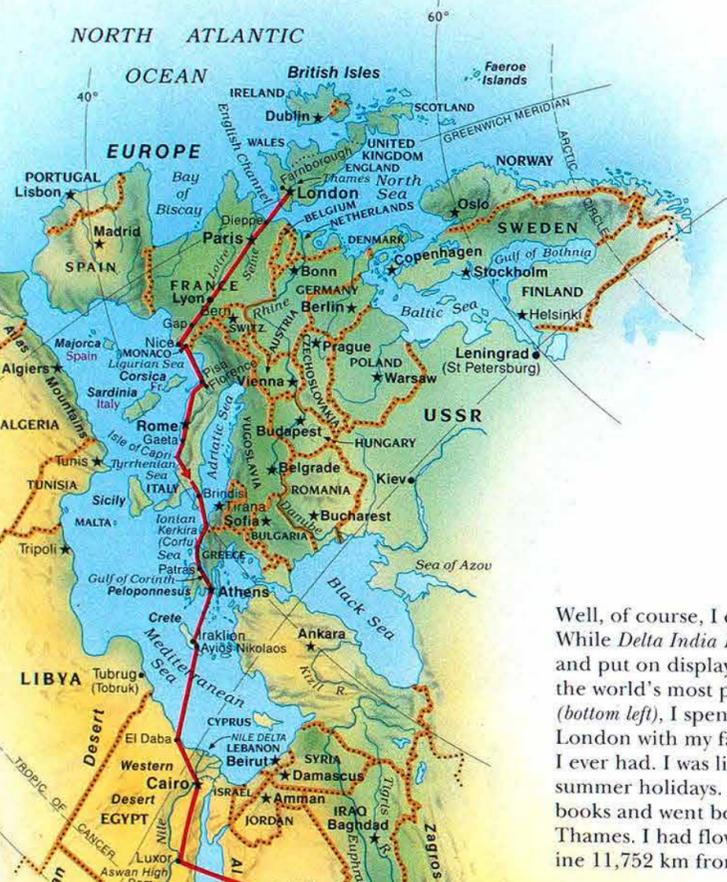


I refuelled in heavy rain in Glasgow and was airborne again in 35 minutes, flying into more bad weather. I had to get to London, where a big reception committee awaited me, by 4.30. London control vectored me in by radar, keeping me out of the main traffic areas until I sighted the Thames. The helipad was a small floating barge close to the Embankment near Tower Bridge. I almost choked with emotion flying over St Paul's Cathedral, Westminster Abbey, the Houses of Parliament: hundreds of years of history passing beneath me (below).

Just as I was going in, a helicopter carrying German media people radioed to ask for some pictures of me flying over London. I climbed back over the Thames for a circuit before landing on the crowded barge. I was physically and emotionally exhausted. I didn't know whether to laugh or cry. That night when I reached the London flat Pip had rented I threw myself on the couch and said: "Never again. That's it. I'm not going on!"

*“I was physically  
and emotionally  
exhausted. I didn't  
know whether to  
laugh or cry...  
I threw myself on  
the couch and  
said: 'Never again.  
That's it. I'm not  
going on!'”*





# Stage 2

## London-Sydney

### On the track of Bert Hinkler

Well, of course, I did go on. While *Delta India Kilo* was serviced, and put on display at Farnborough, the world's most prestigious air show (bottom left), I spent three weeks in London with my family, the best idea I ever had. I was like a schoolboy on summer holidays. I read two *Biggles* books and went boating on the Thames. I had flown my little machine in 11,752 km from Fort Worth in

60 hrs 52 mins, spread over 11 days, at an average speed of 104 knots (192 km/h), and there was no need to make a hasty decision about what to do next. As the tension, gloom and self-doubts gradually ebbed away, I put aside the plan I had been tinkering with to have *Delta India Kilo* dismantled and sent home, ignominiously, in a shipping container.

*"The tension, the gloom, ebbed away."*



# It's Monday, this must be Rome

DAY 12  
MONDAY 13 SEPTEMBER  
London-Lyon-Rome

Bert Hinkler flew solo from London to Darwin in 1928 in 15 and a half days, and then on to a hero's welcome in his home town, Bundaberg, Queensland. His London departure point was Croydon, less than 16 km from the old wartime aerodrome of Biggin Hill, from which I took off for Australia 54 years later, resolved to match his flight time. I took aboard a copy of that day's London *Times* to deliver to Alexandria station in the Northern Territory, just as he had done. Pip, Hayley and Jenny were there to see me off (right). At 7.38, as *Delta India Kilo* lifted into a morning as misty as Hinkler's had been, I was again confident that I too would make it safely home.

The mists cleared as I flew south-east over southern England, crossing the coast near the seaside town of Bexhill. As I headed over the Channel to Dieppe, I received a

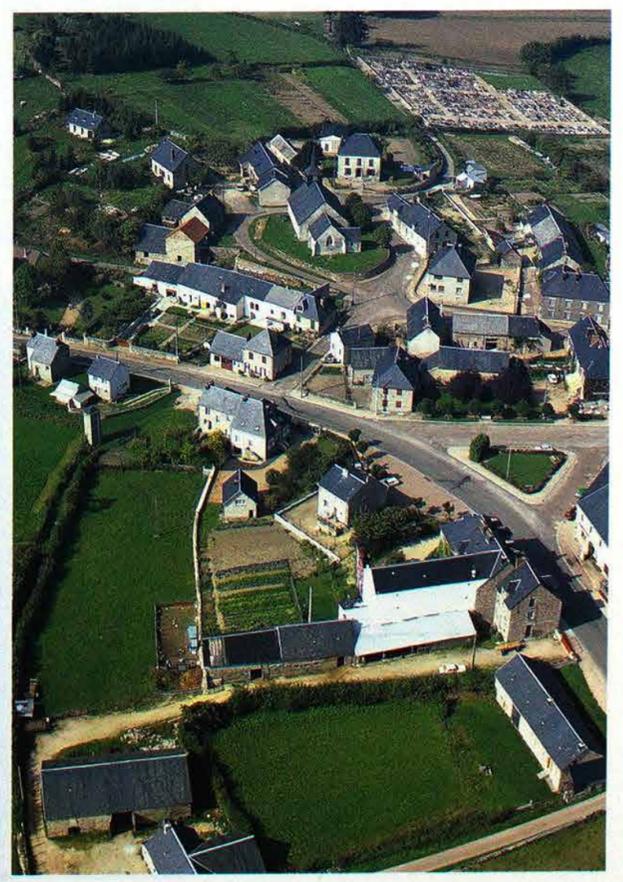
friendly "Goodbye and good luck" from Biggin Hill control. I had to forsake my plan to fly up the River Seine and around the Eiffel Tower before making a refuelling stop at Lyon, for there was more fog ahead, Paris was closed, and I had to make a confusing detour. A helpful and efficient controller at Charles de Gaulle Airport brought me back onto the Lyon track, and I was soon making good progress in better weather. Hinkler took almost 13 hours to fly his Avro Avian non-stop from London to Rome (the first direct air connection between the two cities), and I expected to make it the same day despite some detours. I photographed this small village (below) between Paris and Lyon.

From Lyon, tracking to the Mediterranean at Nice, on the Côte d'Azur, I climbed to 7500 ft over the Maritime Alps near the historic little town of Gap, which was established by the Romans in 14 BC. I knew about it because in 1966, when I was a 22-year-old rover scout visiting Europe, I had driven through it on my way to



a climbing course. And here I was, only 16 years later, flying over it in my own helicopter on my way around the world! On the coast near Nice I dropped to 500 ft and circled the crowded beaches and busy harbour of Monaco's Monte Carlo, with its expensive yachts, before heading east across the Ligurian Sea towards Italy - and the Leaning Tower of Pisa.

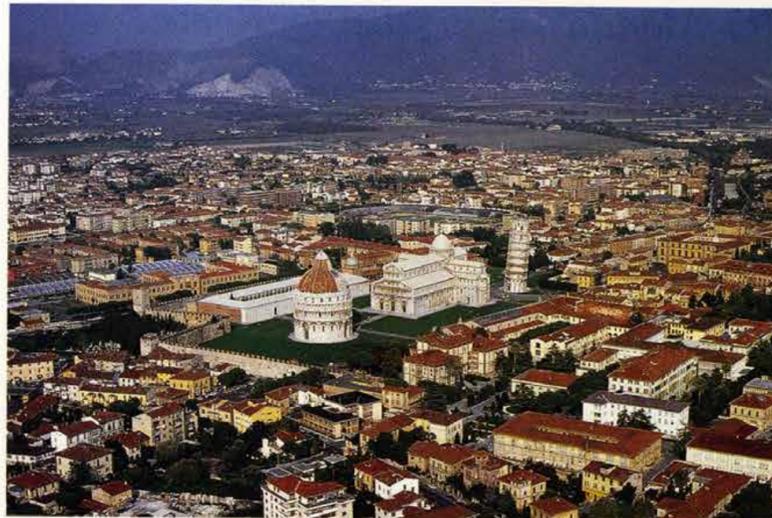
MAP SHOWS 1982 BOUNDARIES AND NAMES  
AG CARTOGRAPHIC DIVISION  
GEOGRAPHIC ART: RAY SIM



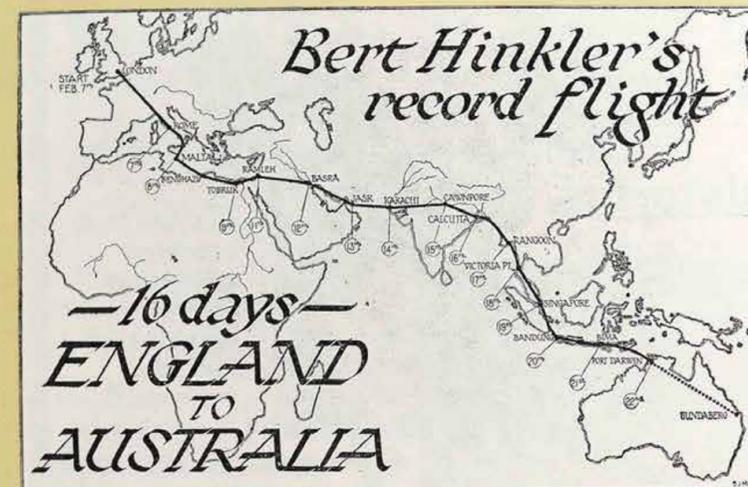


Surprisingly for that crowded part of the world, it was a lonely 230 km sea crossing because I had difficulty getting anybody on the radio. When I finally raised Pisa airport to seek clearance to fly around the Leaning Tower and take photographs, I couldn't make myself understood. The pilot of an American aircraft broke in to offer his help, with the result that I sorted it out with an English-speaking controller. I could fly around the tower and then down the west coast to Rome. The 55 m high tower (top right) leans about five metres from the vertical and may go on leaning until it topples. Fortunately, vibrations from *Delta India Kilo's* engine and rotor-wash did not topple it before its time. On my left as I headed down the coast was the River Arno, which leads to Florence, where Bert Hinkler is buried. He crashed in the mountains north of the city in 1933 while trying to break the England–Australia record of 8 days 20 hours. While I was thinking about Hinkler, I was enveloped in a thunderstorm, and with bolts of lightning moving ominously closer, I was very glad when I raised Rome's Ciampino airport and was cleared to track right in. I landed 4 hrs 35 mins from Lyon, 8 hrs 18 mins from Biggin Hill. It gave me great satisfaction to know that, like Hinkler, I had made Rome in a day.

All I wanted was sleep after a long day at the controls, but there was a crowd waiting to welcome me at the airport, and the media interviews – which I always found tiring – were made more difficult by the language barrier. Gerry Nolan, who had taken over from Jim as my forward man, presented me with a flag that the Explorers Club had sent me from New York to take around the world – a rare honour. I was up at 4.50 the next morning after one of those nights of restless, shallow sleep that leave you drained and depressed – not a good preparation for my 1300 km flight to Athens. But I was airborne again before dawn, and in the early light of a clear day I passed over the port of Gaeta, with its backdrop of ancient ruins (right).



## Hustling Bert Hinkler



BERT HINKLER'S England-to-Australia flight in 1928 was not the first or last notable flying record that this unassuming Australian aviator set, but it was the flight that I could best emulate in *Delta India Kilo* as a way of paying homage to him and the aviation pioneers. I hoped it would also give me greater insight into the hardships they endured.

Hinkler (1892–1933) flew from London to Darwin in 15 days 12 hrs; it was not only the first England–Australia solo flight but the time was an extraordinary record for those days of less reliable engines and of primitive landing grounds and facilities outside the main cities. The existing record was 28 days, established by Ross and Keith Smith in December 1919.

I carefully worked out a route as near as practicable to the one Hinkler followed in his single-engined Avro Avian (map above). Mine had to vary somewhat in the Middle East because some areas were prohibited to private aircraft, but I estimated I could match his 15 and a half days in the helicopter. Of course, any modern long-distance flier has many advantages over the aviators of the '20s and '30s, although, on the matter of time, today's fliers are far more cramped by rules, regulations and stacks of tedious paperwork (and just how irksome and time-wasting this can be I certainly discovered long before I reached Darwin!). The pioneers often simply filled up, climbed in and took off – particularly Hinkler, who was noted for his

lack of affectation, and who detested fuss and ceremony. After reaching Darwin, I also planned to follow Bert Hinkler's exact path across northern Australia to Bundaberg, Queensland, where its famous son's achievements are especially venerated. I knew this at first hand after having flown a helicopter 1090 km non-stop from Sydney to Bundaberg in April 1982 as a test for my around-the-world flight. Two of Hinkler's aircraft, including the Avian, are in the Queensland Museum.

Like too many other leading fliers of his day, Bert Hinkler died at the controls – in a Puss Moth that crashed in the Apennine mountains of central Italy while he was attempting another England–Australia record. The Italians buried him with full military honours.



Bert Hinkler (top) detested fuss and ceremony. Above, he arrives at his home town, Bundaberg, after his record flight from London in 1928.



"Hustling Hinkler" (above) was the title of a popular song published the same year.

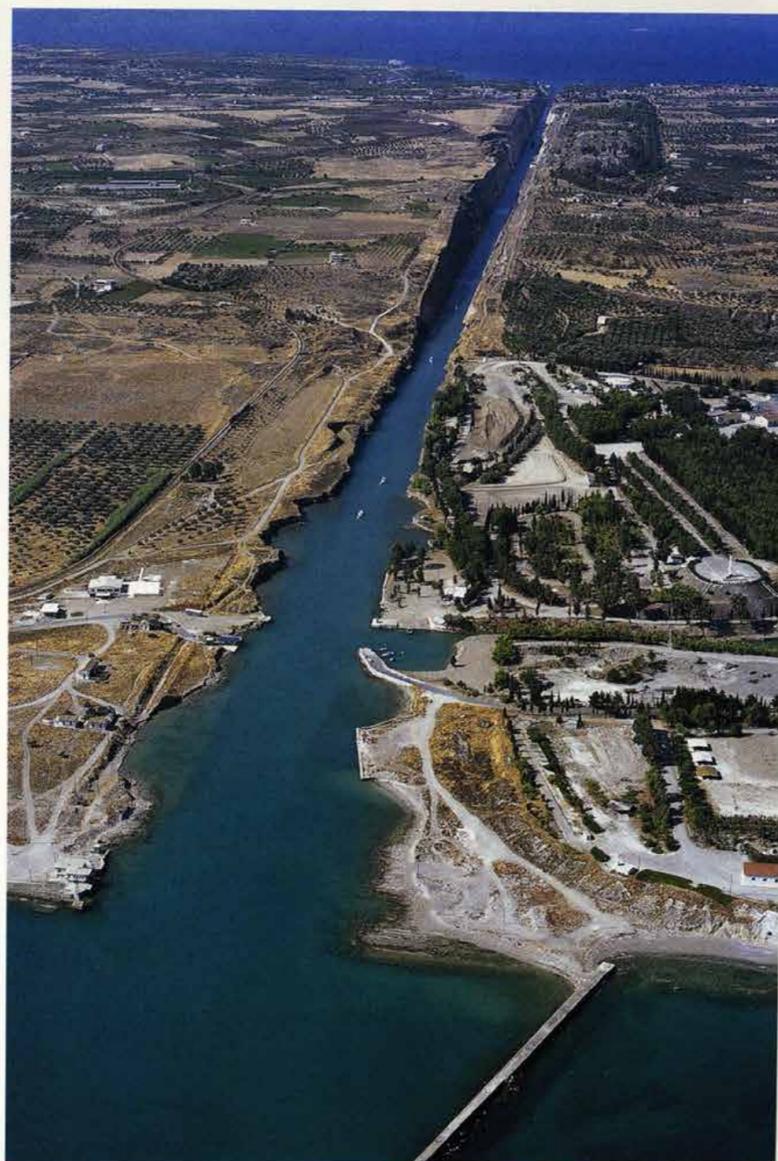


In the air approaching Kerkira and desperate to find out from anybody at all why I couldn't go on, I set my radio to the universal talk frequency that most international aircraft monitor so they can chat with passing aircraft, and identified myself. A second or two later I was absolutely staggered to hear Gerry Nolan's voice asking me what I wanted. He was only 100 km away, on the flight deck of an Alitalia flight taking him to Athens for my arrival! When I got over my surprise and was able to speak, Gerry said he would find out what he could. He came back to say he would straighten things out when he reached Athens an hour later, but meanwhile to land at Kerkira. At Kerkira, everybody was charming. They explained that private aircraft had been banned from Athens

International Airport since my clearance was issued, but one of the officials agreed to phone Athens and explain why I particularly wanted to land there. Ten minutes later he announced that I could land. Great! As if to atone for the rotten day, the rest of my flight to Athens was fantastic. In magnificent weather, over smooth seas, I tracked down the coast to the Peloponnesus and Patrai, its administrative centre (*left*), and on over the extraordinary Corinth Canal (*below*). It slices through the Isthmus of Corinth, and cuts several hundred kilometres off the sea route for small ships between the Ionian Sea and Piraeus, the port for Athens. We are seeing the canal from the gulf, looking towards the Athens side.



*"Desperate to find out from anybody at all why I couldn't go on, I set my radio to the universal talk frequency ..."*



*Day 14*  
*WEDNESDAY 15 SEPTEMBER*  
*Athens-Iraklion-Cairo*

My dawn start from Rome turned out to be the beginning of a week-long grind of early starts, when I flew long hours each day and spent many more refuelling and dealing with the tedious entry and departure formalities and keeping up my diary and logbook. In Athens, for the first

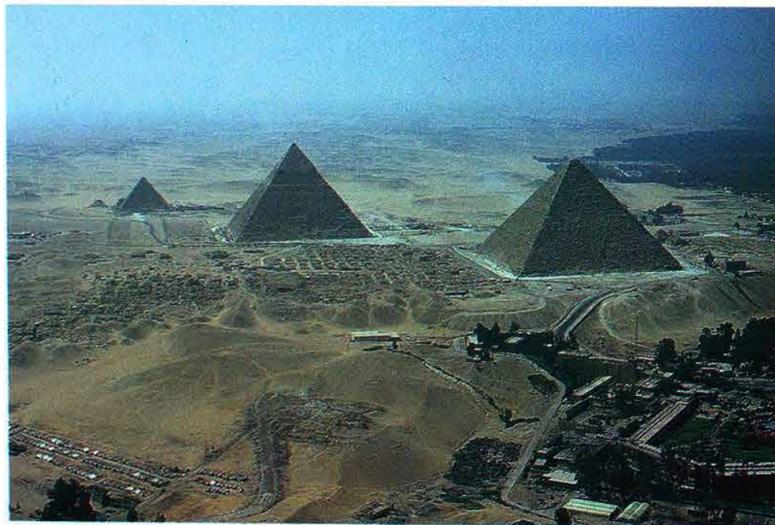
time on my flight, I was surrounded by people who realised how exhausted I was and were prepared to rearrange their plans to give me some rest. I was very thankful. I could now understand what Hinkler and the other aviation pioneers had gone through with their early piston engines and noisy exhausts, their open cockpits, and the ceaseless roar and buffeting of the slipstream. No wonder Hinkler frequently landed exhausted, partly deaf and with the

mother of a headache. After Athens, where I added the Parthenon to the growing list of world landmarks I had seen from my helicopter, my next stop was 296 km south-east at Iraklion, on Crete. Iraklion's officials couldn't do enough for me, for Australia's part in the defence of Crete in World War II is not forgotten there. The port of Sitia (*above*) was below me soon after I left Iraklion for Egypt.

## Cairo from the magic carpet

I had heard several tales about how sensitive Egyptian officials were about pilots deviating from the track, so I was a little nervous as I sped in their direction over the blue Mediterranean at 2500 ft at a brisk 120 knots, thanks to a tailwind. I had even dismantled the movie camera so they couldn't accuse me of spying. At least, I thought, the Mediterranean would be warmer than the North Atlantic if I had to ditch in it. (Such thoughts surface as you cross hundreds of kilometres of ocean on one engine.) My nervousness about Egyptian attitudes grew when I failed to raise Cairo even after passing over the coast at El Daba, by which time I had climbed to 6000 ft. Nor could I get a response from any of the

ground navigation beacons. I attracted the attention of Cairo control only with the help of the pilot of an Egyptian airliner, who called them for me. But the controllers weren't much interested in me – from the frantic sounds of the airport radio traffic, they had bigger worries. I learnt that the poor fellows didn't even have radar, and the ground navigation beacons were all out of order. My flight around the pyramids at 1500 ft (*below*), and then over the Nile and the roofs of Cairo (*right*) before landing, was a fantastic climax to another day of superb weather, in which I had flown *Delta India Kilo* 1261 km. This was the kind of around-the-world flying on my magic carpet that I had hoped for.





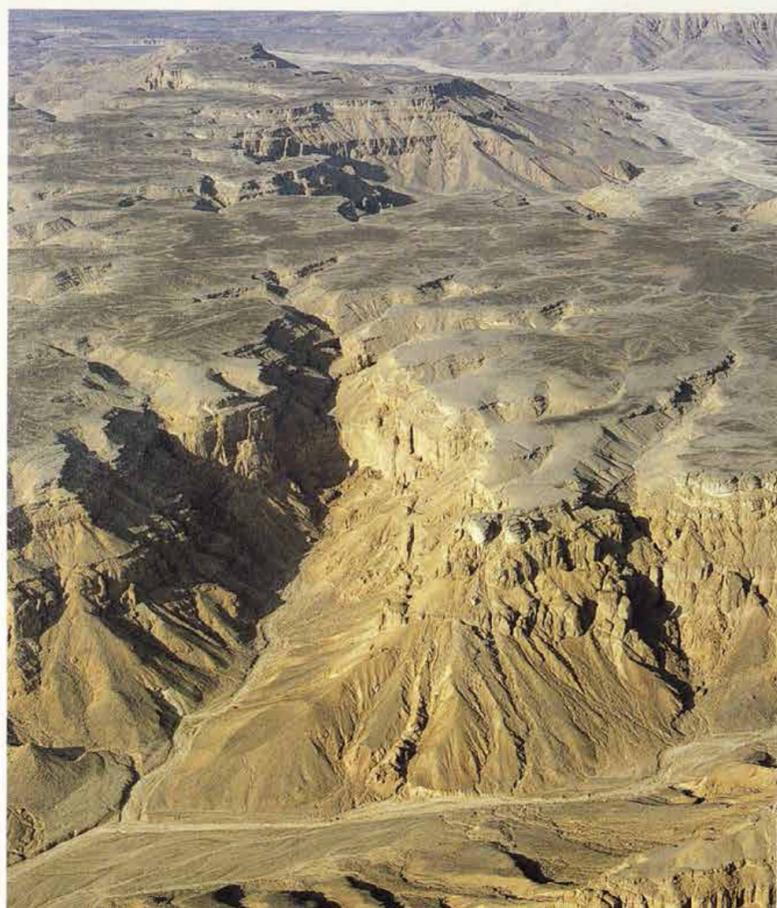
## Comfort stops and complete silence from the radio

DAYS 15-16  
THURSDAY 16,  
FRIDAY 17 SEPTEMBER  
Cairo-Luxor-Ha'il-  
Bahrain

There had been no bed for Hinkler at the end of his third day's flight from England. He had slept under

the wing of his plane in the Libyan desert. On my third day's flight from England I slept comfortably in Cairo. But next day I, too, landed in the desert, for the practical reason of needing a 'comfort stop'. The site I plunked down on (*above*) was about 100 km north of Luxor, where I was to refuel. My original application to fly from Cairo to Ha'il, in Saudi

Arabia, had not mentioned a refuelling stop, and the Cairo officials made a great song and dance about the omission. They probably would have refused me permission had not Nabil Zidan, of Mobil, interceded and got them to accept a special request I wrote out on a piece of paper (*below*). (Heaven knows what they might have done about my unauthorised 'comfort' landing.) On most of my leg to Luxor I was well east of the Nile, and expected to be flying over sandy desert, but instead there were these ancient, eroded mountains (*left*).



To CIRCUMNAVIGATE *Permission Granted*  
I REQUEST PERMISSION TO LAND AT  
LUXOR FOR REFUELING SO THAT I CAN  
CONTINUE MY EFFORT AROUND THE  
WORLD  
MY AIRCRAFT IS A  
BELL 505-1000 VH-DIK  
DEPARTING THURSDAY 16th SEPT  
FROM CAIRO AT 0300Z  
LANDING LUXOR 0540Z  
THEN DEPARTING FOR HA'IL  
DATE 15/9/82 Dave Smith  
FIRST AIRCRAFT  
MIL 1

After crossing a bend in the Nile (*below*) I landed at Luxor depressed that I would be delayed hours with formalities. The sight of an official with a submachine gun did nothing to cheer me. The gun gave me no trouble, but Luxor's bureaucrats outdid the Cairo variety as they shunted me from one to another with demands for applications in triplicate, and fees in American dollars. I left Egypt heavier in fuel but lighter in a variety of currencies. This irrigation canal near Luxor (*below right*) is fed from the Nile. Away from the Nile's banks, the landscape quickly reverted to the kind of country I had been flying over.

At 7500 ft, a tailwind pushed me across the 210 km wide Red Sea at a cracking pace, and I had a spectac-

ular view of that busy waterway. I could see both coasts, including my first obstacle, the Al Hijaz mountains on the Saudi Arabian side. The tanker (*right*) was heading towards the Suez Canal. A warning notice on my map read: "The whole territory of Saudi Arabia is a prohibited area. Aircraft flying without prior permission and/or flying outside the permitted corridors will be notified and forced to land." It said I should radio Jiddah, on the coast to my south, when about two-thirds of the way across the Red Sea for permission to enter Saudi airspace. But I was soon across the sea and well into Saudi airspace without having raised Jiddah, or anybody else. Then, to my relief, the pilot of a high-flying airliner came to my aid and passed on my call. I heard Jiddah reply: they didn't seem very interested either.



"I left Egypt heavier in fuel but lighter in a variety of currencies."



The airwaves remained eerily silent as I began to climb over the Al Hijaz range, with its jagged peaks and high valleys (right). I wondered if I would be heard of again if I came down in this forbidding, silent terrain. Farther east, I began to see scattered signs of habitation, and dropped down to photograph a Bedouin camp (below) miles from anywhere. Those desert nomads live a hard life. Occasionally I had to give a wide berth to very high, spiral dust storms, hazardous to any light aircraft. Ha'il airport, slap in the middle of the desert, appeared to be very modern, but strangely deserted. At first I couldn't find it, because the VOR towards which I had been tracking was 18 km east of where the map said it was. Dead silence was the answer to all my

calls to the airport tower, so I had to land without having had any communication at all with any air controller in Saudi Arabia. The airport director, sitting behind an enormous desk in an enormous office, was furious. He waved aside my copy of a clearance from the Saudi Arabian Embassy in Australia. He shouted, stomped and waved his hands, then made six phone calls, shouting at people at the other end while I sat in front of him, my stomach churning. A young interpreter was brought in to explain that they had no record in Arabic of my clearance. More shouts from the director, more phone calls. Finally, the problem appeared to be resolved. After that, he was as pleasant as could be, and remained very helpful for the rest of my overnight stay in Ha'il.





I departed Ha'il as I had arrived, in complete radio silence. My 890 km flight to the small State of Bahrain continued to take me over Saudi territory apart from the last few kilometres. Hinkler's route and mine had diverged, but they would link up again in Pakistan. My cockpit temperature was 38°C, and the country, with its great sand dunes, reminded me of Australia's Simpson Desert. Saudi's oil wealth (it has the world's biggest reserves) only became noticeable closer to the gulf as I flew over great pipelines and new expressways. I had now crossed all of Saudi Arabia, from the Red Sea to the Persian Gulf, and was pleased to be

out of it. Eight years later, much of this territory was swarming with armies as the multinational forces under the auspices of the UN mounted their massive assault on adjoining Iraq over its invasion of Kuwait. After the desert landscapes, the gulf island of Bahrain was a green gem on a brilliant blue sea. Gerry and a group of airline people met me (*left*) and I was through Bahrain's customs and immigration in five minutes. What a contrast with recent experiences! I wouldn't see Gerry again until Delhi, and as it turned out, I was just as grateful to see him then, too.



DAY 17  
SATURDAY 18 SEPTEMBER  
*Bahrain–Muscat–Karachi*

Bahrain to Karachi, Pakistan, was a very long day. The strain was all the greater because I hadn't got to bed in Bahrain until 12.40 a.m., and Gerry and I were at the airport at 4 a.m. My honorary Qantas captain's uniform helped me walk unchallenged through every official door and onto the runway, where I lifted off at 5.10 a.m. This wasn't the first time I had seen how useful a uniform is at an airport. From 2000 ft the blue waters of the gulf were patchy with little puffballs of mist as the sun rose. A voice crackled in my ear: "Hullo Dick!" It was the pilot of the Qantas jumbo service to Sydney via Kuala Lumpur, 28,000 ft above me. I had met the crew in the Bahrain briefing office. "We've got a great view of Abu Dhabi," the captain said. "It's all quite smooth and clear. Good luck!" In about six hours, the Qantas passengers would be in Kuala Lumpur, a flight that would take me six days in considerably less comfort. In the cockpit it was 40°C. I passed Doha, in Qatar (*left*), and an hour later I was over Abu Dhabi, another of the United Arab Emirates, and heading for Muscat, on the Gulf of Oman. I passed over an impressive, modern sports stadium (*top right*) in Abu Dhabi, and a modern housing estate (*right*) west of Al Buraymi, in the sultanate of Oman. Between here and Muscat I climbed to 5000 ft to cross the northern end of the spectacular Akhdar Mountains (*below*). My map marked many forts along the historic coast to Muscat, but what held my interest was the number of expensive seaside homes.



*"Hinkler's route and mine had diverged, but they would link up again in Pakistan."*



## Amy Johnson: As a pioneer she had to be her own mechanic

**I**N 1930, ENGLISH-BORN Amy Johnson became the first woman to fly solo from England to Australia. Although she didn't match Bert Hinkler's record time, she made the flight in a remarkable 19 and a half days, and became the toast of the British Empire. She went on to break many records, some with Jim Mollison, whom she married in 1932. Amy's aircraft on that England-Australia flight was a two-seater open-cockpit DH Gipsy Moth. Its 100 hp engine had a



cruising speed of only 85 mph and her only instruments were an airspeed indicator, an altimeter, a turn-and-bank indicator and a compass. In her book, *Sky Roads of the World*, she described what she took with her: "The front cockpit was covered over, and into it I crammed a medley of kit, reminding me of a village store."

"Besides a goodly supply of tools and spares, there were tyres, inner-tubes, clothes, sun-helmet, mosquito-net, cooking stove, billy-cans, synthetic fuel, flints, revolver, medicines, first-aid kit, air-cushion and heaven knows what else. Everything that might come in useful in the event of a forced landing, and I had to legislate for deserts, jungles or seas, mountain-tops or swamps, heat or cold, day or night. Fastened with rope to the side of my machine was a spare propeller, on the seat of my cockpit was a parachute, and in every available corner were emergency provisions. It was like taking out an umbrella every day so that it will not rain."

The pioneers had to be their own mechanics, and Amy Johnson was a

*Amy receives a rapturous reception on a triumphant tour of Australia after her solo flight from England. She was killed in 1941 when the plane she was ferrying for the RAF crashed into the Thames.*

good one, having been the first woman in Britain to gain a ground engineer's licence. She did at least three hours' work on her aircraft at the end of each 10 hours' flying. She could strip an engine and rebuild it – and she repaired the wings more than once with men's linen shirts and sticking plaster. Because fuel wasn't widely available as it is today, the pioneers had to make special advance arrangements to get supplies to many of their stopping places.



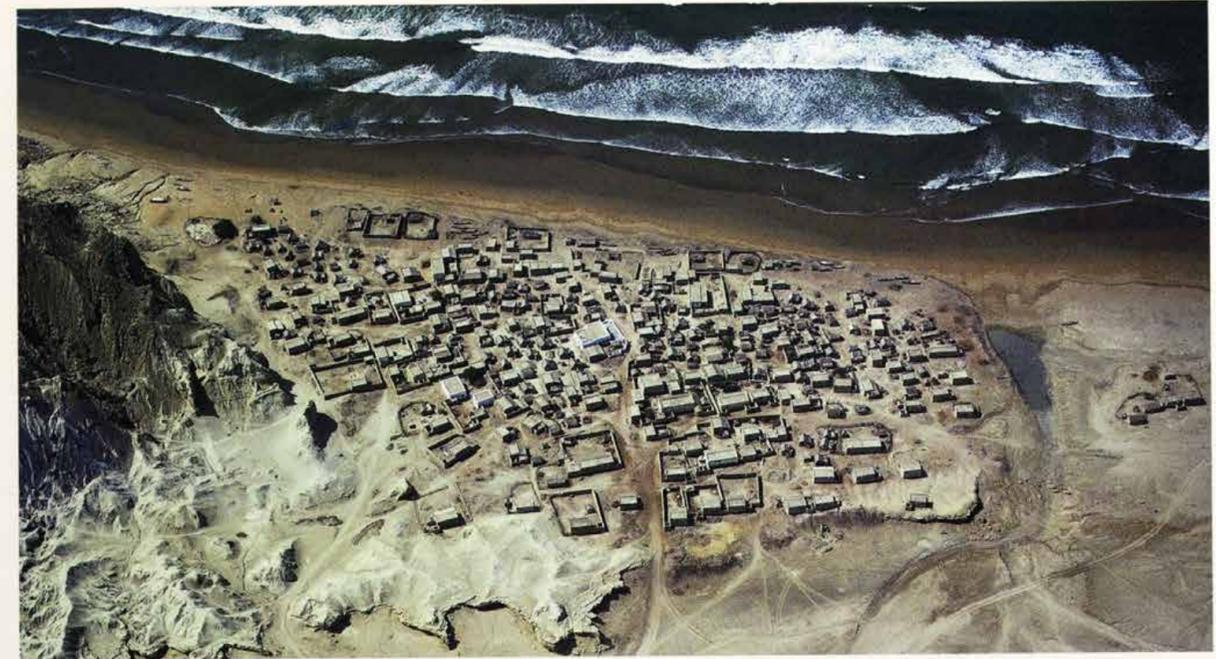
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I was not at all surprised to be told that Oman is one of the world's hot spots, with temperatures reaching as high as 54°C. With a full fuel load, I worried about *Delta India Kilo's* lifting ability in the heat, but the machine climbed smoothly and effortlessly away from Muscat and headed across the Gulf of Oman towards the town of Jiwani, in Pakistan, just east of its border with Iran. I rechecked my headings so as not to stray into Iranian airspace, for I'd been warned the Iranians would shoot you down. What a sensitive, trigger-happy part of the world I was flying through! Two hours and 400 km later I came in over the monotonous of Jiwani (opposite page bottom) and many equally grey villages compressed between the harsh hinterland and the sea (opposite page top). The coast was extraordinary, with dramatic, contorted formations, some like temples, carved from ancient clay sediment by wind and rain. I had wanted to see this coast since

Amy Johnson and Jean Batten had described it in their accounts of their solo flights from England to Australia in the '30s, and I wasn't disappointed. Like Jean Batten, the formations "filled me with wonder".

**"I'd been warned the Iranians would shoot you down."**



*In the heart of a trigger-happy Middle East*





So lonely and deserted were parts of the Pakistan coast that I landed on a beach to stretch my legs and do some filming (*left*). Back in the air on the final run to Karachi, I dropped down to 500 ft to wave to several fishing boats, their white sails reflected in the blue swell of the Arabian Sea. The first reminder I had that Pakistan's population was 75 million came when I passed over this closely packed coastal village (*bottom left*) not long before I landed at Karachi, at the end of a good day's flying that put me back on Hinkler's course. My welcome at Karachi was extraordinary. I had been fearful that it would be a repeat of Cairo and Luxor, but instead I was personally greeted by Pakistan's director-general of civil aviation, Mr N.H. Hanafi, a charming man, who officially presented me with a letter from Pakistan's President to the people of Australia. Everything was done for me. I arrived and departed Pakistan without doing any of my own paperwork, and even my airport and hotel charges were paid. But I was absolutely dead beat by the time I got to bed at midnight, after being up 16 hours. In 9 hrs 39 mins at the controls, I flew *Delta India Kilo* 1967 km. Hinkler had been in the air a total of 62 hrs 17 mins when he reached Karachi on 14 February 1928, seven days out from England; my flying time was 42 hrs 4 mins, and I was six days out, but my respect for Hinkler was now greater. I could only shudder at what he went through in the open cockpit of the Avian 55 years earlier.

*"My welcome at Karachi was extraordinary. I had been fearful that it would be a repeat of Cairo and Luxor, but instead I was personally greeted by Pakistan's director-general of civil aviation ..."*

## *Disarmed by soft drinks and sandwiches*



DAY 18  
SUNDAY 19 SEPTEMBER

### *Karachi—Ahmadabad—New Delhi*

Before lifting off from Karachi at 5.40 a.m. the next day I happened to mention to the ever-helpful Pakistan International Airline people that I wouldn't mind a sandwich and a soft drink to take with me. As I climbed into the cockpit I was presented with a huge tray of about a hundred sandwiches, and a full crate of soft drinks! A kind and touching gesture, but as I wasn't flying a jumbo, I compromised with two drinks and a handful of sandwiches. Disarmed by my wonderful reception at Karachi, I was not ready for the reception I got at my next airport, Ahmadabad, in India. From Karachi I had planned to fly north-east almost directly to New Delhi, but Indian officialdom insisted I take a triangular course to Delhi via Ahmadabad, far off my track. Their insistence should have forewarned me as I flew east from Karachi into the heat and glare of a

rising sun. The Indus delta seemed to go on and on (*above left*), and with only three hours' sleep the night before (even less the night before that), I had to force myself to stay alert. I was struck by the emptiness of the countryside in a country with such a huge population. This village (*above right*) was just west of Ahmadabad, where I landed in a sizzling 46°C.

Not before or since have I been trapped in such a ghastly bureaucratic maze as the one at Ahmadabad airport. Some of the events of that dreadful day recurred for months in my dreams, such as the length of time I spent paying my landing fee, streaming with sweat, as the clerk carefully examined every dollar bill and painstakingly wrote the serial numbers on the receipt after handing each note to his assistant for further checking. I spent hours on the ground filling in forms and declarations for customs, the refuellers – a cast of thousands (*right*) – the communications office and the control tower.

*"I was struck by the emptiness of the countryside in a country with such a huge population."*



Everything was required in duplicate, triplicate or quintuplicate (and no carbon paper), signed, countersigned, checked, double-checked and countersigned again as I moved in a soggy daze from one dingy, paper-filled office to another. If I had set out to buy the Taj Mahal, the transaction could not have been more complicated than the procedures for paying my US\$180 fuel bill. Final defeat came when the tower told me I must track 170 km east from Ahmadabad before heading north to Delhi. Why? I had sufficient fuel to reach Delhi by the direct route shown on my map and there

was no logical explanation offered for this additional mileage. I might have to land somewhere south of Delhi, there would be more bureaucratic clashes and I wouldn't match Bert Hinkler's time. But I was now beyond arguing, merely determined to escape my tormentors. In the air, depression and exhaustion flowed over me in black waves as I worried about my fuel and the bureaucrats I still had to face. A tailwind had resolved my fuel worries by the time I was over New Delhi airport 3 hrs 50 mins later (below). It was a difficult landing because the tower had given me a direction that would put *Delta*

*India Kilo's* tail into the wind, and I had to use the last of my reserves of concentration to avoid making a fool of myself. As I climbed out of the cockpit into the unbearable heat, I was hit by a barrage of questions from the waiting media, and my mind went blank. I broke down in tears. An Indian accompanying Gerry put his arm around my shoulders, trying to comfort me. It was very kind of him, but still I couldn't stop. Television footage of my physical and mental breakdown was seen all over Australia the next night.

I flew over mud-walled villages such as this one near Lucknow (right). Not even Lucknow's officials, with their special brand of mindless restrictions, upset my day. It was the tail end of the monsoon season, and approaching Calcutta everything was a vivid green. A jade chequerboard of irrigated fields (below) hugged the banks of the Hooghly River, which the city straddles. Calcutta's Dum Dum airport was built near the town of Dum Dum – once the site of a British ammunition factory – which gave its name to the dum-dum bullet. I hovered over the parking position allotted me on the apron until the big group of photographers and reporters moved out of my way. Efficient and helpful Qantas people and friendly Indian officials lessened the strain in Calcutta, and at 6.30 a.m. next day I took off in the misty dawn for Rangoon, Burma. I was a day ahead of Bert Hinkler, who had put down at Dum Dum on his 10th day out from England. I was now heading for "Smithy territory", where another of my aviation heroes, Sir Charles Kingsford Smith, had disappeared almost 50 years earlier.

## Mindless restrictions and Dum Dum



*“As I climbed out of the cockpit into the unbearable heat, I was hit by a barrage of questions from the waiting media, and my mind went blank. I broke down in tears.”*

DAY 19  
TUESDAY 21 SEPTEMBER  
New Delhi–Lucknow–  
Calcutta

In Delhi, I finally realised that if I didn't take a rest I would be a danger to myself. I redrew my flight plans to cut out Nepal and fly 1200 km direct to Calcutta via Lucknow, and the day I saved I spent in my Delhi hotel. Thanks to that and to Gerry, who handled the paperwork, and to the fact that the Delhi officials understood the state of nervous exhaustion I was in and could not have been more helpful, I left for Lucknow happier than I'd felt for days. A great additional tonic was a long phone talk with Pip in Sydney. "Keep on coming and I'll meet you in Singapore in four days," Pip said. Just four days! The 2 hrs 10 mins to Lucknow for refuelling was enjoyable flying, and I dropped down to film farmers tilling the soil with their oxen (left). This was the India of the travel brochures. As far as my eye could see, men were behind ploughs all across the plains of India – just as they had been for thousands of years. Flying across this land, I could appreciate the enormous problems of a country with so many people to feed.



## Smithy, and the last flight of the *LADY SOUTHERN CROSS*

SIR CHARLES KINGSFORD SMITH – “Smithy” – Australia’s greatest aviator, remains one of my heroes, although he died nearly 10 years before I was born. When I saw that the route I planned around the world would take me over the Bay of Bengal close to where he disappeared in mysterious circumstances in 1935, I was naturally determined to visit the scene, and collected all the information I could about that final flight.

Smithy logged an extraordinary record of aviation achievement in only 20 years, and his death before he’d even turned 40 cut him off at a time of his life when he might have been expected to begin enjoying the fruits of his career. His most famous flight was from San Francisco to Brisbane in 1928, the first crossing of the Pacific (in 1934 he was first to make the flight in the opposite direction). But he also flew the Atlantic east to west, with copilot Evert van Dijk, in 1930, made record flights around and across Australia, was first to cross the Tasman Sea to New Zealand and return, and made several record flights to and from England (including solo). Even though Smithy pioneered more long-distance routes than any pilot in history, he was considerably more than a setter of records. His visionary, pioneering airline work helped establish world aviation as an industry.

Smithy disappeared while attempting to reduce the England–Australia flight time – which he said he wanted to do to prove the feasibility of fast transport from England to Australia. With Tommy Pethybridge, a competent younger pilot, he left London on 6 November 1935 in *Lady Southern Cross*, a single-engined Lockheed Altair, and reached Allahabad, nearly halfway, in 30 and a half hours – several hours ahead of the record at that point.

They left Allahabad at 5.58 p.m. local time on 7 November, headed for Singapore via Bangkok. At 1.30 a.m. they were heard passing Rangoon airport. From then on, silence.

Despite an extensive search for it, nothing more was heard of the Altair until May 1937, when one of its wheels, with a portion of the undercarriage attached, was found on a beach at Aye Island, just off the Burma coastline in the Gulf of Martaban. Scientific investigation of shellfish attached to the wreckage indicated it had probably spent considerable time sitting on the muddy bottom of the sea no more than 15 fathoms below the surface. Some



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fragments of aluminium were found on the southern shore of the island, and there was evidence that an aircraft had clipped its highest point and probably crashed into the sea.

Before I left London I received a set of photos from E.P. (Ted) Wixted, aviation historian at the Queensland Museum, who in 1979 made a reconnaissance of Aye Island. (In 1983 he organised an underwater search for wreckage, without result.) Ted’s photos showed the island from every angle, so I had no trouble identifying

it when the time came. As you will see from my narrative, I found it very moving to be circling the place that is almost certainly Sir Charles Kingsford Smith’s grave.

*The photo at top is my favourite of Smithy, the knockabout pioneer. I carried it in the cockpit with me during my world flight, together with a piece of cloth from the SOUTHERN CROSS, his most famous aircraft. Below, with Tommy Pethybridge alongside LADY SOUTHERN CROSS just before their departure on the fatal flight.*



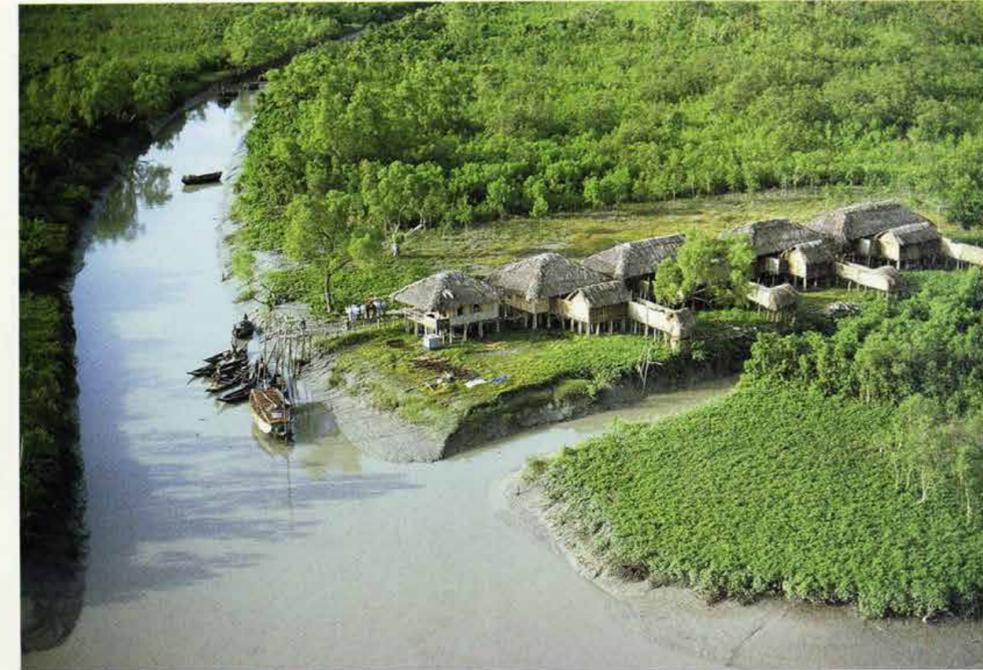
QUEENSLAND MUSEUM

DAYS 20–21  
WEDNESDAY 22,  
THURSDAY 23 SEPTEMBER

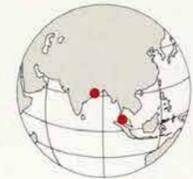
## Calcutta–Rangoon– Forced down in Burma– Phuket

This tranquil village scene (right) on the incredible Ganges Delta was one of the last views I had of the Indian subcontinent. The great Ganges fans out into many mouths and this area is the home of the Bengal tiger. As I flew low taking pictures I wondered what the upturned faces made of *Delta India Kilo*. This leg from Calcutta to my first landfall on the Burmese coast kept me over the Bay of Bengal for more than 370 km. I wasn’t as apprehensive of long sea crossings as I had been, but I had put on my life jacket in Calcutta and the life raft was in the cabin with me. The coast of Burma was a magnificent sight, with massive jungle-covered mountains running down to beautiful, deserted sandy beaches. Climbing over the Arakan mountain range that lay between me and Rangoon, I got the devil of a fright when a rattling roar like a machine-gun filled the cabin, but soon I guessed what had happened. In London, strips of special tape had been stuck on the leading edges of the rotor blades to protect them against corrosion; now a section had come loose and was cracking like a whip, as my inspection at Rangoon’s Mingaladon airport confirmed later. In the meantime I gritted my teeth and attempted to ignore the noise, for there was nothing I could do about it. And probably nothing anybody could do for me if the vibrations had forced me down onto the solid green mantle of tree tops below.

When Hinkler, Smithy and other pioneers flew to Rangoon they landed on the racecourse, for there was no airport in those days. (They just had to remember not to arrive on Saturdays, which were race days.) Rangoon airport officials couldn’t have been more friendly and helpful to me, even congratulating me on my flight so far. I was especially relieved when they gave me permission to fly to Phuket down the Burmese coast, over the same waters traversed by the pioneers. This would give me the chance to film Aye Island, where almost certainly Smithy and his companion, Pethybridge, perished. Aye is shown on local maps as Koanye, and I easily identified it from photos supplied



## Salute to Smithy



to me by Ted Wixted (see box). As I circled the island photographing it from every angle, I was extremely moved to think that the remains of the *Lady Southern Cross* were probably somewhere in the muddy water below me. The island (below) is close to the mainland, an arm of which is seen at right. This view is looking north, from the direction I – and Smithy – had come. It’s been assumed Smithy struck the top of the 463 ft hill seen in the centre and crashed down through the trees and into the sea on this side of the



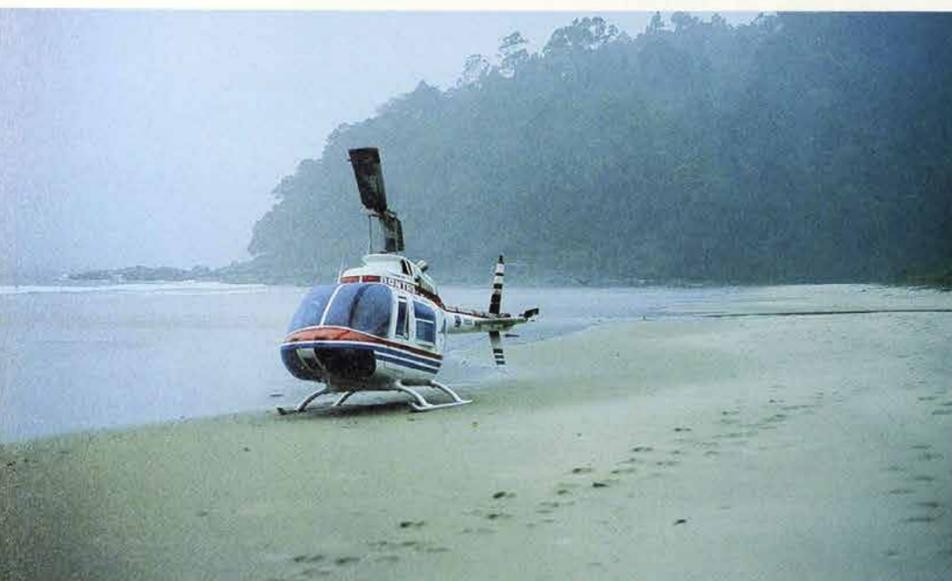


island, near the small bay at right. Two years after his disappearance, a fisherman found a wheel from the aircraft washed up in the bay. The picture (left) shows the hill from the north side, looking south, with the bay at left. I discount one theory that Smithy was attempting a landing, because there is nowhere he could have put down. If he had had a choice, he would have tried his chances on the mainland.



I hugged the coastline immediately after leaving Aye, for I could see a tropical storm in the distance (left) and didn't want to be caught at sea with zero visibility. What followed was the most frightening experience of my flight. The weather changed from bad, to appalling, to dangerous. I had never seen rain like it. The noise on the helicopter's metal skin was deafening and visibility was limited to a small patch beneath my feet. In the patch I could see waves crashing on a sandy beach, and I put down as quickly as I could. I sat there, being grateful. As the rain eased slightly I was startled to make out a massive, dark headland looming through the murk at the end of the beach. I had landed none too soon – for I would certainly have crashed right into it! Yet more perils were to come, as I suddenly realised *Delta India Kilo*, which cannot lift off with a list of more than 10 degrees, was tilting. I got out as if the machine were on fire, and saw that the right-hand skid was sinking into the sand (left). It was also tipping backwards, and the tail rotor was already perilously close to the sand. Soaking wet, I got back in and gave the engine 100 per cent power – without result. I increased it to 110 per cent for the maximum five seconds allowed – and it hauled itself clear. In great trepidation I put down farther up the beach and close to the jungle, while the rain roared down again – so heavy I doubted if the machine could have remained airborne in it.

After 1 hr 18 mins on the beach, listening to the chattering of monkeys in the jungle, the rain had eased to the point where I could risk taking to the air again. I was soon boring through a new deluge, with



visibility almost nil, and it was only through luck that I avoided running bang into a cluster of islands 500 to 600 ft high that were not on my chart. I was getting sick with worry. For a lone pilot in a small aircraft, death is sometimes not far away. So much for the "clear run of good weather all the way to Phuket" that I had been promised by the Rangoon forecasters. I was now flying down the Isthmus of Kra, the narrow strip on the Malay Peninsula where Burma runs into Thailand. The beacon at Victoria Point, where Burma ends, was, like all the other beacons on that coast, not working. I found the tiny town of Victoria Point but in the tropical downpour could find nowhere to land. In 1933 Jean Batten had arrived in exactly the same circumstances and had flown around the settlement for 35 minutes before there was a break

in the rain and she could put down on the flooded airstrip. Hinkler arrived ahead of a huge storm, which overtook him just as he landed. I wasn't as lucky. As I began descending into one clearing I discovered it was a rice paddy. I soon began to seriously consider ditching the helicopter in the shallow water in front of the town, when I thought I saw a break in the weather to the south and pressed on. It became terribly dangerous. A dark blur would loom up and I would have to take action to avoid colliding with an island or a headland. About 30 km south of Victoria Point, in Thailand, the gods had tested me enough and I ran out into sunshine. For the rest of the flight to Phuket I flew over palm-fringed villages fronting placid, turquoise seas (above). Unbelievably, the nightmare had turned into a pleasant dream.

*"For a lone pilot in a small aircraft, death is sometimes not far away."*



DAYS 22-23  
FRIDAY 24 &  
SUNDAY 26 SEPTEMBER

*Phuket-Singapore-Jakarta*

*Delta India Kilo* climbed out of Phuket just as it was getting light, headed for Singapore. The Strait of Malacca gleamed like pearly jade ahead of me, as flat as a plate and dotted with strange, steep islands. I had planned only to refuel at Phuket and fly on to Butterworth, the Royal Australian Air Force base on the Malaysian coast, but after my worrying day in Burma and because Butterworth's weather forecast was not good, I overnighted at Phuket. Gerry had been relieved at my arrival. His arithmetic had told him I must either have landed somewhere or run out of fuel, and he feared the worst.

North of Butterworth, I was struck by the contrast in this bare village for construction workers (*above*) bulldozed out of the jungle and the more typical Malaysian village environment (*right*).



*Rolling out the red carpet...well, a bit of it*



Now, as I approached Butterworth, the Australian air traffic controller invited me to put down for coffee, but I had to say no. The paperwork involved in landing in Malaysia would have made it a very time-consuming cup of coffee, and I had to content myself with a cheerio call as I looked down on the Mirage fighters on the tarmac. Opposite Butterworth I could see the high and pleasant island of Penang, a popular tourist spot. I happily filmed the rich scenery of plantations and villages (*top left*) as I hugged the coast of the Malay Peninsula. When I put down at Seletar airfield, on the north coast of Singapore Island, 5 hrs 14 mins out of Phuket, the red carpet was rolled out for me. The light-hearted gesture was provided by the Bell agents, Heli-Orient, and although there wasn't much carpet to unroll, as you can see (*centre left*), it was a better reception than Hinkler got. After he landed on the official airfield he was told to take off again and put down on the racecourse. There, his plane sank up to its axles in the boggy ground.



An hour after leaving Singapore I crossed the Equator, which called for a little ceremony, so I grabbed my water-bottle and splashed some of its contents over my head. Not a big deal, but I was feeling good about being back in the Southern Hemisphere. My 24-hour break in Singapore, where Pip met me, had been great, and *Delta India Kilo* was sparkling inside and out from its most thorough servicing since leaving the Bell plant. Below me rolled a tropic sea dotted with small islands and fishing villages. I ran into smoke haze, however, over the big Indonesian island of Sumatra (*bottom*), mostly caused by people slashing and burning the rainforest that covers much of the island.

*“An hour after leaving Singapore I crossed the Equator, which called for a little ceremony...”*



But I had been warned there was also some ash from a Javanese volcano. Small clearing fires added their smoke to the general pall, and I had to veer east to the coast to avoid the worst of it. Typically burnt areas can be seen near this riverside hamlet (*bottom*) about 75 km east of Palembang. In fine weather I crossed the northern end of Sunda Strait – which separates Sumatra from Java – where Indonesian fishing boats with brightly coloured sails darted about like butterflies (*right*). Ships passed beneath my feet, like this freighter heading north from Jakarta (*centre*). A very efficient controller guided me into Jakarta's Kemayoran airport after another great day's flying. One never knew what to expect on this journey.





DAYS 24-25  
 MONDAY 27,  
 TUESDAY 28 SEPTEMBER

*Jakarta-Bali-Kupang-Darwin*

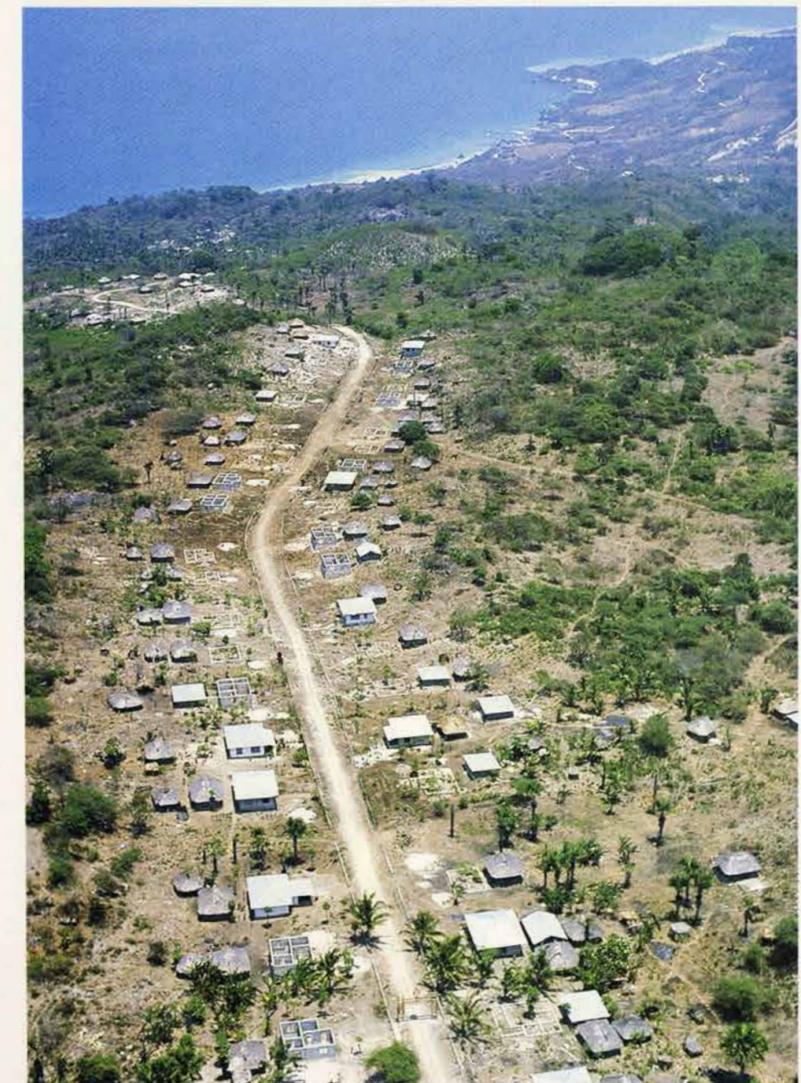
Some arithmetic and some good advice in Jakarta convinced me I couldn't stick to my plan of flying from Jakarta to Kupang, Timor, in one day, and on to Darwin, back home in Australia, the next. This would have pushed me to the limit. It was unwise to take risks so close to home, especially as the route included a 900 km sea crossing from Timor to Darwin. So I decided to overnight at Denpasar, Bali, before heading for Kupang and Darwin. Away from Jakarta I had expected Java to be green and lush, but a drought was affecting parts of the island and the north coast looked arid. Ash from the volcano added to the greyness of some of the villages. The flooded paddy fields (left) were on the coast near Pemalang. One of the last views I had of Java before crossing the narrow strait to Bali was of this concentration of fish traps on the east coast (below left). Touching down at Denpasar after 5 hrs 22 mins, I saw a ground marshal waving from the middle of the apron, and swung towards him. It turned out to be Gerry Nolan.

*"I had expected Java to be green and lush, but a drought was affecting parts of the island and the north coast looked arid."*

*Heading over "The Big Ditch" towards home*

Nothing would have made me oversleep at Denpasar that night. I was awake at 3.45 a.m. and at 4.45 took off into the faint hint of dawn. Only stupendous help from the tower and customs made it possible, for the airport did not officially open until 6 a.m. But I desperately wanted to get to Darwin before nightfall and match Bert Hinkler's 15 and a half days. Hinkler had spent his last night at Bima, on the eastern end of Sumbawa, about 280 km closer to Darwin than I then was. To match his time I would have to spend more than nine hours in the air and fly more than 1900 km - the longest leg of the entire flight, and the last long over-water flight. Gradually the lovely islands of the long Indonesian archipelago emerged from the darkness below me - Lombok, Sumbawa, across the Sumba Strait to Sumba and its hamlets, over Sawu and on to a landing at Kupang, Timor. At Kupang I had put 1000 km behind me in a flying time of 4 hrs 55 mins, and had another 4 hrs ahead over "The Big Ditch" - the Timor Sea - to Darwin. I desperately hoped no overzealous Kupang official would delay me now. But everyone was smiling, friendly and anxious to get me airborne as soon as possible (top right), and I was on my final leg to Australia after only 52 minutes on the ground. Marvellous! These houses (right) on Timor's southern coast were the last Indonesian habitation I saw as I headed out over the Big Ditch.

It was a wonderful feeling. I was coming home, the weather was perfect, and calls I was getting from amateur radio operators all over Australia kept my mind off the 800 km of sea below me. I tracked in on a strong signal from a Darwin radio station.





About 100 km from Darwin I was met by an escort of aircraft – an Army Pilatus Porter put itself on station ahead of me and a helicopter, flown by an old friend, Doug Crossan, brought up the rear. A second helicopter joined us as the Northern Territory coastline came into view, and my excitement mounted. I could imagine how Bert Hinkler, Smithy and the other pioneers felt as they approached Darwin (left). I swung across the city and saw a big H laid out in front of the old hangar at Darwin's original airport at Parap, now overtaken by suburbia. I had asked the aviation authorities if I could land near here so as to follow Hinkler's flight as faithfully as possible, but they had done better – they had built a helipad for me on Hinkler's exact point of landing. A crowd of more than 2000 people surrounded the pad as I put *Delta India Kilo* down at 5.31 p.m. (below). I had matched Bert Hinkler's time. Impulsively, I leapt out of the JetRanger, and pressed my lips against the red Australian soil.

PHOTOGRAPH COURTESY ALLAN ADAMS

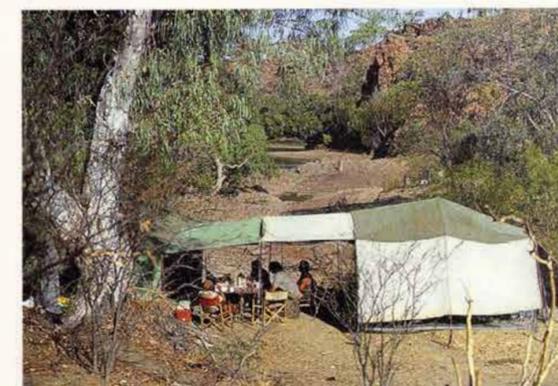
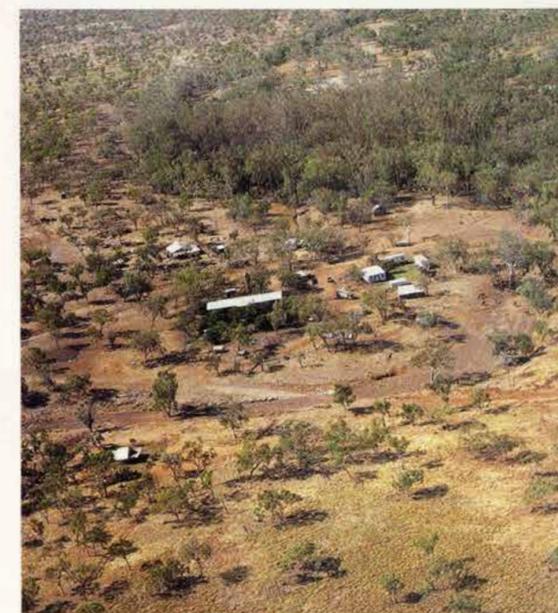
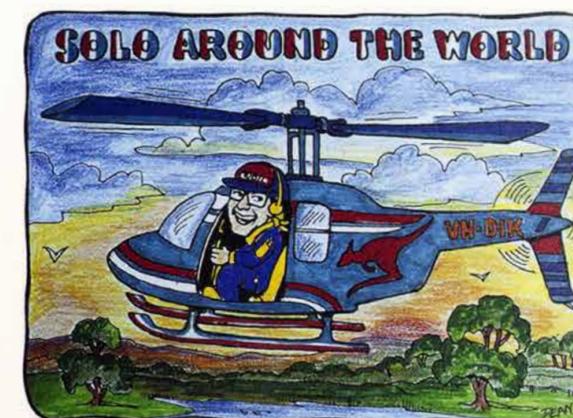
## Cups of tea and shoeing horses – home in the real Australia

DAYS 26–27  
THURSDAY 30 SEPTEMBER,  
FRIDAY 1 OCTOBER

### Darwin–Delta 4 Bore– Longreach

I was touched and flattered by the reception the Darwin people gave me. Complete strangers asked for my autograph. The city fathers even held a reception for me, presenting me with a commemorative plaque. And I loved the entries for the solo around the world colouring-in competition organised by Mobil among Darwin's kids (above right). I was feeling so great that I was not even worried when Darwin's met office told me to expect strong headwinds on my next leg to Alexandria station, 860 km south. Who cared? I was in Australia, 91 hrs 14 mins flying time and 18,588 km out of London, 152 hrs 6 mins and 30,340 km from Fort Worth. As it happened, the headwinds reduced my speed but it was great to be flying

over the Australian landscape again. My course would take me over a great swathe of northern Australia to the east coast. The tangy smoke from a bushfire brought memories flooding back, and in places I came down to skim over kangaroos and billabongs. I called on my friends the D'Arcy family at Mallapunyah Springs station (centre right) for a cup of tea, putting *Delta India Kilo* down next to one of the yards while they were shoeing horses (below). And then to a remote mining exploration camp (bottom right), south of Mallapunyah Springs, which Tennant Creek flight service radioed me to check out for them, as a helicopter working with the geologists had not made its routine safety call. I found the machine safe on the ground (he had reported, but his call hadn't been logged), and I was invited to join the team for lunch. Before I left, the JetRanger was topped up with 135 litres from one of their drums to replace what I had lost against the headwinds. This was the real Australia.



"I was in  
Australia...  
152 hrs 6 mins  
and 30,340 km  
from Fort Worth."





*“Bert Hinkler had done just this at another lonely bore in the bush and I was sure I knew why.”*

On my way to Alexandria station, where Hinkler had delivered his copy of *The Times* more than 50 years earlier and where I would deliver mine, the shadows lengthened below me and I realised I wouldn't make the station that night. I landed on Brunette Downs, near a large-bladed windmill and a dam, as the sun was setting, and prepared to camp for the night (*this page*). It was incredibly quiet and beautiful when the stars

came out, the Southern Cross fairly sparkling. Bert Hinkler had done just this at another lonely bore in the bush and I was sure I knew why. Exhausted on his arrival in Darwin and wearied by the civic reception and the speeches, he wanted to be by himself. Camped here at Delta 4 Bore, I felt closer to Bert Hinkler that night than at any time on my flight from London. It was the best night of my adventure.



At dawn I climbed the windmill tower to wonder at and rejoice in the vastness of this landscape, and tying the Explorers Club flag as high as I could, I photographed it. That flag had flown on Everest and on the Moon, and now here it was in the middle of Australia. Alexandria station, looking like a small town, appeared below me (*left*) less than an hour after leaving the bore, and I was soon delivering *The Times* to the manager, John Olsen. The station has an Aboriginal community, and the wonderful kids at the school (*below*) had prepared a huge welcoming banner for me, and decorated a cake with a helicopter picked out in lollies. I took off to the cheering of the whole school after one of the most enjoyable stops of the whole trip.





My next stop was Ranken's Store, named after the Ranken River, on the station property about 50 km south of the homestead. Bert Hinkler, after breakfast at Alexandria, put down there for a cup of tea, so I especially wanted to see it, although John Olsen warned me not to expect too much. On the way, I dropped down to photograph a number of great road trains loaded with cattle (*opposite page*). John was right about the store. It was a small tin shack by the roadside, deserted and falling into disrepair, and I suppose the surprise was that it was still there at all. But it was part of the Hinkler story and I put down alongside it happily (*right*). I was thoroughly enjoying what was becoming a leisurely progress across the continent.

Occasionally on the Barkly Tableland I flew over large herds of cattle (*below*) that started off towards the station yards as soon as they heard the sound of *Delta India Kilo* – obviously used to being mustered by helicopter.





Queensland's mining city of Mt Isa (left) appeared to be in the middle of nowhere, but after refuelling I dashed into the terminal for a genuine cold Australian milkshake and meat pastie before heading for Longreach, where Qantas, my major sponsor, had its beginnings. The country here was harsh and dry, with rugged mountains slashed with reds, yellows and purples – altogether magnificent! Between Mt Isa and Longreach, west of Winton, I passed over this homestead (top), so far from other habitation and surely the kind that the Royal Flying Doctor Service had in mind when it began to spread its “mantle of safety” over the Outback more than 60 years ago. I just love this kind of wide open country.



I landed at Longreach after 6 hrs 27 mins in the air from Delta 4 Bore – if the wonderfully warm and friendly reception committee headed by Sir James Walker, one of Queensland's most prominent citizens, even noticed my unshaven and crumpled appearance, they certainly said nothing. I was delighted to learn they had got me to park outside the historic hangar in which the fledgling Qantas had commenced operations (right). Sir James, grazier and long-time chairman of the Longreach shire council, insisted I stay the night in his home and he and Lady Walker were fantastic to me.



## Following Hinkler's path to Bundaberg

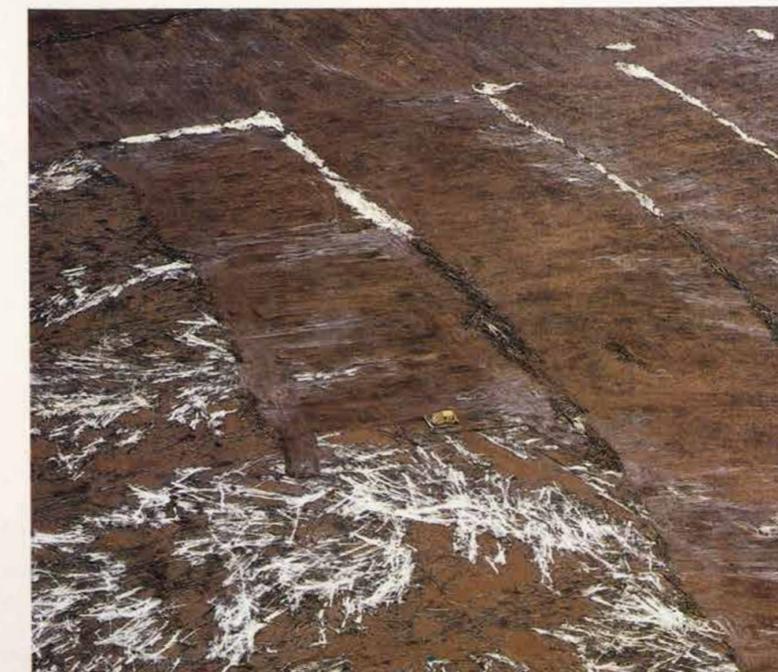
DAY 28  
SATURDAY 2 OCTOBER

### Longreach–Bundaberg

From Longreach I beat into a headwind at 500 ft, intent on following exactly the 1000 km route Hinkler had followed to Bundaberg, his hometown. I could imagine how excited he was so close to home at the end of that long, lonely, exhausting record flight. Like him, I flew along the railway line over small towns dotted like islands in the vastness of western Queensland. Barcaldine (right), about 110 km east of Longreach, was typical. As I approached the Great Dividing Range I climbed to 3000 ft and was excited at seeing, far off, the glint of the South Pacific. Burning ashes from land clearing (bottom right) near the town of Emerald made strange patterns on the landscape.

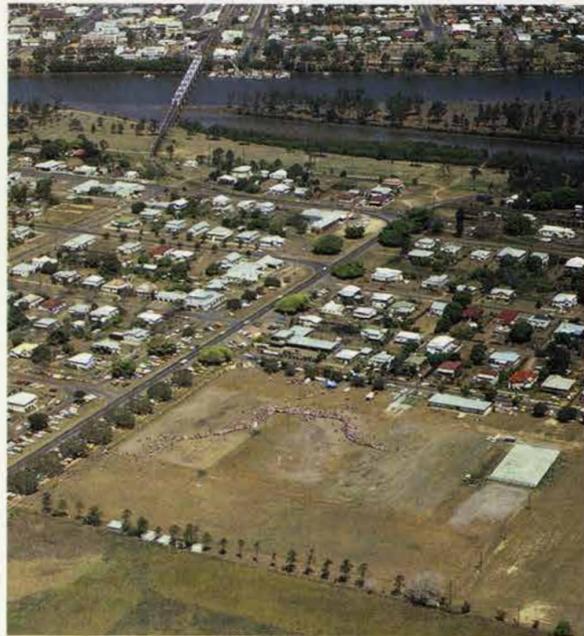


*“As I approached the Great Dividing Range I climbed to 3000 ft and was excited at seeing, far off, the glint of the South Pacific.”*





Canefields bordering the Burnett River proclaimed my arrival at Bundaberg (*left*), but even though Bob, a radio ham, had been giving me reports about the big reception awaiting me at Bundaberg's Hinkler Park, I was amazed at the size of the crowd as I dropped down (*centre*). Bundaberg has had a proprietary interest in Hinkler since he put his name on the aviation map, and it was obviously delighted that my flight was commemorating its famous son. It was Harvest Festival time and I was declared the guest of honour. Incredibly, I rode through the streets on a float with Bert Hinkler's photo on one side and mine with *Delta India Kilo* in London on the other. At the council chambers, Pip, who had flown with the girls from Sydney, joined me on the dais for the speeches and presentations (*bottom*), and later, a civic dinner. That evening in the Bert Hinkler Motel I was phoned by the Prime Minister, Malcolm Fraser, who congratulated me on my flight, and I spent most of the rest of that last night of this stage of my trip lying awake, my mind churning over the day's events.



*"Bundaberg has had a proprietary interest in Hinkler since he put his name on the aviation map..."*



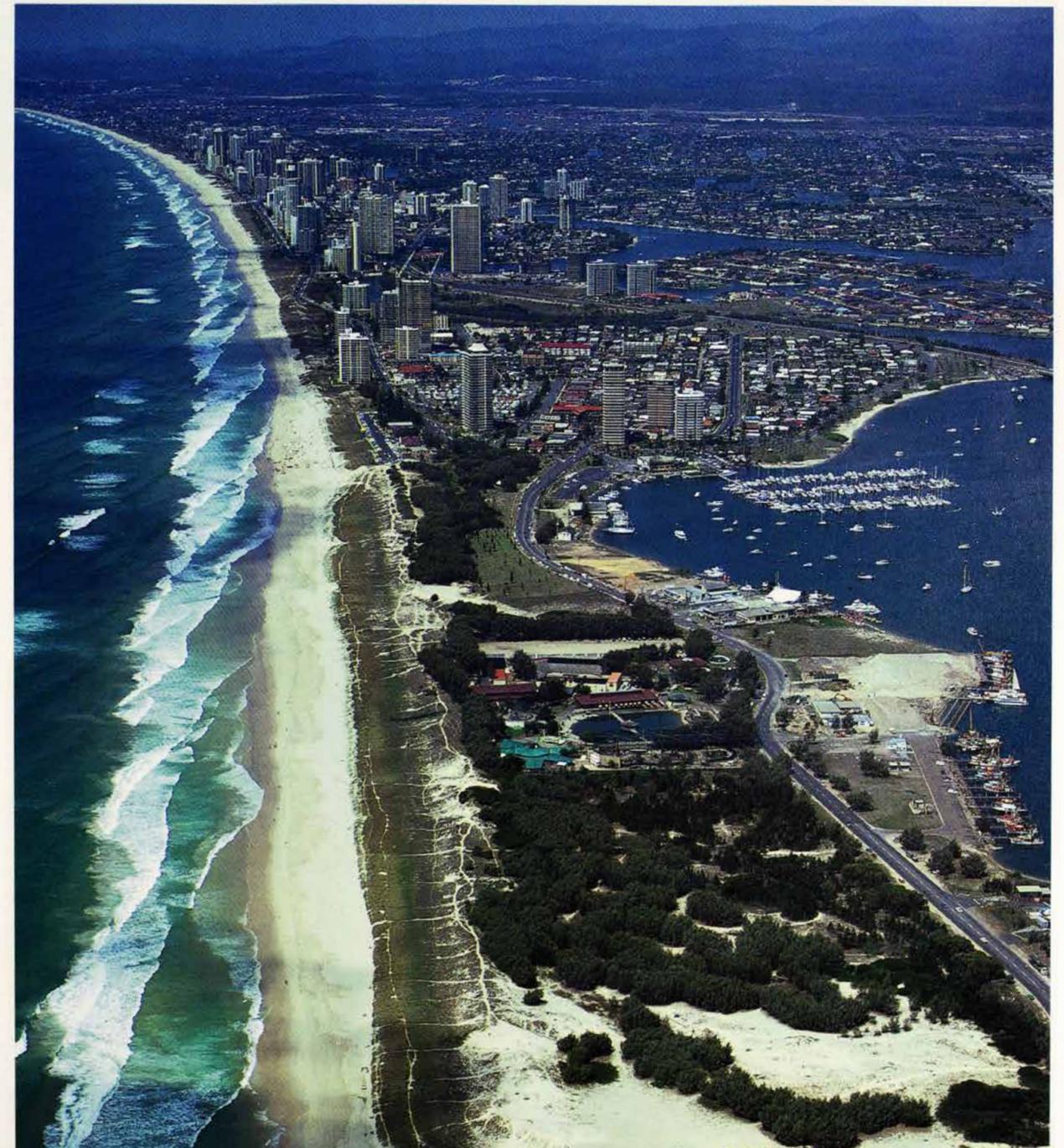
DAY 29  
SUNDAY 3 OCTOBER  
*Bundaberg—Sydney*

Bundaberg to Sydney was 1100 km, but for the first time since leaving Fort Worth I flew over a route I was familiar with. I also had my first tailwind since arriving in Australia. My first call was at the high-rises and beaches of Queensland's Gold Coast (*below*), where I had arranged to meet Harold Litchfield, navigator on a number of Kingsford Smith's early flights including the celebrated Coffee Royal Affair, and Lores Bonney, who flew a DH Moth solo from Australia to England in 1933.

*A familiar route at last*

Mrs Bonney told me how she had crashed on a beach in Thailand in the same sort of weather I encountered in that area, dismantled the aircraft and had it towed on a barge to Calcutta, supervised the repairs and resumed the flight. Is it any wonder I have unbounded admiration for the pioneers? My second stop was a brief one at a friend's farm in lovely, green country south of Port Macquarie, in New South Wales, where I had arranged to see my Dad, who lived nearby.

*"Is it any wonder I have unbounded admiration for the pioneers?"*





*“What a homecoming!”*

Helicopters from the TV stations met me as I flew over the beaches north of Sydney (above), and then over the harbour entrance on this beautiful spring afternoon (right), with the city's towers and the famous Harbour Bridge in the distance. I was to be given a civic reception by the NSW Premier, Neville Wran, at the heliport at Darling Harbour, which was on the other side of the bridge, and I had been given special permission to fly under the bridge, arranged for me by Pip. This per-

mission was rarely granted, and just to be sure there were no last-minute hitches, I asked Sydney air traffic control to confirm it. “Affirmative!” replied the controller. My two escorting helicopters soared away as we passed the Opera House, and I dropped *Delta India Kilo* to 85 ft and zoomed under the bridge, which was laden with spectators, and over a fleet of small boats and ferries sounding their hooters. What a homecoming!



## Smithy arrives home to a hero's welcome

Adventurer Dick Smith swooped under the Sydney Harbor Bridge yesterday and received a hero's welcome when he landed at Darling Harbor heliport.

A jazz band played and the crowd cheered when the Premier, Mr Wran, greeted Dick as he stepped from his helicopter.

Seconds earlier dozens of small boats had gathered off the Rocks to watch Dick fly under the bridge.

Strict regulations which prohibit aircraft from flying under the bridge were waived to allow Dick to put on the display.

Dick, happy but tired after a six hour flight from Bundaberg, said the three month trip had been tougher than he had anticipated.

By VIRGINIA HODGSON

“Obviously I'm glad to be home but I'm determined to complete my attempt to be the first to fly solo around the world in a helicopter,” he said.

Mr Wran, who toasted Dick with champagne, was full of praise for the electronics millionaire's efforts.

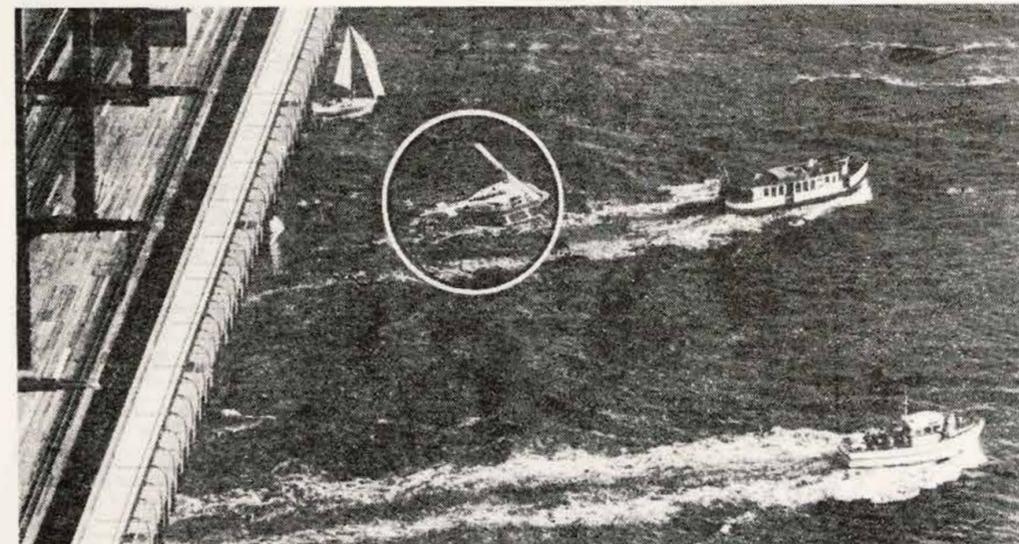
“Dick Smith is a real Australian adventurer and pioneer who has done something no other person has done.”

“Australia would be an even better place if there were more people who had Dick's get up and go,” he said.

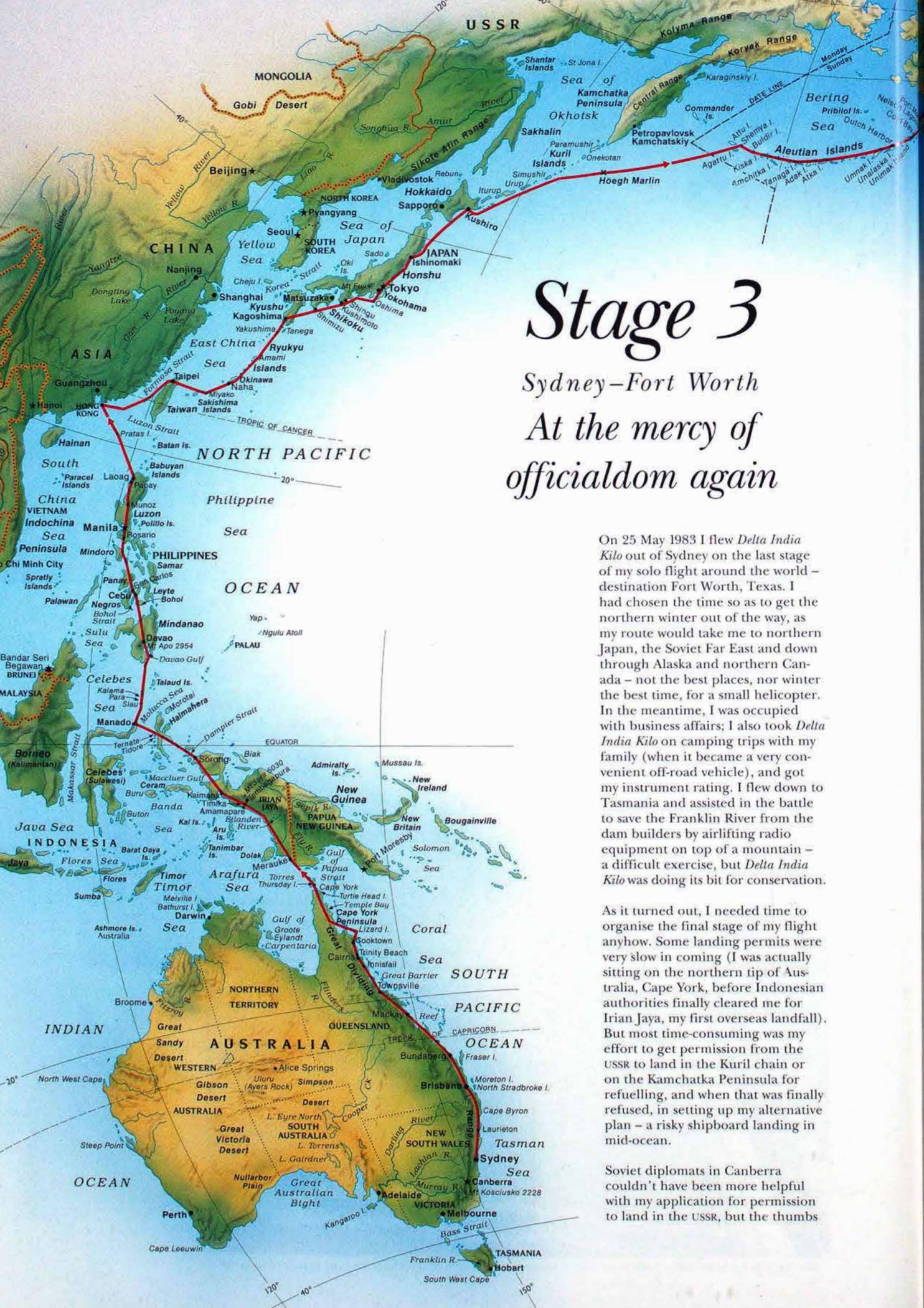
Dick has covered more than 30,000km on the first two stages of his solo attempt and does not expect to leave on the final stage to Fort Worth, Texas, until April.



Mr Wran meets Dick at the heliport and toasts him with French champagne



Dick flies under the Sydney Harbor Bridge on his return to his home city. Pictures by GEOFF HENDERSON in the Channel 10 helicopter



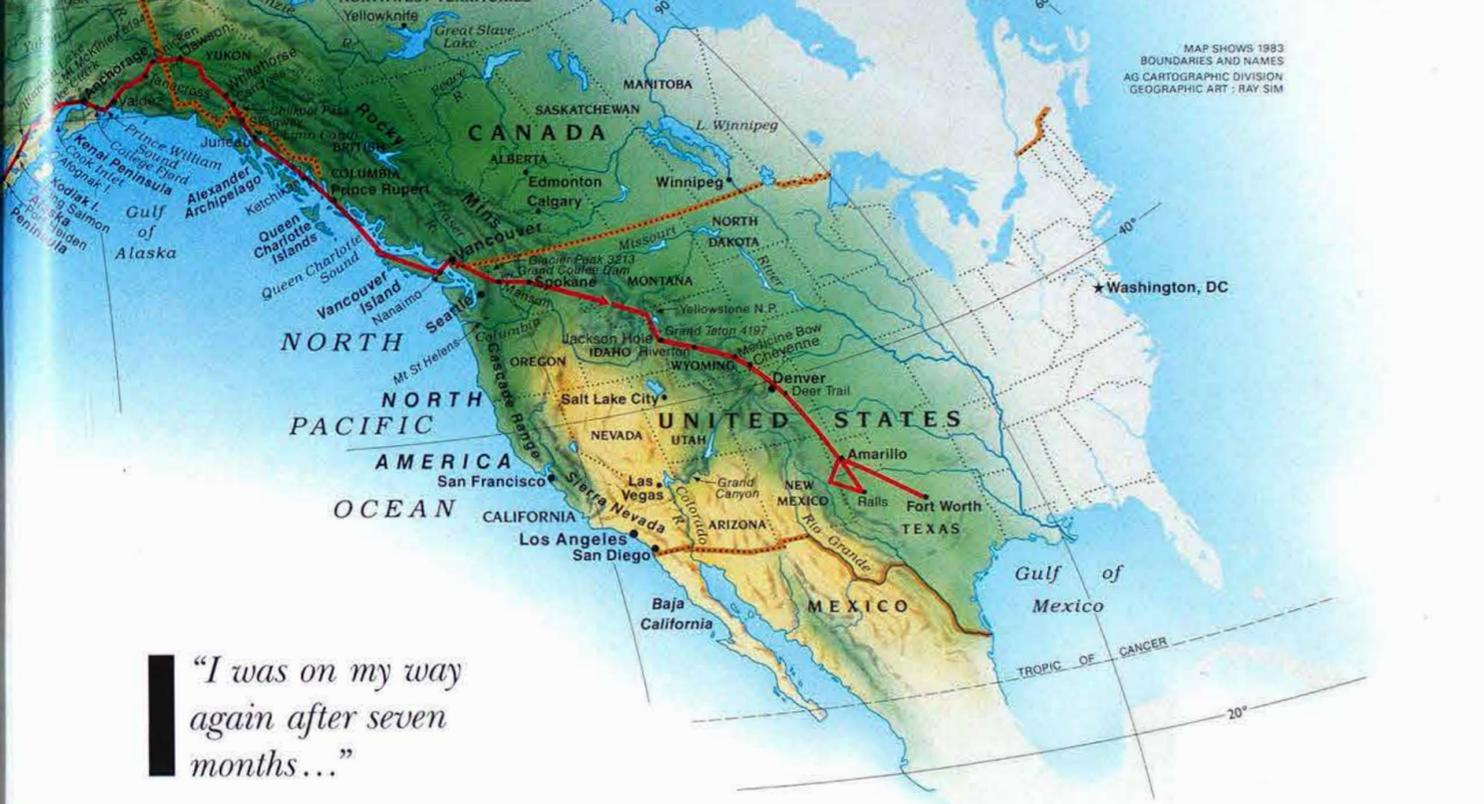
# Stage 3

Sydney–Fort Worth  
At the mercy of  
officialdom again

On 25 May 1983 I flew *Delta India Kilo* out of Sydney on the last stage of my solo flight around the world – destination Fort Worth, Texas. I had chosen the time so as to get the northern winter out of the way, as my route would take me to northern Japan, the Soviet Far East and down through Alaska and northern Canada – not the best places, nor winter the best time, for a small helicopter. In the meantime, I was occupied with business affairs; I also took *Delta India Kilo* on camping trips with my family (when it became a very convenient off-road vehicle), and got my instrument rating. I flew down to Tasmania and assisted in the battle to save the Franklin River from the dam builders by airlifting radio equipment on top of a mountain – a difficult exercise, but *Delta India Kilo* was doing its bit for conservation.

As it turned out, I needed time to organise the final stage of my flight anyhow. Some landing permits were very slow in coming (I was actually sitting on the northern tip of Australia, Cape York, before Indonesian authorities finally cleared me for Irian Jaya, my first overseas landfall). But most time-consuming was my effort to get permission from the USSR to land in the Kuril chain or on the Kamchatka Peninsula for refuelling, and when that was finally refused, in setting up my alternative plan – a risky shipboard landing in mid-ocean.

Soviet diplomats in Canberra couldn't have been more helpful with my application for permission to land in the USSR, but the thumbs



"I was on my way again after seven months..."

down came from the military. It's an interesting commentary on a changing world that when I decided to circle the globe via both poles in a fixed-wing Twin Otter six years later, the Soviet authorities granted me passage right through Siberia and Mongolia. Their cooperation made that record flight possible, as I explain in my book of the journey, *Our Fantastic Planet*. But in 1983 the Soviet's relations with the West were sour. Only a few months after my flight, the Soviet airforce shot down the *KAL jumbo*, with 269 passengers and crew, close to the route I followed.

The distance between northern Japan and Shemya, on the western end of Alaska's Aleutian Islands, is about 2600 km, and because *Delta India Kilo* had about half that range with reasonable reserves for safety, I needed to land on a ship roughly halfway between the two places. I made many unproductive inquiries, and finally sent out a "Can You Help Me?" letter to over 200 shipping companies seeking a ship travelling on a northern route between Japan and the US. Of the half-dozen or so that actually replied with an offer, the ships were unsuitable or sailing at the wrong time. I needed a date near the longest day of the year, about 21 June, that would give me maximum daylight on the long leg from Japan to Shemya. In frustration after months of trying, I sent Gerry Nolan abroad to try to tee something up. He visited Vancouver (where he even made an appeal in a television interview, with no result), Seattle, Anchorage and Tokyo. From Tokyo,

he sent news that Fukada Salvage had suggested the container/bulk carrier *Høegh Marlin* – owned by Leif Høegh & Co of Oslo – which promised to be the right ship in the right place at the right time. Negotiations began during my hectic, final preparations for departure and continued even after I left Sydney. Journey's end, for all I knew when I took off, might be Kushiro, Hokkaido, where *Delta India Kilo* could wait for the thawing of Soviet relations with the West.

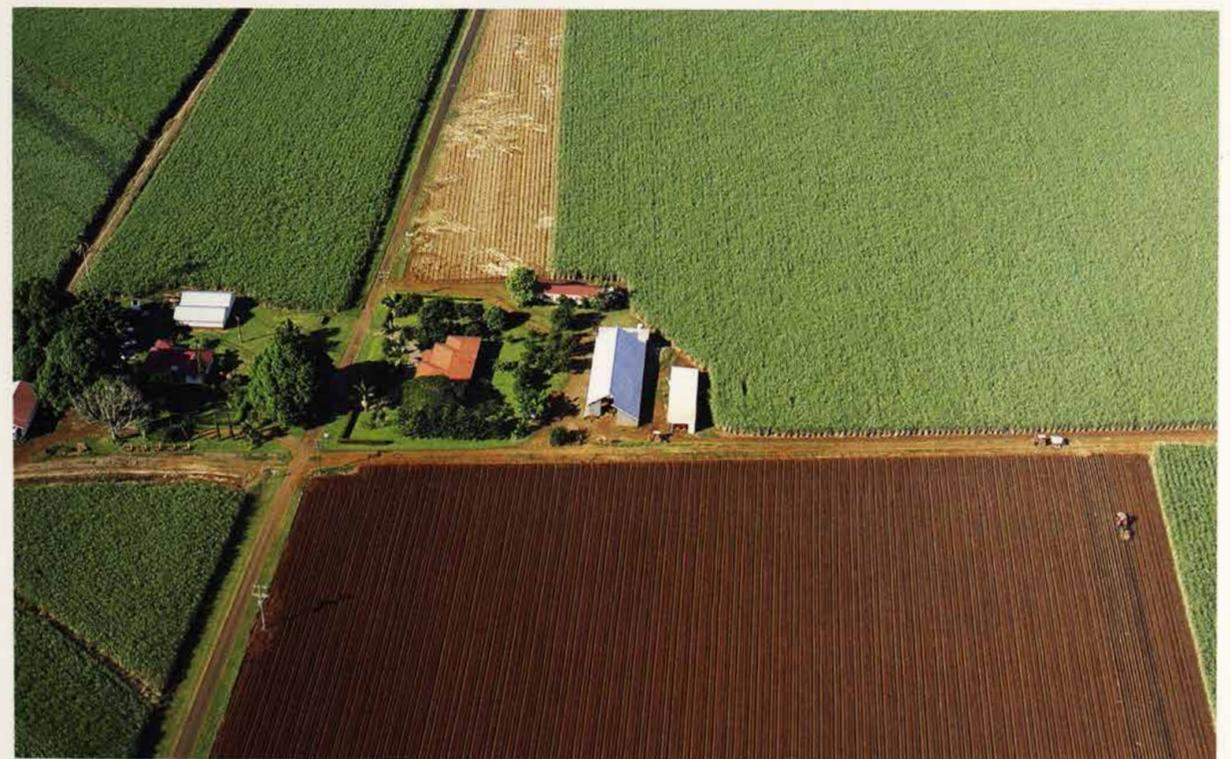
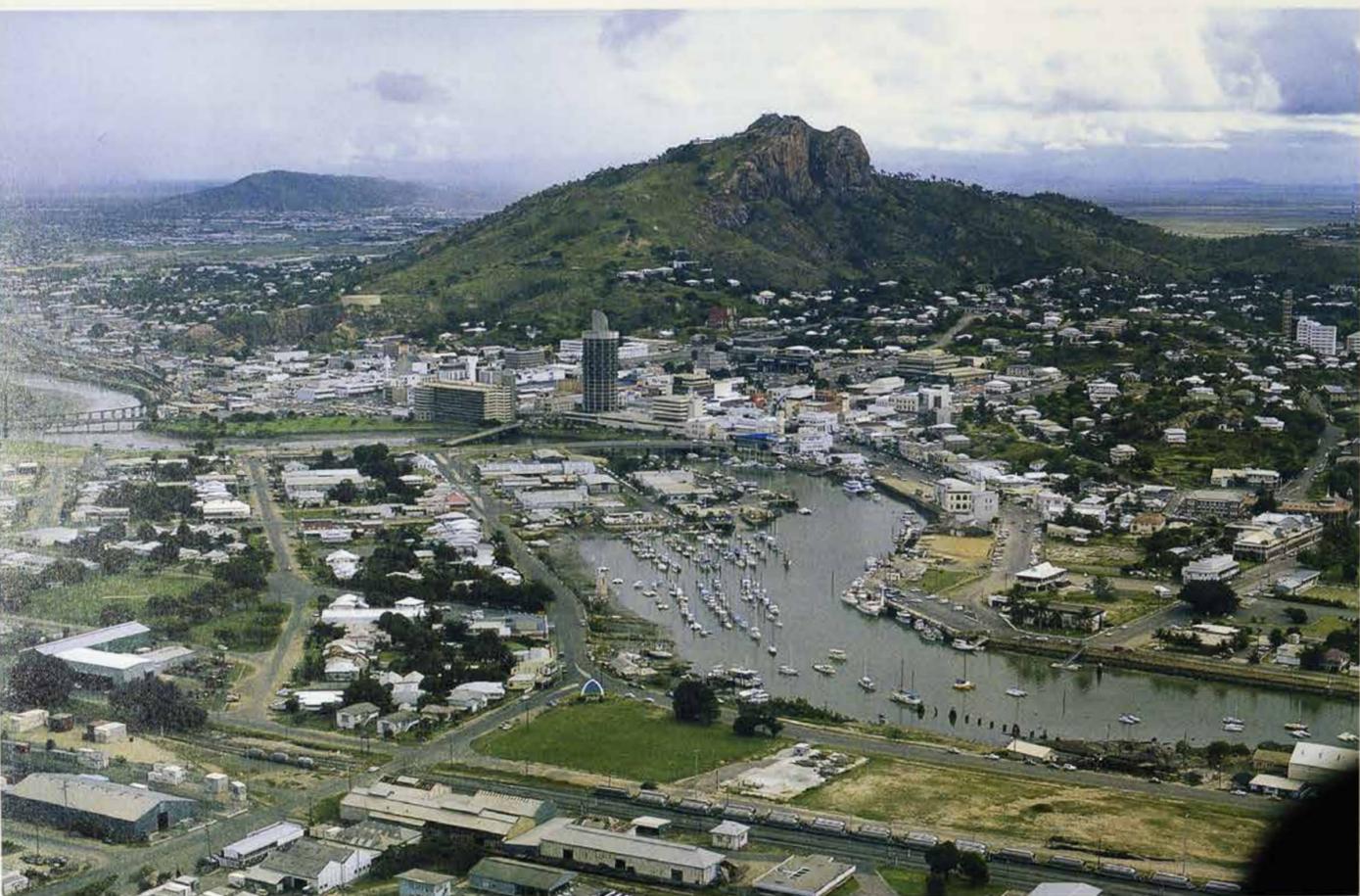
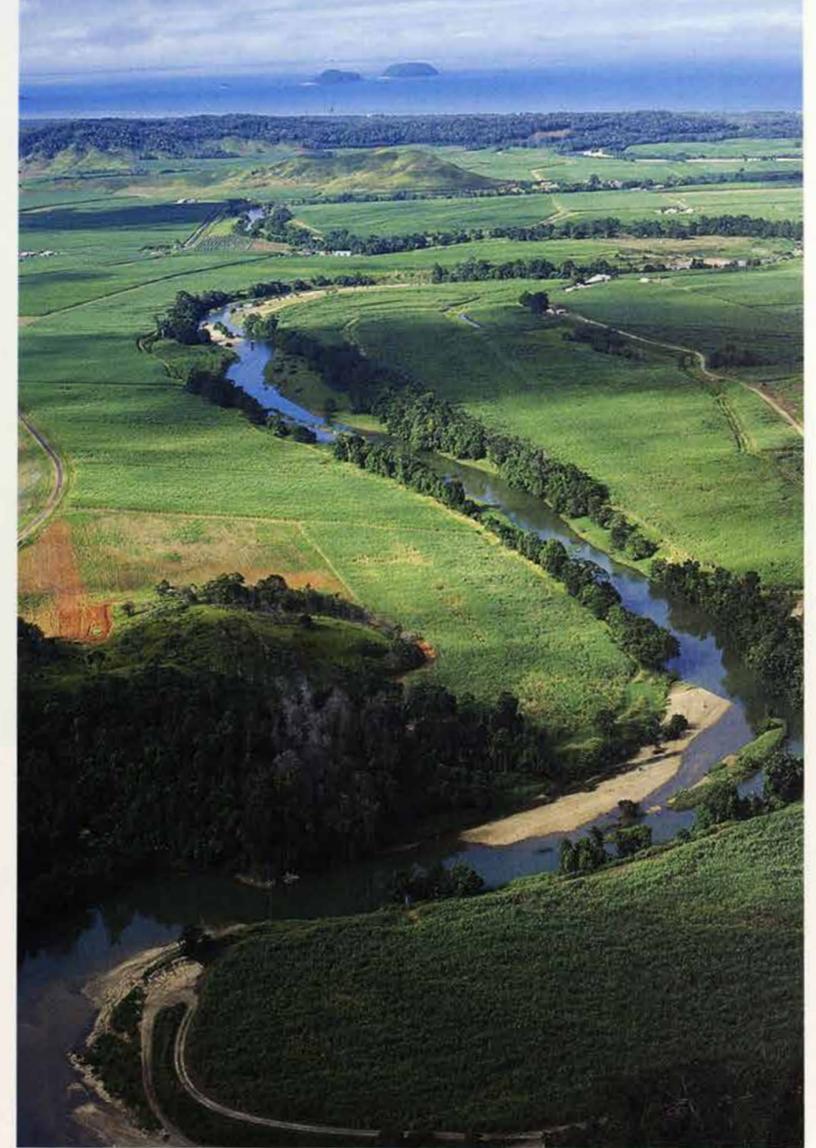
DAYS 30–31  
WEDNESDAY 25  
THURSDAY 26 MAY  
Sydney–Bundaberg–Cairns

I was on my way again after seven months, yet it seemed no time at all since this WELCOME HOME DAD banner greeted me in Terrey Hills, Sydney, the day I returned from London (below) and put *Delta India Kilo* away behind the shutter beneath my bedroom. In the weeks before my departure I had worked there at night on the re-installation of my long-range tank and film equipment, and I would remind myself as I laboured that there were not many beautiful little machines you could roll out from under your bed and circle the world in. On the big day I was





away by 10.15 a.m., and this time I flew above the Sydney Harbour Bridge, not under it. The flight up the east coast was slow and leisurely, with time to revel in familiar places, such as the beautiful Laurieton area (*opposite page top*), where my parents lived. Here and there in the next two days I dropped in on friends for a cup of tea. I kept down to 500 ft at about 110 knots, photographing and recording. It was enjoyable flying, although in heavy rain and mist in the mountains near the Queensland border I followed a railway line into a pass, only to have to suddenly climb out of harm's way as it plunged into a long tunnel! From the Bert Hinkler Motel in Bundaberg that first night I phoned Pip to ask her to send ahead to Cairns the original rubber platform I had had under my long-range fuel tank, as the new lightweight platform I had installed was allowing the tank to vibrate. About 500 km north of Bundaberg the next day my HF radio developed the same fault that had shown up early on my Fort Worth-London leg. I certainly couldn't push on through Indonesia and the Philippines with a radio I couldn't depend on, so I put down at Mackay and phoned Sydney to get a replacement part to Cairns urgently. North of Townsville (*opposite page bottom*), the lovely sugar-growing areas near Innisfail (*right*) and around Cairns (*below*) looked superb at this time of year.





DAYS 32-33  
FRIDAY 27, SATURDAY 28 MAY  
*Cairns-Lizard Island-  
Thursday Island*

What a heart-warming surprise! As I left Cairns, with the radio and tank problems fixed, Flight Service told me I should fly over Trinity Beach public school, a little farther up the coast, as the headmaster had phoned with the request. So I diverted course slightly and soon circled over this wonderful "GOOD

LUCK, DICK" message laid out by the children, who were all waving (*above*). It was really great to think the school had suspended its routine just to provide me with a farewell note. A half-hour later I was over Cooktown (*below*), steeped in history as an early gold-rush town and the spot where Captain James Cook had beached the *Endeavour* for repairs as he mapped Australia's east coast in 1770. Soon I hoped to be at another of Cook's landfalls, Anchorage, Alaska, but in very different weather conditions. I spent the night on Lizard Island, about 40 km off the

coast north of Cooktown, although I had planned merely to fly around it and photograph the Australian Museum's research station there. I had been told that my friend the director, Barry Goldwater, was away in Cairns, but as I circled, he came running out of his house, signalling me to land. I spent a very pleasant afternoon and evening, enjoying a barbecue, walking and yarning, and then slept on the beach. What a life! From a lookout on Lizard Island, Cook plotted his passage through the reefs.

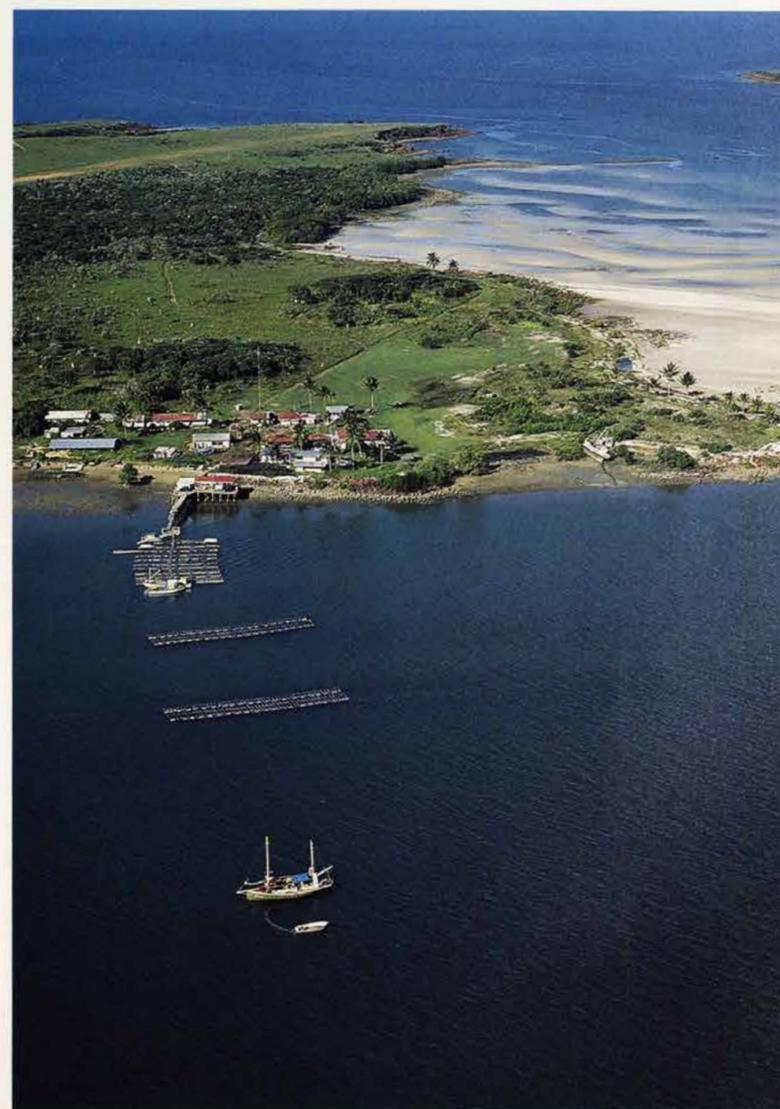


## An unscheduled stop on Cape York Peninsula



On my flight up Cape York Peninsula the next day I looked down on a rugged area inland from Temple Bay to see a house with a small group including young children beside it, waving to me (*above*). The house was so remote, I dropped in purely on impulse. As I shut down and climbed out, Beverley Wilson and her young children, Andrew, Sandra, Vaughan and Justin, excitedly rushed over (*above right*). The family had heard on the radio that I was flying up the peninsula on my round-the-world flight, and Andrew was quite confident I would fly over his house, so they should keep a look out. The chance of this happening was maybe 1 in 10,000, but young Andrew's confidence was vindicated. Bev explained that her husband, Henry, was away for a week, but she insisted on putting on lunch, which was great, with beautiful home-made bread. Around the table I listened to their stories. The family were battlers, and the kids got their schooling from the School of the Air. When I got on my way I told myself that people in the cities who complained of their lot should meet people like Bev Wilson and her kids, who remained cheerful with so little. We still keep in touch.

Within a few minutes of Cape York, and in superb weather, I flew along the beaches on the eastern side of the peninsula, filming. In a pretty, sheltered part of Turtle Head Island, divided from the mainland by only a narrow channel, I photographed the oyster beds of a pearl farm (*right*). The Torres Strait shell and pearl industry employed thousands at the turn of the century when more than 400 boats worked rich grounds, but it has long since declined.



I think every Australian's ambition is to stand on Cape York, the northernmost tip of the continent. There it is (*below*), in the centre, seen from above two islets just north of it. The lighthouse is Eborac Light. I dropped down as I approached the cape (*right*), and landed beside a small cairn that gave distances to points of interest. From here I could scan the brilliant blue sea in every direction (*bottom*). Stretching into the distance were the small islands of the Torres Strait – 138 of them, which, I knew, spread all the way to the New Guinea mainland. The islands are part of Queensland, the island people Australian citizens. During the last ice age this strait was dry land. Numerous other "cairns" dotting the area, clearly seen from

the air, were termite mounds. I had tasted the Mississippi, so why not the water at the tip of Australia? I went down to the rocks and splashed some in my mouth! Fifteen hours of flying since I left home and everything was going really well. From Cape York to Thursday Island, the administrative capital of the Torres Strait islands and Australia's most northerly town, was only about 40 km and I took my time getting there, landing late in the afternoon (*opposite page top*). But it became my headquarters for the best part of the next week, because my permit to enter the Indonesian part of New Guinea hadn't come through, and I couldn't go on without it. I should have known things were going too well to last.



*"I should have known things were going too well to last."*

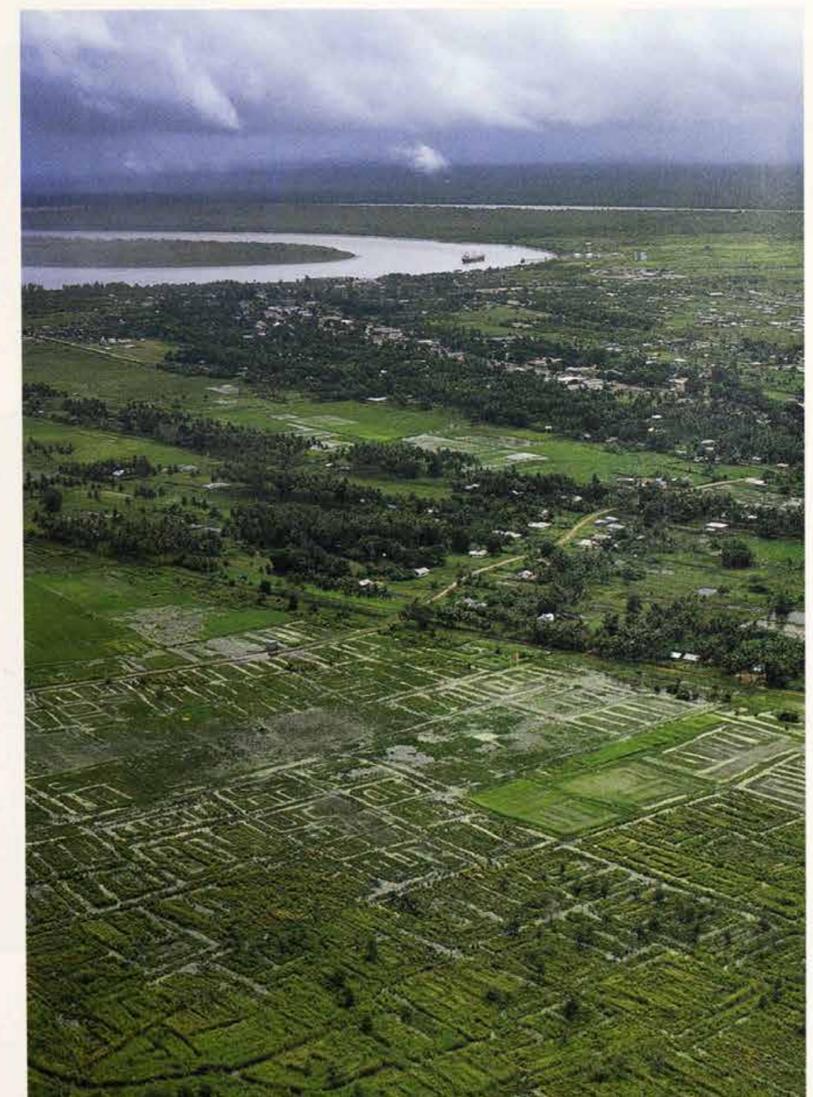


*Arriving in Irian Jaya without customs or immigration*

DAY 34  
SATURDAY 4 JUNE

*Thursday Island–Merauke–Timika–Tembagapura*

I could have produced a separate book from the pictures I took around Cape York until my permit was approved. When the okay finally came, I crossed the strait and was over Merauke, Irian Jaya (*right*) less than two hours after departing "T.I.", as the locals call Thursday Island. On the way along the coast I saw kangaroos and deer. My entry into Indonesian airspace had overtones of my worries on entering Egypt and Saudi Arabia – I could get nobody to acknowledge my radio calls. I landed, anyway, after calling Radio Darwin to tell them what I was doing. I couldn't locate anybody from customs or immigration, but I found a flight service man, shook his hand and acted as friendly as I could. He reciprocated with smiles.





swamped. He had been attempting to swim ashore, and I could well imagine the problem of judging the distance to firm land anywhere along this coast. Some people believe that he was eaten by cannibals, but I'd say that in the unlikely event he even survived the currents for long, a crocodile was more likely the culprit. As I circled over some smaller villages a little farther inland (right), the people ran into the bush. They just disappeared!

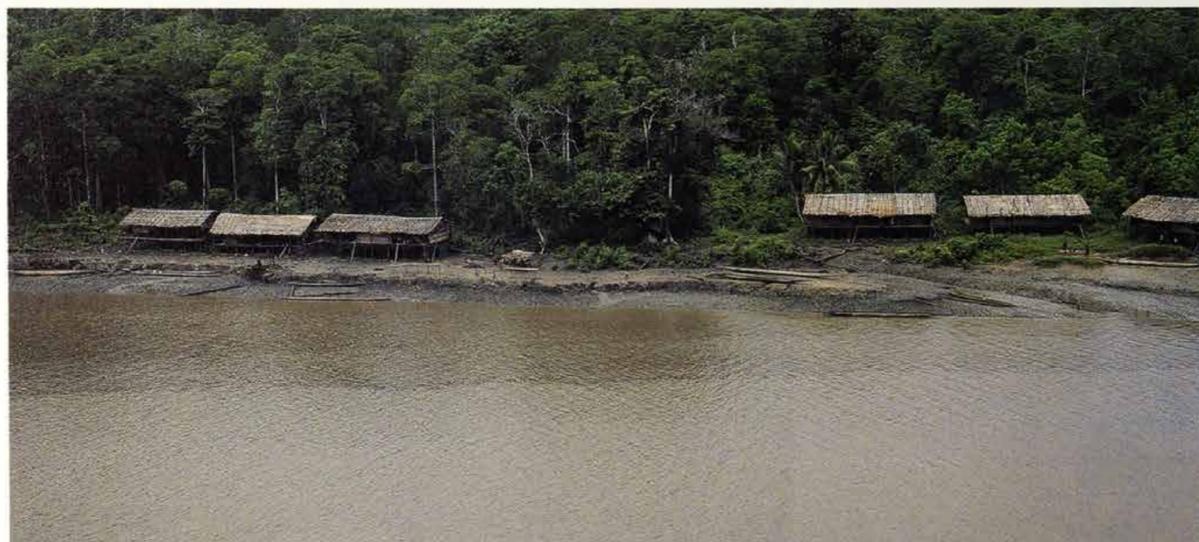
*“Some people believe that he was eaten by cannibals...”*



He had not been told I was coming, but wrote down my clearance numbers and was content. I paid him a landing fee of US\$3.50. But when the refuellers topped me up with 20 gallons, they asked US\$480 for it. I soon convinced them that it must be \$48, and they burst into laughter at what was an honest mistake. I was in a more relaxed frame of mind when I took off up the coast for Timika, three hours to the west.

Never before, or since, have I seen such extraordinary wilderness. I was over the home of the Asmat, once notorious headhunters but now celebrated for their artistic carvings, who occupy 26,000 sq km of massive mud plains and tropical rainforest. From 300 ft up I found it difficult to distinguish seabed mud from land, for large trees, not merely mangroves, were flooded by the Arafura Sea for miles inland, confusing the margins. I flew over dugout canoes

being paddled swiftly by naked men standing up (above), and many small villages like this one (below and opposite page bottom) at the mouth of the Eilanden River. I had read that heavy seasonal swells and swift currents can make the Eilanden estuary hazardous for canoes; it was here at the mouth, in November 1961, that the young American collector of artefacts, Michael Rockefeller, drowned after his catamaran – two canoes lashed together – was



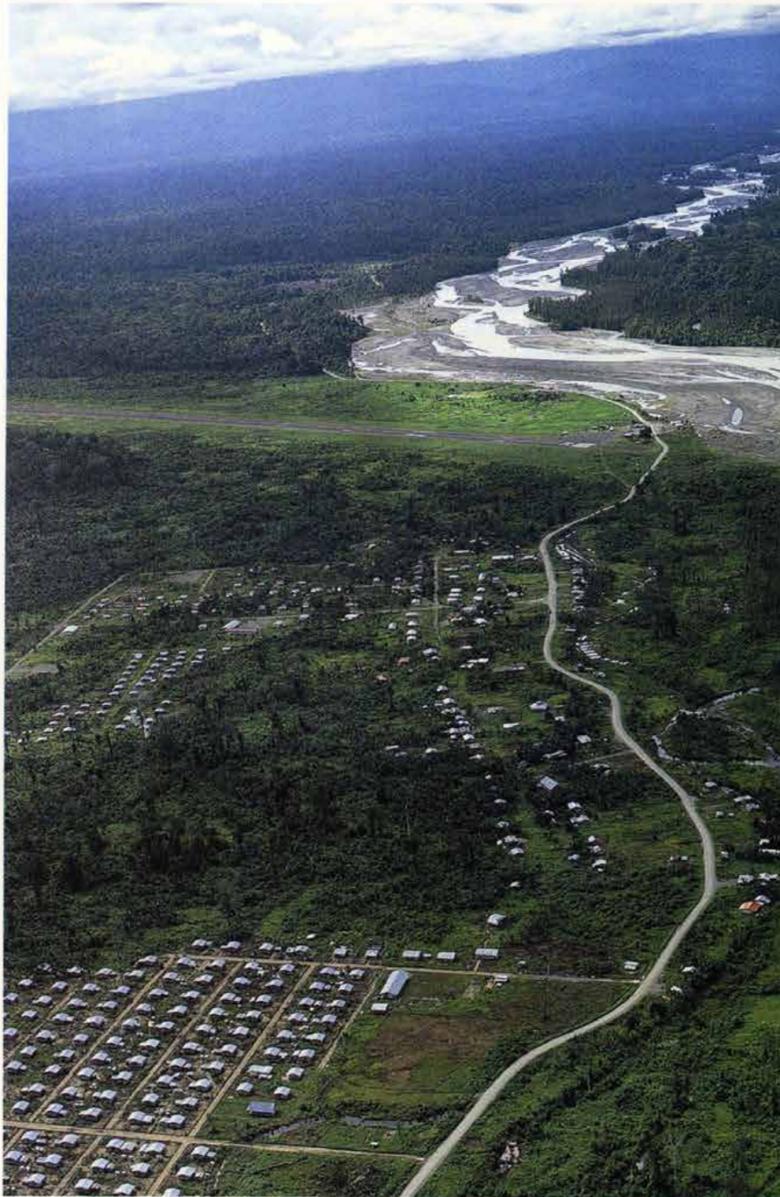


About 50 km west of the Eilanden I came across this larger village with its typical muddy coastal foreshore (*opposite page*).

I spotted crocodiles in some of the winding rivers, and was fascinated by the magnificent expanse of virgin rainforest (*this page*). It was the first real wilderness I had seen on the flight. The weather was brilliantly clear, with no wind, but it was very humid in the cabin. All along the coast I had been chatting with my friend and fellow radio ham Don Richards, in Sydney, describing some of the things I was seeing, and I knew Pip was listening on my set at home, because every now and then she would indicate her presence with a whistle. Not being licensed, she couldn't talk directly. It was great to be sharing the flight with them as it actually happened.

*"It was the first real wilderness I had seen on the flight."*





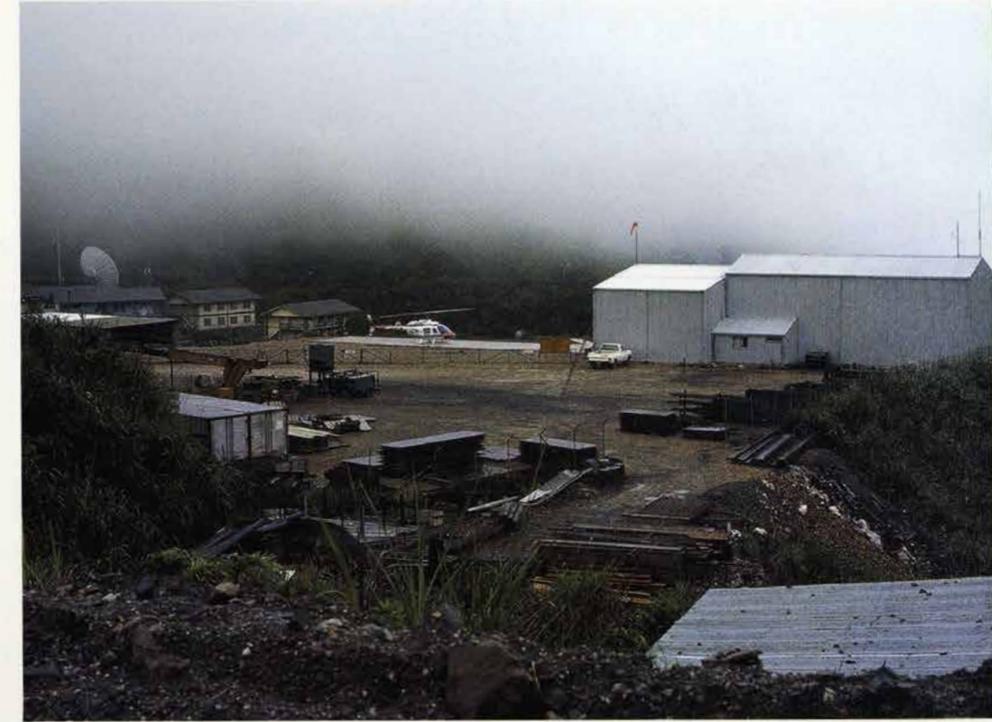
*“It was the most incredible flight, almost like finding a lost world.”*

My destination, Timika, was on a river about 40 km inland. I called in on the radio as I approached and almost instantly was talking to Jon Stewart, chief pilot for helicopter operations with Freeport Indonesia Inc., an American company that operates a huge copper mine high in the ranges seen in the background (*left*). We had been in touch by letter and he had invited me to stay overnight so he could show me around.

I was soon astonished at the gigantic size of Freeport's operations. Timika was merely the site of the company's airstrip and the real work went on in the Maoke Mountains – the great central snow-covered and glaciated spine that runs from east to west across Irian Jaya. In this range is 5030 m (16,503 ft) Mt Jaya, Indonesia's highest peak. The company had also developed a port on the coast at Amamapare, which I didn't see. I couldn't have been more impressed by the immense engineering achievements I saw, yet I've been told that the whole operation has become so much larger since my visit that I wouldn't recognise it. When I landed and turned off the engine, Jon came out and said we should go directly to Tembagapura, the company town about 1800 m (6000 ft) up in the ranges, and asked me to follow behind his company JetRanger. It was the most incredible flight, almost like finding a lost world. We were soon climbing steadily into mist and cloud, and then suddenly Jon turned into an amazingly narrow canyon, and then into another, with spectacular waterfalls thundering down on either side. I was screaming along close on his heels, but not in a fit would I have been flying anywhere near there without him. He radioed that we were approaching a gap at 4200 ft, which we had to get through. Fortunately there was enough clearance beneath the cloud, so we went over and tracked up another 15 km or so until he disappeared into cloud. He radioed that the helipad was just ahead to the left and to follow him into it. I was in rain and mist at 6000 ft, with visibility of only a few hundred metres, when I realised I was among buildings and there was a flat area of concrete below me. Jon radioed, “You've got it! You've got it!” When I dropped down and shut off the engine I couldn't believe I had arrived safely under such conditions.

*“...the mine site... was even farther up in the clouds at 3500 m.”*

The pictures (*right*, with *Delta India Kilo* on the pad), and (*below*) tell something about the visibility. Jon drove me by Landcruiser up a tremendous road, passing through two tunnels, to the processing plant at 2900 m (9500 ft). Huge buckets on an aerial tramway were bringing the ore from the mine site, which was even farther up in the clouds at 3500 m (11,600 ft). The mill processed the ore into a slurry, which was pumped through a narrow pipe to the port 110 km away, dried and shipped.



## Mining in the Irian Jaya mountains

DAY 35  
SUNDAY 5 JUNE

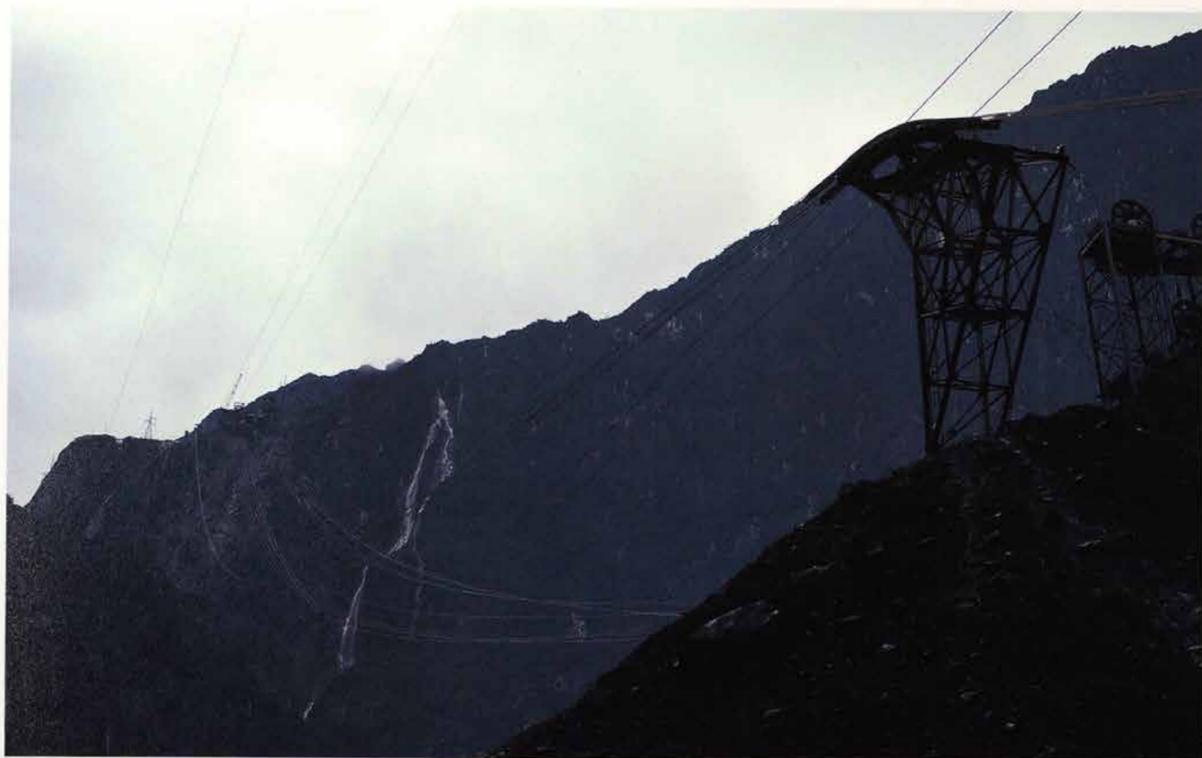
Tembagapura–Sorong

At 6 a.m., after a pleasant night in a very comfortable company house fitted with every convenience, Jon and I set out for a flight around the mountain tops in fine, clear weather. We virtually rock-climbed to 15,500 ft. It is hard to imagine snow and glaciers close to the Equator, but there they were. Mountaineers around the world know this range by its Dutch name – the Carstensz peaks. The pictures (*below and right*) show how rugged the range is, the highest peak, Mt Jaya, at 16,503 ft, seen in the middle foreground (*below*), and the wreckage of a DC3 (*bottom*) that went in at 14,000 ft many years ago when the height was shown on the maps as 12,000 ft.



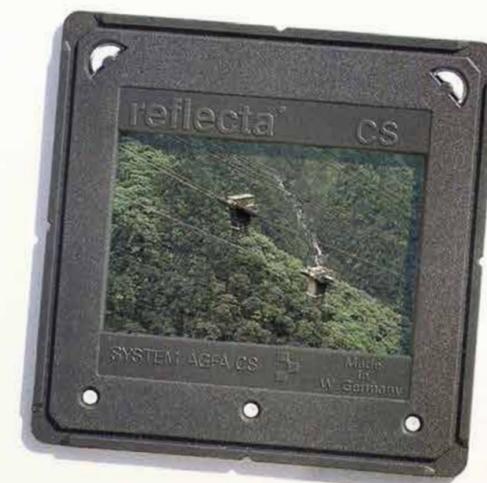
*“It is hard to imagine snow and glaciers close to the Equator, but there they were.”*





Back at the mill later, I was taken up to the mining area by tramway (opposite page top). In the view (opposite page bottom), taken at 3500 m, the processing plant is about 600 m below me, and the town is out of sight 10 km down the road. Picture (right) shows the ore-carrying buckets on the tramway that moves the ore from mine to mill, as it is impossible to get a road up this far.

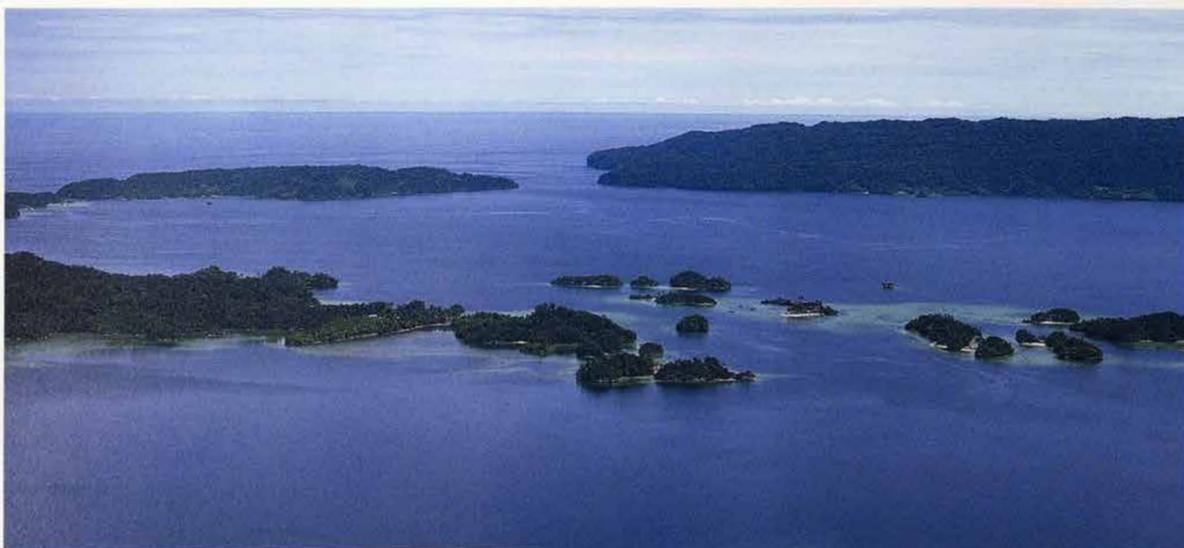
After my fascinating visit to the mine, I lifted off directly from the town site with enough fuel to get me to Sorong, nearly five hours away. I was told I couldn't get fuel on the coast, so I was right on my maximum engine limits for that elevation when I got airborne. The ever-helpful Jon Stewart, with his wife, flew down to the coast just ahead of me as the clouds began to build up. Over Timika, with my Omega reset, I signalled goodbye – tragically, a final farewell, for Jon was killed piloting a rescue mission in these mountains two years later. I tracked along the Irian Jaya coastal



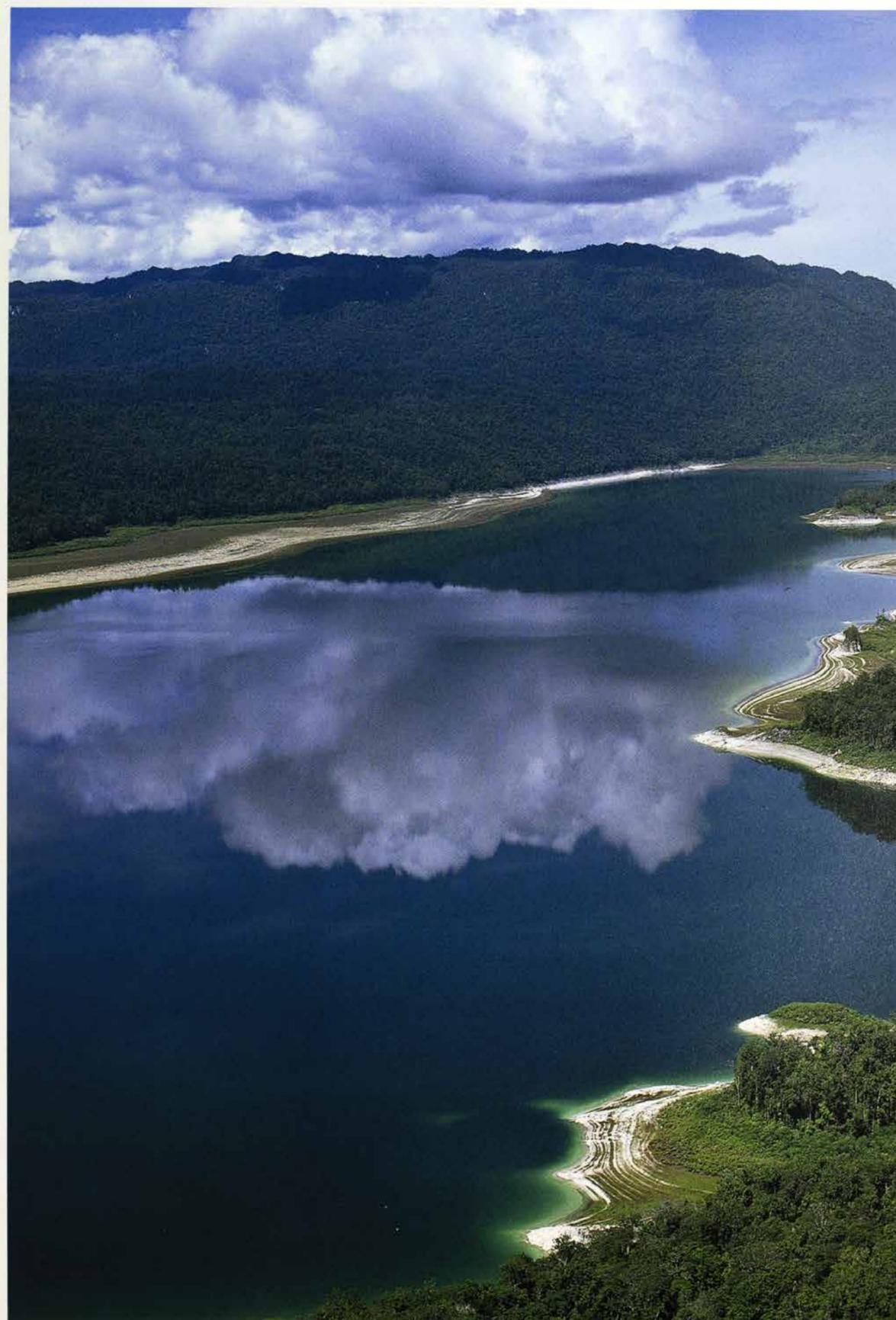
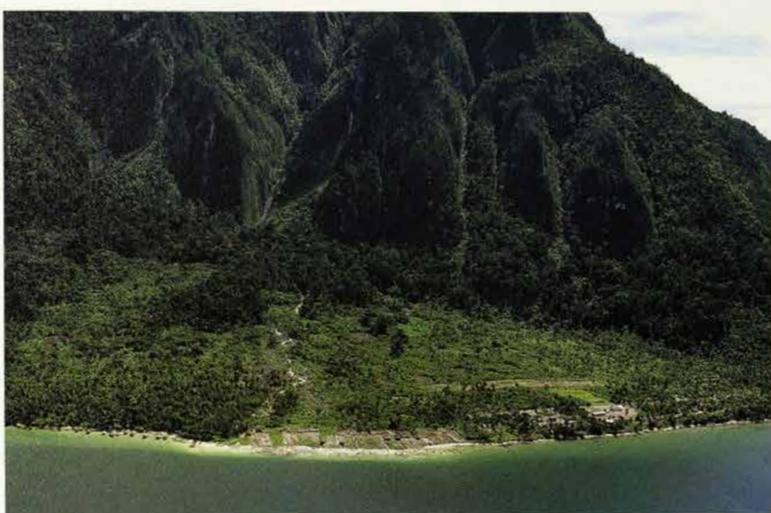
plain at about 2000 ft, a height that would give me time to send out a distress call if I had engine trouble over this remote wilderness. For the same reason I also kept chatting with hams back in Australia. This inland freshwater lake (below), which was unnamed on my map, is near the Omba River, about 220 km west of Timika.

*"I was told I couldn't get fuel on the coast, so I was right on my maximum engine limits for that elevation when I got airborne."*



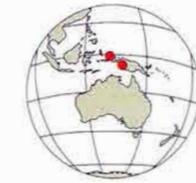


After the mud of Irian Jaya's south-eastern coast I was now, to my delight, entering a beautiful area of lakes, and bays studded with small islands encircled by fine white beaches, as good as any I had seen in the South Seas, such as (*above*) in Tarera Bay. Above Lake Kama-kawaiar (*opposite page*) I waved to some islanders in a canoe before flying on a few kilometres to the south-west to the lovely coastline of Triton Bay (*left*). At the western end of the bay a peaceful little village, its fishing canoes pulled up on the beach, nestled at the base of a spectacular 4285 ft peak (*below left*). What a day of travel! That morning freezing above a glacier at 16,000 ft, a few hours later enjoying temperatures of 30°C along a balmy coast. It was so close to Australia, yet how many Australians knew about this beautiful area?





What wonderful freedom I enjoyed in little *Delta India Kilo*! A minor problem now arose: I had run off the edge of my map, and the new one was in the rear of the helicopter. So about 40 km south of Sorong I put down in the jungle on a tiny cleared area that might have been used by a drilling crew at one time and got it out. The temperature here was more than 40°C. In the afternoons the air becomes unstable, forming many cumulonimbus clouds – huge thunderheads with heavy rain in them (*left*), but it's easy to fly around the rain. After 4 hrs 44 mins of probably the most magnificent, most interesting, flying I had had on my entire journey, I put down on Jefman Island, the airport for Sorong (*below*). Sorong town, where my hotel was, is on the mainland nearby, and air travellers are taken across by ferry. When I asked the tower for permission to fly myself there, they cheerfully agreed.



DAYS 36-37

MONDAY 6, TUESDAY 7 JUNE

### Sorong—Manado—Davao

People are always asking me where I stay on my various helicopter journeys. The answer is anywhere that's convenient – I sometimes camp beside the helicopter, but I also use luxury hotels, and hotels like this one, the Cendrawasih (*above right*) – that is, basic and friendly. I'm not a great eater, but I enjoyed a good sirloin steak for dinner here. Sorong was a fascinating little place with vehicles running everywhere, and just about all of them tooting. There was quite a mixture of people, for it was a staging point for Indonesia's transmigration program, in which people from the more heavily populated islands such as Java and Sumatra are encouraged to take up land in Irian Jaya. After a leisurely breakfast, I worked out my flight plan as best I could, and caught a funny little bus loaded with excited schoolchildren down to the helipad. From Jefman after refuelling I headed north-west, and over Dampier Strait towards Manado, in the Celebes (or Sulawesi), 840 km off. I kept nice and low as I took in the magnificent scenery, occasionally waving to the friendly people. I was now leaving Irian Jaya behind. That great adventurer and single-handed navigator Sir Francis Chichester passed this way in 1931 on a flight from New Zealand to Japan in a Gipsy Moth fitted with floats – the first solo long-distance flight by seaplane.

From Sorong to Manado and on to the Philippines I flew over superb, sunny seas and small, uninhabited green islands with white beaches – the stuff of the travel brochures (*below*). As I ran up the coast of Halmahera towards the legendary spice island of Ternate, things were going so well that I decided not to put down there, interesting as it



might have been, but to keep going across the Molucca Sea. In the 16th century, Ternate and neighbouring Tidore were the seats of rival sultanates controlling the spice trade. The Portuguese made an alliance with the Sultan of Ternate, but it was the

Dutch who eventually dominated all these islands. On the coast of Halmahera, south-east of Ternate, I filmed a number of small, interesting villages, most with mosques, like the one (*below*). An active 1720 m volcano steams high above the town



at Ternate. An equally classically shaped volcano on Tidore was only slightly higher at 1730 m. I had heard that the ground shudders continually on both islands. From 1500 ft I could see more islands ahead of me as far away as 150 km, and hoped things would be as clear in a couple of weeks when I had to make my way up the Aleutian chain in potentially dangerous circumstances. When I put down at Manado, Gerry Nolan was waiting for me with a cold Coke, and had the

fuel truck driving up before the rotor stopped! It was the first time I had seen Gerry on this stage of my flight, but I was to see a lot of him after this.

Pip told me on the phone last night that she had heard me on the ham radio virtually the whole of the trip. Wonderful! The weather to Davao, in the Philippines, was okay according to the Manado weather office, which was good news because tremendous rainstorms are common in that area at this time of year. In Sorong a pilot told me his company's twin-engine helicopter had crashed when rain caused a double engine flameout, and everyone on board was killed. However, with a good tailwind I was soon barrelling north from Manado at about 110 knots even on reduced power. Below me was more of the South Seas, with

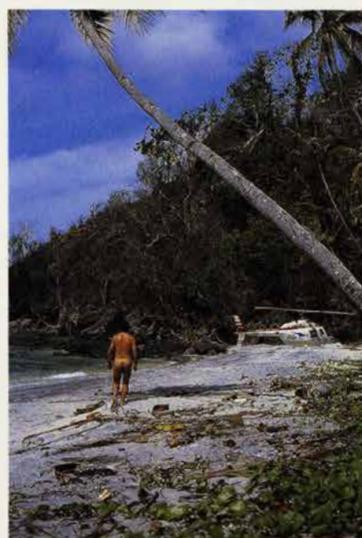
canoes and sailing craft and small, beautiful islands with lots of people. About 140 km north I came across an island with a large, active volcano reaching 1798 m (5900 ft) into the clouds. It astonished me, because I was at 500 ft when I realised it was there, and after checking my map, zoomed up through openings in the clouds to its peak, which was a broken, steaming cone (*below*). This was Siau Island. I narrowly escaped trouble as I circled it, filming, when I ran into terrible sulphurous fumes. Choking, coughing, unable to breathe, I escaped by swinging around 180°, and quickly dropped down to 500 ft. I didn't enjoy the experience: I had read about a Jumbo jet that had almost been brought down when it ran into the ash cloud of an Indonesian volcano. Indonesia has more than 100 active volcanoes, many of them dangerous.

### Of villages and volcanoes...





North of the volcano, I circled in admiration over Para, a beautiful little atoll (left), and when I looked back I found the clouds had lifted from the peaks of Siau and the island was in spectacular profile (centre left). About 50 km north of Siau I rid myself of any lingering volcanic fumes when I found Kalama Island and couldn't resist a nude swim on one of its deserted beaches (below). Now how many world air travellers would be able to do that?



My first sight of the Philippines came an hour later – first, small islands off the south coast of the big island of Mindanao, where people in the villages waved at me as I flew along at 300 ft, and then the steep hills of the peninsula south of the city of Davao (bottom left). All the way from Manado I had spent time talking to hams back in Australia, photographing, and recording and filming a documentary with my beautiful little Super 8 cine camera mounted in the cabin. While I talked to the hams I gave my position regularly because I hadn't been able to get anybody in Indonesia to answer my calls and I needed somebody to know where I was should I get into trouble. Among the hams I spoke to, one in Bundaberg took his rig into Bundaberg South Primary School and had the Grade 7 kids talk to me. What a great education for the kids and what a lot of fun for me! As I came in over Davao Gulf, Mt Apo, at 2954 m (9692 ft) the highest peak in the Philippines, dominated the land on my left. Distance flown today was 680 km.



## Hills like little dollops of chocolate

DAY 38  
WEDNESDAY 8 JUNE

### Davao–Manila

Davao city was much larger than I expected. It is apparently the republic's second-largest city, and a prosperous trade centre and port. My hotel, the Davao Insular, looked beautiful, a bit like the Palace of Versailles, but they turned the air-conditioning off at 6 o'clock each night because of a power shortage. Heli Orient, the Bell agents who had been so helpful in Singapore, smoothed my passage. I'd heard

some horror tales of pilots who had problems with bureaucrats and had to pay excessive fees after arriving in the Philippines via the Indonesian islands. I found everybody friendly and helpful. My experience is that a big smile, enthusiasm and handshakes offered all round will move things along in most places. I got away at 7.45 a.m. and was soon climbing to 6000 ft to cross a ridge between two mountains that were only slightly lower than Mt Apo. On the way I passed over enormous banana plantations, and immediately over the ridge, I looked down on dry rice paddies (right). After crossing



*“My hotel, the Davao Insular, looked beautiful, a bit like the Palace of Versailles, but they turned the air-conditioning off at 6 o'clock each night.”*

the north coast of Mindanao I headed slightly right of my track to see the “Chocolate Hills” on the south coast of the island of Bohol. Jordan Javier, a friendly Davao-based helicopter pilot, told me about them, saying they looked like little dollops of chocolate – as indeed they did (above). Only about 25 km farther on near a place named Bayahavan, another geological formation, presumably exposed limestone, caught my interest (right).





The town (*below*) is Rosario, about 90 km south of Manila. The number of churches I saw in cities, towns and villages along the way reminded me, after the mosques dotted through the Indonesian islands, that I was in a predominantly Christian country. It was now time to call the Manila approach, but they were so flat out handling aircraft calling from every direction that I couldn't get a word in. It was as frantic as my experience at Washington airport. Finally, only about 30 km from the airport, I got clearance from the tower to approach runway one six, and I was near the international terminal when the controller said, "Delta India Kilo, stop!" I pulled the helicopter into a hover at 200 ft and sat there for 15 seconds while he cleared another aircraft past me. I was impressed: few controllers take advantage of a helicopter's versatility by simply telling it to stop like that. Gerry was on the tarmac, having flown from Manado.

#### Manila

I had to sort out several things in Manila. The chip detector problem turned out to be minor, as I had suspected. It had picked up a small sliver of metal left over from the manufacturing process. To save

weight and increase my range slightly, we took out the particle separator, which removes any sand sucked into the engine. I didn't plan to land on any more beaches. Meanwhile, I got word from the Hong Kong authorities that I couldn't enter their control zone under visual flight rules. Gerry Nolan and I spent hours on the phone to get that decision reversed. We had a fuelling hiccup when they put enough in the auxiliary tank to get me to Japan non-stop. Trouble was, I couldn't safely take off from Manila and hover around awaiting departure clearance with that load, so Gerry and I sat there siphoning the excess into a 44-gallon drum which, as far as I know, still sits in Manila airport. Gerry then left me in a hired car for an eight-hour, overnight drive to Laoag, on the northern tip of Luzon, which was to be my jumping off place for Hong Kong the next day. President Marcos's daughter was getting married there on the Saturday and Gerry had found it impossible to get a seat on a plane. He still had no firm news about my plan to put down on the deck of the *Höegh Marlin*, as negotiations with agents and owners were still going on.



"...I was near the international terminal when the controller said, 'Delta India Kilo, stop!'"



The Philippines has 7000 islands and I seemed to have all of them in sight on this flight to Manila. I was fascinated by one sandy cay in the Bohol Strait, about 50 km south-west of Cebu city, which was fully developed, if that's the right expression (*above*). Immediately after I took this photograph my chip detector warning light came on. Did it mean something serious was about to happen to the engine, and should I put down there somehow and inspect it? The light had come on before on occasions; I decided to keep going and get it inspected in Manila.

Looking down on the sugar mill in the town of San Carlos, on the east coast of Negros (*left*), I amused myself by conjecturing that the lone backyard swimming pool I could see was probably part of the manager's house.





DAY 39  
FRIDAY 10 JUNE  
*Manila-Laoag-Hong Kong*

I got away from Manila airport at 8.20 a.m. for what turned out to be a flight of 2 hrs 42 mins to Laoag and another 4 hrs 20 mins to Hong Kong. Once off the ground I was careful to avoid the forbidden Presidential Palace area. The military took a close interest in flight plans and I had to have a military clearance to fly anywhere in the Philippines. Nevertheless, the air traffic control system was exceptionally good. Immediately north of the city I came across fish breeding ponds (*left*) that obviously would offer me little opportunity for a comfortable landing, followed soon after by rice terraces (*bottom left*). I frequently came across colourful community clothes-washing groups, such as this one (*opposite page, top left*) in a river bed near Munoz, about 150 km north of Manila. People even used the rivers to wash their cars and trucks, driving in up to the hub caps. The patterns created by the various busy agricultural activities going on below held my interest all the way north (*below and opposite page*), and sometimes people looked up from their fields to give me a friendly wave. The country's staple crops are concentrated around this fertile central plain of Luzon, north of the capital, and there were people and handkerchief-sized holdings of land everywhere, reminding me of my flight over parts of India.

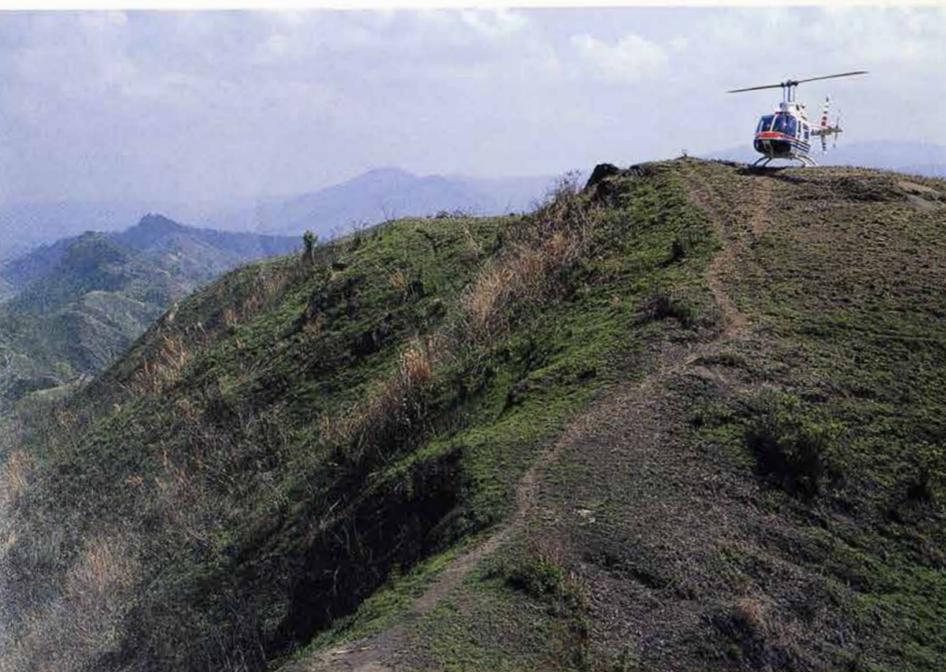


*Life and land in the Philippines...*



*"The patterns created by the various busy agricultural activities going on below held my interest all the way north."*





*"I could see people looking up at the parked helicopter, no doubt wondering what manner of machine displayed a kangaroo on its side."*



On one occasion on the west coast I had to satisfy a call of nature, so I landed briefly on a ridge (*left*). In a valley below me I could see people looking up at the parked helicopter, no doubt wondering what manner of machine displayed a kangaroo on its side. The last unscheduled "comfort stop" I had made on my world flight was in the desert south-east of Cairo, and nobody had seen me then. Every little village I passed over on this flight seemed to have a church – not just a small church, but often a very big one. However at Paoay, about 40 km south of Laoag, I came across what had to be the mother of all churches (*bottom left*). Paoay Catholic Church, I learnt later, was a combination of Gothic, baroque and oriental designs, with great buttresses like no others in the country. On the left is its bell tower.

About 20 km south of Laoag, which is a busy commercial centre, I had called the tower and found them extremely friendly, so I knew Gerry had got there after his overnight drive and done his work. The number and variety of aircraft on the ground amazed me. The air traffic controllers could have been forgiven for being testy, because they dealt with more aircraft that day than they normally handled in a month as vips flew in from everywhere for the big wedding. There were the most incredible decorations and welcome signs everywhere. Gerry supervised the refuelling (*below*), and suggested I go and talk to the controllers. They all asked me about my trip and wished me well.



I was in the air again after 1 hr 46 mins. I had now flown through the Philippine chain from south to north, and an 850 km stretch of the pirate-infested South China Sea to Hong Kong lay ahead. There was one dot of land on my route, about 500 km out – Tungsha Tao, or Pratas Island – and I had checked on it through a helpful Cathay Pacific Airways manager in case I needed it in an emergency. He told me that Pratas was under the control of Taiwan and that "the only hazard would appear to be that fairly regular visits are made to the island by Taiwanese military personnel, who will fire on anyone approaching it". He said it would be a waste of time attempting to get a clearance from the Taiwanese, as they probably wouldn't reply. All I could do was hope that the twin possibilities of engine failure and a direct hit by a trigger-happy Taiwanese soldier would cancel each other out! Shortly before I reached Pratas I flew low over a large, crescent-shaped coral reef that was the graveyard of a number of rusting ships, but I was careful not to fly directly over Pratas itself (*top*). The main military buildings are on the main part of the island, at right. My arrival in Hong Kong, 7 hrs 2 mins out of Manila, gave me a great feeling of excitement. I was no stranger to the colony – I had made more

than 30 business trips here – but it was tremendous to have flown my own helicopter in. One of the many pictures I took as I headed for the airport on a very clear day was this one (*below*), which shows the Peninsula Hotel directly behind the Planetarium dome. I consider the Peninsula the best hotel in the world. What I didn't know was that Pip, who had flown up to see me, was occupying one of the Peninsula's front rooms, and at this very moment she looked out, recognised *Delta India Kilo*, and burst into tears!

*"What I didn't know was that Pip, who had flown up to see me, was occupying one of the Peninsula's front rooms..."*





Today's visitors to Hong Kong would be surprised at the dramatic changes to the city landscape since these pictures were taken in 1983. While there I enjoyed some relaxed flying with friends Brian Lewis (then a Jumbo pilot with Cathay Pacific), Robbie Brothers and Michael Kadoorie, all of them enthusiasts who owned and operated Hughes 500D helicopters.

## *Frightening flying off the coast of China*

*DAYS 40-41  
FRIDAY 17, SATURDAY 18 JUNE*

### *Hong Kong-Taipei-Naha*

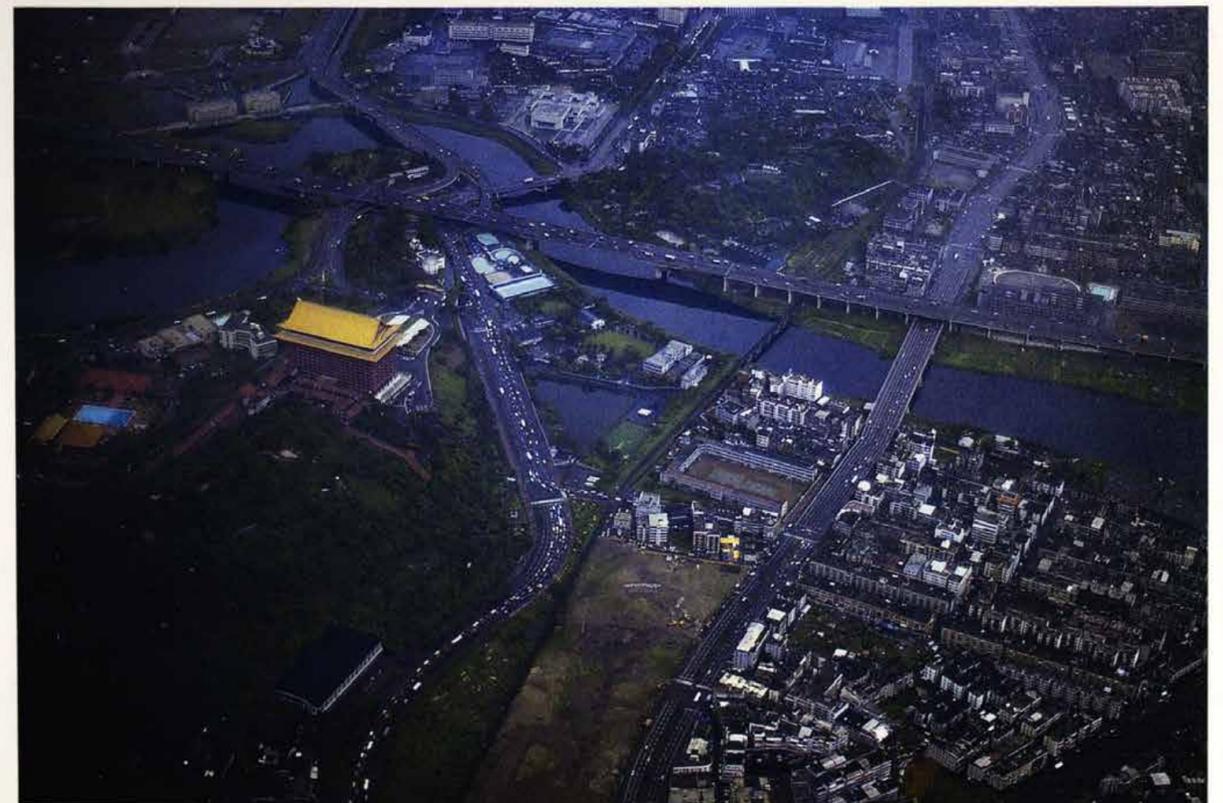
After a week in Hong Kong negotiating and planning the next part of the flight, it was depressing having to take off for Taiwan (originally Formosa) in the most terrible weather. It was the rainy season, but Gerry was just about certain that the *Høegh Marlin* would take me, so I had to be in northern Japan within a week, and had no time to lose. (The master of the *Høegh Marlin* telexed me in Hong Kong to ask whether the position I planned for our North Pacific rendezvous was a joke, because it was so close to Soviet territory.) My course to Taipei roughly followed the coast of China, but well out to sea to avoid the Chinese restricted area. My Omega was not synchronised so I had to fly almost blind on dead reckoning. It reminded me of that terrible trip I made down the coast of Burma, for it was as if I were flying under a waterfall. I could see nothing ahead, and occasionally I would pass over a fishing boat plunging about on the surface only 300 ft below me. This

very difficult and frightening kind of flying continued for almost 3 hours, with the weather improving only in the last hour as I flew up the Formosa Strait and along the west coast of Taiwan to Taipei, its capital. I was glad to get there. The monsoon was to plague me most of the way to Tokyo, and severely curtailed my picture taking over the next few days. Taiwan calls itself the Republic of China and doesn't recognise the People's Republic of China. I shot this photograph of the bustling, modern city (*below*) because I recognised the large yellow-roofed building as the Grand Hotel, where I once stayed on a business trip.

There was more dreadful weather the next day on my 700 km flight to Naha, on Okinawa, one of Japan's Ryukyu islands. While on that leg I scribbled across large sections of my chart, "Fog and mist" and "Heavy, frightening rain". There was very limited visibility and I flew for about 3 hours partially on instruments - tiring as well as frightening. I got into the habit of reducing speed to 60 or 70 knots as I peered through the windscreen, sometimes opening the window beside me to look out.

It was a great strain on the eyes. I had a temporary respite when I came over the low island of Miyako, in Japan's southern Sakishima group, my first way point, and made a dogleg turn north-east towards Okinawa. The Miyako controller spoke good English, which somehow was soothing. Then more of the same weather before I put down at Naha at 1 p.m. local time, when I scrawled in my log, "A terrible day. What is ahead?"

*"The monsoon was to plague me most of the way to Tokyo, and severely curtailed my picture taking over the next few days."*





DAYS 42-43  
SUNDAY 19, MONDAY 20 JUNE  
*Naha-Kagoshima-Forced  
down on Oshima Island*

Perhaps the gods were exacting payment for my almost-idyllic flight through Indonesia and the Philippines. Fog delayed my

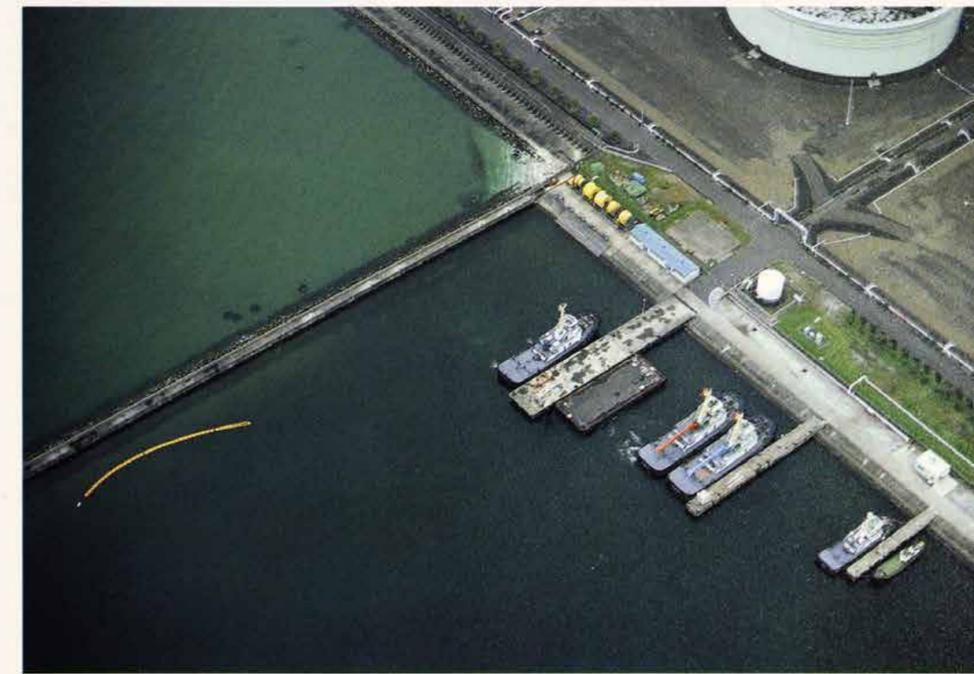


departure from Naha, and fog and rain made sure that I would see little of the islands of the Okinawa archipelago as I flew over them on my 3 hr 31 min flight to my next stop-over, Kagoshima. My preoccupation with the weather ahead detracted from my appreciation of Naha, but I certainly noticed that it was booming, with new buildings, expressways and big US bases. Because Okinawa was one of their home islands the Japanese defended it against a powerful American invasion force in World War II with fanatic determination, and with great losses. US forces occupied the group after the war, restoring it to Japanese rule only in 1971. The prolonged American presence didn't seem to have harmed its development. I had no doubt the islands of the archipelago would have been a worthwhile spectacle on a good day, as these views (*this page*) attest. I got the picture below of Yakushima, about 130 km south of Kagoshima, during a break in the rain.

*From sublime flying conditions to the seriously ridiculous*



The geometric pattern of the oil tanks and nearby jetties appealed to me as I came in over the port at Kagoshima. The city is on the southern tip of Kyushu, one of Japan's four main islands.



Well may this picture (right) look depressing and blurred. What a terrible, frightening day! By far the worst on this third stage. I scrawled in my log that night, "I should not be doing it – very depressed – lucky to be alive". I left Kagoshima Monday morning in reasonable conditions – visibility about 5 km and a 500 ft ceiling in light rain. My route was to take me north-east, keeping south of the main islands except for a projecting headland or two. No sooner had I left the Kyushu coast for Shikoku than I got into some of the heaviest rain I've ever flown in. I couldn't believe that the engine wouldn't flame out. I groped on and after almost an hour made out the looming headland at Shimizu, on Shikoku's southern tip. I thought the sensible thing would be to land, but there was nowhere available so I kept going towards the coast of Honshu. Two hours and 30 minutes after leaving Kagoshima I passed over the coast at Kushimoto, following the cliff face along and searching for a place to land in the torrential rain. After several unsuccessful circuits, I was seriously contemplating putting *Delta India Kilo* down on the rocks, when suddenly I came across a concrete jetty. The rain was incredible as I put down between piled fishing nets and a parked truck. For 20 minutes I sat there listening to the rain, miserable and cold. I saw nobody. I took the photograph when the rain eased and before people began to appear. There were no English speakers among them, but they were all friendly and helpful and I was there for the night. A policeman guarded the machine overnight.



"I got into some of the heaviest rain I've ever flown in."



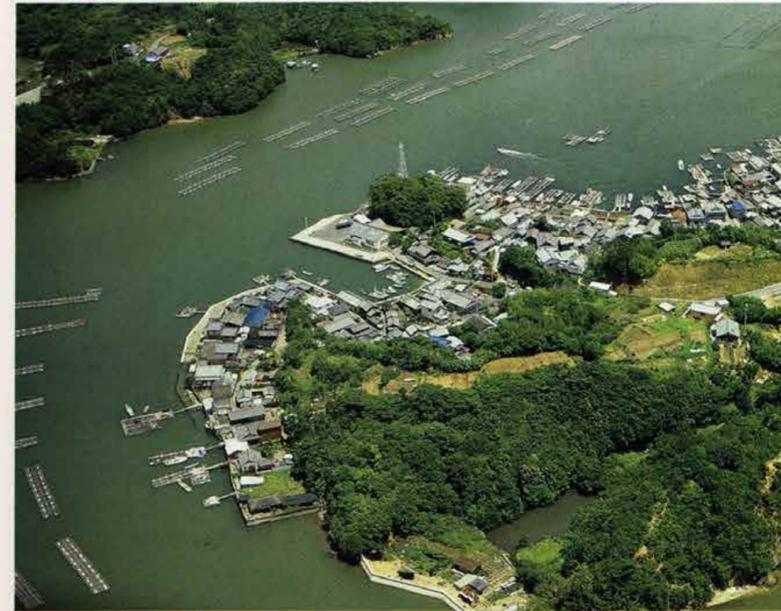
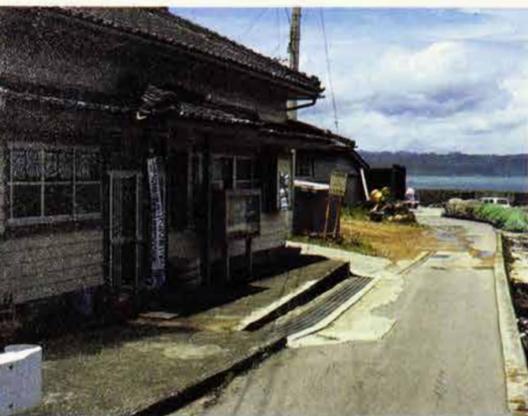
### Extraordinary storms and then a welcome change of luck

DAY 44  
TUESDAY 21 JUNE

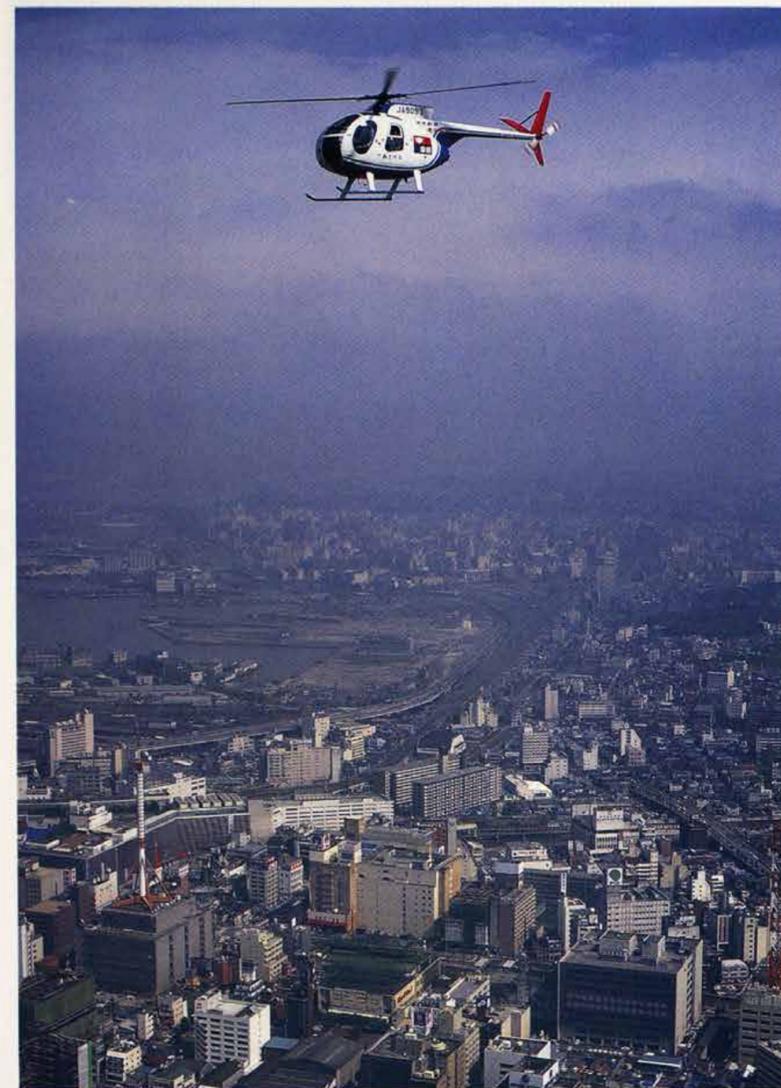
#### Oshima Island–Tokyo

Next morning I learnt I was at a fishing co-operative on Oshima, a small island just off the coast near Kushimoto, in Honshu's Wakayama prefecture. Tokyo, my destination, was about 450 km north-east. The Honshu coast can be seen in the distance (left), with the co-op building at left. I hadn't realised it was an island, and had I attempted to fly around it the previous afternoon I would probably have run into power

lines running to the mainland. The gale I flew through was enormous, and it stormed again during the night, which I spent at an inn. The sound of waves crashing violently on the rocks kept me awake, and it wasn't until midday that the weather cleared and let me get away. Meanwhile, I had been phoning Tokyo, to learn that I had to be there that day or the next to see the *Høegh Marlin* and its captain, it now being quite definite that this ship would be my mid-ocean refuelling platform.



I passed over this marine village (left) on the Honshu coastline between Shingu and Matsuzaka. The weather had improved considerably, and soon after, so did my luck. I had reasoned that if the *Høegh Marlin* was expected in Tokyo's port that day I could assume that it was presently somewhere in these seas, so as I flew up the coast I used my small FM marine radio from time to time to ask the ship's captain to contact me. Suddenly he answered. He was 110 km south of Tokyo and I found him quickly with my Omega (below).



What a great opportunity to practise approaching the ship! While I chatted with the captain I was relieved to see the ship was a decent size, but once on my way again I couldn't help feeling a bit apprehensive about finding it 1300 km out in the North Pacific with my life depending on it. Closer to Tokyo I had a distant view on my left of the classical cone of Mt Fuji. Soon after, I came under siege by helicopters from the television stations. My forced landing had generated a lot of extra attention on my flight, as I soon found, and at one point six helicopters were flying close to me. The Japanese found it fascinating that such a small machine could span such long distances.

"I couldn't help feeling a bit apprehensive about finding it 1300 km out in the North Pacific."

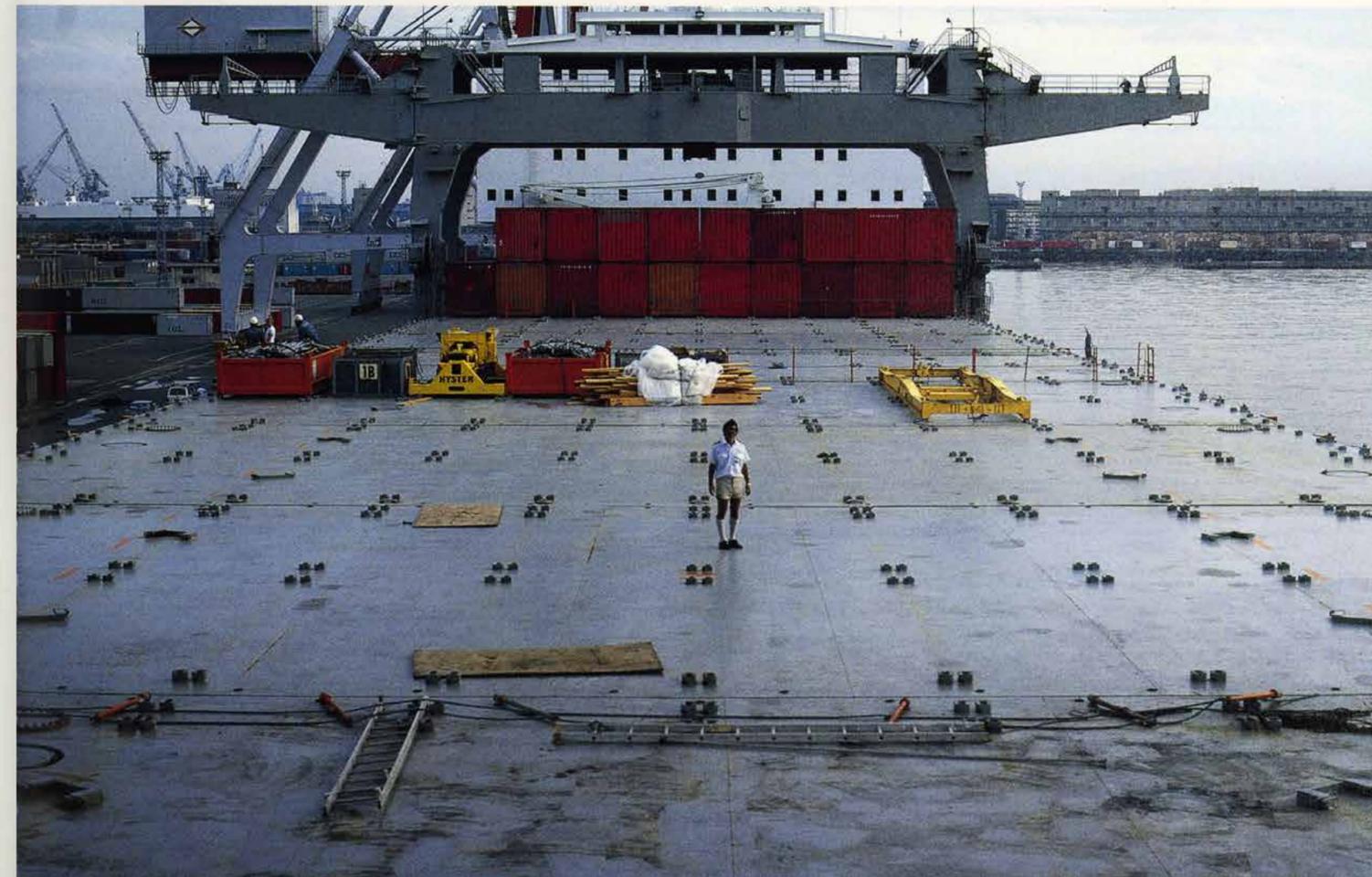
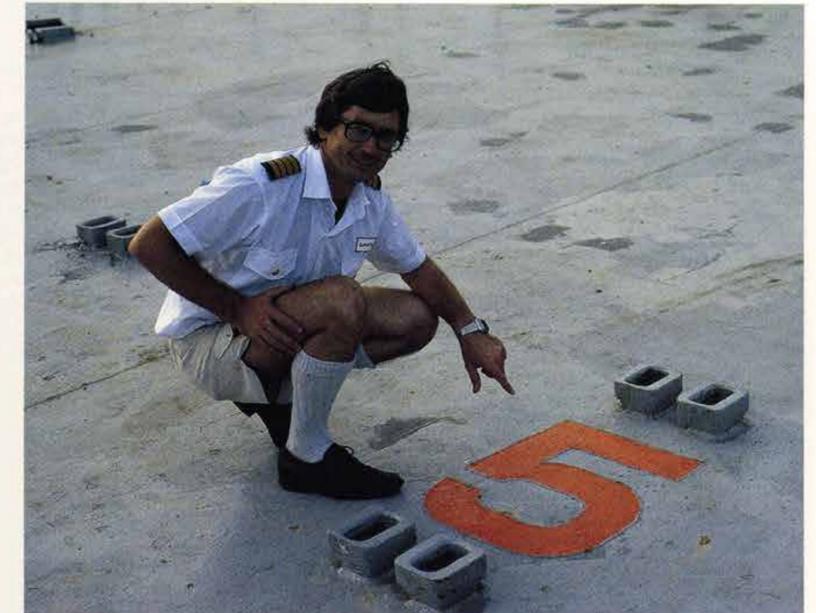


I was prepared for the tremendous pollution over Tokyo by my frequent business trips, on some of which I had been taken to the top of the Tokyo Tower, a city landmark (right). Today I had permission to fly around it, which I did happily for my cine camera. At least the weather had been good since I left the fishermen's wharf on Oshima, giving me a very speedy 2 hrs 48 mins to the Tokyo heliport, my practices with the *Høegh Marlin* notwithstanding. At the heliport news conference (below) some reporters expressed surprise that I had arrived in the rainy season because, they said, it was not the time to fly in Japan. I explained that I needed all the daylight I could get for my long hop from Japan to Alaska, and mid-June had virtually selected itself. The smiling man in the blue jacket seen in the crowd just off my left shoulder is Naoyoshi Ando, public and press relations boss for Mobil Sekiyu, whose team worked hard to support me, Mobil Oil being one of my main sponsors.



I spent the next day in Tokyo handling some of the many details of the forthcoming ship landing. In nearby Yokohama harbour I climbed aboard the *Høegh Marlin* (this page), met Captain Leif Rodahl, and inspected the deck thoroughly, selecting the actual spot I wanted to land on. Don Richards, my ham radio friend from

Sydney, was there, and would be aboard ship as my special contact, manning the amateur radio rig and a non-directional beacon, which were being installed by my friends from the radio-specialist Yaesu Musen company. Don's detailed account of the organisation required on the ship appears on the following pages.



## Don Richards' report on the mid-ocean rendezvous

DICK'S SHIPBOARD LANDING was arranged to take place about halfway between the northern tip of Japan and the western end of the Aleutian Islands, which are US territory. The plan was for me to board the 45,063-tonne Norwegian container/bulk carrier *Høegh Marlin* in Tokyo, and for the ship to make for the rendezvous about 1300 km north-east of Japan. As we approached the rendezvous point, Dick would leave the airport at Kushiro, in northern Japan, and arrive at the selected position at the same time as the vessel. He would land, refuel, then leave immediately for Shemya, a US military base in the Aleutians. The distance he would travel on that day would be over 2600 km – greater than that between Australia and New Zealand. (Can you imagine flying that in a tiny helicopter?)

Communication between ship and helicopter would be entirely by amateur radio, as it would be necessary to keep in continuous contact. Dick anticipated that at times he would be only feet above the ocean and would have only seconds to put out a Mayday call if anything went wrong.

So it was that, in June 1983, I came to be sitting in a cabin on the *Høegh Marlin*, surrounded by radio gear, steaming through the murky North Pacific Ocean towards the Kuril Islands, former Japanese territory occupied by the Russians since the end of the Pacific War.

I had seen Dick aboard the ship before it left Tokyo, when we made a duplicate of the chart he would have in the helicopter. With this I could plot his position from reports he would give me during the flight. We had worked on the chart in the corridor outside my cabin – heads down, tails up, and the butt of passing comments in Norwegian from incredulous crew members.

During his approach to Japan in the preceding few days Dick had been delayed by weather so bad it forced him down at one point (at a small fishing village a few hours from Tokyo). The low-pressure weather pattern that caused this moved along with the *Høegh Marlin* after we left Tokyo. Our speed was reduced to about 13 knots, and every now and then a bump and a shudder would run through the ship as its blunt nose struck a wave. It looked as though we would end up south of the rendezvous point, which would mean a

longer leg to the Aleutians for Dick and the possibility of the helicopter running out of fuel, visibility, or both! It could also have him running into headwinds up to 20 knots, further reducing the helicopter's range.

On 24 June, the night before his departure from Kushiro, I contacted Dick in the ground station that a Japanese amateur radio operator had set up as a monitor in a Kushiro radio shop. Dick, I gathered, was surrounded by much radio equipment and some 15 Japanese enthusiasts, none of whom appeared to be able to speak English.

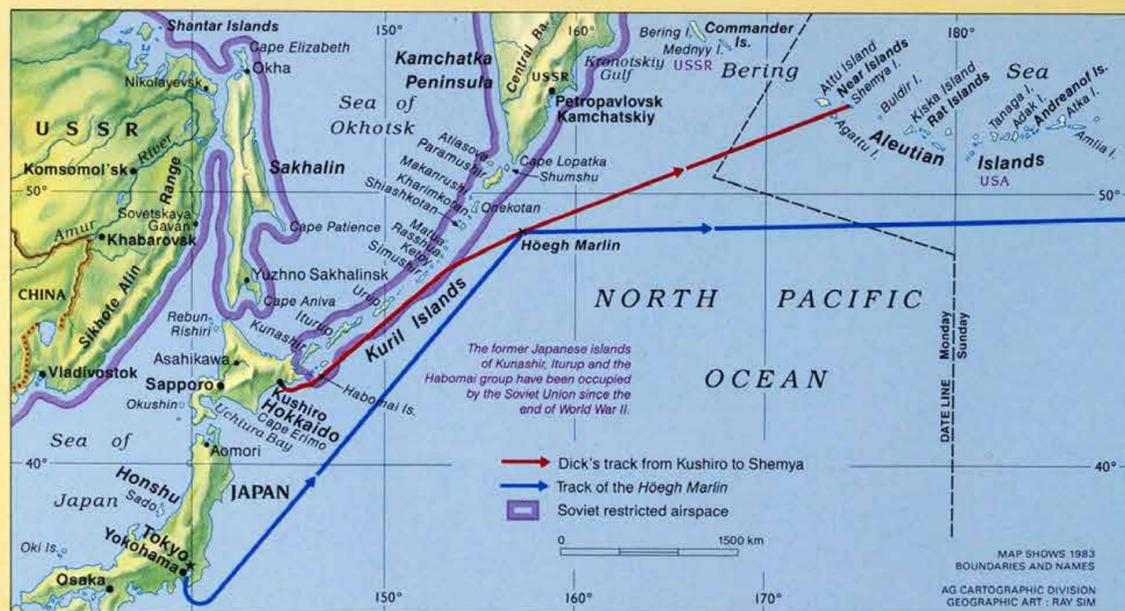
Earlier that day, the master of the *Høegh Marlin*, Leif Rodahl, made final preparations for Dick's landing. The fire crew rehearsed their drill, the small rescue boat was made ready, the refuelling team assembled and briefed, and life-ropes attached to stout ropes were set out to the port and starboard sides of the vessel.

At 3.40 a.m. on Saturday 25 June, *Delta India Kilo* lifted off from Kushiro airport in pre-dawn darkness and heavy rain. Dick guided her along the Hokkaido coast and out over the ocean towards the Japan/USRR buffer zone. By 4.45 a.m. the rain had cleared and shortly he reported that the tops of the volcanoes on the chain of islands that make up the Kurils were visible in the distance through low cloud.

The *Høegh Marlin* was proceeding on course for the rendezvous in patchy fog and poor visibility. Every time I looked out of my cabin porthole I became more doubtful about Dick finding us in such conditions. But by about 7 a.m. the weather had improved; the fog had lifted and the cloud base was about 1000 ft.

However, to our west, Dick was flying above thick cloud, the occasional volcano poking through it. The height of the cloud base above the ocean was unknown. Descending in the hope of finding fog-free space between the cloud and the ocean could lead to disaster, so Dick asked me to warn the Australian Department of Civil Aviation and Canberra Operations that the landing might have to be aborted and *Delta India Kilo* pass through the buffer zone into Soviet airspace to seek a landing.

Dick's wife Pip, and daughters Hayley and Jenny, were tuned into our radio conversations at the family home in



Sydney and, after some prompting, Dick remembered that it was Jenny's birthday. She was 9. So, despite the forbidding surroundings and the hidden tensions, Dick's voice floated over the airwaves in song: "Happy birthday to you, happy birthday dear Jenny, happy birthday to you!"

Conditions around the *Høegh Marlin* continued to improve. The fog had dispersed and the cloud had lifted and looked like going completely. I had also received a message that landing conditions at Shemya were reasonable. From 9 a.m. onwards my contact with *Delta India Kilo* was continuous. Conditions in our area were by then almost perfect for a landing; the cloud base was about 1000 ft, the wind was light from the north and the sea was slight, with the ship rolling only a few degrees.

In the helicopter, things were quite different. Dick could not see the ocean and could only guess at conditions below. He could still see the tops of volcanoes rising on his port side through a solid mass of cloud. He had to decide within minutes to either attempt to penetrate the cloud and search for the ship in unknown conditions, or head into the USSR looking for a place to land. He no longer had enough fuel to return to Japan.

He decided to have a closer look at the island peaks and see whether a landing on any of them would be possible. This would put him well into the buffer zone where he was not supposed to be, but he had no choice. He reported that the steep sides were ice-covered and that the only possible landing places were small areas immediately around the craters. Not very promising! So we continued towards the rendezvous hoping for an improvement in Dick's weather in the short time remaining.

Tension rose at both ends of the communication chain as I kept reporting to Dick on conditions at the ship, and he kept telling me how impossible the islands looked for a landing. Then Dick made a risky decision – he decided to go down through the cloud.

Minutes later he called: he could see the ocean. In the narrow space between it and the cloud base he set off for the ship. In good visibility the helicopter was now homing in on the ship's radio beacon, about 110 km away and in direct contact with our skipper on the bridge.

These were the developments as shown in the ship's log:

- 0340 Message received, helicopter take-off from Kushiro in heavy rain.
- 0905 VHF contact with helicopter VH-DIK.
- 0925 Helicopter broke away from islands, intercepting course given 084 deg.
- 0942 "Stand by" signal for helicopter landing. Rescue boat and fire stations manned.
- 0945 VH-DIK reporting visual contact with the ship.
- 0950 Radar contact, Bearing 272 deg, 8.0 nautical miles.

0955 Helicopter visually observed from ship. "Permission to land" given.

0957 Touch down on Hatch No. 3. Position 48.36N, 156.32E.

1003 Signal "Stand by Over" given. Commenced bunkering.

I was on the deck. Fuel drums were rolled forward to the aircraft and I commenced refuelling. About 170 US gallons were used to fill the tanks, and after a quick meal, Dick was ready to leave for Shemya, another 7 hours north-east. Time was important, as there could be headwinds and Dick had to find the base and land there before dark.

The take-off crew stood by, the deck was cleared, the fire crew stood ready and the turbine came to life, but it seemed like minutes before the heavily laden aircraft lifted. I knew the maximum overload power could be sustained for only a few seconds. The nose dipped for forward motion just as the ship rolled, and as *Delta India Kilo* moved swiftly across the deck it missed the hold-down studs – large bolts in the deck – by inches. One quick circuit of the ship and away they went for Shemya.

The *Høegh Marlin* changed course for Seattle and we all breathed freely.

That evening, the skipper opened the bar for a champagne celebration and we reviewed the operation. Good navigation in both the helicopter and the ship had meant that each knew where the other was throughout the whole flight. Once he was through the cloud, the beacon guided Dick to within visual range. Then it was up to each skipper – one to manoeuvre the ship to minimise pitch and roll, and the other to make the landing.

The take-off had been successful, but only just. The overloaded aircraft had almost struck some deck studs when the ship rolled on lift-off. Communication had been excellent, with all position-reports received and plotted. We had been able to keep *Delta India Kilo* informed of conditions at the ship as well as alerting the authorities that a landing in the USSR would be necessary unless weather conditions improved.

The most difficult and courageous part of the operation was Dick's decision to release his grip, however tenuous, on the half-hidden islands and grope his way through the overcast to find the ship knowing that if unsuccessful, a return to the coast to land would be almost impossible.

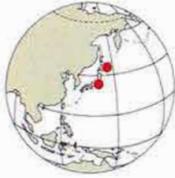
During the review, a factor that I had recognised on the ship came through very strongly. The skipper and crew of the *Høegh Marlin* were vitally concerned that Dick find the ship, land and take off without any hitches. They considered that the success of the unusual and exciting operation was a test of their seamanship. Dick, for his part, was very pleased with the operation. He also mentioned the contrast between piloting the helicopter in a tiny bubble for seven hours and, within minutes of landing, finding himself sitting in comfort in a spacious dining room.

DAY 45  
THURSDAY 23 JUNE

Tokyo-Kushiro

It was raining again as I prepared to leave the Tokyo heliport, but first I was commanded to autograph the spotless overalls of some of the Mobil workers, to whom I seem to have become a minor cult figure (right). One hour north I flew into good weather again, surprised and delighted by the many beautiful forests I was passing over, which are obviously highly valued. This little valley on the coast north of





Ishinomaki (*right*) was as neat and compact as a model railway. Kushiro, on Hokkaido, Japan's north island and my jump-off point, was a 5-hour flight from Tokyo, and already the *Høegh Marlin* was well on its way to Seattle. I chatted to Don Richards on the ham radio about its progress and mine. I landed in Kushiro at 4.25 p.m. local time, where I was met by Gerry. He and I had many things to do for the rest of that day and next before I would be fully prepared for the mid-Pacific rendezvous that had to be attempted on Saturday, come what may.

*"... the mid-Pacific rendezvous that had to be attempted on Saturday, come what may."*



## A flight of 1300 km to find a speck of a ship in a big ocean

DAY 46  
SATURDAY 25 JUNE

Kushiro—  
Aboard Höegh Marlin—  
Shemya

The big day. I had stripped everything I could from *Delta India Kilo* to save weight. Of my personal effects, only my toothbrush survived the culling. Movie cameras, my clothing, razor, every bit of lining from the aircraft, everything I could get out, came out. I had had a telex sent to the Russians, for what it was worth, to say I would be flying close to their area, and I had been speaking to Don aboard the *Höegh Marlin*. Now it was up to me. With Gerry I was at the airport a little after 3 a.m., where it was pitch dark and raining. I hadn't been able to sleep anyway. The helicopter was filled with 240 US gallons of JP-4, a lightweight fuel. For the first time I filled a special extra tank I'd made in Sydney for this leg. The machine had never been as heavy, and I was faced with a night take-off in the rain, a flight of over 1300 km

to find a speck of a ship, and then another 1300 km to a tiny Alaskan island. This would be serious flying, and I couldn't expect to be less than 12 hours in the air, with a lot of pin-point navigating to do. I had donned my survival suit again.

An hour after leaving Kushiro the sun came up and I climbed through fog and stratus cloud to cruise at about 2000 ft above a total cloud layer. I knew that if anything went wrong, that would probably be "it". I kept busy with my radio conversations, including some in Australia, where I knew Pip was listening. When I learnt that our younger daughter, Jenny, whose birthday it was that day, was listening, I sang her "Happy Birthday" — an occasion that we have recalled on every birthday since. I didn't have enough fuel to fly around the restricted area, so I flew through it, assuming the Russians wouldn't shoot down a private aircraft. If I had known that just a few months later they would shoot down KAL Flight 007 in this area, I might have had second thoughts. There was nothing but cloud below

me, but from time to time one of the volcanic peaks of the Kuril chain would poke through (*below left*). I estimated that this peak was on Simushir Island.

As I flew on towards the rendezvous point I had no way of knowing how deep the cloud cover was. When Captain Rodahl reported that he was in fog, I poked about some of those volcanic tips to see if it would be possible to make an emergency landing, and Don reports in his account (*page 128*) about the concerns at both ends of the communication chain until I was faced with the moment of truth: I had to head for the Kurils or the ship. I headed for the ship. When I broke out of cloud about 110 km from the *Höegh Marlin*, the first thing I saw was a group of killer whales — I won't forget them for the rest of my life. I was nearly 6 hours out of Kushiro when I sighted the vessel ploughing along in the distance, exactly where it said it was, and an incredibly reassuring sight. Approaching from the stern (*below*), within minutes I was down on the deck for my first ever



shipboard landing (*above*). Don had my electric pump, which he had brought from Australia, and a team wheeled up the fuel drums. I was parked almost on a WELCOME DICK SMITH sign painted on the deck. The first leg of the big Pacific Ocean obstacle was behind me.

My planned hour on the ship lasted nearly two because of refuelling difficulty. The ship was rolling and when the tanks got near full the fuel would come out with each roll. This meant Don had to fill up between the worst of the rolling, and thus continually be replacing and removing the filler cap. This photo (*right*) shows Don at the tank.

*"The first leg of the big Pacific Ocean obstacle was behind me."*





“...alone in the air again, I realised that I was tired and that this leg was as risky as the last.”

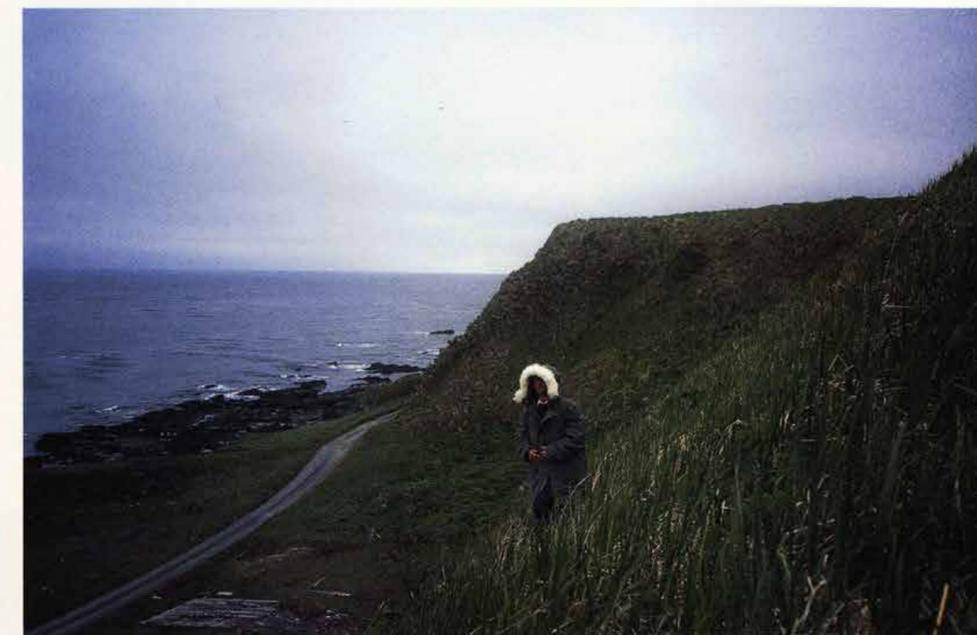
I got a wonderful shipboard welcome from Captain Rodahl and his Norwegians, and even had a splendid smorgasbord lunch. The radio operator stamped some of the special airmail envelopes I carried throughout the flight (left), enjoying the oddity of the request considering where we were.

It was another heavy lift-off, and I didn't learn until later that *Delta India Kila* went very close to striking a deck stud, seen in the top picture on the previous page, when the ship rolled at the crucial time. The successful landing had given me a boost, but alone in the air again, I realised that I was tired and that this leg was as risky as the last. There were another 1260 km ahead, and by the end of that day I had flown 2600 km over water in a single-engined helicopter with no floats. I flew through five time zones and crossed the International Date Line. My log at the end of the day recorded 12 hrs 02 mins flying, and when I got to bed at Shemya, exhausted, I had been without sleep for 36 hours. On the way I kept up a regular commentary on my position and passed over two ships, neither of which I could have landed on. The temperature in the cockpit was

freezing as I went through areas of fog and rain. This was the Bering Sea, whose fogs are notorious. About 215 km from Shemya I crossed the date line, which diverges west at this point to get the Aleutians into the same day of the week as the rest of Alaska. Shemya reported that it was overcast with a little rain, and although the sun had set there would be enough twilight to land, and they'd put the runway lights on. With 100 km to go, in dull and foggy conditions, I could see on my left the large and rugged Attu Island, most westerly of the Aleutians. Only 90 km across Bering Strait from here sits the USSR. Shemya, still out of sight ahead, was by comparison with Attu a dot of land, but I was grateful when, in minimal visibility, I put down on that flat dot at 10.38 p.m. Friday, Shemya time. Pip told me later that immediately I put down the ham radio network erupted with messages of congratulations from around the world from people who had been listening silently. In Kushiro, Gerry Nolan and the Japanese radio enthusiasts who had monitored the flight since my departure, were toasting its success, and if some look bleary-eyed in the photo they sent me (below), I knew how they felt.



I made use of the extra day I had gained flying east by recuperating on Shemya, a US airforce base. The flight had been mentally and physically exhausting – even traumatic – but I was totally revitalised by the incredible friendliness and support of base commander Colonel Ed Fray and his people. I had had difficulty getting formal approval from the US military authorities to land there, but on the ground the airforce couldn't do enough for me. I was taken everywhere on Shemya, which is an atoll about 3 x 6 km (right). The station's main task was to operate Cobra Dane, a giant radar facility directed at the USSR and able to track missiles and satellites (below). Its 30 m diameter working face, on a building six storeys high, was not one of the rotating dishes I was familiar with, for Cobra Dane used a "phased array" line-of-sight system. The first airfield here was Japanese, built when they occupied several of the Aleutian islands, including Attu, in 1942. The US won them back in one of its first offensive campaigns of the war. Most aircraft losses, on both sides, were due to the Aleutians' atrocious weather – fierce winds, heavy rain and thick fog day and night. I was never free of fog while I flew up the island chain.





At the airstrip next to a sign welcoming me (I hadn't noticed it the previous night), I was shown "the official Shemya windsock" – a lump of wood suspended on the end of a chain. They claimed that the winds were so high it normally hung horizontally (left). Note the welcome message on the sign at right. The many relics of war included ammunition dumps (below and opposite page, top left), which I sifted through with interest. Shemya, and virtually the rest of the Aleutians, I discovered, were treeless, but wherever I walked on Shemya I saw Arctic foxes. I picked this one up (opposite page, top) for a photograph.

"I was shown 'the official Shemya windsock'."



## Navigating at 50 or 60 ft in the Aleutian Islands

DAY 47  
SUNDAY 26 JUNE

Shemya–Kiska–Adak

When I got away from Shemya shortly after midday I had a new razor and toiletries to replace some of the things I had to leave at Kushi-iro to save weight. But I was still wearing my orange survival suit, for I wouldn't see my clothes again until Gerry brought them to me in Cold Bay, on the western end of the Alaska Peninsula. An extra possession was a paperback of *The Thousand-Mile War*, about World War II in the Aleutians, which the Shemya men warned me not to read until I got to Anchorage. It was good advice: if I had read it I might have been more worried. As it was, an entry in my log at the end of that day reads: "Bleak, foggy, icy, dangerous." I flew most of the time at 50 or 60 ft, with the cloud layer at 100 ft – extremely dangerous conditions for anything but a helicopter. The 70 islands of the Aleutians, stretching for an extraordinary 1800 km, are the peaks of a partly submerged mountain range, and it took me another three days to work my way up the chain. On the way I saw sea otters, seals, caribou and even bears, and every island seemed to have a volcanic cone or two. The native Aleuts live by fishing and hunting and some breed blue foxes. About an hour from Shemya my map indicated that Buldir Island was somewhere ahead and sure enough, out of the fog, with visibility a little over a kilometre, it appeared, its top hidden. The chart showed a 660 m (2175 ft) peak in there somewhere. In the background, fog and cloud could be seen coming right down to sea level, and those were the conditions I continually groped my way through on

this leg. I would zigzag in search of openings, sometimes turning back and coming around again. In this kind of visual flying you need every navigational pointer you can find, which was why I was relieved when small, stark Pillar Rock, shown just north-west of Kiska on my map, appeared out of the sea where it was supposed to be (below). I used the Operational Navigation Charts published by the Defense Mapping Agency at the St Louis airforce station, Missouri, and was grateful for their reliability.

"Bleak, foggy, icy, dangerous."



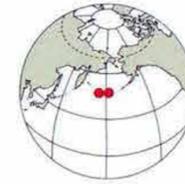


When Kiska loomed ahead I decided I needed a break from these difficult conditions, and put down and looked around (*left*), passing over a wrecked ship as I came in (*opposite page*). Other rusting marine wreckage, gun emplacements and old military hardware, such as this Japanese gun (*below left*), were obviously relics of the thousand-mile war. The small island in the background is Little Kiska. The Japanese were on Kiska for 13 months, but left before the Americans landed in August 1943. Kiska harbour, with what appeared to be a good jetty, was desolate (*below*) and there was nobody for me to ask how that ship's bow happened to be all by itself in that position. I was in the air again after an hour.



“(The) old military hardware... were obviously relics of the thousand-mile war.”





I chose at different times to fly either under the fog layer or above it at anything between 60 ft and 1000 ft, and sometimes between fog and cloud as here, when I approached the snow-covered peaks of Tanaga Island (*left*). This is looking north-east, with the 1805 m (5925 ft) Tanaga volcano hidden in that lot. Adak Island, my destination for the day, was another 100 km ahead. Sometimes I went around the islands but I crossed Tanaga through a pass to the south of the mountains. I had been in the air 3 hrs 19 mins, and had

flown 722 km when I landed at the US naval station at Adak, but it was a long enough day in the conditions. Getting my first view of the station as I came in over a saddle (*below*), looking east over Kuluk Bay, I was surprised at its size. My arrival was almost a repeat of Shemya. I had had great difficulty getting approval to land, but on the ground I was treated with the utmost friendliness. For meals and a comfortable room in the bachelor officers' quarters I got a bill for US\$12.20.



*"I had had great difficulty getting approval to land, but on the ground I was treated with the utmost friendliness."*



DAY 48  
MONDAY 27 JUNE

*Adak-Dutch Harbor-  
Cold Bay*

After Adak, islands appeared more frequently and I was never really out of sight of one or another in the chain. I was still forced to weave around tremendous patches of fog, often down to water level, but there was also a gradual improvement in the weather. On the ham radio I kept in touch with Don, somewhere south in the *Höegh Marlin*, and I also knew that Pip was listening at home: I would hear her whistle. My next stop, Dutch Harbor, was in Unalaska Bay on Unalaska Island, about 750 km east of Adak. Occasionally I passed the wreckage of war: ruined buildings and old airstrips. The photo (*left*) shows the north coast of Umnak Island, near Cape Imlianuk, typical of the treeless Aleutian landscape. The shot (*below*) was farther east, but I found a picture of true desolation some kilometres



*True desolation via the hand of man*

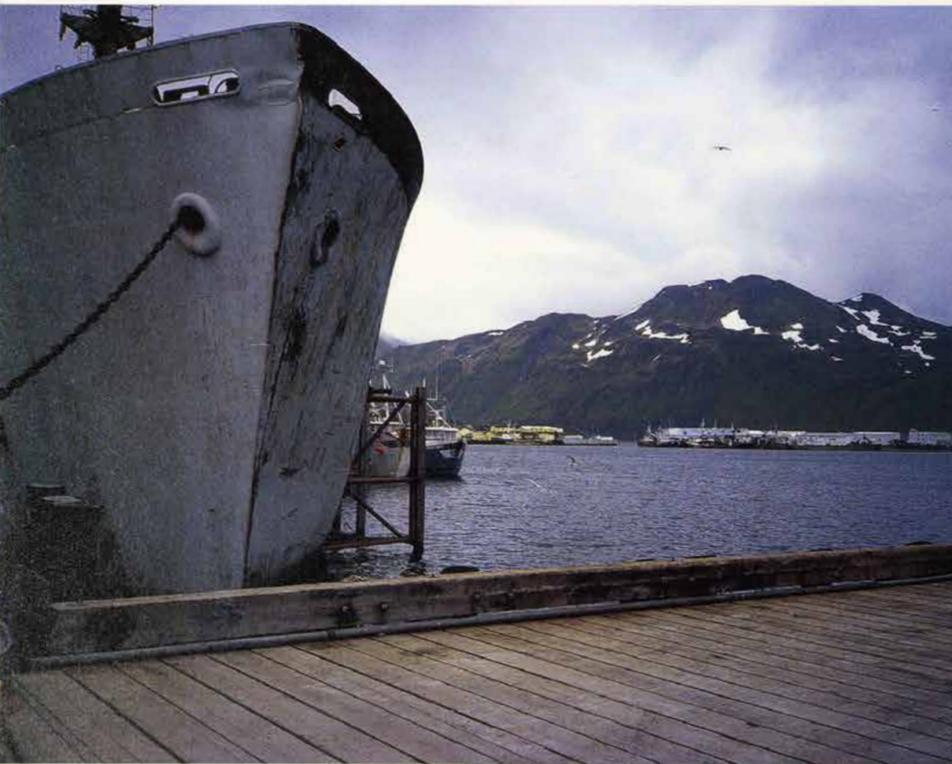


later, on the island's eastern point, facing the channel between Umnak and Unalaska. This was the now-derelict US wartime air base (*above and following spread*), begun secretly in 1941 as a forward defence strip for Dutch Harbor. Nosy parkers were told the workmen were building a fish cannery.

I'd run out of film, having left my supply at Kushiro to save weight: how on earth would I find any here? Over Unalaska Island I called up someone I heard talking on the marine band, and found he was in a salmon fishing boat about 150 km south-west of Dutch Harbor. Yes, he said, they did have a roll of 35 mm film on board! So we organised a rendezvous, and not long afterwards I put down on a shingle spit in Kashega Bay, where I took this shot (*right*) from the helicopter as my new friends came ashore in their runabout.







The Aleutians are extraordinary, magnificent islands. When, less than 30 minutes later, I put down at Dutch Harbor and wandered around the fishing and canning port (left), I vowed I would definitely be back.

Cold Bay from above (below). Only another 1 hr 46 mins in the air had finally brought me to the Alaska Peninsula – that is, to continental USA. There was now no doubt that *Delta India Kilo* and I had crossed the Pacific, and with the Atlantic crossing behind me too, I felt good. This port is well known to Australian pilots ferrying aircraft from the US West Coast: they go through Cold Bay in planes that lack the range for a direct flight. Gerry was due the following morning via Tokyo and Anchorage with my clothes, map cabinet and the rest of the gear I left in Japan. I put down at 6.44 p.m.

**“The Aleutians are extraordinary, magnificent islands.”**



## *Wildlife and wilderness on the Alaska Peninsula*

DAY 49  
TUESDAY 28 JUNE

### *Cold Bay—King Salmon*

I got off from Cold Bay at 1.10 p.m. and followed the northern, or Bering Sea, coast of the Alaska Peninsula in what turned out to be a beautiful day of flying, the weather being almost perfect. The peninsula

is a magnificent wilderness with virtually no roads. Travel is by air or sea, and I was soon to learn that just about everybody flies in Alaska. There were small Piper Cubs everywhere, fitted with floats or large tundra tyres that enabled them to put down anywhere. It was a great day for viewing wildlife. I saw seals, walrus, foxes, caribou and thousands of birds including swans. Little

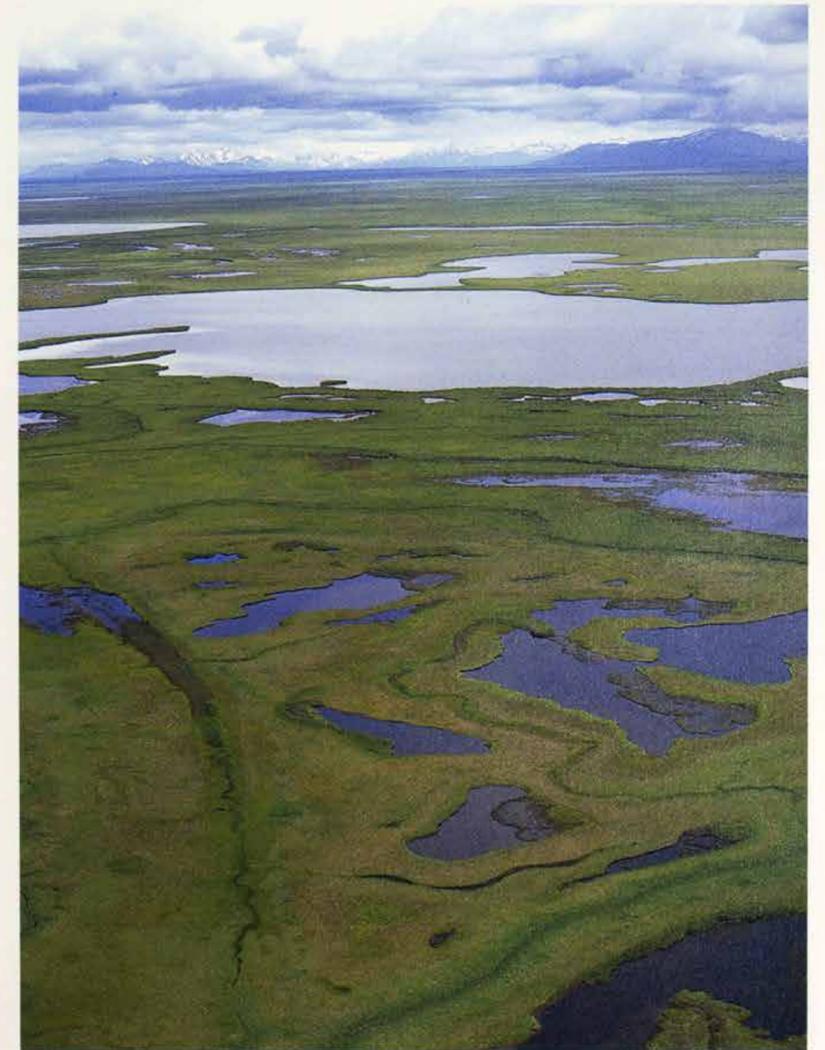
settlements also held my interest, such as Nelson Lagoon (above), and what I took to be a fish-processing factory at Port Moller (below). The long spit of land in the middle distance is a natural feature. King salmon fishing is big business on the peninsula, and one of Alaska's major industries.





Just 20 km north-east of Port Moller I came to Johnson's Landing, a tranquil little fishing lodge and airstrip beside Bear Lake, complete with parked aircraft (*opposite page top*). Note the weir across the river. The volcanic peaks in the distance reach up to 1600 m (5500 ft), and I could see old, black lava flows down their sides. A river wound its way down from them (*opposite page bottom*). The nearby coastal beaches are black pumice too, and as I flew up the coast I was surprised at the vast numbers of coloured fishing floats washed up on them (*right*). There must be tens of thousands of floats along the peninsula. At one point I filmed a small herd of caribou charging along the beach, and on this stretch of tundra (*below right*), about 35 km north-east of Port Heiden, I saw a magnificent brown bear. At 5.37 p.m. I put down at King Salmon, where the Alaska Peninsula fuses into the mainland, after 3 hrs 54 mins of flying and 611 km of fascination. In the King-Ko Inn I slept contentedly that night, for I would be in Anchorage next day, and Pip and the girls were at that moment flying there from Australia.

*"The volcanic peaks in the distance reach up to 1600 m, and I could see old, black lava flows down their sides."*



## My first trees...

DAY 50  
WEDNESDAY 29 JUNE

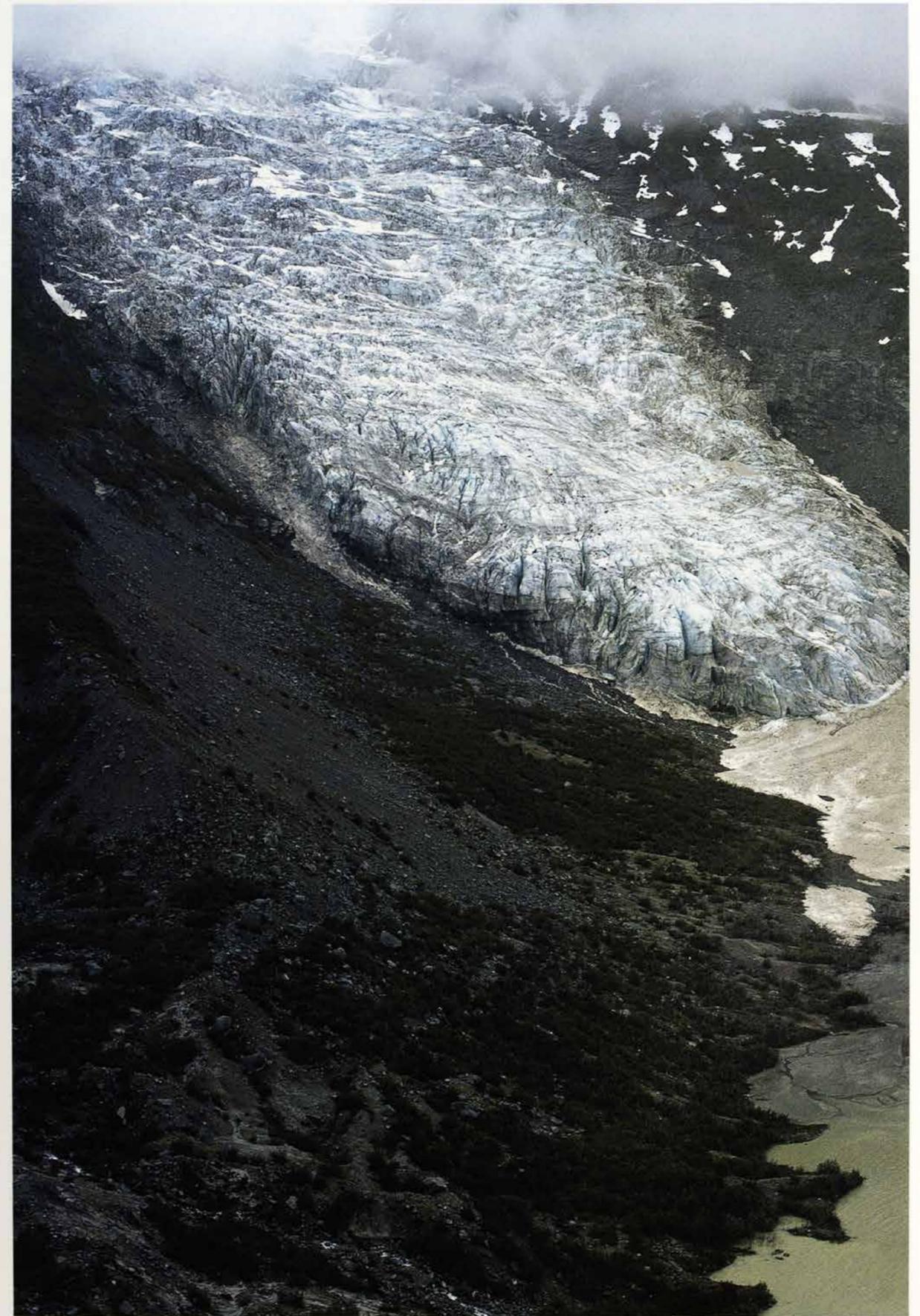
### King Salmon—Anchorage

I had passed through the timber line again, and was seeing my first trees since leaving Kushiro. The tundra vegetation I had been flying over since Shemya was a mixture of mosses, lichens, herbs and dwarf shrubs. About 90 km north of King Salmon I crossed Lake Iliamna, 120 km long, but more beautiful was the smaller Lake Clark 30 km farther on (left). The shot on the following spread shows Port Alsworth, where there is a lodge and airstrip. As it turned out, I would be back there within the week with Pip and the girls. My route to Anchorage took me to the north-east end of the lake and up through a river valley to Lake Clark Pass (below). I was soon climbing above huge glaciers to right and left of me (opposite page), and the



weather turned bad, with occasional snow showers. But *Delta India Kilo* can slow down to 30 or 40 knots, which allowed me to grope my way through safely. I soon learnt that visual flying in Alaska means continually finding your way through mountain passes. Peaks more than 2000 m (6500 ft) high dominated the head of the Lake Clark Pass.

*"I soon learnt that visual flying in Alaska means continually finding your way through mountain passes."*





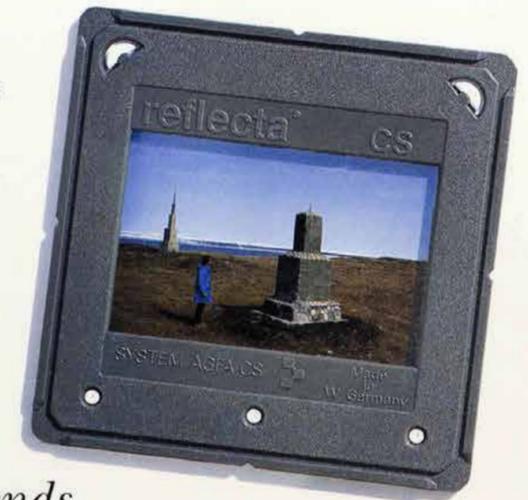


Gas platforms studded the waters of Cook Inlet (*above*) as I dropped down from the pass on my final leg to Anchorage, which I could see in the distance. Oil is the state's major industry, and it also has extensive reserves of natural gas. If I needed proof of the popularity of private flying in Alaska, this float plane lake (*left*), adjoining the Anchorage International Airport runways, provided it. Just about every lake in Alaska seems to have a float plane parked beside the family weekender, and in Anchorage shops they ask whether you want your purchases packed for car or plane. Anchorage is something of an aircraft crossroads of the world as planes come and go to Asia, and to Europe via the North Pole. Having to cope with a mixture of big international jets and thousands of small, private aircraft, the people here have developed what is probably the best air traffic control system in the world.

## Anchorage

In Anchorage for the next week, *Delta India Kilo* and I had the opportunity to recover from what I had now recognised as the horrendous crossing from Japan. We both needed our batteries recharged. *Delta India Kilo* went off to the hangars of Era Helicopters Inc for a 100-hour service and I was free to enjoy the company of Pip, Hayley and Jenny, all of whom, at one point on 25 June, I thought I might never see again. Wilbur O'Brien, vice-president of the rotary wing at Era, took us in as if we were old friends, and couldn't do enough for us. We were also befriended by a marvellous Anchorage dental surgeon, Richard S. Pauli, who loves to fly. I wasn't due to reach Fort Worth until 22 July, as I wanted my arrival to mark the 50th anniversary of Wiley Post's solo around-the-world

flight in 1933. Wiley flew his Lockheed monoplane from New York to New York in 7 days 18 hrs 49 mins. Two years later he and his friend, American humorist Will Rogers, were killed when Wiley's float plane crashed near Barrow, Alaska, and I couldn't miss the chance of visiting the scene. We clambered aboard a Lear jet I chartered from Era. The settlement, on the northernmost point of the USA, was every bit as cold as it looked from the air (*below*). It is well north of the Arctic Circle and there was pack-ice offshore. We landed at the Wiley Post and Will Rogers Airport, and I was given a lift later in a local helicopter for a flight around the area, during which we put down at the memorial on the actual crash site (*right*). I didn't know, of course, I would be back on that spot in *Delta India Kilo* in 1987 after my successful flight to the North Pole.



## Recovering in Anchorage with new friends



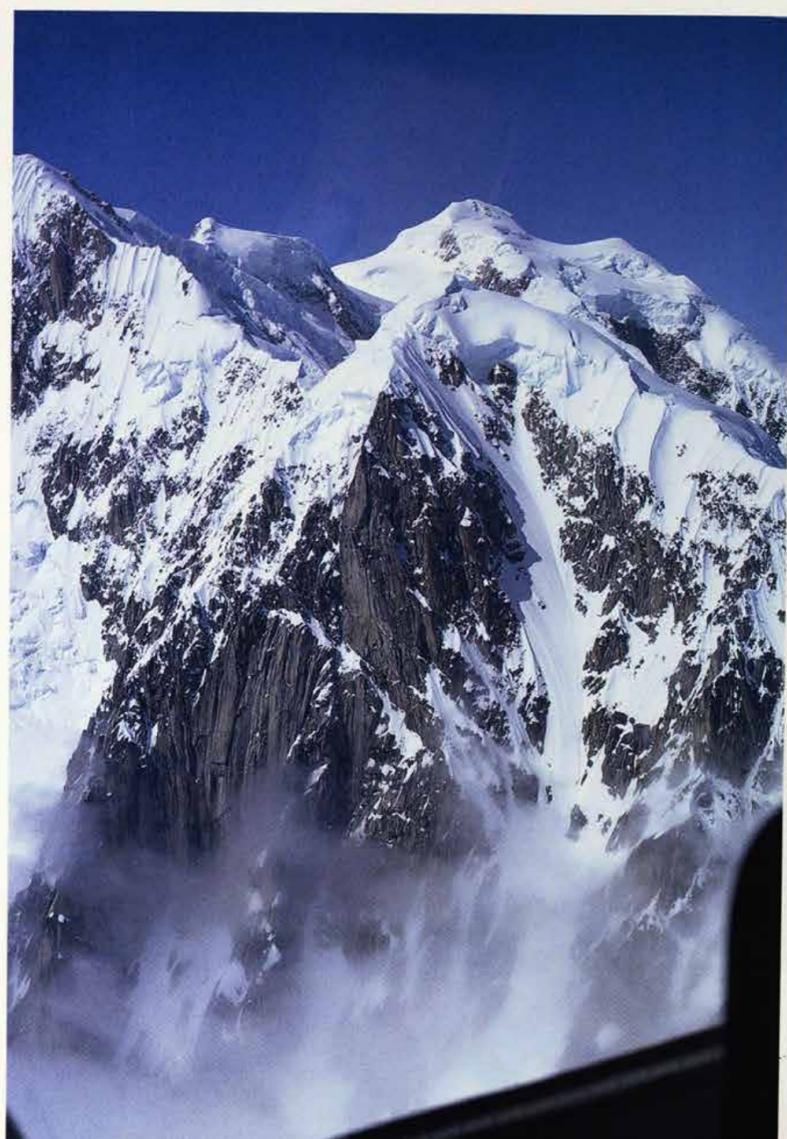


"Rich" Pauli took us in his Beaver to his fishing lodge on Lake Clark, which I'd found so beautiful on my flight in, where we spent a couple of wonderful days with Rich's family. At one point he flew us to where the nearby Newhalen River runs into Lake Iliamna, and where the fishing was great – as this catch of salmon proves (*left*). Jenny, Amber Pauli and Hayley took a keen interest in Rich cleaning them (*below left*).

After *Delta India Kilo* had its service I took the opportunity to test it by having a close look at Mt McKinley, just a short flight north of Anchorage, and at 6194 m (20,320 ft) the highest mountain in North America. It is permanently snow-covered and usually shrouded in fog or cloud, but I found the peak sharp and clear when I got above the cloud cover at 10,000 ft (*below*). Although it was mid-summer in Alaska it was below zero in the cockpit.



"... it was mid-summer in Alaska, it was below zero in the cockpit."



DAY 51  
SUNDAY 10 JULY

### Anchorage–Dawson– Whitehorse

Perhaps to prove how fit I was after my break, I took off from Anchorage at 7.55 a.m. and put down at Whitehorse for the night at 9.12 p.m – 8 hrs 21 mins flying, covering 1574 km, and with time for sightseeing. Dawson added a dogleg to the direct route, but a chance to visit the early gold rush country was too good to pass up. The weather was clear all the way, and not long out of Anchorage I sighted the cruise ship *Cunard Princess* as it approached College Fjord. While I was chatting to the captain on my marine radio about my around-the-world flight he asked me to come in close so his passengers could get some shots. So I filmed *them* for my documentary (*below*). Two spectacular glaciers (named Harvard and Yale) feed into the head of College Fjord, their surfaces imprinted with dark patterns of rock ground off in their passage to the sea (*right*, showing the face of Yale).

### *New experience at Harvard and Yale*





I put *Delta India Kilo* down on a snow-covered ridge between them (*left*) and got out. Landing on deep, pristine snow was a new experience for me, although it was to become a common-place during my attempts on the North Pole. It was 9.36 a.m. in brilliant sunlight and I spent an hour there, revelling in the spectacle, alert for hidden crevasses as I moved about. The glaciers grind the rock in their paths on their progress to the sea (*below*).



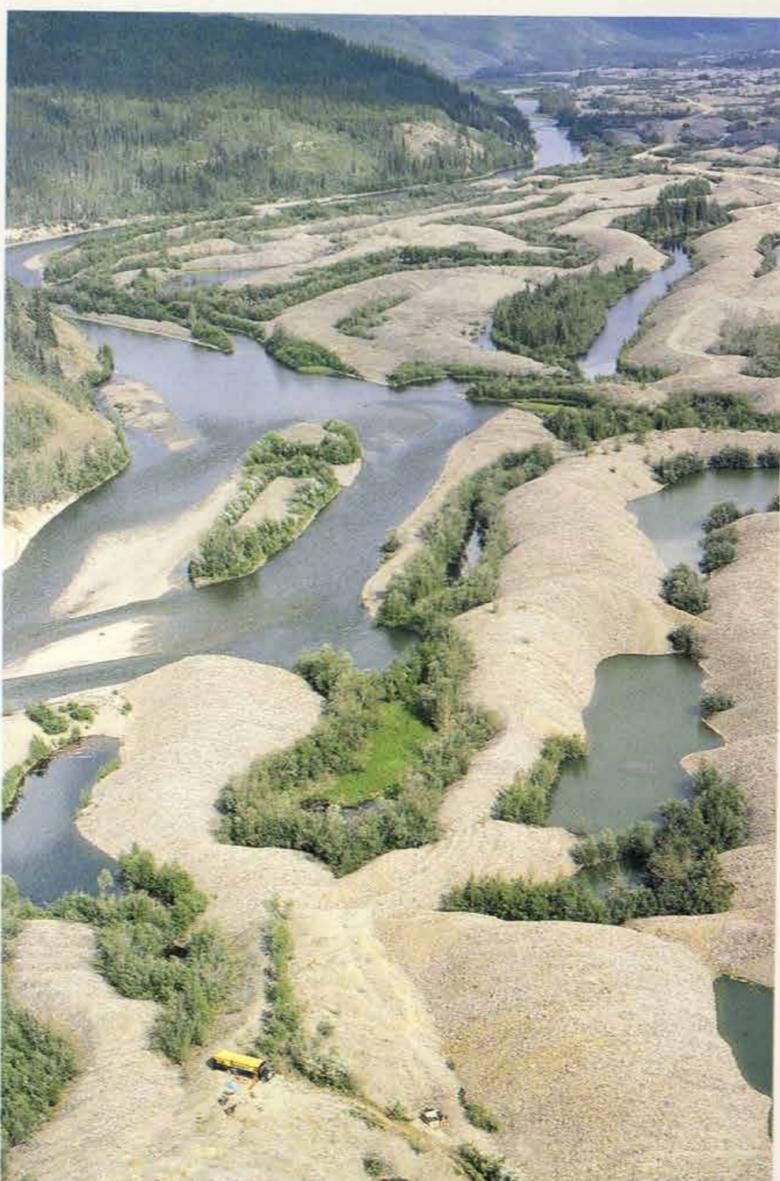
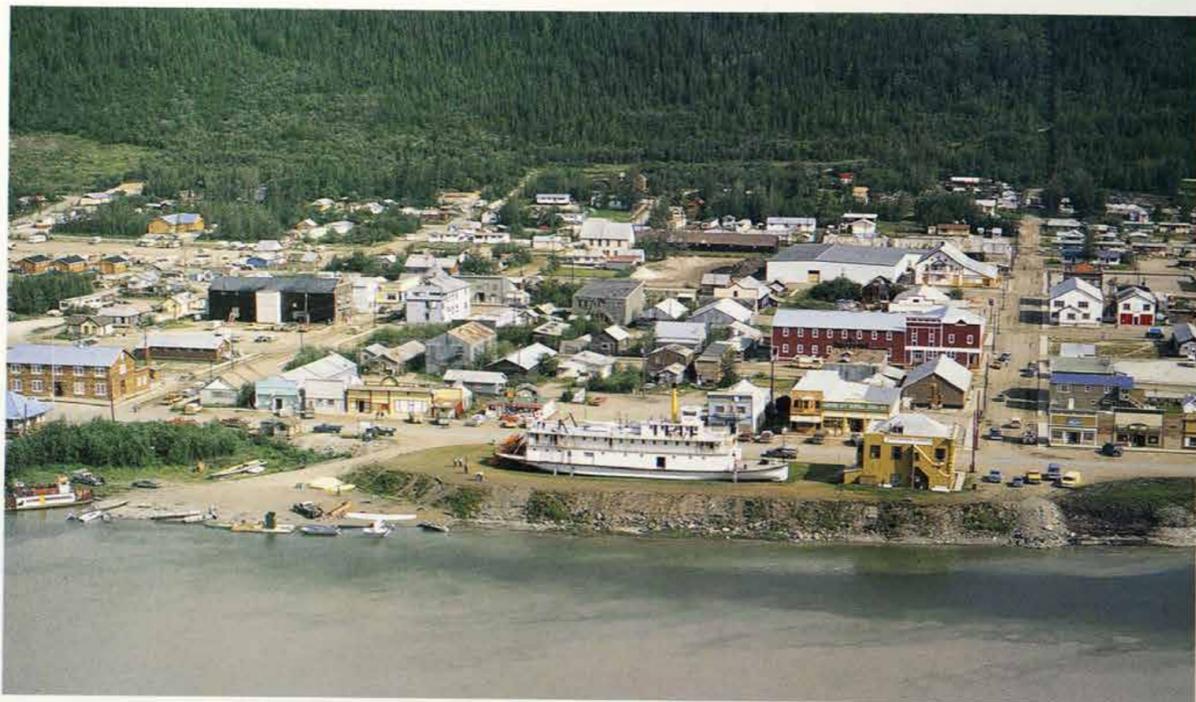


*“Flying in the United States and Canada is straightforward because of the simple procedures.”*

Less than an hour later I crossed the Trans-Alaska Pipeline terminal in the port of Valdez, on an arm of Prince William Sound, and followed the pipeline north for a while, at one stage landing for a closer inspection. This remarkable 1.2 m diameter line, built to withstand one of the world’s harshest climates, brings oil 1262 km across Alaska from Prudhoe Bay, on the Arctic Ocean, where it was discovered in 1968. From Valdez, supertankers take it south year round. The pipeline is above ground, but every now and again a length is buried to allow large animals like caribou to cross (*left*).

North-east of Tanacross, as I headed towards the Alaskan-Canadian border in fantastic weather, I came across a number of small gold mining operations in the creeks, such as the one on the page opposite. Placer mining, involving panning and surface sluicing, doesn’t require much technology or expertise and I heard later that small groups make quite a good living out of it. About 45 km east of a settlement called Chicken I arrived at a border post (*below left*). As you can see, it isn’t one of the world’s bigger posts, or, apparently, one that needs armed troops. I could have dropped in for my customs and immigration formalities, but as Dawson was marked on my map as an airport of entry into the US, I flew on. Flying in the United States and Canada is straightforward because of the simple procedures. Other than giving a call when I departed an airport, I tended to leave the radio alone until I was within 10 km of my next landing point. Meanwhile I was free to take photographs, enjoy the scenery and navigate – which now meant basically following the roads and rivers. Great!





At 4 p.m., 5 hrs 47 mins out of Anchorage, I put *Delta India Kilo* down on a gravel bar in front of Dawson, and wandered about looking for something to eat. Dawson (above) is on river flats of the Yukon, where the smaller Klondike joins it. Gold dredging has left mounds of worked-out gravel in the Klondike a few kilometres upstream from Dawson (left). Gold was discovered on the Klondike in 1896, and at the height of the rush in 1898 Dawson had a population of 16,000 and was the capital of Yukon Territory. These days tourism and some gold mining keep it alive, and a lot of its old buildings have been reconstructed or converted as visitor attractions. In the foreground on the bank of the Yukon is *Keno*, the last steamer to run the river.

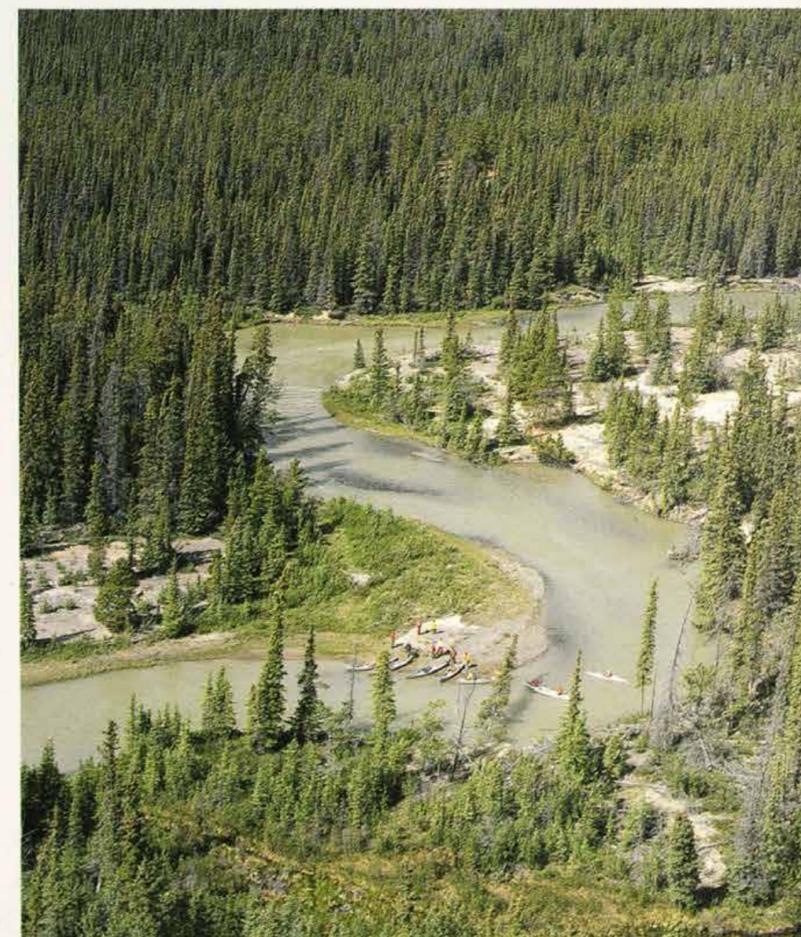
This was one of my best days of flying since the Philippines. After leaving Dawson I followed the Yukon towards its headwater lakes near the coast, which is the direction the miners came from, and I was over Whitehorse a few minutes after 9 p.m. There was still sunlight, for Whitehorse gets 20 hours of daylight at this time of year. I could hardly miss the airport laid out on a convenient plateau 60 m above the city, which occupies a wide plain alongside the river (opposite page top). Whitehorse took Dawson's crown as capital of the Yukon in 1953 and, like Dawson, owes its beginnings to the gold rush.



DAY 52  
MONDAY 11 JULY

### Whitehorse–Prince Rupert

After a late night I had a sleep-in and got away from Whitehorse at noon, resolved to follow the main route of the early gold seekers, but in reverse. They came from Skagway on the coast, negotiating the tortuous Chilkoot Trail and Pass, skirting around or sailing across a series of lakes, then down the Yukon to Dawson in every manner of boat and raft. Sixty steamboats plied the Yukon at one time. About 18 km north of Carcross I came across this group canoeing on the river (right).



Near Carcross is Bennett Lake (right), and a few kilometres farther south, long and narrow Lake Lindeman. On this lake's southern shore is Lindeman City (below), a place less grandiose than its name might suggest. As I circled, the Canadian park warden came out and gave me a welcoming signal, so I put down on the gravel spit near the river mouth.



Some German hikers came up for a chat (below). Lindeman City is near the northern end of the rugged gold rush track, which is today considered one of the world's more interesting walking trails. It takes four to five days to negotiate the 53 km route from Skagway to Bennett, and hikers come from all over the world for the challenge.



## In Klondike gold rush territory...



The Chilkoot Pass is bisected by Canada's border with Alaska, so after I landed on the very top of it (*bottom*), I took this shot from Alaska looking north at *Delta India Kilo* in British Columbia. The height here is 1067 m (3500 ft). In the background is Crater Lake. During the gold rush,



BRITISH COLUMBIA ARCHIVES AND RECORDS SERVICE

the Mounties had a station here to ensure that every miner took with him enough supplies for a year, which added to his problems of transport over the pass. Some idea of what they faced is seen in the view from the top of the pass (*opposite page top*), looking south towards the coast. Immediately below is a steep 375 m incline, which the men climbed with the help of steps cut in the snow (*left*), their supplies and equipment on their backs. Those who could pay for it had their goods hoisted up on aerial tramways, some of whose timber work can be seen in the foreground of the picture from the top of the pass. All debris left by the Klondike miners, however insignificant, is protected by law and can't be removed. I spent 55 minutes on the top of Chilkoot, just wandering around looking at the fantastic old relics and recalling some of the legends of that famous gold rush. Dropping down from the pass I followed the Chilkoot Trail through the Taiya River valley (*opposite page bottom*) to the sea at the head of Lynn Canal, seen in the distance. An estimated 30,000 miners and traders came this way.





I put down at the port city of Prince Rupert, commercial centre of British Columbia's northwest coast, at 6.36 p.m. after another great day of flying despite occasional light rain. I had logged 1009 km since Whitehorse. The coastal part of my route took me past the Alaskan capital of Juneau (*left*, with Mendenhall Peninsula in the foreground) down the northern section of the magnificent maritime highway that is known as the Inland Passage, with inspiring views on every hand (*below*). The tug pulling the raft of logs (*opposite page top*) was north of Ketchikan.



*Tea and cake with the Ballenas Island lighthouse keeper*



DAY 53  
TUESDAY 12 JULY  
*Prince Rupert–Vancouver*

An easy run down the coast at about 300 ft most of the time. I left Prince Rupert at 9.06 a.m. in mixed weather that got better the farther south I went. On Vancouver Island there were many signs of logging (*below*), one of its major industries.

*“On Vancouver Island there were many signs of logging...”*





## On the downhill run to Fort Worth

DAY 54  
FRIDAY 15 JULY

Vancouver–Spokane–  
Jackson Hole

I left Vancouver at 8 a.m. on the downhill run to Fort Worth, on a route that speared through six states into the heart of Texas. For the first 100 km the weather was good, but then I encountered the worst I had flown in since Japan. Low cloud stopped me from getting through the Cascade Mountains, in northern Washington, until suddenly an opening appeared and I climbed right up to 9000 ft, with a friendly controller giving me a radar advisory. While following his directions, what should I see sticking out of the cloud but the magnificent 3213 m (10,541 ft) Glacier Peak (right). I took this shot from about 10,000 ft. The Cascade Mountains have glaciers and permanent snow, and not all their volcanic peaks are inactive, as was demonstrated when Mount St Helens erupted violently in 1980. On the other side of the range the weather cleared, and near the



town of Manson I dropped down to about 5000 ft. I was now flying across the irrigated farmlands of the great Columbia Plateau, which was formed by lava flows thousands of years ago. Many dams on the Columbia River

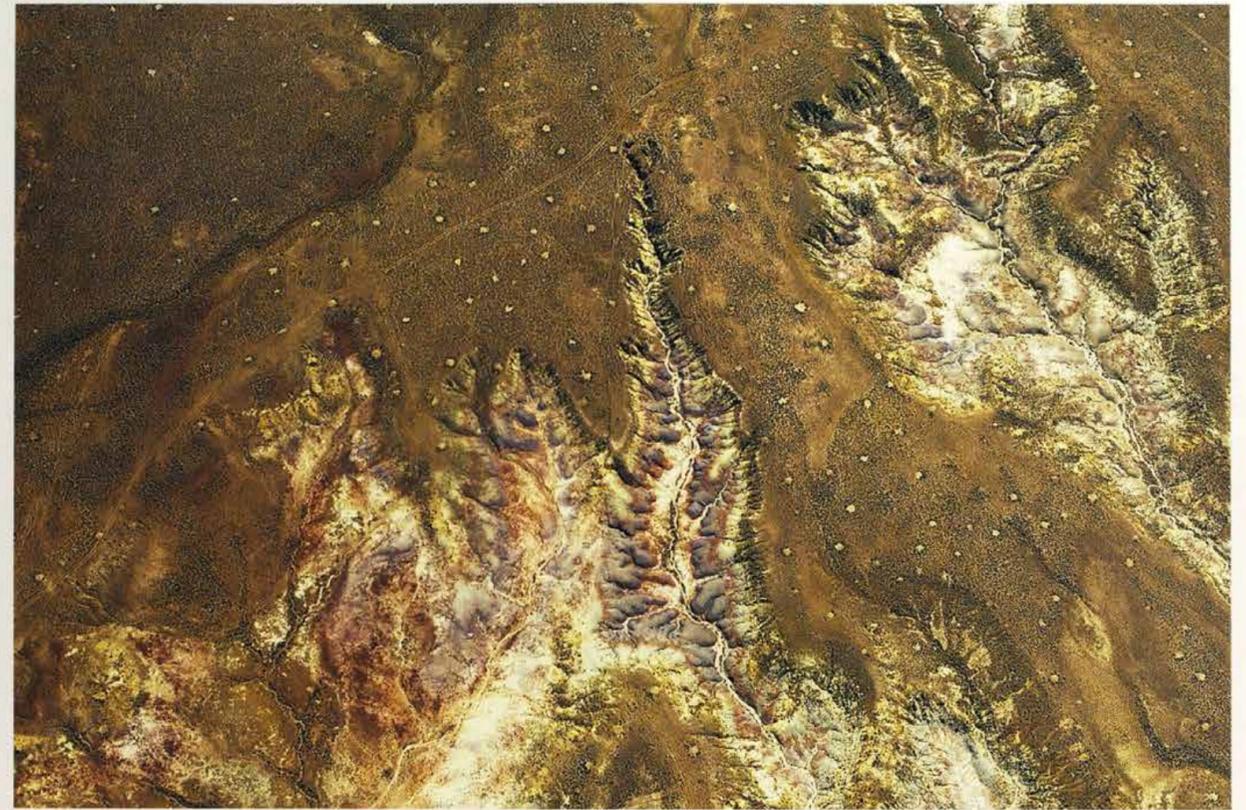
and its tributaries, including the famous Grand Coulee, have created lakes that are popular for boating and fishing, and there were many pleasant settlements around their shores (below).



The highlight of my day came just north of Nanaimo on the island's east coast, where the keeper of the beautiful little Ballenas Island lighthouse (above and left) gave me a friendly wave as I circled. Encouraged, I put down on his helipad to say hullo. The keeper was Fred Pratt, whose wife Kay said she had just baked a cake, and invited me in for a cup of tea. I spent 30 minutes enjoying the tea, the cake and the hospitality of the Pratts, who couldn't believe I was near the end of a round-the-world flight. As a matter of fact, I could hardly believe it myself! A half-hour later I was on the ground in Vancouver.

“... I put down on his helipad to say hullo.”





## Geological measles and wind-generated power

DAY 55  
MONDAY, 18 JULY  
*Jackson Hole–Cheyenne*

I got away from Jackson at 2.55 p.m. and landed in Cheyenne, in the south-east of Wyoming, at 6.57 after climbing more than 10,000 ft to clear the Rocky Mountains. On a high plateau north-west of Riverton I was fascinated by the sight of what looked like a geological measles outbreak (above). I could only imagine they were test drill holes. The mining industry, particularly oil, coal and uranium, is far more important to Wyoming's economy than agriculture.

Unusual technology always interests me, so when I saw two giant towers equipped with propellers on the prairie near the town of Medicine Bow, about 60 km north-west of Cheyenne, I put down to make inquiries (right). They turned out to be wind generators, and in a little laboratory I spoke to the engineers working on them. Both machines are controlled automatically by computers. They were built experimentally for the US Bureau of Reclamation,

the nearest by the Hamilton Standard company, generating 4 megawatts, and the one in the background by Boeing (2.5 Mw). The blades turn a shaft in the nacelle, and the motion is converted to electricity by a generator. The power is then sent over regular transmission lines. The engineers

said they were testing the concept of blending wind energy and hydro-electric power systems. The Hamilton model's hollow steel tower is 80 m high and each of its two fibreglass propeller blades is 38 m long. The turbine produces enough power to meet the annual needs of 1500 homes.



I spent only an hour at Spokane refuelling and checking through customs, which left me time to make a brief visit to Yellowstone National Park, in the north-west corner of Wyoming, before I reached Jackson Hole. Yellowstone in fact spreads its 898,330 hectares into Idaho and Montana. It was made a national park in 1872, and is the world's oldest. I shot this picture (above) of Yellowstone's Lower Falls plunging into the canyon, and decided to spend the weekend in the area and see more of the park by road. About 90 kilometres south of the falls at 5.38 p.m. I put *Delta India Kilo* down among the flowers at Jackson Hole airport (left), where I gave it a wash and its usual daily check.

Jackson Hole is a lovely green valley overlooked by the majestic Teton Mountains, the highest peak being the 4197 m (13,770 ft) Grand Teton. I got some unhappy news when I phoned Sydney from Jackson Hole, to be told that my mate Byron Kennedy, originator of the *Mad Max* films, had been killed when his Jet-Ranger crashed into a lake on the outskirts of the city, while here was I at the end of a solo flight around the world in my JetRanger without a scratch.

It made me think.

*"I put Delta India Kilo down among the flowers at Jackson Hole airport, where I gave it a wash and its usual daily check."*





## *The patterns of man viewed from Delta India Kilo*

DAY 56  
TUESDAY 19 JULY

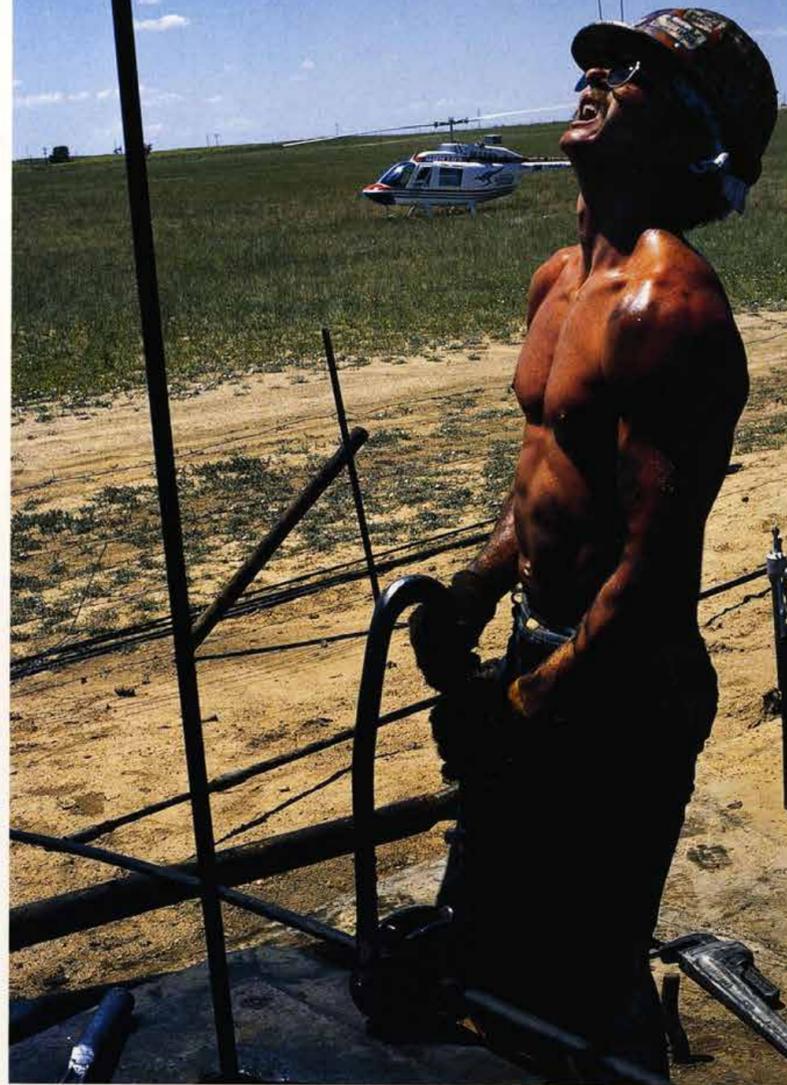
*Cheyenne–Amarillo*

This was easy, lazy flying. I didn't leave Cheyenne until 10.58 a.m., and here in the States I had none of the interminable, bureaucratic paperwork that in India and some other places had forced me to be up before dawn and fall into bed late at night. South-east of Cheyenne a colourful wrecker's yard attracted my attention (*opposite page*), and an hour later in Colorado I passed over magnificent pastures and farming land, with everybody at work. The rural scenes (*right and below*) were near Denver. The farmers here had not only cattle and crops, but oil wells.



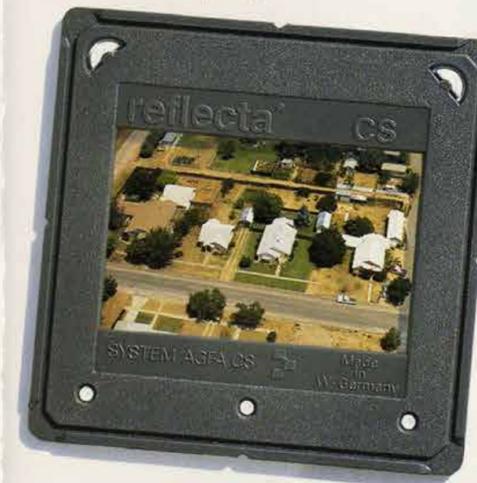
I dropped down to this drilling rig (right) near the little town of Deer Trail and spent 40 minutes photographing the men at work. They took time out to ask me about *Delta India Kilo* and my trip.

I stayed in Amarillo, in north-west Texas, for two days, making them lay days. It was an opportunity to get all the details organised for my final 530 km flight to Fort Worth, but more particularly, I hoped I could see Wiley Post's widow, Mae, 86, who my friend Ren Lee at Bell told me was living in the small town of Ralls, not far south of Amarillo. When I phoned her and she said come, it was wonderful to think I would call on her on the eve of the 50th anniversary of Wiley's solo flight around the world, which my flight was commemorating. I flew down to Ralls, and discovered that Mae was as excited about the occasion as I was. She was positively inspiring. She told me this wonderful story of how she and Wiley had eloped when they were in his aeroplane on the way to tell her father they planned to get married. The engine cut out and they landed in a wheat field, where they decided elopement would save any more bother. She said Wiley and his friend Will Rogers were in fact having a holiday when they were



killed. Before I left, Mae presented me with a beautiful, autographed coloured print of *Winnie Mae*, the plane Wiley flew around the world, which now hangs in my office. At the bottom of the page opposite is an earlier picture of Wiley alongside the cockpit (he lost the sight of his left eye in an accident before he took up flying). *Winnie Mae* is now in the Smithsonian Institution's National Air and Space Museum, Washington. Mae came out to see *Delta India Kilo* (right), and I photographed her neat little house after I took off – the one with the grass running to the kerb (below).

Taking a roundabout route back to Amarillo, I put down at the state line between New Mexico and Texas for some photographs, when a Texas rancher saw the Qantas kangaroo and stopped to say hullo. When I told him I was flying around the world he asked me where I had started from. Fort Worth, I said. He looked at me steadily for a few seconds, then drawled, "Well, you gotta long ways to go." We both had a laugh when I took out my world map and explained that I was at the end of the flight, not the beginning (bottom).



*"He looked at me steadily for a few seconds, then drawled, 'Well, you gotta long ways to go.'"*





# Australia

## Camping trips and conservation

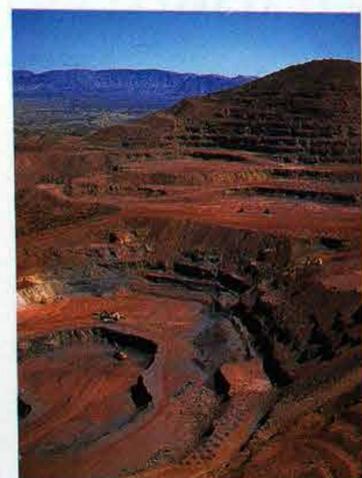


After my 1982–83 solo flight around the world and before and after my attempts to reach the North Pole I used *Delta India Kilo* to commute between home and work in Sydney, for family camping trips, occasional longer adventure and exploration expeditions, filming, taking photos and writing articles for *Australian Geographic*. I covered about 185,000 km in *Delta India Kilo* during my Australian flights, one of which, in 1984, took me right around the continent – a helicopter first. In August 1988, *Delta India Kilo* also became the first helicopter to fly across the continent. It flew to Tasmania and took part in the campaign against damming the Franklin River; photographs I took from it were instrumental in having the Coongie Lakes area of South Australia declared a

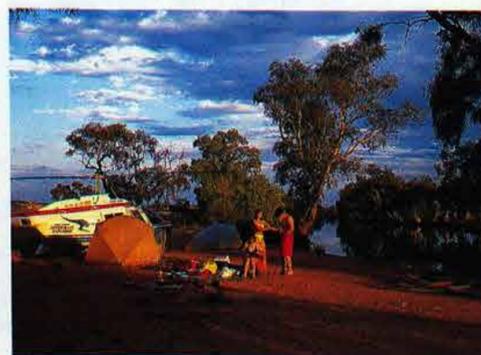
regional reserve. One of the many great advantages of our continent is that it has no borders – you are free to fly anywhere. When I was covering long distances, or going where fuel was scarce or unavailable, I would get a drum or two dropped off somewhere convenient by the local mail truck. Birdsville policeman Bob Goad once took two drums into the Simpson Desert for me. While the helicopter enables you to set down anywhere, any time, for lunch or to camp, that doesn't necessarily mean you have to travel long distances. As some of the photographs on the following pages show, Australia is fortunate in having many beautiful areas within a few kilometres of big cities and towns – accessible to all of us who love this land.



*Delta India Kilo* hovers over the sign identifying Steep Point (left), westernmost tip of the Australian mainland, before setting off for the easternmost tip at Byron Bay in August 1988. *Delta India Kilo's* west-to-east crossing took five days.



Mining iron ore from the huge open-cut at Mount Tom Price (left) in the Hamersley Range area of Western Australia. The town of Tom Price is nearby.

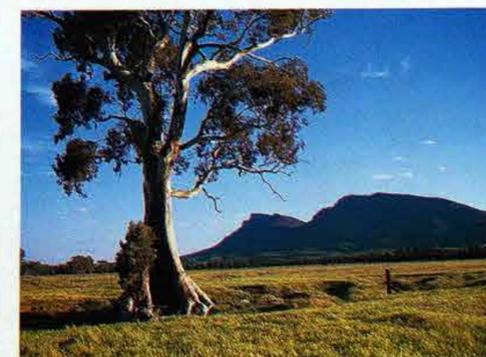


The transcontinental line (opposite page top) has the world's longest straight stretch of railway – 478 km, 193 m between Watson in South Australia and Nurina in Western Australia. The length was confirmed with the help of GPS satellite navigation and computers after the *Australian Geographic* journal queried it in 1990.

On the western side of Lake Eyre, South Australia, in 1989 I came across this large piece of hardware from the skies (right) – the discarded first stage of a rocket that had been launched years before from the Woomera Range, 300 km south.



You've seen the westernmost point of the continent: here's the easternmost. In this picture (above) I'm looking south over Cape Byron and the Byron Bay Lighthouse, NSW.



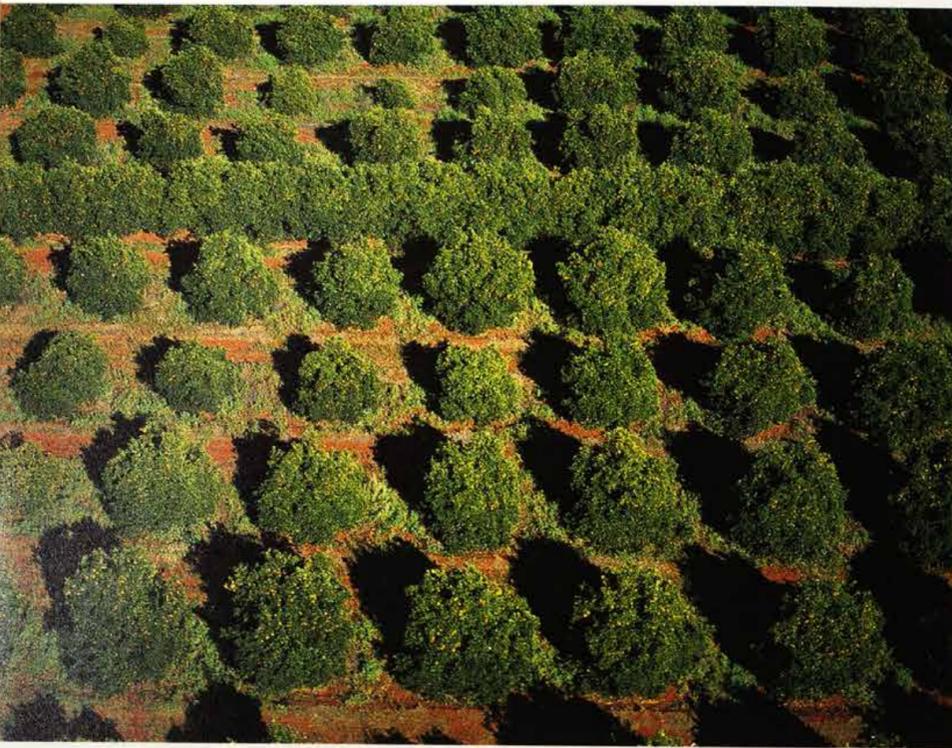
Cazneau Tree (above), Flinders Ranges, with Wilpena Pound in the background. My maternal grandfather, pioneer photographer Harold Cazneau, made this scene famous in a much-exhibited photograph he took in 1937. The Flinders are among my favourite places and *Delta India Kilo* often took us there.

Following spread: Rural scene west of Parkes, in the central-west of NSW.



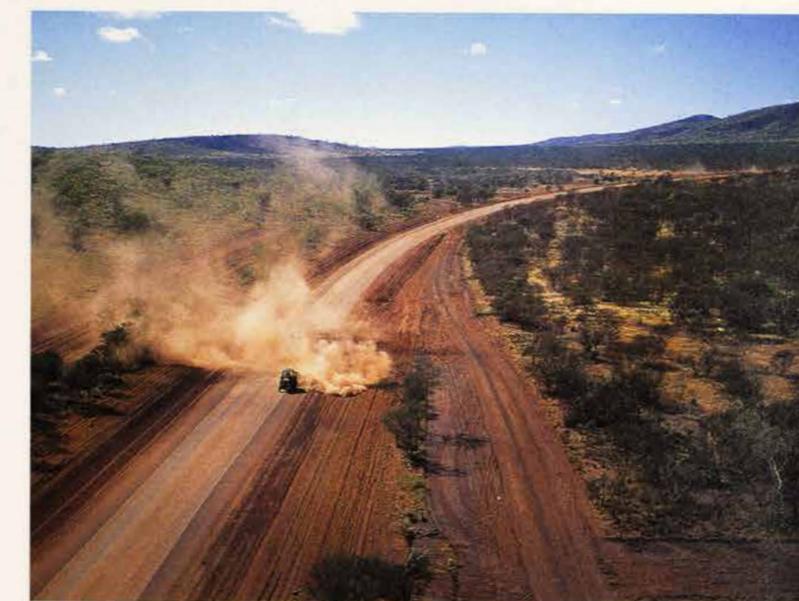
Set *Delta India Kilo* down beside a billabong, pull out the camping gear, light the fire and spend the night. This camp site (opposite page bottom) is beside a small creek just south of the Northern Territory–South Australia border not far from the old Ghan railway line.





I couldn't believe they were growing oranges (*left*) in the arid zone around Western Australia's Canning Stock Route. But this grove near Wiluna, the town that most of today's 4WD travellers use as the start of the stock route, was planted as a cash crop by the Ngangawilli Community. A dependable supply of bore water close to the surface makes the venture possible. Wiluna is the site of an abandoned gold smelter (*opposite, top*). The town may see a revival in mining.

*Below:* Milparinka, an abandoned mining town in north-west NSW. On New Year's Day, 1988, millions of people around the world saw this scene as *Delta India Kilo* broadcast it live as part of a unique international TV hookup that officially launched Australia's bicentenary year. In the centre is the Aussat station that relayed my pictures from *Delta India Kilo* to a satellite.

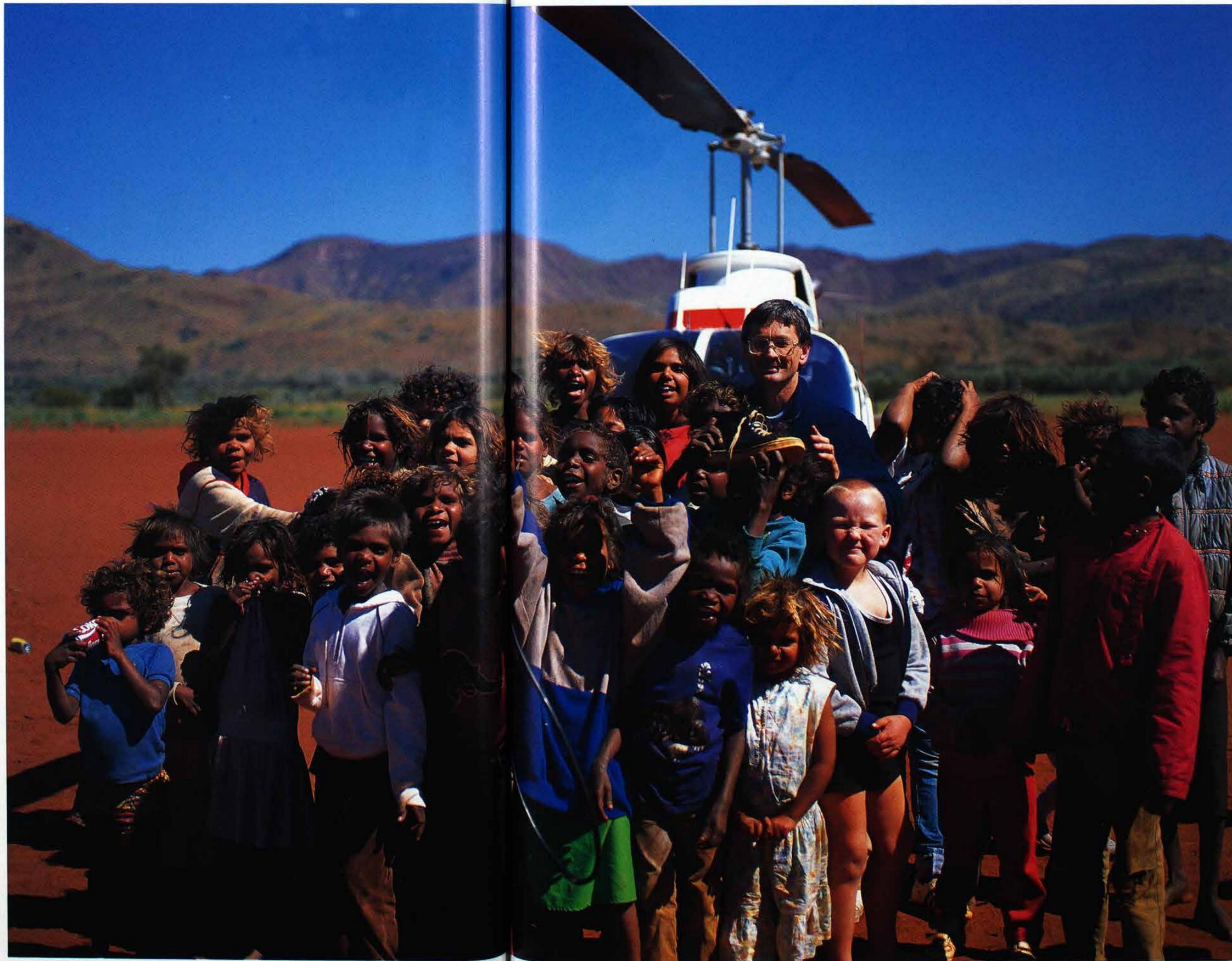


*Above:* Near Newman, a mining town in East Pilbara, Western Australia, a vehicle clears the road of its inexorable build-up of dust.

*Left:* The goldfields at Meekatharra, west of Wiluna, will be worked again, by open-cut mining this time. I photographed these shafts in the town in 1988.

*Right:* Children at the Amata Community, west of the Musgraves in northern South Australia, close to the Northern Territory border. I had arranged for a drum of fuel to be left here for me – when I landed on the school oval all the children raced out to give me a welcome.

*Below:* The north branch of Cooper Creek creates arresting patterns as it overflows into the Coongie Lakes area of South Australia.

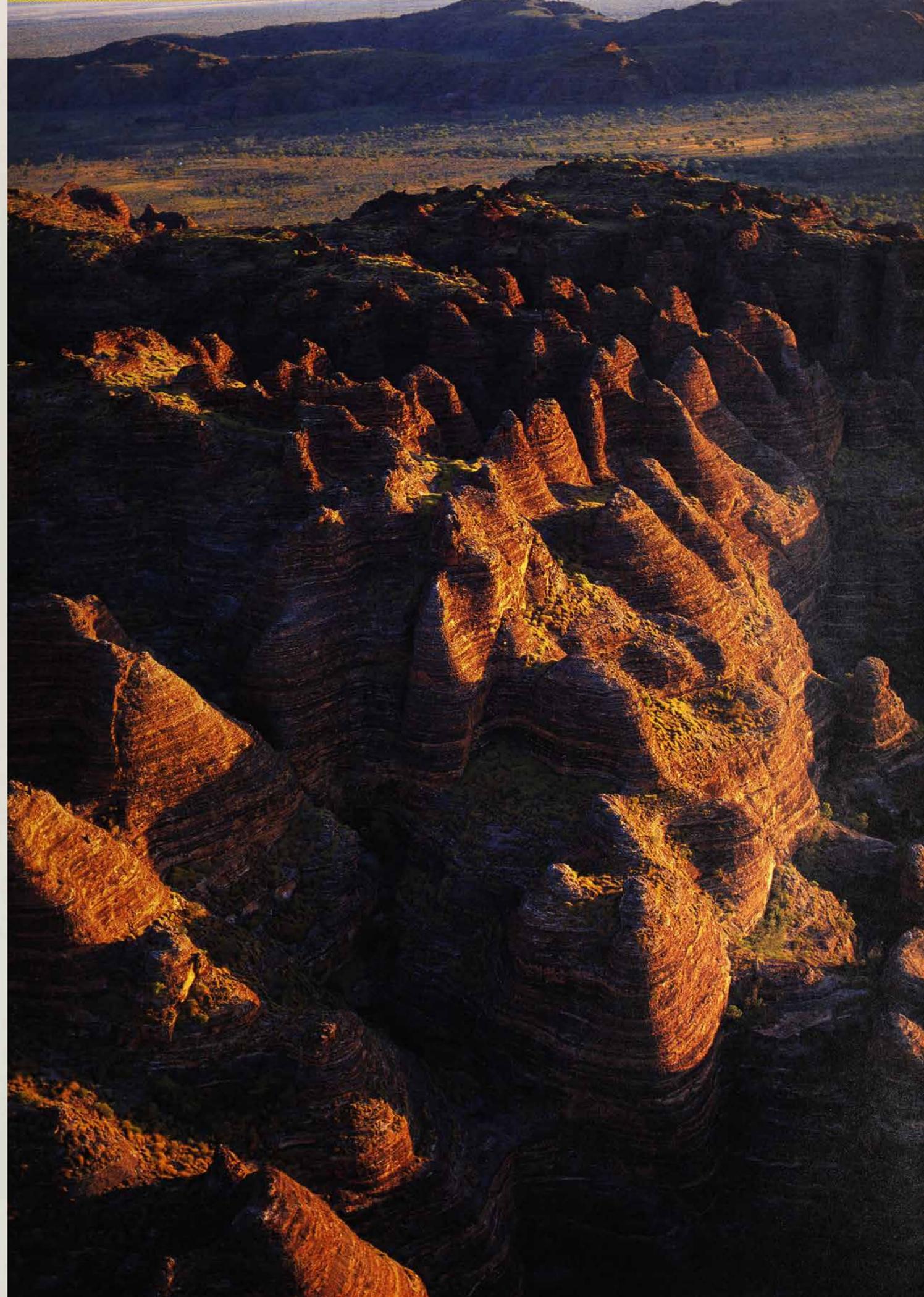




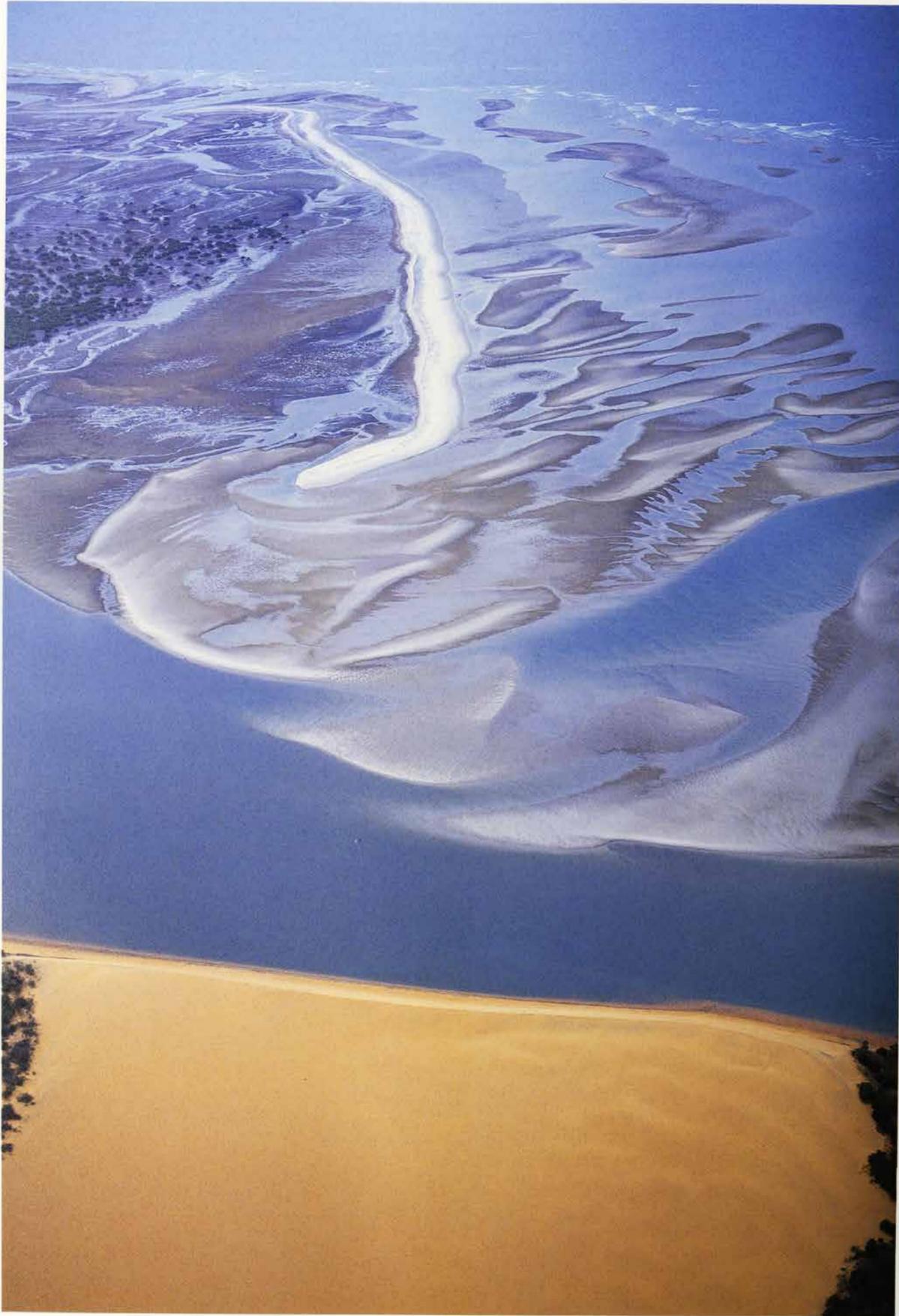
*Above:* One of my favourite places is the magnificent Simpson Desert, shown here after rain gave it a touch of green. I've seen it during a drought looking absolutely red. It's no place to visit – or even put a helicopter down on – unless you have an adequate supply of water. The ridges run unbroken from south-east to north-west.

*Left:* Rosy dock carpets the Musgrave Range near Mt Woodroffe, in northern South Australia. These flowers, widespread in the outback, are believed to have been introduced by the Afghan cameleers in the grass stuffing used in India and Afghanistan to fill camel saddles.

*Opposite page:* Approaching sunset in the remarkable “honeypot mountains” – the Bungle Bungle Range in Purnululu (Bungle Bungle) National Park, Kimberley.





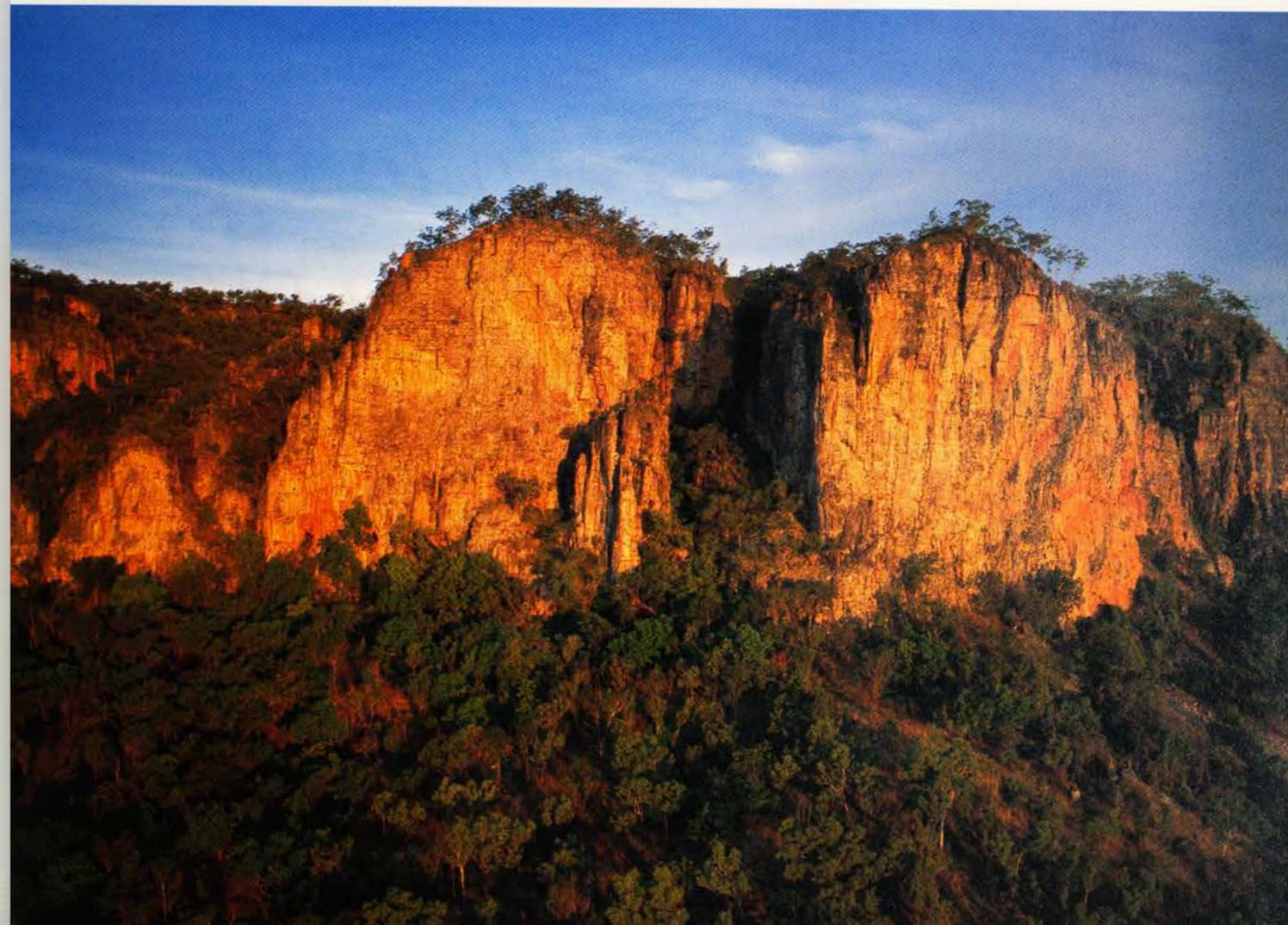
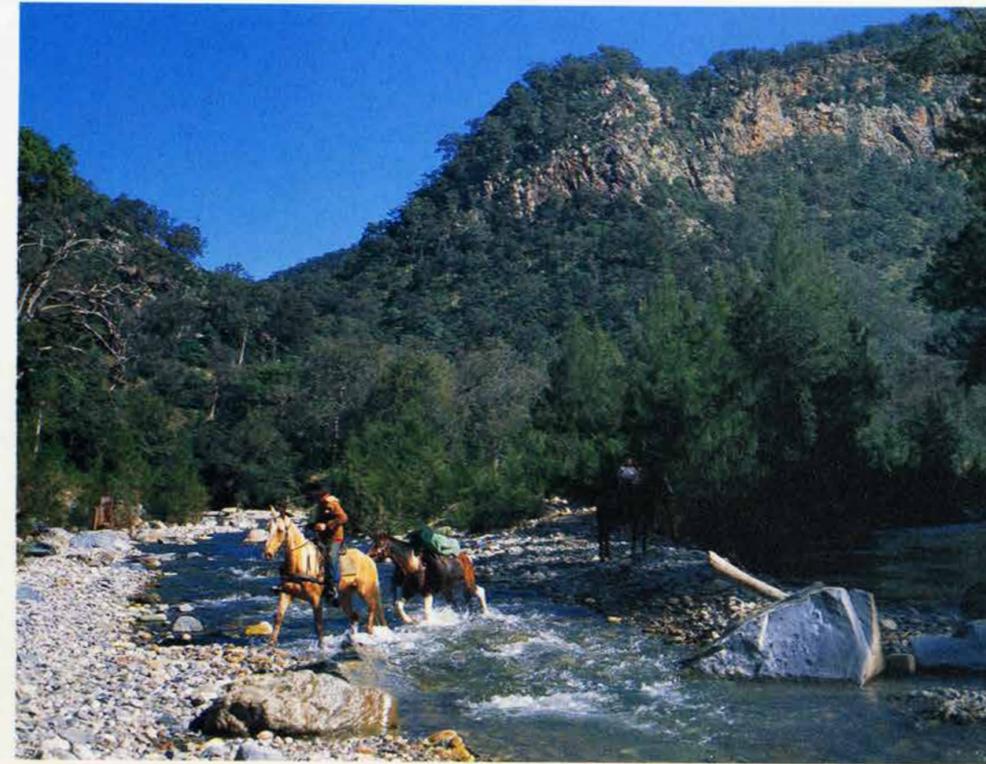


*Previous spread:* In the Hamersley Range near Wittenoom, source of much of Australia's iron-ore wealth.

*Opposite page:* On Queensland's Pacific coast beautiful scenes like this appear unexpectedly under my magic carpet. I usually flew *Delta India Kilo* at 500 ft to see as much as possible.

*Right:* Only 30 minutes flying from our home in Terrey Hills, Sydney, are the Wild Dog Mountains. We often landed *Delta India Kilo* at Bert and Norma Carlon's farm and rode down to the Coxs River, where this photograph was taken.

*Below:* The Arnhem Escarpment in Kakadu National Park, south of Cooida.





# Solo to the North Pole

After three years of flying about Australia, the urge to take *Delta India Kilo* on another great adventure soon became too great to resist. I like being by myself, for I'm a loner at heart, and I especially enjoy wilderness. There is wilderness at the North Pole, which has long been a goal for explorers and adventurers, and as far as I knew nobody had tried to get there in a helicopter, mainly because no helicopter had the range. Thus I decided to challenge the North Pole – my plan being to fly from the North Pole to the South Pole. However, I didn't know then the problems I would face in just getting to the North Pole! I did in fact get to the South Pole (left) – on 23 November 1988 – but I was piloting a fixed-wing Twin Otter, not a helicopter, and I didn't feel it

was very remote, for it is the site of a large and impersonal American base (see my companion book, *Our Fantastic Planet*, for the story of that flight).

On the other hand, the geographical North Pole, on the frozen surface of the 4000 m deep Arctic Ocean, is true wilderness, with no people and no buildings, and getting to it turned out to be a bigger challenge than I expected. I succeeded on my third attempt over 12 months. I made my first attempt between 6 and 18 April 1986, when I turned back 648 km from the pole. I made the second attempt a few months later, between 24 July and 5 August, and got to within 165 km of the pole before turning back. (I did call in on the North Magnetic Pole [opposite page top] on that occasion.) The



flights were made under difficulties, as you will learn from the narrative, but the lessons I learnt from them, together with a big improvement in the Arctic weather the following year, allowed me to get to the pole on 28 April 1987.

What were the lessons? The most important was that I underestimated the incredible cold. As an Australian I had never before experienced such low temperatures and their effect on my navigation and radio equipment, and it was a mistake to have made the first two attempts without a heater. I did not have a heater so I could carry the enormous amount of fuel I needed on the final leg to the pole and back from Ward Hunt Island, which is 796 km from the pole. Apart from its weight, a heater would have increased fuel consumption by about 3 per cent. For my successful flight, I installed a heater and had fuel flown out on the ice to get me back to Ward Hunt.

I planned and prepared for a full 12 months before the first flight. I bought maps, made contacts, got aircraft and flying approvals from both Australia and Canada, bought and tested navigation equipment and arranged to ship *Delta India Kilo* to Vancouver at the appropriate time. The garage under my bedroom in my Terrey Hills home became my workshop, where I laboured into the

night fitting the extra fuel tanks and stripping the frame of every non-essential screw, panel and piece of lining. Nevertheless, I couldn't forgo sleeping-bag and tent, stove, emergency locator beacon, life raft, map cabinet and cameras. The tanks were the ones I built for my round-the-world flight. They boosted the aircraft's capacity from 93 to 240 US gallons and increased its range from 650 to 1670 km (compared with its maximum range of about 1300 km on the first two stages of my world flight), but even with my modifications and without a heater, it was more than 10 per cent overweight when fully laden. I was approved for this weight.

As on all my long solo flights, I underestimated the workload on the North Pole flights. I thought I had learnt a lot about the complicated routine of flying, navigating, filming (I planned to make a documentary to help cover costs), narrating and recording all at the same time, especially in heavy traffic areas, and then doing the various chores needed on the ground before taking to the air again early the next day. And following that routine day after day. But in the polar regions it was an additional heavy strain always having to take the battery out at night to keep it warm, and putting the cover over the engine, working without help in freezing cold. Once

*“As on all my long solo flights, I underestimated the workload on the North Pole flights.”*



*“I did in fact get to the South Pole...”*

inside, dog-tired, I'd have to firmly discipline myself to write up my diary and do my flight planning so I could get away early (after replacing the battery and removing the engine cover).

But some things I had learnt, so that in 1986-87 I was a little wiser as well as older than the man who flew *Delta India Kilo* solo around the world in 1982-83. I took risks on that world flight that I would never have considered only a few years later. Thus, when I had to turn back on my first two attempts on the North Pole I quickly came to terms with my disappointment. I recognised that I had already taken risks, and now with the weather bad and my fuel low, the odds were moving against me. This adventure was for my own satisfaction and I was not interested in what other people might think. After the second attempt it was too late that year to make a third, so I shipped the helicopter home until the following March.

The tyranny of temperature ruled all three of my attempts to reach the pole. On all of them I went through periods of feverish activity, elation, despondency, fear, boredom, exhaustion, excitement, wonder, and still more exhaustion. As in *Delta India Kilo's* around-the-world flight, I sometimes asked myself why I was there and whether it might not be more sensible to stop the attempt then and there.

The account that follows is based on the route and timetable of my

third attempt, although the route I took from Vancouver to Ward Hunt Island, my last stepping stone before the pole, varied slightly on each attempt. Where I have included pictures and incidents from the earlier flights, it will be obvious from the text or a study of the accompanying map.

What comes through yet again is the extraordinary versatility and reliability of the small helicopter, once considered a short-distance commuter machine, fine for flights around cities, for local rescues and traffic control. Little *Delta India Kilo*, with a single engine and with only one person on board, could cross continents and oceans, circumnavigate the globe – and reach even the isolated, frozen world of the North Pole.

In Sydney in March 1987, I supervised the packing of little *Delta India Kilo*, its blades removed, into a container for shipping to Vancouver (below). The voyage took 30 days, Pip and I following by air. Pip (right, in Vancouver) was my ground support for this final attempt, as she had been for the first two. She was tremendous. Among the disadvantages of being a loner are that you can't talk over problems as they arise, and there is the worry at the back of your mind that if something happened to you, nobody might ever know.

*"Little Delta India Kilo, with a single engine and with only one person on board, could cross continents and oceans, circumnavigate the globe – and reach even the isolated, frozen world of the North Pole."*



## Amongst the splendour of the Rocky Mountains

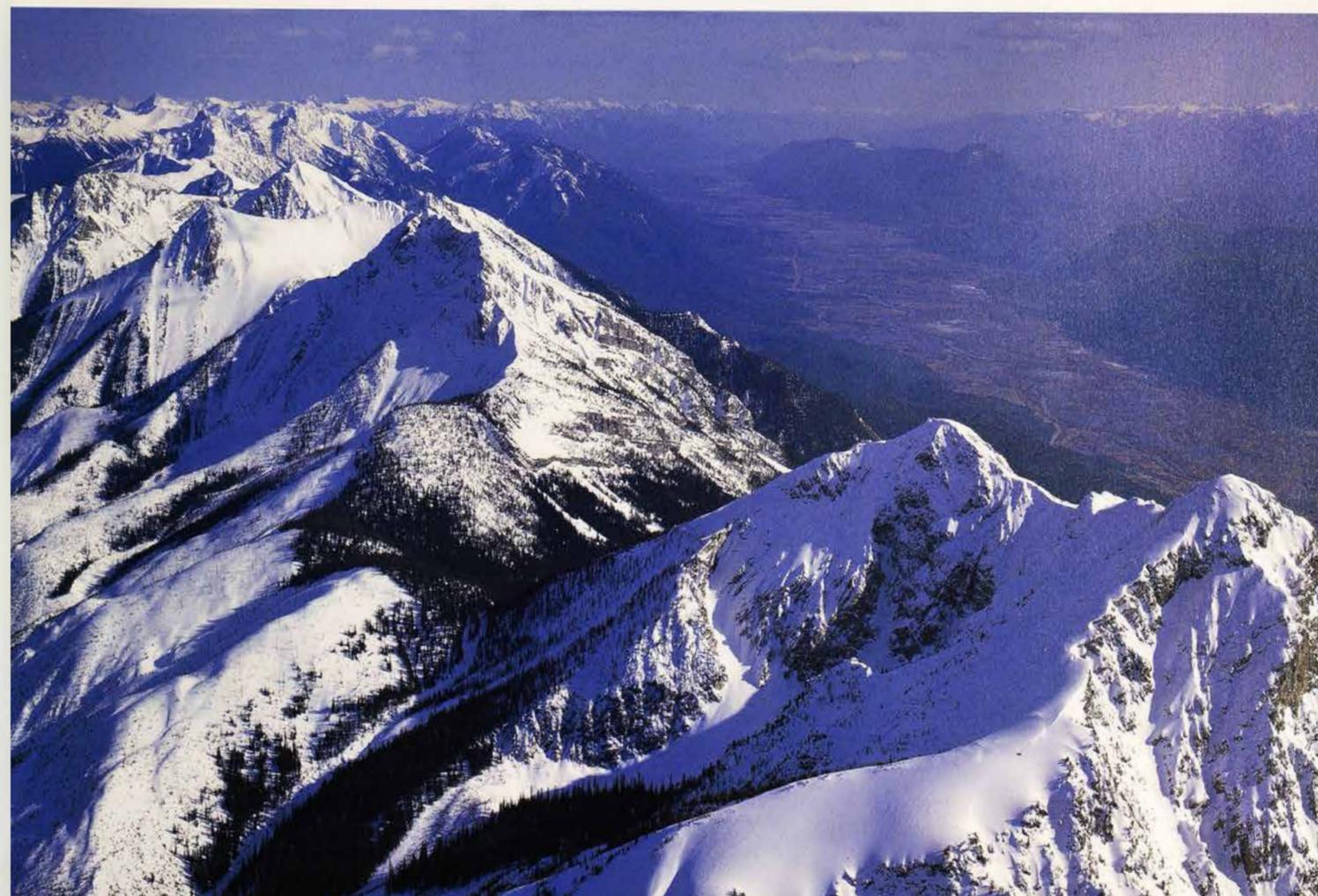


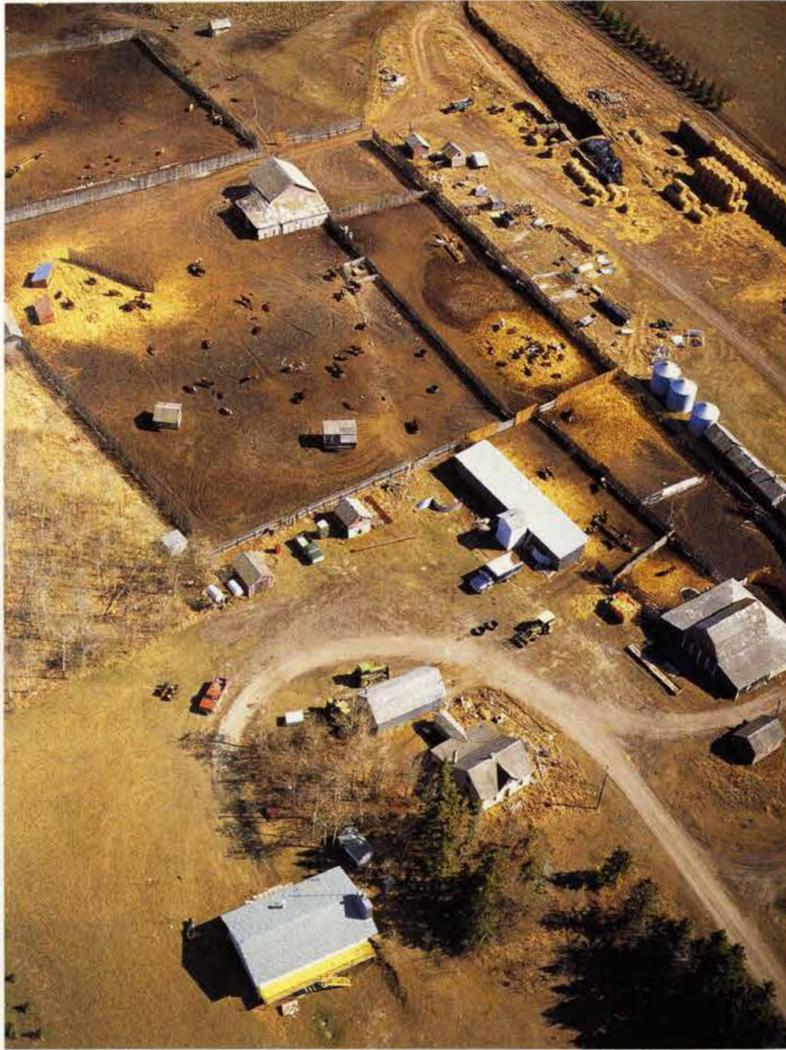
DAY 1  
THURSDAY 23 APRIL 1987

*Vancouver–Kamloops–  
Peace River–Yellowknife*

I kissed Pip goodbye at Vancouver and left at 6.21 a.m in a cheerful mood, aiming to reach Yellowknife by the end of the day with two fuel stops on the way; the timber town of Kamloops and Peace River, an administration and service centre. The route was more or less north, compared with the much longer track that had taken me farther east via Calgary and Edmonton, over three days, the year before. Above the snow-encrusted Rocky Mountains (below) at 8500 ft in beautiful weather but  $-10^{\circ}\text{C}$  outside, I tested the heater, and soon turned it off because it was just too hot. The need for it would come soon enough! The Canadian section of North America's largest mountain system extends to the north-west for 1200 km, and I could see range after snowy range disappearing over the horizon in each direction. Absolutely spectacular!

*"I could see range after snowy range disappearing over the horizon in each direction."*





Spring was coming to the high plains of Canada. Last year at the same time I had looked down into the busy backyards of the farming community between Calgary and Edmonton as they prepared to plough and generally make ready for their short growing season. Animals were still being handfed from the long winter (*left*). Peeking into people's backyards from a helicopter is always fascinating and helicopter travel is also a great lesson in geography. This encampment of mobile homes (*below left*) was on the outskirts of Edmonton. I had no idea before I came across heavy machinery at work near Fort McMurray, north of Edmonton (*below*), that this part of Alberta has one of the world's largest deposits of oil-sands, rich in bitumen. They are an important part of Canada's fuel reserves.



North of Fort McMurray I had no doubt I was passing into colder climes as I flew over Fort Chipewyan (*right*), the oldest continuously occupied settlement in Alberta, on the shore of Lake Athabasca. Established in 1788, the same year that Britain founded its colony in Australia, the town played a significant part in Canada's early fur trade. It was also an important base for the exploration of the north, as I had learnt while delving into the colourful history – adventurous, heroic, tragic – of these Arctic lands. When hardly out of sight of Fort Chipewyan I was over the icy junction of the Slave and Peace rivers (*below right*), and approaching the 60th parallel. The weather was splendid.



My only problem in crossing Great Slave, Canada's second largest lake, to Yellowknife on this trip was that I was so hot I had to have the window open to keep cool – and I certainly didn't need the heater. Normally frozen for eight months of the year, the lake was brilliant beneath blue skies. I couldn't believe that just 12 months earlier, with no heater and in frightful conditions, I feared I might not survive this crossing. Then, while halfway across the lake from Fort Resolution, I ran into driving snow that cut visibility almost to zero. Hovering a few metres above the ice, the wind driving ice crystals past me horizontally at 45 km/h, threatening a total white-out, I was in a terrifying predicament. I was being forced down, but I didn't know if the ice would hold the aircraft's weight and couldn't raise anybody on the radio to tell me. There was nothing for it but to put down. With the temperature at  $-15^{\circ}\text{C}$  and a chill factor of  $-40^{\circ}\text{C}$  from the howling wind, I jumped out, grabbed my life raft and waited, miserable and frozen, expecting *Delta India Kilo* at any moment to begin sinking 600 m to the bottom of one of Canada's deepest lakes. I was on the ice for two hours (*right*) before the weather eased, and I returned to Fort Resolution, shaken and defeated for that day. I noted, "It's times like this that I think I shouldn't really be doing this flight."





Heading into the remote and unforgiving "barrens"

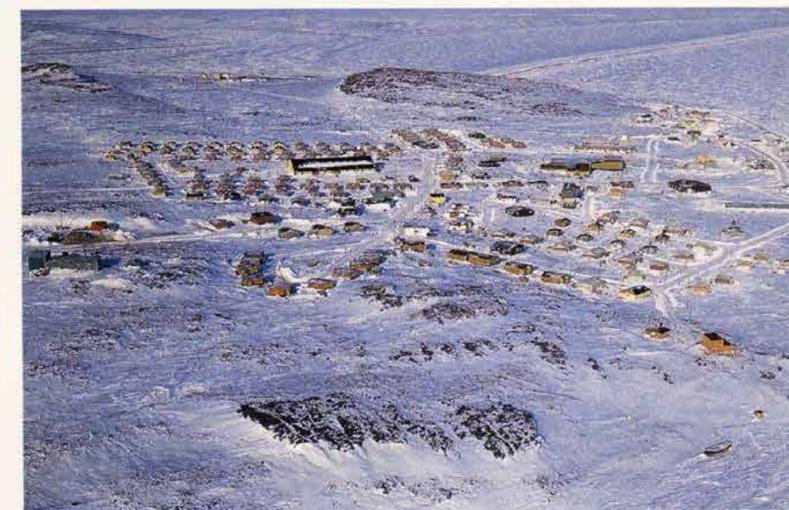


Yellowknife (*above*), population 12,000 and capital of the Northwest Territories, changes its face according to the amount of snow about. Its temperature averages  $-22^{\circ}\text{C}$  between November and March, but  $14^{\circ}\text{C}$  between June and August. (In the Northwest Territories,  $-10^{\circ}\text{C}$  is regarded as a pleasant winter's day.) This picture was taken on my first attempt to reach the pole. I also took the opportunity to capture some of the more interesting backyards (*left*) on film. Suburban Yellowknife under snow is certainly a unique sight for Australians free to drive out of their yards at any time of year, barring the occasional flood, bushfire or cyclone. At Yellowknife I spent time "winterising" *Delta India Kilo* for the really cold weather I was yet to face. Bob O'Connor of Aero Arctic lent me a cover and other special equipment and changed the machine over to a lighter oil capable of operating in temperatures around  $-50^{\circ}\text{C}$ . It cost \$10 a litre.

DAY 2  
FRIDAY 24 APRIL 1987

### Yellowknife— Cambridge Bay

On my 860 km flight to Cambridge Bay, on Victoria Island, I crossed the treeline (*above*), north of which I was facing what, for obvious reasons, are known as "the barrens". These were the last trees I would see until I returned from the North Pole and, as I crossed the Arctic Circle, I knew I was now entering remote, frozen country that is unforgiving of fliers. I had food for 30 days and, most important, a small stove that would burn helicopter fuel so I could melt snow or ice for drinking. Without something like this you could die of thirst, because all water is frozen. The outside temperature was dropping, but I was comfortable in the cockpit, unlike the previous year when I couldn't believe it could get any colder in the Arctic (how little I knew!). For the first time while flying in cold weather my feet were actually warm and I felt quite at home with my camera sitting beside me and my sun compass mounted. Last year I



had flown to Cambridge Bay by way of the small Inuit settlement of Coppermine (*above*), spending a night there. The settlement is right on the Northwest Passage, and Australian explorer and pioneer aviator Sir Hubert Wilkins based his borrowed PBY flying boat here in 1937 while searching for the celebrated Russian airman

Sigismund Levanevsky and his five comrades. Their four-engined transport had come down on a flight from Moscow to Alaska over the pole. They were known to have reached the Alaskan side of the pole against strong headwinds, but neither machine nor men were ever found. Another of the Arctic's unsolved mysteries.



Lady Franklin (*above*) is one of the DEWLINE (Distant Early Warning) radar stations – set up by the Americans to detect incoming enemy missiles – that I had become familiar with while flying *Delta India Kilo* around the world. This station is named after the wife of Sir John Franklin who, with 128 men in two ships, perished while searching for the Northwest Passage. She never gave up hope that he was still alive out here somewhere, and continued to finance searches for years after official expeditions were called off.

The temperature was  $-20^{\circ}\text{C}$  when I landed at Cambridge Bay, but luckily there was no wind. Tom and Michelle Aneroluk were there to meet me and waited while I removed the battery and mounted a small electric heater in the engine compartment. Michelle (*below left*) is a marvellous Australian, formerly of Melbourne, who was married to Tom, a local man originally from Coppermine. I met them on my earlier flights, and enjoyed their warm hospitality while passing through. They must have the only house in the Arctic that always



has Vegemite (*below centre*) in the pantry. Tom (*below*) is a Cambridge Bay flight service officer, and normally didn't talk to little helicopters in his job – keeping track of the Jumbo jets that fly the polar route between Europe and Alaska. But he gave me his frequency, and I talked to him regularly while in the area. Tom was one of the thousands of controllers I spoke to while flying *Delta India Kilo* around the world, and without whose help my flights would have been far more difficult.

DAY 3,  
SATURDAY 25 APRIL 1987

### Cambridge Bay– Cambridge Bay

My destination was Resolute, four hours to the north-east, but I didn't make it that day. I planned to track via Franklin Point, on King William Island – where Franklin's men had left a message – even though the island was a little out of my way. Artefacts and skeletons of members of the Franklin expedition as well as the written record have been found on the island at different times, and I was interested in visiting it. While still on Victoria Island I came across a herd of musk oxen, which instead of dispersing as I approached, pressed themselves together in a tight line, looking for all the world like a line of furry caterpillars (*right*). This tactic is said to be a useful defence against wolves, but not against human hunters, I should imagine. The shaggy animals are related to wild sheep and goats, and are confined to the Canadian

Arctic and Greenland. An unusual little valley on the east coast of Victoria Island (*bottom*) was about the last clear view I had of anything, because conditions soon deteriorated to the point where I found it impossible to know whether I was over sea or land. Approaching Franklin Point I got into really bad, blowing snow, with visibility less than 500 m. I landed, kept the engine running, and finally got a sun

bearing. In the air again, high winds and snow, and almost zero visibility, made flying extremely difficult and dangerous, so I turned around and headed back to Cambridge Bay through patches of ice fog, keeping down to between 20 and 200 ft. The heater had meanwhile packed up, and I was very tired and depressed when I landed after 4 hrs 48 mins of flying that had taken me nowhere.



*Oxen that look like caterpillars and valleys like snakes...*



DAY 4  
SUNDAY 26 APRIL 1987

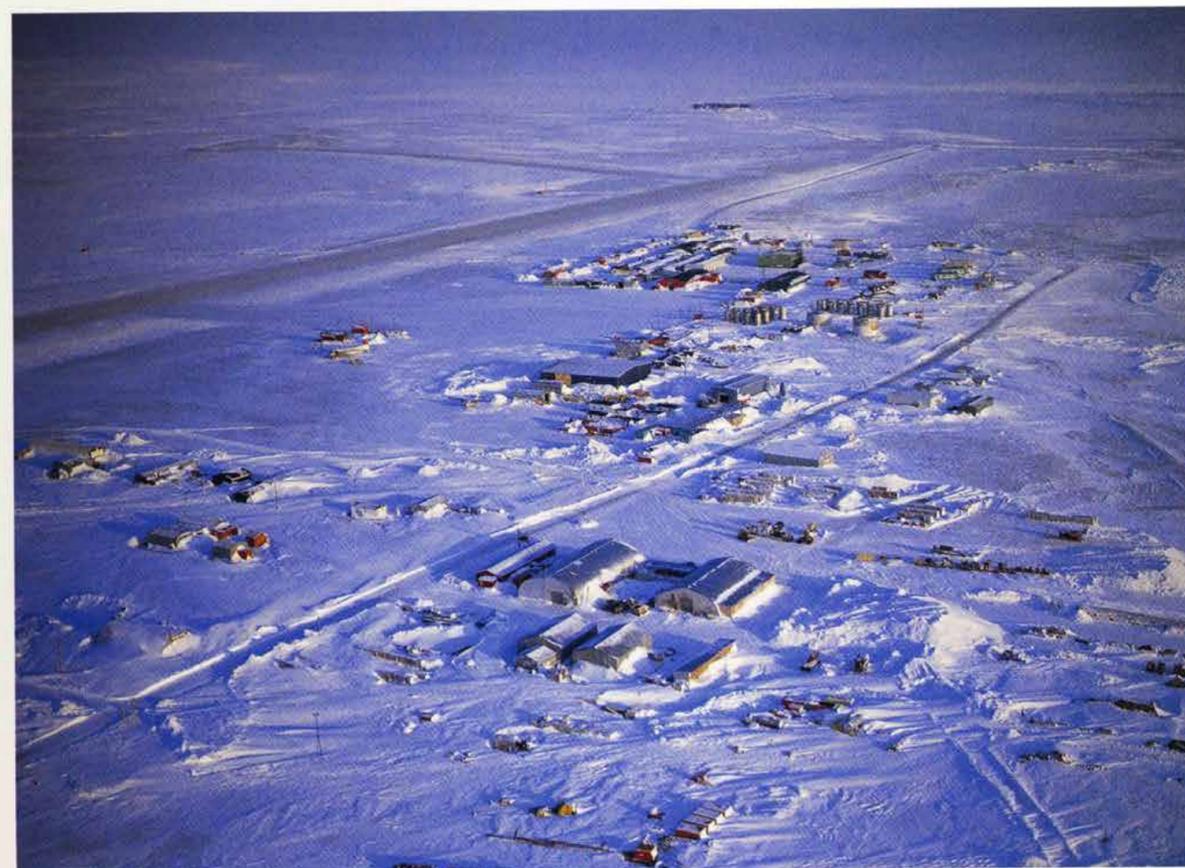
### Cambridge Bay-Resolute

After my previous day's failure I was disconcerted to learn from the met office in the morning that while conditions were not bad around Cambridge Bay and Resolute, they were not very good in between. However, I had fixed the heater (merely a slipping control knob), so I took off for Resolute after Tom Aneroluk told me that two international airliners would be coming through from the north soon and the pilots could give me a report over the VHF radio about conditions ahead of me. The pilots could and they did, but by that time I had learnt for myself that I was locked into more of yesterday's weather. It forced me down on Prince of Wales Island, where I sat for two and a half hours in blowing snow, starting the engine every 30 minutes - any longer and I wouldn't be able to start it at all. In between starts I took the battery out and kept it warm in the cockpit with me, replacing it each time. I couldn't believe how cold it was following this procedure. (I vividly recalled that on my first flight through this area, without a heater, my breath misted up the windscreen, so I had to leave both windows open. The  $-20^{\circ}\text{C}$  temperature was probably  $-30^{\circ}\text{C}$  with the chill factor, and I had been absolutely miserable.) I was beginning to fear I would have to spend the night on Prince of Wales Island in these unpleasant conditions. I called up on the HF radio, and who should answer but Pip who was staying with my friends Bezal Jesudason and his wife Terry in Resolute. She said the weather was good there, but the met office predicted that the winds that were adding to my problems would increase in the next 24 to 36 hours. In view of that news I decided to risk going on. Under immense strain and flying in a virtual white-out, I pushed north, marking my positions as I moved up the map. Pip was monitoring me and I would talk to her every 10 minutes or so, frightened in my little bubble as I bore on, virtually blind - around me, a void. About 150 km south of Resolute my spirits soared as I broke into sunshine. I saw that the ice on Barrow Strait was about a metre thick and starting to break up (*above right*). I landed at Resolute at 5 p.m. local time - 2 hrs 5 mins after taking to the air, or 4 hrs 5 mins for the day. It was not, however, a day's flying that I would care to repeat.

## Flying virtually blind in a little bubble



*"It was not, however, a day's flying that I would care to repeat."*



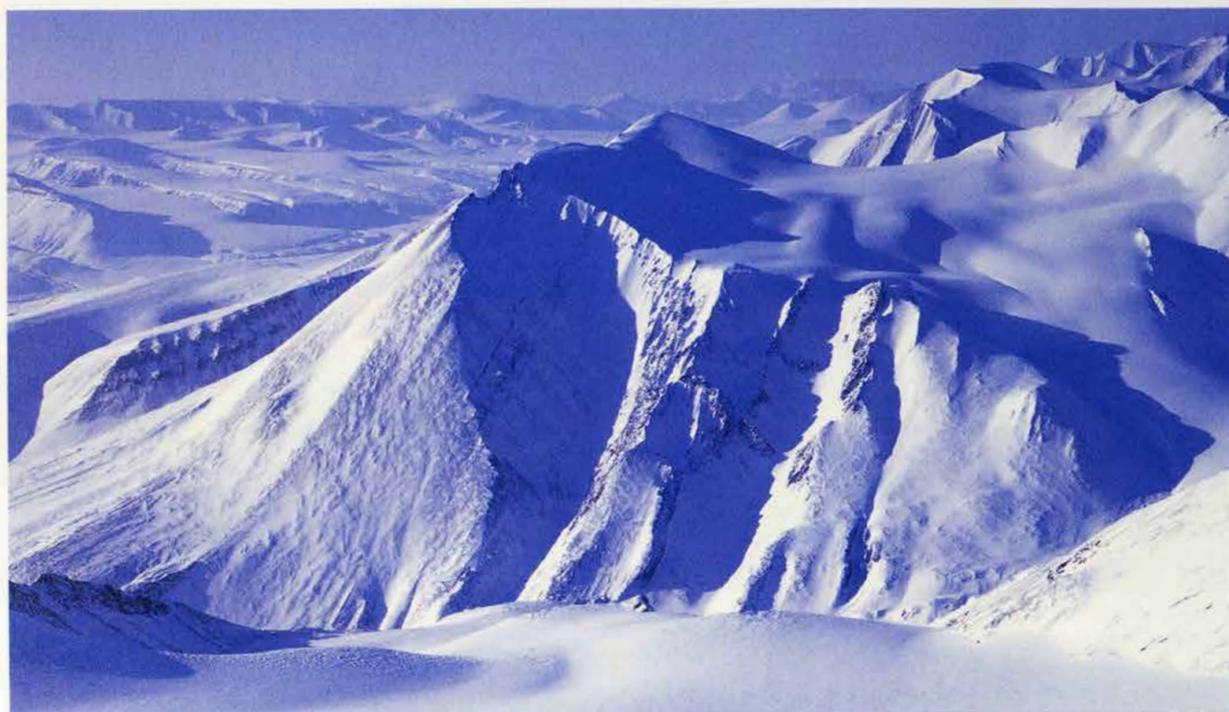
I made Resolute (*above*) my home base for all of my three attempts on the pole, and used it later for holidays with Pip and the girls, skidooning across the ice and camping in northern Ellesmere Island. Resolute is an Inuit village with a population of less than 200, but it's a great staging area because it has the northernmost airport with a scheduled air service south. It's 1600 km from the pole. For the Smith family however, the main attraction is Bezal and Terry's International Explorer's Home - really a guesthouse with a warm family atmosphere, where you can meet the most fascinating visitors. Resolute is also where I have had marvellous help from the people at Bradley Air Services and Kenn Borek Air, on this and on my Twin Otter flights to the Arctic (described in *Our Fantastic Planet*). The joyous atmosphere at Bezal's is illustrated by this photograph (*right*) taken on my first attempt, showing from left to right, me, Masako Izumi, a Japanese actress who reached the pole on a snowmobile, Bezal, Mitsuro Oba, who walked to the North Magnetic Pole, and adventurers Mike Dunn, Michel Franco and Martyn Williams.





Since I left Yellowknife, the chore of putting *Delta India Kilo* away for the night has totalled many hours in freezing conditions (above and right).

I have to take the battery out, then climb to the top of the machine and put a cover across the engine compartment, and two small electric heaters inside it. I run a lead back to a power point that is normally provided at airports this far north. These little heaters run all night and keep the oil just warm enough to start the engine. For somebody used to the tropics, flying in sub-zero temperatures in weather that can go from bad to worse in minutes, is quite a challenge. Pip says that I love the cold, but it's really the challenge of the cold that attracts me. The down suit I'm wearing was lent to me by *Australian Geographic* editor Howard Whelan, who used it on the first Australian Everest expedition. With these chores and others, I got back to Bezal's place after midnight.



*-20°C, beautiful and sunny...perfect flying conditions*

DAY 5  
MONDAY 27 APRIL 1987

*Resolute-Eureka-  
Cape Woods-Ward Hunt*

I was a lot more comfortable sleeping at Bezal's than I would have been out on Prince of Wales Island. And there was good news to come. I rang the weather station and was told that there was a huge high over the Arctic, no clouds and the weather

should be fantastic for the next 24 to 48 hours. It sounded too good to be true after the terrible weather I encountered the year before. I decided to set off immediately to Ward Hunt Island, from where I would fly directly to the pole. I rang Bradley's and they agreed to get a Twin Otter organised quickly. It would take Bezal, Pip, a load of equipment and four drums of fuel to Ward Hunt, with a refuelling stop at Eureka, then two drums out onto the ice near the pole. Obviously, good weather was

vital if all this was to dovetail neatly. Pip filmed my departure from Resolute, but the film broke because of the cold, -20°C, which wasn't bad compared with the year before. Flying conditions were great - beautiful and sunny. Cornwallis Island, Wellington Channel, Buckingham Island (where I was forced down the year before) and then the magnificent 13,000 sq km Axel Heiberg Island (above) all passed below me. I was level with the North Magnetic Pole, so my magnetic compass was



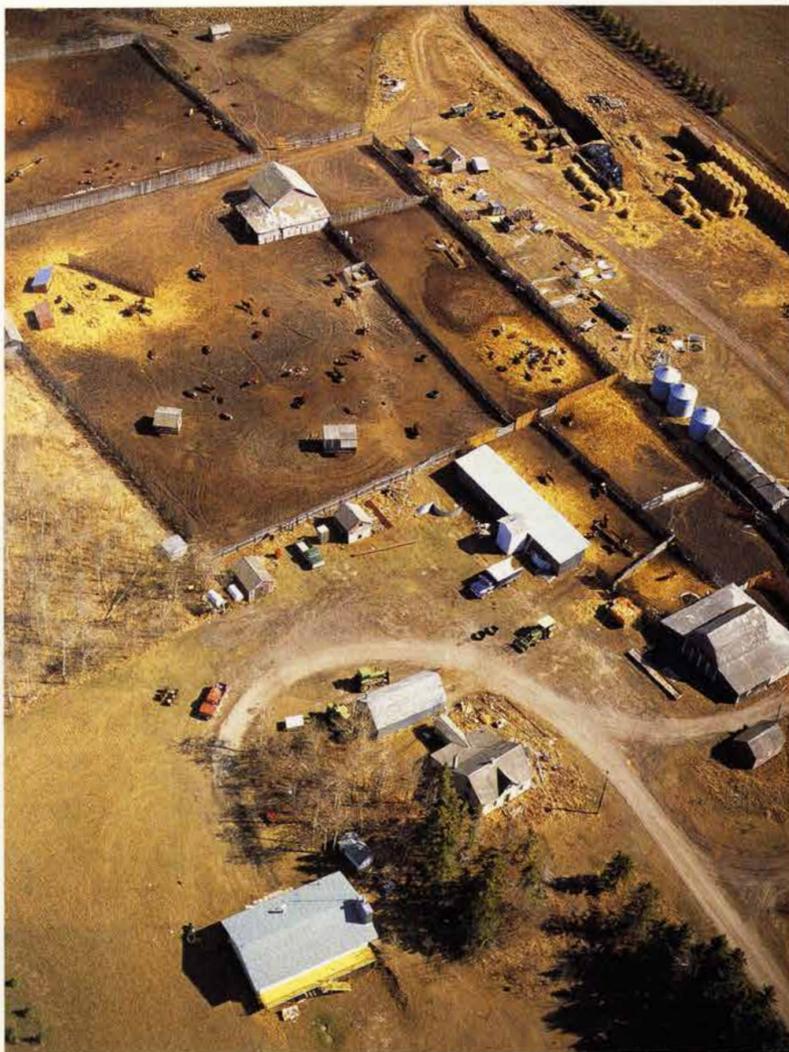
completely useless. I put down briefly on the ice in Eureka Sound (above), between Axel Heiberg and Eureka. The island is in the background. Near here, on Axel Heiberg's east coast, only 1100 km from the pole, scientists had recently uncovered the remnants of a 45-million-year-old forest locked in the permafrost - an exciting discovery, for wood, leaf litter and even fruit and cones could be studied.

I was over Eureka, on Ellesmere Island (right), at 4.40 p.m., after only 3 hrs 39 mins in the air. But I spent another 10 minutes flying around it after the friendly radio operator said a film crew was making a film about people trying to get to the North Pole, and were asking if I'd provide some colour. Eureka is a weather station, but it's used every spring as the last staging post by many adventurers heading for the pole.



*"Eureka is... used every spring as the last staging post by many adventurers heading for the pole."*





Spring was coming to the high plains of Canada. Last year at the same time I had looked down into the busy backyards of the farming community between Calgary and Edmonton as they prepared to plough and generally make ready for their short growing season. Animals were still being handfed from the long winter (*left*). Peeking into people's backyards from a helicopter is always fascinating and helicopter travel is also a great lesson in geography. This encampment of mobile homes (*below left*) was on the outskirts of Edmonton. I had no idea before I came across heavy machinery at work near Fort McMurray, north of Edmonton (*below*), that this part of Alberta has one of the world's largest deposits of oil-sands, rich in bitumen. They are an important part of Canada's fuel reserves.



North of Fort McMurray I had no doubt I was passing into colder climes as I flew over Fort Chipewyan (*right*), the oldest continuously occupied settlement in Alberta, on the shore of Lake Athabasca. Established in 1788, the same year that Britain founded its colony in Australia, the town played a significant part in Canada's early fur trade. It was also an important base for the exploration of the north, as I had learnt while delving into the colourful history – adventurous, heroic, tragic – of these Arctic lands. When hardly out of sight of Fort Chipewyan I was over the icy junction of the Slave and Peace rivers (*below right*), and approaching the 60th parallel. The weather was splendid.



My only problem in crossing Great Slave, Canada's second largest lake, to Yellowknife on this trip was that I was so hot I had to have the window open to keep cool – and I certainly didn't need the heater. Normally frozen for eight months of the year, the lake was brilliant beneath blue skies. I couldn't believe that just 12 months earlier, with no heater and in frightful conditions, I feared I might not survive this crossing. Then, while halfway across the lake from Fort Resolution, I ran into driving snow that cut visibility almost to zero. Hovering a few metres above the ice, the wind driving ice crystals past me horizontally at 45 km/h, threatening a total white-out, I was in a terrifying predicament. I was being forced down, but I didn't know if the ice would hold the aircraft's weight and couldn't raise anybody on the radio to tell me. There was nothing for it but to put down. With the temperature at  $-15^{\circ}\text{C}$  and a chill factor of  $-40^{\circ}\text{C}$  from the howling wind, I jumped out, grabbed my life raft and waited, miserable and frozen, expecting *Delta India Kilo* at any moment to begin sinking 600 m to the bottom of one of Canada's deepest lakes. I was on the ice for two hours (*right*) before the weather eased, and I returned to Fort Resolution, shaken and defeated for that day. I noted, "It's times like this that I think I shouldn't really be doing this flight."



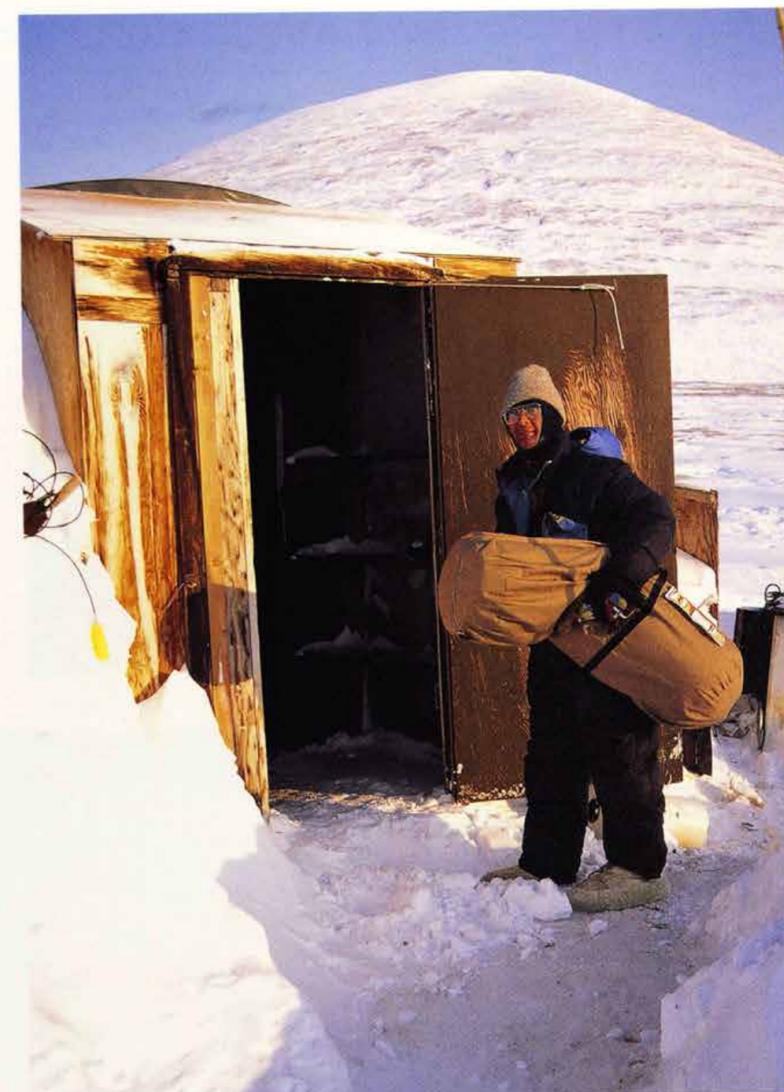


On the ground, where I did some filming of my own (including the Arctic hare at Eureka's rubbish dump *(left)*, I was asked if I could take a special stove to Cape Woods for two French pilots who were on their way to the pole flying micro-lights. I had wanted to refuel at Alert, a weather station farther north, so this meant a change of plans. I climbed to 4000 ft to cross Ellesmere's ranges and had some trouble locating the micro-lights, they were so small *(below left)*. The pilots were two enthusiasts; I doubted they were fully prepared for such a dangerous undertaking in aircraft so light, but all I could do was wish them well. I left them at 9.48 p.m., and while following the northern coast of Ellesmere Island, heard on the radio that Bradley's Twin Otter had left Resolute with Pip, Bezal and the fuel aboard, and would fly directly to Ward Hunt with my equipment, including a generator to help me heat *Delta India Kilo's* engine. Nevertheless, I put down at Ward Hunt in almost balmy weather, 1 hr 14 mins after leaving the Frenchmen. It was fantastic to be back there – my stepping stone now for all three attempts.

Ward Hunt lies just off the north coast of Ellesmere Island, 796 km from the pole, and although hardly more than a pimple on the Ward Hunt Iceshelf, it's a very useful last stop for an attempt to get to the pole. I arrived *(below left)* to a different Ward Hunt from the one I saw on my first expedition at the end of a bleak and miserable, not to say dangerous, flight from Lake Hazen *(below)*. On that occasion I shared a hut on the island with Lawrence 'Flo' Howell, radio operator keeping



vigil for adventurer Sir Ranulph Fiennes, who was walking to the pole. The traces of orange smoke seen centre left are from a flare Flo sent up to help me in. The hut we used was now buried by snow, but I cleared a way into another, smaller hut *(right)* with a piece of discarded timber (there is junk everywhere on Ward Hunt). It was freezing cold inside but better than nothing. These huts were left over from a scientific expedition. I took out the battery and covered the engine – almost an hour's job, during which my hands froze whenever I touched metal (you have to take your gloves off to thread straps). It was not until midnight that the Twin Otter, with Pip and Bezal on board, landed on the ice *(below right)*. An hour later, with all the fuel, food and equipment unloaded, it left again for Eureka to pick up more fuel with the two pilots – Allen McDonald and Ron Kerr – and Pip. Bezal cooked us both a welcome hot meal *(below)*.



“...there is junk everywhere on Ward Hunt.”



## Third try, Delta India Kilo finally makes it to the North Pole

DAY 6  
TUESDAY 28 APRIL 1987

### Ward Hunt—North Pole— Ward Hunt

I dangled the battery over one of the heaters on a rope to keep it warm while I attempted to sleep in preparation for my run to the pole. Bezal meanwhile set up two HF radios and was already communicating with the Bradley base at Resolute and with Terry at his own house. After a fitful few hours' sleep I knew from the clear weather that this, at last, would be my day. The temperature was only  $-28^{\circ}\text{C}$ , a full 10 degrees warmer than on my first attempt. The Twin Otter, with Pip and more fuel, would leave Eureka as soon as the pilots heard I had got away, and we would meet out near



the pole for the fuel transfer. I pumped enough fuel into *Delta India Kilo* to get me to the pole and about 270 km on the return flight, and heated the engine with the generator, which we pushed out on a sledge. I took off at 11.50 a.m., headed north on the 74th west longitude, navigating with the Omega system. I flew for an hour and a half before the sun came into a position where I could also use the sun compass (left) to get an accurate heading, which was necessary because I was now north of the magnetic pole and the compass needle just turned lazily around. I generally flew at 200 to 300 ft where from time to time I saw narrow leads (open water) in the ice below me (below). If you ever wanted to know what can be seen when you fly over the frozen Arctic Ocean to the North Pole, you know now: hour after hour of this sort of thing. I kept

in regular radio touch with Allen and Ron in the Twin Otter, which was slowly gaining; I couldn't better my present speed of about 88 knots. I had long since passed the point at which I was forced to turn back on my first attempt in April 1986, beaten by the cold, the near-zero visibility and failing navigation equipment. And I was approaching the point where I was forced back on my second attempt the following July, foiled by a failing generator and dense fog. On that attempt I was forced down on the return flight to Ward Hunt, and had to pitch my tent on the pack-ice while I waited for the fog to lift, listening to the ice creaking as it broke up around me. But that was last year. This time the weather held and at 4.10 p.m. I put *Delta India Kilo* down at the pole.

I stepped out onto about 2 m of moving pack-ice (with 4300 m of ocean below it), pushed my small Australian flag into the snow and danced happily around the globe

in only a few steps (below). From here, the only direction was south. Soon after, the Twin Otter arrived, found a landing spot a few hundred metres away and I flew across for the refuelling. When Pip climbed out, she became the first Australian woman to reach the pole. I was delighted that my slow speed meant that we actually met at the pole, not 100 km south as planned. It was  $-20^{\circ}\text{C}$ , with a 27 km/h wind that made it bitterly cold, but it was sunny. Allen and Ron meanwhile kept both engines running as they rolled two drums of fuel out of the Twin Otter and we pumped it into *Delta India Kilo*. Even then, I had only just enough to get back to Ward Hunt with reserves, and I was hoping for a good tail wind. After the Twin Otter took off for Ward Hunt, I waited on the ice for another 20 minutes so I could enjoy the utter silence of the North Pole, and savour the deep satisfaction of having reached it at last.



“From here,  
the only direction  
was south.”



I spent 1 hr 11 mins at the pole, and another four hours getting back to Ward Hunt. It was an incredibly cold return flight, and I had plenty of time to reflect on the tenacity of Robert Peary, the first man to reach the pole, in his case by dog-sledge, and the many latter-day adventurers who took the dangerous route across the ice. At least they, unlike Peary, had aircraft to pick them up at the pole and didn't have to face the return journey. It was satisfying to know I was making the journey solo both ways and doing my own navigating. I used the 84° longitude to mark my progress on the map, even though I was coming back along the 74° longitude – I already had so many markings on 74° there wasn't enough space left on it for the return flight. I worried that one error could make me miss Ward Hunt, and as I was travelling very slowly I could run out of fuel. After I had covered a third of the way a warning light on the instrument panel indicated that the forward fuel pump had failed. This was not a problem unless I planned to fly above 6000 ft, but I was relieved

when the coast came into view through the ice-fog, and I was able to pick out Ward Hunt, slightly to the right of the track I was on. I zoomed in over the iceshelf, which is above sea-level, made a turn and landed. The Twin Otter, with Pip aboard, had put down an hour before. Bezal was spending a lot of time on the radio (right) as congratulations on my successful flight came in, and calls from the media wanting interviews. The picture (below) shows Bezal feeding Allen, Pip and Ron in the hut after their hard day's flying from Eureka to the pole and back to Ward Hunt. Allen and Ron decided to stay the night.

*"It was satisfying to know I was making the journey solo both ways and doing my own navigating."*



DAY 7  
WEDNESDAY 29 APRIL 1987

*Ward Hunt–Eureka–Resolute*

With the successful flight to the pole behind me, the only task ahead was to fly *Delta India Kilo* back to the west coast and ship it home. It would be simple to retrace my route to Vancouver, but I decided to head north-west from Yellowknife, follow the coast of Alaska around to Anchorage and ship the helicopter back to

Sydney from there. I had seen something of southern Alaska on my flight around the world and loved it, and this was too good an opportunity to miss. I got away from Ward Hunt at 12.48 p.m., about 10 minutes ahead of the Twin Otter carrying Pip, Bezal and all our gear. They headed for Eureka directly over the central mountains of Ellesmere Island, but because of my fuel pump problem I skirted the north of Ellesmere to avoid the mountains. This route took me to Eureka down Nansen Sound, which I had always wanted to visit, and over the

magnificent Otto Fjord. After a half-hour refuelling at Eureka I was back in the air. Patches of fog that were starting to reduce my visibility and cause my stomach muscles to tighten, turned out to be only local and conditions improved. Nevertheless I was tired and flat by the time I landed at Resolute after 6 hrs 42 mins in the air. Perhaps the pressure surrounding my efforts to reach the pole was catching up on me, for I couldn't deny I'd had a honeymoon run with the weather over the past few days. That, however, was soon to end.



*At the very tip of the North American mainland*

DAY 8  
SUNDAY 3 MAY 1987

*Resolute–Spence Bay–Gjoa Haven*

My stay in Resolute, apart from giving me a much-needed rest, enabled me to change the fuel pump. But I would miss Pip, who was headed for San Francisco to put our two girls on the plane for Sydney; they had been spending their school holidays at Resolute. The weather in the west,

towards Coppermine and Alaska, the direction I wanted to take, had meanwhile turned very nasty, and the met office advised me to track directly south down Boothia Peninsula to Spence Bay, and try to work around the low before heading for Yellowknife and then north-west again. As I took off at 1.24 p.m., Terry came on the air to wish me luck and said *Delta India Kilo* looked great flying over the town. I felt a little sad, because I suspected that my little helicopter would never visit Resolute again (it never did). Soon

after 3 o'clock I sighted Bellot Strait, which separates Somerset Island from Boothia Peninsula, and was excited to think that I was now over the northernmost point of the North American mainland. Naturally I put down on the very tip of the continent (above). Somerset Island is in the background across the 2 km wide strait, which is partially covered by ice. This passage was discovered in 1852 by one of the many expeditions that searched for Sir John Franklin and which resulted in so much of the High Arctic being explored. Joseph



Bellot, the French naval officer after whom it was named, lost his life in the Arctic the following year. I flew up and down the channel shore looking for some sort of identifying marker, but found nothing. Fifty minutes later I was over Spence Bay (left), but when I landed at the airstrip everything was locked up and I couldn't find a telephone, so I took to the air again briefly and buzzed the town low enough to wake the dead. This time three friendly Inuits on skidoos arrived and quickly refuelled me. I landed at Gjoa Haven 45 minutes later, after spending the last 25 minutes with that familiar knot in the stomach that seems to go with white-out conditions. I should have realised then what was ahead; for the next two days I was held down here by the most terrible weather imaginable.

### *Snow blowing horizontally and a friendly welcome*



DAY 9  
TUESDAY 5 MAY 1987  
*Gjoa Haven—Cambridge Bay—Cambridge Bay*

Gjoa Haven, on King William Island, is right on the Northwest Passage. Roald Amundsen was iced-in here from 1903 to 1905 (*Gjoa* was the 21 m herring boat in which he navigated the entire passage), so you could say that I was in celebrated company. The shoreline of the frozen bay is marked by the small yacht at centre left (left). It's the *Vagabond*, in which an adventurer was challenging the passage. The blizzard swept in right on the heels of my landing, and soon the snow was blowing horizontally, but I received a very friendly welcome at the hotel. On Monday morning it was blowing at more than 80 km/h and I kept to my room most of the day. The settlement was at the centre of an enormous low. The good news was that Pip, who was still in San Francisco, got through to me by phone (Bezal told her where I was), and she said she would stay there in case I needed help. At 7.48 a.m. on Tuesday, a lovely sunny day, I was airborne after a friendly man at the airport dug *Delta India Kilo* out of the snow (left) while I loaded it up. It seemed the sort of day that would get me right through to Inuvik, close to the north Alaskan border. Two hours 26 minutes later I landed at Cambridge Bay, and 45 minutes



after that, having refuelled, I was in the air again, on a track for Inuvik via Holman. Things were going great. And then I met trouble! About 85 km out I flew into worsening white-out conditions and blowing snow, and after a difficult landing on a rock, turned back. I put down after a wasted hour and 13 minutes of dangerous flying. I lodged a new flight plan for Yellowknife, refuelled, and set off again. Seventy kilometres out in this new (southerly) direction I ran into similar conditions. I stuck it out until I knew it was simply too dangerous to go on. By the time I got back to Cambridge Bay the weather there, too, had virtually closed in and I was lucky to land safely. I was frustrated and miserable. It was incredible. After *Delta India Kilo* had reached the pole it was almost as if the gods were now intent on confining it to the Arctic.

*"I stuck it out until I knew it was simply too dangerous to go on."*

DAY 10  
WEDNESDAY 6 MAY 1987  
*Cambridge Bay—Yellowknife*

Many things went through my head the previous day. Was my struggle against the weather worthwhile? Should I persist with the flight to Anchorage? Shouldn't I go home and have Bob O'Connor's Aero Arctic fly *Delta India Kilo* back to Vancouver for me when the weather improved? But by morning, all had changed. The weather reports looked good for Yellowknife and right across the north coast to Inuvik. I decided to keep going, but should it be to Inuvik or Yellowknife? I realised later that the long hours of flying in bad, cold conditions had been getting me down. I decided on Yellowknife and to work out what to do next when I got there. I had been staying again with Tom and Michelle, and with Michelle's egg sandwiches and a carton of milk I was in the air at 9.05 a.m., refuelled for about the fifth time by the same young man. The temperature was  $-20^{\circ}\text{C}$ . An hour on my way the airspeed

indicator appeared to be under-reading by a large margin and I was running into low stratus. I began to worry again, but as I got down towards Bathurst Inlet the weather improved. Bathurst Inlet hamlet (below), not much more than a fishermen's lodge today, was once the site of a Hudson's Bay Company store. This photograph was taken the previous July when the snow and ice had gone; it is difficult to imagine it's the same area of icy "barrens" shown on Day 2 of this journey (page 201). The weather remained good right through to Yellowknife, where I landed at 4.15 p.m. I couldn't believe that it was  $10^{\circ}\text{C}$  when I climbed out of the cabin.

At Yellowknife I worked out a flight plan for Prudhoe Bay, Alaska, before deciding suddenly that I was crazy. I had flown from Vancouver to the pole and back to Yellowknife in a total time of 62 hours in some appalling weather, and I was too tired to make the Alaskan flight. I would leave *Delta India Kilo* here at Yellowknife with Aero Arctic and return later in the season to fly the helicopter to Anchorage and put it aboard ship.



## Images of three flights towards the North Pole

IT WAS GREAT to have reached the North Pole after my third attempt, but never will I forget those first two attempts, in April and July 1986 without a heater. On both occasions I was defeated by the weather and the unbelievable cold, and sometimes I found myself in dangerous situations.

The most dangerous, I think, happened when I was returning from my first attempt. On the way to the pole the temperature had been  $-35^{\circ}\text{C}$  and all my radio and navigation equipment had failed. As I made my way south again from my advance base at Ward Hunt, Pip took this shot of me (below) from the Twin Otter in which she brought fuel up for me. The picture was taken over the United States Range on Ellesmere Island, and little did I know that within two hours I would nearly lose my life.

I had refuelled at Eureka at about 11 p.m. – and should have stayed there the night, as I had already been up for about 36 hours without sleep. But I decided to continue on to Resolute, where the Twin Otter was heading. I climbed to about 8000 ft and found myself in a white haze, which is like flying in a bowl of milk. Soon I was extremely tired, and frozen to the bone now that the sun had gone down. It was  $-37^{\circ}\text{C}$  in the cockpit and I had to have the windows open to prevent the windscreen fogging from my breath. My nose started to become frost-nipped.

I looked down to the maps on my left to work out where

I was, and when I looked up again I thought that the helicopter was in a  $30^{\circ}$  left bank. Naturally I went straight to the instruments, but they told me I was flying dead level. I looked out at the faint horizon – it also seemed to be at a  $30^{\circ}$  angle.

I was suffering from vertigo: one side of my brain told me to correct the aircraft, the other side told me to believe the instruments, as I was trained to do.

I called the Twin Otter, now some 200 km farther on, and the pilots suggested I make for an oil drilling camp on floating ice about 50 km ahead of me. I descended slowly, but for the next 20 minutes I was in near-panic as my mind fought two separate battles. The ice below seemed to be at a  $30^{\circ}$  angle, like a glacier, yet the chart told me it had to be the sea ice in Norwegian Bay, near Buckingham Island. About midnight I could see faint lights in the suspended ice crystals ahead of me: it was the drilling camp. I spoke to them on the VHF radio and came in to land. Only when I actually sat the helicopter down did the ice “level up” for me.

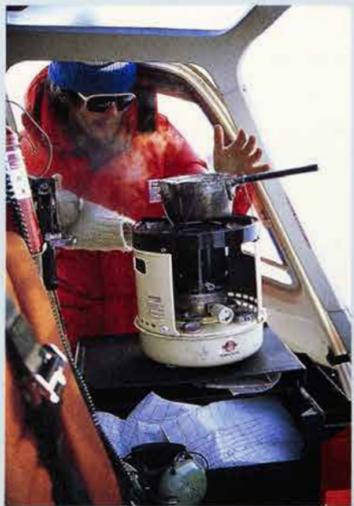
The people at the camp were wonderful: they bundled me inside, gave me a meal and put me to bed. I don't know what I would have done if they hadn't been there. I had read about vertigo and had had doses of it up to a minute at a time when training and instrument flying. However, to have had it for over 20 minutes in these conditions was one of the most terrifying experiences in all my flying.



After a good sleep my head was clear, and I decided to complete my flight to Resolute via the North Magnetic Pole, about 400 km west of the camp. This I did, photographing myself on the ice with the *Australian Geographic* flag and a tattered Australian flag that had flown on Everest. The chill factor on the spot was  $-53^{\circ}\text{C}$ . Meanwhile, before I left the oil drilling camp I was told that it would be disbanded for the summer, as the ice would go, and the drillers would relocate the drill hole the following year. I photographed a huge Hercules that put down on the 1.5 m thick ice to begin the move (right). *Delta India Kilo* is between the two heavy pieces of equipment. As it happened, I came this way again in July on my second attempt on the pole, when the ice was breaking up (top) and the disintegrating outline of the airstrip was the only sign that humans had been here.

Terry and Bezal Jesudason (right), in Resolute, were warm friends and supporters during all my attempts on the North Pole, and later when I made my around-the-world flight via the poles in the Twin Otter *Sir Hubert Wilkins*.





On that first flight, Lawrence 'Flo' Howell, the radio operator keeping vigil at Ward Hunt for adventurer Sir Ranulph Fiennes, who was walking to the pole, used his stove to heat my cockpit (*above*) in an effort to get my

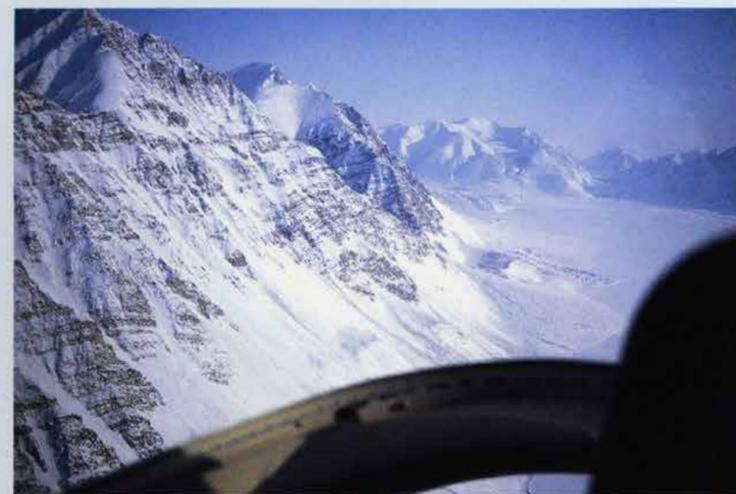


radio equipment to work. I had no heater aboard to save weight. Back at Ward Hunt Island and feeling miserable after the failure of my first attempt to reach the pole (I had to turn back 670 km from it), I used my navigation

protractor (*above*) to laboriously scrape the ice off my windshield before I could continue south. Pip, who took this shot, was my ground support on all three of my attempts and found herself in some remote and lonely situations.



Another miserable occasion – forced down on the Arctic Ocean ice 110 km from land while returning to Ward Hunt after my second attempt in July 1986. I had got within 165 km of the pole before dense fog and a failing generator sent me back. I pitched my tent on the ice (*above and right*), crawled into my sleeping-bag and waited for the fog to lift, my life raft in its yellow case within reach. I was caught there for several hours, probably the most lonely person in the world, listening to the ice moving and creaking beneath me.

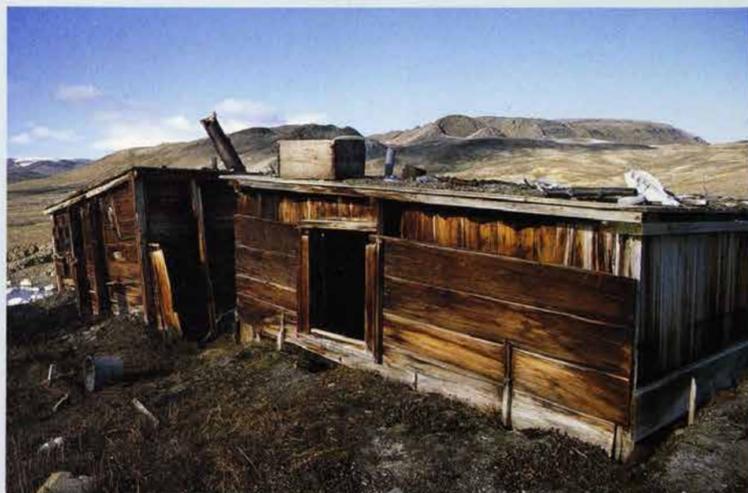


Tanquary Fjord on Ellesmere Island presented different faces during my attempts on the pole. The shot I took on my first attempt in April (*above*) shows the fjord icebound and gloomy. The temperature in my cabin was  $-28^{\circ}\text{C}$ . Three months later the fjord was sparkling (*below*) and leads of ice-free water were opening up. The temperature was a pleasant  $8^{\circ}\text{C}$ . As I found out the hard way, in the High Arctic weather conditions can vary considerably from month to month and from year to year, and luck plays a part in any flying adventure. The Arctic is

very unforgiving to pilots and on *Delta India Kilo's* travels I saw many crashed aircraft, including this one (*above right*) on Cornwallis Island near Resolute.

Refuelling by hand was usually a necessity so far north. In  $-30^{\circ}\text{C}$  cold it took me an hour to pump fuel from this drum left for me on frozen Lake Hazen, northern Ellesmere Island, on my first attempt on the pole (*right*). I used Hazen, 4200 km north of Ottawa and the most northerly freshwater lake in the Western world, as a crucial supply point during my first two attempts.





Pioneer explorers Adolphus Greely and Robert Peary at different times occupied Fort Conger on the east coast of Ellesmere and there is much history in these old timbers (*left*). I put down at the long-abandoned base when returning to Lake Hazen from my second attempt on the pole.

There is more history in these graves of some of Sir John Franklin's men on Beechey Island (*below*). I put down here on my first and third flights. Tests on some of the bodies exhumed from Beechey revealed they had been suffering from lead poisoning, presumably from the lead used to seal cans of food. Some of these cans can still be seen there.



Arctic flowers (*left*), blooming briefly in summer on Beechey Island.

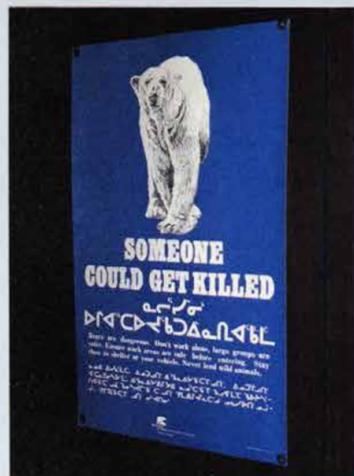


I camped near the spectacular, 90 m high Virginia Falls (*above*) on the South Nahanni River on my return flight to Vancouver after my second attempt on the pole. That's the fantastic thing about magic carpet helicopter flights – with a sleeping-bag and small tent and stove you have total freedom. The Nahanni, in the south-west corner of the Northwest Territories, twists through immense, deep canyons (*bottom*). Nahanni National Park is a World Heritage site.

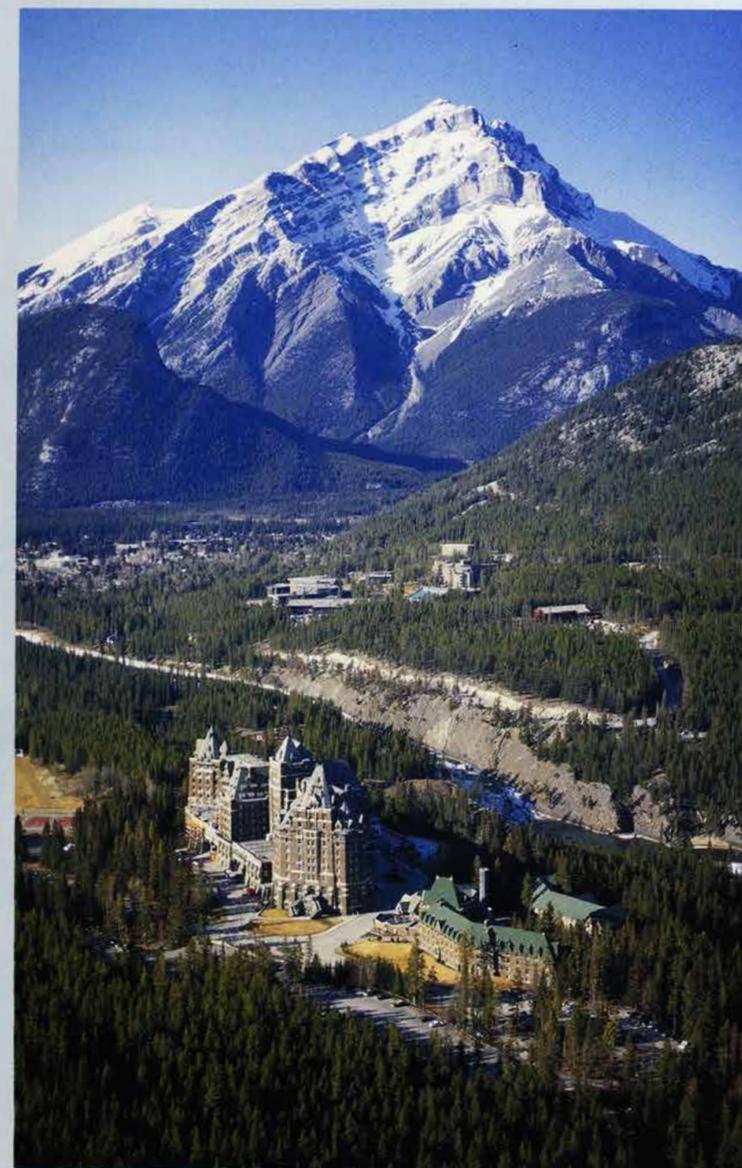


The friendly dog (*right*) is at Yellowknife, capital and only city of the Northwest Territories, where winter temperatures average  $-22^{\circ}\text{C}$ .





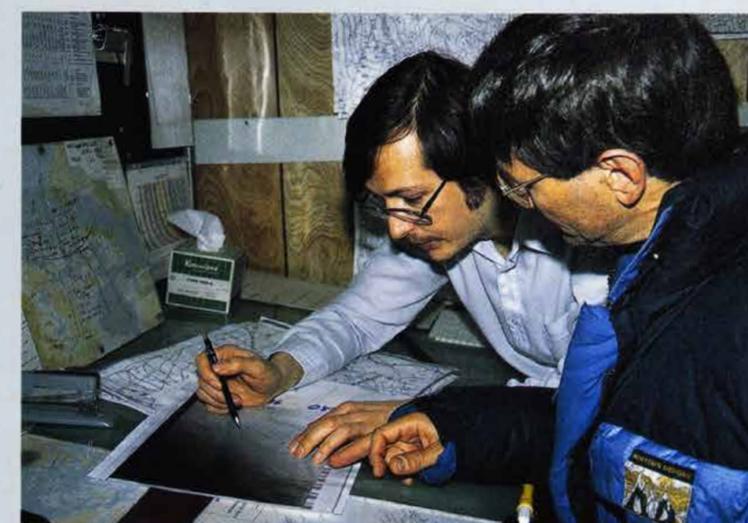
The dramatic picture of a glacier face (top) near Otto Fjord is typical of the kind of natural scenery that continually captivated me during my flights in *Delta India Kilo*. The many animals I saw included this polar bear (left) on Ellesmere Island. I had landed to obey a call of nature, but hurriedly took off when I spotted it approaching! Bears are taken seriously in the Northwest Territories, as the warning poster I photographed at the weather station at Resolute shows (above, left). Also at Resolute was this polar bear skin drying in the sun outside an Inuit home (above). Thousands of bears of various kinds are shot by Canadian hunters every year.



Not long after leaving Vancouver on the first day of my first attempt on the pole, *Delta India Kilo* took me over the Banff Springs Hotel (left), in the Canadian Rockies. The famous hotel celebrated its centenary in 1988, although this is not the original building.

On that flight a makeshift sun compass I made out of cardboard and a ballpoint pen (above) helped guide me back to Ward Hunt Island when my gyro compass and Omega system failed.

Briefings at the weather office, such as this one at Resolute (below), were an important routine during my three attempts on the pole, as was constant radio contact during my flights across the ice. Pip, camped at Lake Hazen (below left), keeps in touch during my second attempt with HF radio on 5281.5 kHz. On some crucial occasions, all either of us heard was static.



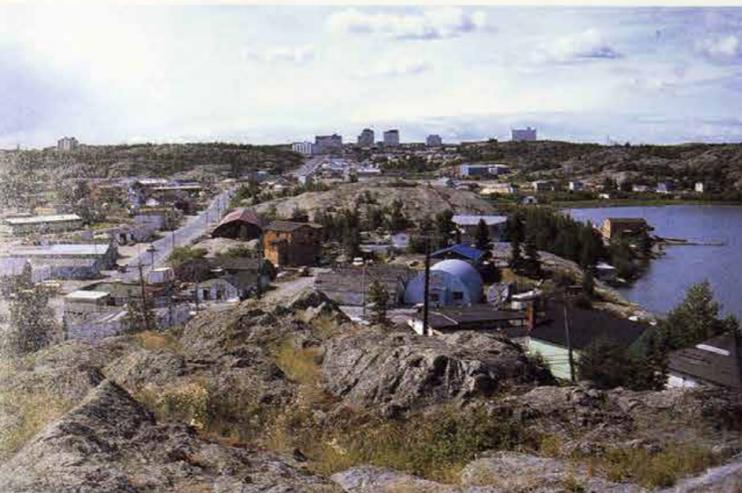
*Summer in the far north – 12.16 a.m. and brilliant sunshine*



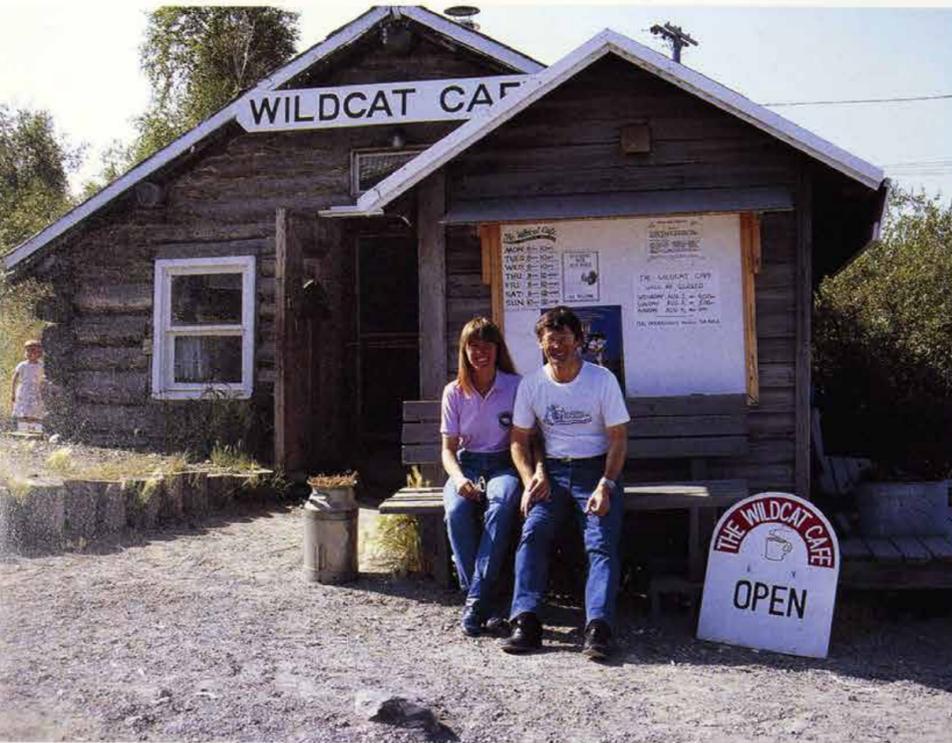
DAY 11  
SATURDAY 4 JULY 1987  
*Yellowknife–Norman Wells–  
Inuvik*

It was July and I was back in Yellowknife which I had left in May. Yellowknife in summer is an entirely different country, as these pictures demonstrate (*this page and opposite page top*). Note the Aussie beer being loaded for a fishing trip. Bob had serviced *Delta India Kilo* and it was in great shape. After departing Yellowknife, I picked up the great Mackenzie River below Fort Simpson and followed it north to Norman Wells, the centre of oil and gas fields. I had flown over Fort Simpson (*opposite page bottom*) on my second attempt on the pole. In this picture the Mackenzie runs off to the left of the town, with the Laird River on the right. Next to the Mississippi the swiftly flowing Mackenzie river system is the longest in North America, running 4240 km from the Rocky Mountains to the Beaufort Sea, in the Arctic. The early explorers hoped it flowed into the Pacific and would serve as a highway through the continent. The Mackenzie runs through true wilderness, which gave me some fascinating flying, but I was ready for a break when I put down at Inuvik at 12.16 a.m. – still in brilliant sunshine.

*“Yellowknife in summer is an entirely different country...”*



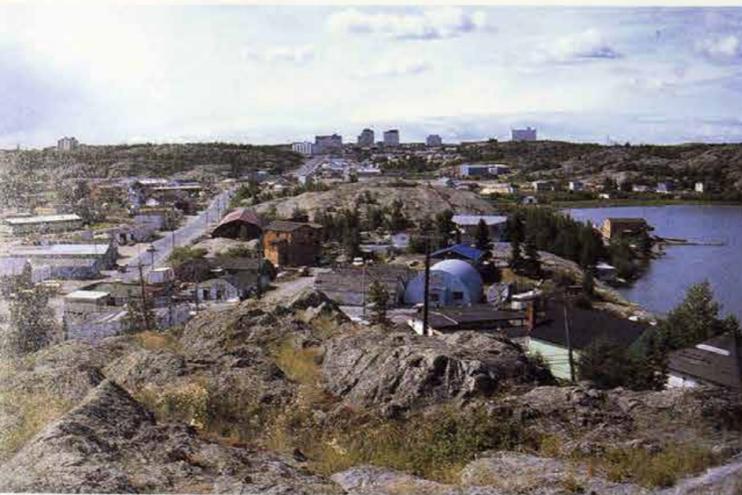
*Summer in the far north – 12.16 a.m. and brilliant sunshine*

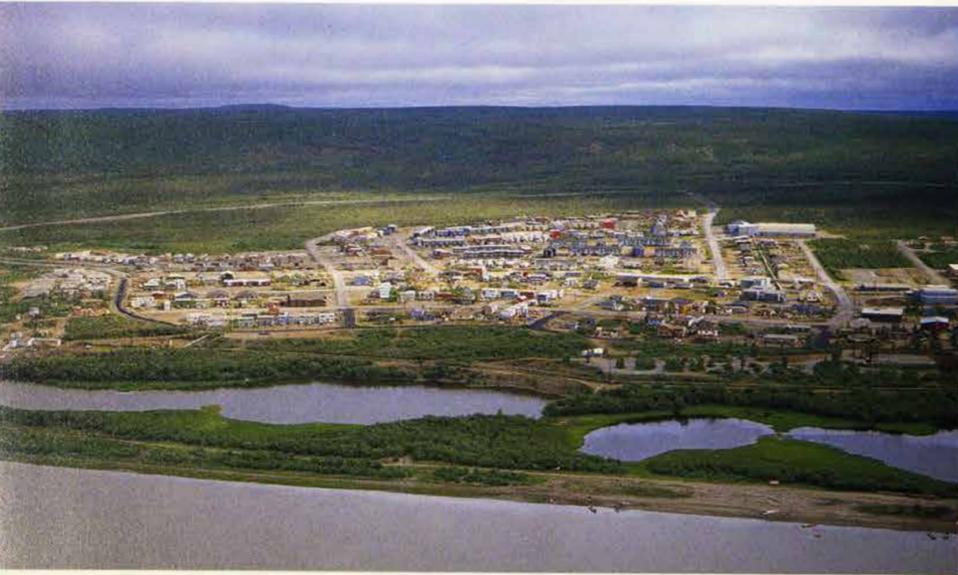


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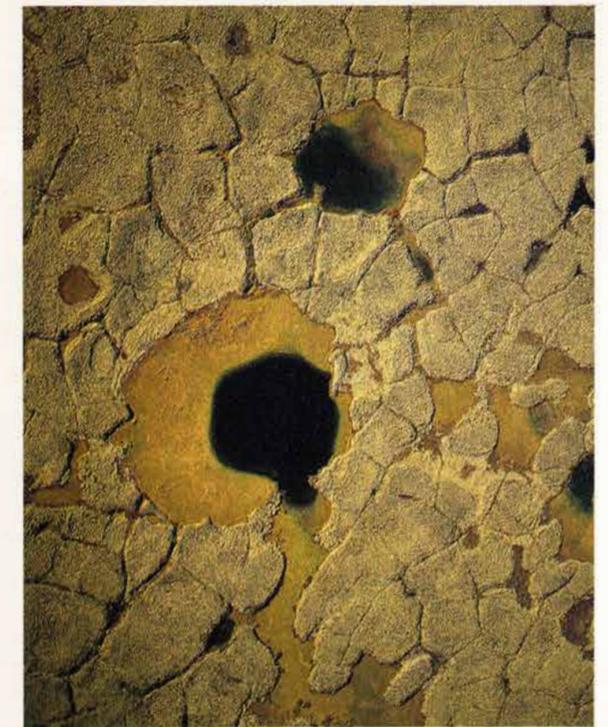
DAY 12  
SUNDAY 5 JULY 1987

*Inuvik—Barter Island—  
Prudhoe Bay*

Inuvik, population 3000 (left), is on the wide and shallow Mackenzie delta, and I noted that its sewers are elevated. Its economy is centred around the nearby oil and gas exploration. There wasn't a skerrick of snow around, and soon after taking off I was flying over incredible green, broken by small lagoons and billabongs rich in bird life (opposite page, top and bottom right). It reminded me of northern Australia's Kakadu National Park, rather than somewhere north of the Arctic Circle. This leg would take me 1400 km along the north coast into Alaska, but as Herschel Island was on my track, I made it my first call. Herschel, named by Sir John Franklin in 1826, was a major wintering station for 19th-century whalers, and has a rich history, but my special interest in it stemmed from reading D. North's true story of *The Lost Patrol*. Francis Fitzgerald was inspector in charge of a Mounties detachment on the island in 1910 when he led the winter mail patrol of four to Dawson. They became lost and all died. I landed at the old settlement (left), with a line of white gravestones showing up against the green not far away (below). Here I learnt from a friendly group doing an archaeological dig (opposite page bottom left), who invited me to share coffee and cakes with them, that my friend Martyn Williams (see photograph Day 4) was leading a climbing and rafting group on the Firth River, on the nearby mainland; I thought it would be a great idea to drop in on him.

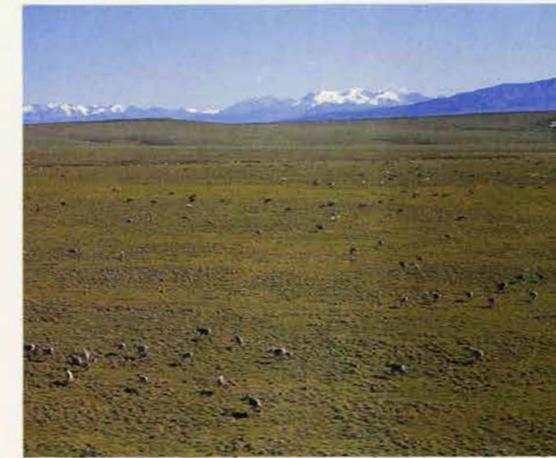


*Like a "Kakadu" north of the Arctic Circle*





The location I was given for Martyn's party was not specific, so I had *Delta India Kilo* do some mountain climbing, running up one ridge after another along the Firth (opposite page top) until I found them on a mountain top (opposite page bottom). (On the way I photographed a raft negotiating the rapids, but that turned out to be another group.) What a meeting! We sat down for lunch and a chat in a superb setting on a superb day. Martyn, at rear left, was a partner in Adventure Network with my friend Giles Kershaw, who shared the major legs of my Twin Otter flight around the world via the poles in 1988-89 (*Our Fantastic Planet*). A half-hour after leaving Martyn I flew around this wrecked ship (top right), looking desolate and a long way from civilisation, just to the east of Barter Island, in an area that for most of the year is ice-covered. I was now in American territory. Barter Island is a DEWLINE station (right) and an Inuit settlement; here I now had the greatest fright I'd ever had with *Delta India Kilo* on the ground, when the four powerful engines of a taxiing Hercules freighter almost blew a parked light plane onto my main rotor while I was idling. I was told I would see a lot of caribou from here on. Approaching Brownlow Point about 100 km east of Prudhoe Bay, where I would spend the night, I flew over beautiful green pastures literally swarming with thousands of them. Apparently they are seen every year about this time, but will migrate south again in the winter. I flew around the herds for a good 10 minutes filming and photographing (centre right). In dramatic comparison with this splendid wildlife setting was the man-made desolation of this abandoned DEWLINE station at Brownlow Point - a vast investment in buildings and equipment, including transmitters and generators, left to rust (right and far right). Selected stations were abandoned as radar technology improved and the network required fewer monitoring posts. As I wandered about I thought of the incredible amount of money the Americans spent building stations in such isolated spots, only to abandon them not many years later.



*"In dramatic comparison with this splendid wildlife setting was the man-made desolation..."*



## Swimming north of the Arctic Circle

DAY 13  
MONDAY 6 JULY 1987

*Prudhoe Bay–Barrow–  
Kotzebue–Kīwalik*

My flight from Prudhoe Bay to Barrow was a magic-carpet ride as I cruised between 140 and 147 knots with the help of a tremendous tail wind. Prudhoe Bay's main claim to fame is as the northern terminal of the great Trans-Alaska oil pipeline,



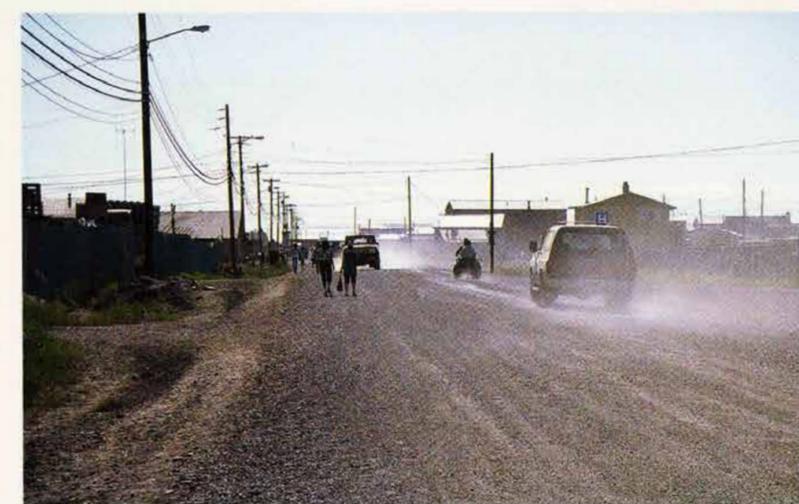
the southern terminal of which, at Valdez, *Delta India Kilo* took me over in 1983 towards the end of its flight around the world. My friends at Era Helicopters gave me their usual support and hospitality at Prudhoe Bay. Barrow (*above*) is the northernmost town in the United States, and in the distance (*left*) is Cape Barrow, the northernmost point of the US. I put down on the point, walked out on the pressure ice and took a photograph looking back at *Delta India Kilo* (*below left*). I was in Barrow in 1983, paying homage at the memorial to Wiley Post and Will Rogers, who died here in 1935 (*see page 155*). I put down again next to the lake on which they crashed before heading south for Kotzebue, on the other side of the magnificent wilderness

*“My flight from Prudhoe Bay to Barrow was a magic-carpet ride...”*



of Brooks Range, whose barren peaks form a barrier across northern Alaska. The peaks came in all shades, interspersed with surprisingly green river valleys (*above*). I landed on one peak to enjoy the views as I ate my lunch.

Kotzebue, on Alaska's west coast, was bigger than I had expected, with long, dusty streets that reminded me of a typical outback Australian town (*above right*). I sighted it from 40 km out and was refuelled almost immediately when I put down next to the refuelling point. This place is north of the Arctic Circle but it was unbelievably warm – kids were swimming at the gravelly beach in front of the town (*right*). I would have been happy to stay overnight but the hotel was full, so I took to the air again with the idea of camping out down the coast.





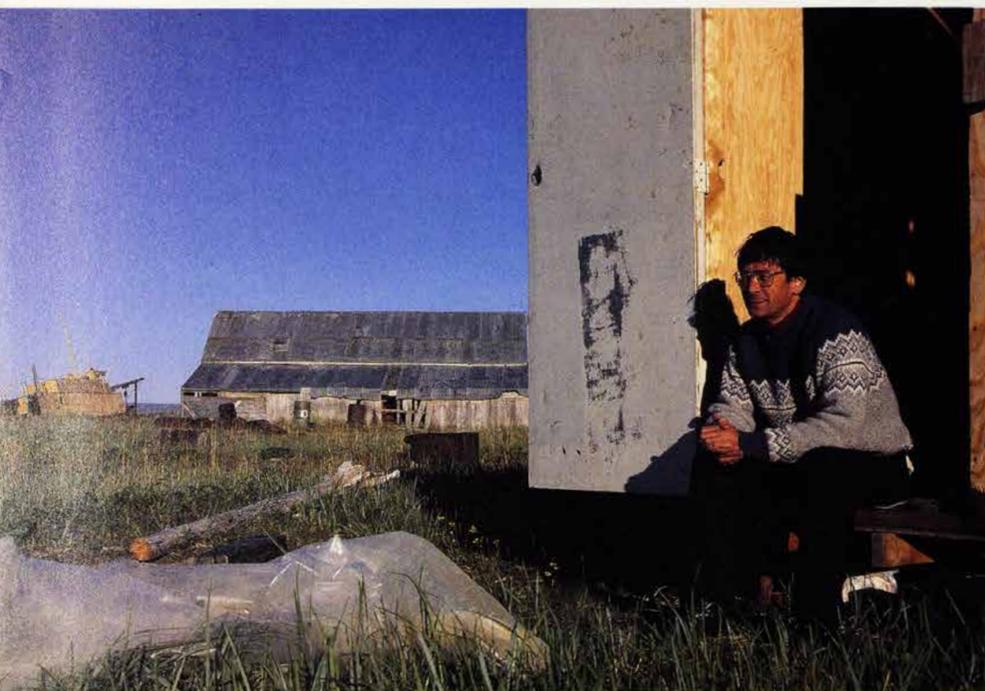
*“Little Diomede is an American possession only 4 km from Big Diomede, which is Soviet territory...”*

DAY 14  
TUESDAY 7 JULY 1987  
*Kiwalik–Little Diomede–  
Nome–Anchorage*

When I flew through Siberia in 1989 on my Twin Otter flight around the world (*Our Fantastic Planet*), I experienced at first-hand the remarkable changes that have since led to the political disintegration of the USSR. But in 1987 nobody suspected their speed and scope; the USSR was still regarded by most of the world, including me, as a somewhat unfriendly, unpredictable power. Less than 300 km west of my little hut in Kiwalik were the Diomedes, a pair of islands sitting in the centre of the 85 km wide Bering Strait. Little Diomede is an American possession only 4 km from Big Diomede, which is Soviet territory, so I decided I

would never have a better chance of getting close to mysterious Russia. I radioed Kotzebue with a flight plan for Little Diomede, almost expecting they would raise objections, but they didn't seem to care. Just west of Kiwalik I ran into fog and climbed to 1000 ft. The fog persisted for a few kilometres into the strait. As I crossed the coast I donned my life-jacket, feeling a little surprised at how unsure I had become about water crossings, despite all my experience of them. Soon I could see what I thought to be Little Diomede, and beyond it, Big Diomede, but as I drew closer I realised I was looking at Big Diomede and the Soviet mainland. Little Diomede was an insignificant small, bare, flat-topped rock, as you can see from this photograph taken on my approach (*below*). The Chukchi Peninsula of the USSR is in the distance, and Big Diomede still has some snow. I landed on

*Literally flying between the super-powers*



An hour later, at 10.29 p.m. in beautiful warm and sunny weather, I put down at Kiwalik (*above*), which you won't find on many maps. It seemed to be an abandoned camp of some sort, with machinery lying about and a boat on the shore, perhaps driven up by a storm. The grass was green and long; I was now just south of the Arctic Circle, and it was hard to believe that this area is covered with snow and ice for half the year. I spent the night in my sleeping-bag in a hut (*left*), where this hard-luck tale was pencilled on a wall: “This shack built by Deering volunteers. Got storm-bound here September 31st to October 4, 1986. Ran out of grub, hunted some ducks for soup, got totally bored. Supposed to be just one night.” Deering is a nearby town. Happily, I had nothing but satisfaction from my own one-night stay.

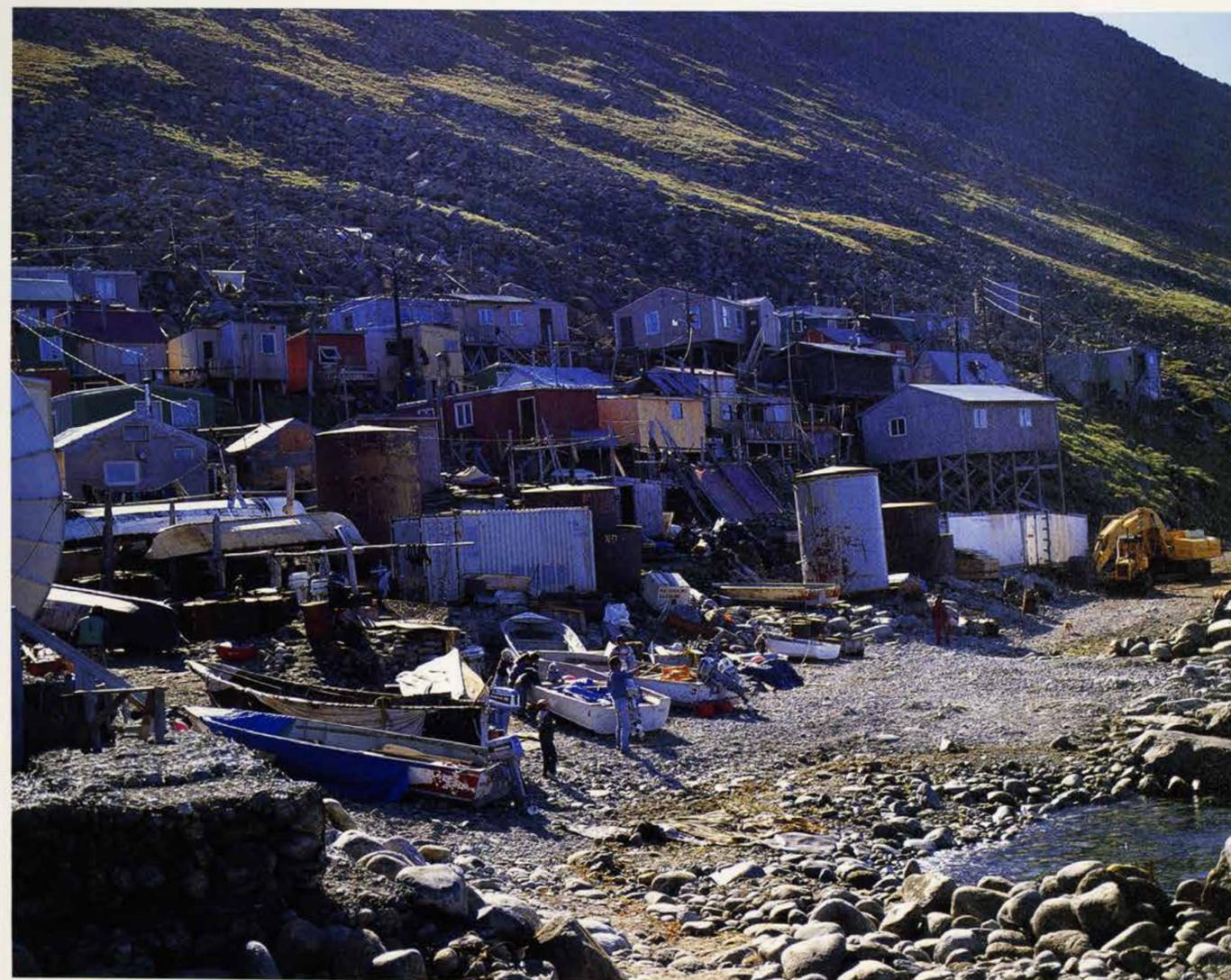




Little Diomedede (*above and opposite page*), shut down the engine and wandered about. I was astounded at just how close the Soviet Diomedede was – it seemed even closer than 4 km. Over on Big Diomedede it was Wednesday, not Tuesday as here, because the International Date Line passes between the two islands. I walked to the western edge of the cliffs and looked straight down to the small settlement clinging to the base, facing the Soviet island. Thousands of seabirds nested on the cliff face at this time of year. The easiest way down, as far as I could see, was by helicopter, so I took off, dropped down in an incredibly steep approach that put the birds to flight, and put down on a steel barge pulled up on the rocks in front of the settlement (*left*). I got a friendly welcome. The Eskimo population of about 150 lead a subsistence life, with the help of social security cheques. They do a tremendous amount of fishing and hunting. Walrus skins hung in the sun drying, and I was proudly shown a walrus skin boat. There were also a number of skidoos, used for hunting on the ice in winter. A satellite dish brought TV and there was a fine new school. An enormous tank held water from a filtration system. They told me there had been no socialising between the people of the two Diomededes since

World War II, which I thought was sad, but I have heard since that relations have been restored following the collapse of the Soviet system.

*“They told me there had been no socialising between the people of the two Diomededes since World War II, which I thought was sad...”*



From Little Diomed I flew to Nome along a coast that reminded me of the coast south of Adelaide, South Australia – beautiful green hills running to the sea (*below*). I also flew over a number of fishing camps, which the local people use in the short summer (*right*). Nome made its reputation in the gold rushes at the turn of the century and gold dredges still operate near the town and off-shore. I circled one large ocean dredge (*bottom*) working the seabed a few kilometres out from Nome. It had its own helipad and was obviously making the best of the few months of the year it could work. On the ground in Nome at 1 p.m. after a flight of 1 hr 30 mins from Little Diomed, I decided that everything was going so well I would try to get right through to Anchorage that night. It would mean flying more than 1600 km that day, with more than eight hours at the controls, but I had had longer days on my travels. In the event, I ran into fog, rain and poor visibility, and spent much of the flight attempting to dodge the worst of it. When I put down at Anchorage at 9.30 p.m. I had further evidence, if I needed it, that you just can't depend on Arctic weather. A few days later *Delta India Kilo* was packed up for its voyage to Sydney, and turned its back on the Arctic for ever.



# Appendix A

## LOG BOOK

### Delta India Kilo's solo flight around the world and to the North Pole

#### Stage 1

Solo flight around the world  
Fort Worth to London

6346 nautical miles (11,752 km). 60 hours and 52 minutes.  
Average speed 104 knots (192 km/h).

Day	Date	Point of Departure and Destination	Distance flown		Air Time hrs/min
			nm	km	
1	Thu 5.8.82	Meecham/Fort Worth	15	28	.12
		Fort Worth/Memphis	392	726	3.54
		Memphis/Knoxville	363	672	2.49
		Knoxville/World Fair	5	9	.04
			<b>775</b>	<b>1435</b>	<b>6.59</b>
2	Fri 6.8.82	World Fair/Washington	345	639	3.27
		Washington/New York	236	437	2.24
4	Sun 8.8.82	New York/Boston	210	389	2.00
		Boston/Moncton	362	670	3.27
			<b>572</b>	<b>1059</b>	<b>5.27</b>
5	Wed 11.8.82	Moncton/Wabush	480	889	4.34
		Wabush/Fort Chimo	335	620	3.12
		Fort Chimo/Baffin Island	349	646	3.27
			<b>1164</b>	<b>2155</b>	<b>11.13</b>
6	Thu 12.8.82	Baffin Island/Frobisher Bay	95	176	.52
		Frobisher Bay/Cape Dyer	251	465	2.17
		Cape Dyer/Sondre Stromfjord	262	485	2.23
			<b>608</b>	<b>1,126</b>	<b>5.32</b>
7	Sat 14.8.82	Sondre Stromfjord/Narsarsuaq	475	880	4.45
		Narsarsuaq/Kulusuk	345	639	3.37
9	Tue 17.8.82	Kulusuk/Reykjavik	402	745	3.55
		Reykjavik/Hornafjordur	226	418	2.03
			<b>628</b>	<b>1163</b>	<b>5.58</b>
10	Wed 18.8.82	Hornafjordur/Vagar	252	467	2.39
		Vagar/Stornoway	241	446	2.21
			<b>493</b>	<b>913</b>	<b>5.00</b>
11	Thu 19.8.82	Stornoway/Balmoral	210	389	2.00
		Balmoral/Glasgow	116	215	1.03
		Glasgow/London	361	669	3.17
		London/Battersea helipad	18	33	.10
			<b>705</b>	<b>1306</b>	<b>6.30</b>

#### Stage 2

Solo flight around the world  
London to Sydney

12,469 nautical miles (23,092 km). 113 hours and 20 minutes.  
Average speed 110 knots (204 km/h).

Day	Date	Point of Departure and Destination	Distance flown		Air Time hrs/min
			nm	km	
12	Mon 13.9.82	Biggin Hill/Lyon Lyon/Rome	409	757	3.43
			504	933	4.35
			<b>913</b>	<b>1690</b>	<b>8.18</b>
13	Tue 14.9.82	Rome/Brindisi Brindisi/Kerkira Kerkira/Athens	314	582	2.51
			119	220	1.05
			271	502	2.28
			<b>704</b>	<b>1304</b>	<b>6.24</b>
14	Wed 15.9.82	Athens/Iraklion Iraklion/Cairo	160	296	1.27
			521	965	4.44
			<b>681</b>	<b>1261</b>	<b>6.11</b>
15	Thu 16.9.82	Cairo/Luxor Luxor/Ha'il	275	509	2.30
			513	950	4.40
			<b>788</b>	<b>1459</b>	<b>7.10</b>
16	Fri 17.9.82	Ha'il/Bahrain	480	889	4.22
17	Sat 18.9.82	Bahrain/Muscat Muscat/Karachi	468	867	4.15
			594	1100	5.24
			<b>1062</b>	<b>1967</b>	<b>9.39</b>
18	Sun 19.9.82	Karachi/Ahmadabad Ahmadabad/New Delhi	341	631	3.06
			427	791	3.53
			<b>768</b>	<b>1422</b>	<b>6.59</b>
19	Tue 21.9.82	New Delhi/Lucknow Lucknow/Calcutta	238	441	2.10
			444	822	4.02
			<b>682</b>	<b>1263</b>	<b>6.12</b>
20	Wed 22.9.82	Calcutta/Rangoon	572	1059	5.12
21	Thu 23.9.82	Rangoon/Beach in Burma Beach in Burma/Phuket	266	493	2.25
			372	689	3.23
			<b>638</b>	<b>1182</b>	<b>5.48</b>
22	Fri 24.9.82	Phuket/Singapore	576	1067	5.14
23	Sun 26.9.82	Singapore/Jakarta	545	1009	4.57
24	Mon 27.9.82	Jakarta/Bali	590	1093	5.22
25	Tue 28.9.82	Bali/Kupang Kupang/Darwin	541	1002	4.55
			497	920	4.31
			<b>1038</b>	<b>1922</b>	<b>9.26</b>
26	Thu 30.9.82	Darwin/Delta 4 Bore	587	1087	5.20
27	Fri 1.10.82	Delta 4 Bore/Longreach	710	1315	6.27
28	Sat 2.10.82	Longreach/Bundaberg	537	995	4.53
29	Sun 3.10.82	Bundaberg/Sydney	598	1108	5.26

## Stage 3

Solo flight around the world  
Sydney to Fort Worth

14,118 nautical miles (26,146km). 132 hours and 43 minutes.  
Average speed 106 knots (196 km/h).

Day	Date	Point of Departure and Destination	Distance flown		Air Time hrs/min
			nm	km	
30	Wed 25.5.83	Sydney/Bundaberg	630	1167	5.32
31	Thu 26.5.83	Bundaberg/Cairns	621	1150	5.25
32	Fri 27.5.83	Cairns/Lizard Is	152	282	1.36
33	Sat 28.5.83	Lizard Is/Thursday Is	415	769	3.56
34	Sat 4.6.83	Thursday Is/Merauke	186	344	1.41
		Merauke/Tembagapura	344	637	3.26
			530	981	5.07
35	Sun 5.6.83	Tembagapura/Sorong	417	772	4.44
36	Mon 6.6.83	Sorong/Manado	455	843	4.30
37	Tue 7.6.83	Manado/Davao	366	678	3.26
38	Wed 8.6.83	Davao/Manila	576	1067	5.30
39	Fri 10.6.83	Manila/Laoag	248	459	2.42
		Laoag/Hong Kong	462	856	4.20
			710	1315	7.02
40	Fri 17.6.83	Hong Kong/Taipei	468	867	3.54
41	Sat 18.6.83	Taipei/Naha	374	693	3.34
42	Sun 19.6.83	Naha/Kagoshima	376	696	3.31
43	Mon 20.6.83	Kagoshima/Oshima Is	280	519	2.38
44	Tue 21.6.83	Oshima Is/Tokyo	278	515	2.48
45	Thu 23.6.83	Tokyo/Kushiro	532	985	4.55
46	Sat 25.6.83	Kushiro/Höegh Marlin	730	1352	6.17
		Höegh Marlin/Shemya	680	1259	5.45
			1410	2611	12.02
47	Sun 26.6.83	Shemya/Adak	390	722	3.19
48	Mon 27.6.83	Adak/Dutch Harbor	410	759	3.49
		Dutch Harbor/Cold Bay	184	341	1.46
			594	1100	5.35
49	Tue 28.6.83	Cold Bay/King Salmon	330	611	3.54
50	Wed 29.6.83	King Salmon/Anchorage	370	685	3.16
51	Sun 10.7.83	Anchorage/Dawson	588	1089	5.47
		Dawson/Whitehorse	262	485	2.34
			850	1574	8.21
52	Mon 11.7.83	Whitehorse/Prince Rupert	545	1009	5.03
53	Tue 12.7.83	Prince Rupert/Vancouver	461	854	4.35
54	Fri 15.7.83	Vancouver/Spokane	318	589	3.06
		Spokane/Jackson Hole	487	902	4.35
			805	1491	7.41
55	Mon 18.7.83	Jackson Hole/Cheyenne	372	689	3.18
56	Tue 19.7.83	Cheyenne/Amarillo	526	974	4.41
57	Fri 22.7.83	Amarillo/Fort Worth	285	528	2.50
<b>SUMMARY</b>					
		Fort Worth/London	6346	11,752	60.52
		London/Darwin	10,037	18,588	91.14
		Darwin/Sydney	2432	4504	22.06
		Sydney/Fort Worth	14,118	26,147	132.43
		<b>FORT WORTH/FORT WORTH</b>	<b>32,933</b>	<b>60,991</b>	<b>306.55</b>

## Solo to the North Pole

Vancouver to North Pole to Anchorage

8792 nautical miles (16,283 km). 87 hours and 28 minutes.  
Average speed 100 knots (185 km/h).

Day	Date	Point of Departure and Destination	Distance flown		Air Time hrs/min
			nm	km	
1	Thu 23.4.87	Vancouver/Kamloops/ Peace River/Yellowknife	952	1763	9.05
2	Fri 24.4.87	Yellowknife/Cambridge Bay	466	863	4.21
3	Sat 25.4.87	Cambridge Bay/Cambridge Bay	378	700	4.48
4	Sun 26.4.87	Cambridge Bay/Resolute	387	717	4.05
5	Mon 27.4.87	Resolute/Eureka/Cape Woods/ Ward Hunt	667	1235	6.29
6	Tue 28.4.87	Ward Hunt/North Pole/Ward Hunt	854	1582	8.21
7	Wed 29.4.87	Ward Hunt/Eureka/Resolute	693	1283	6.42
8	Sun 3.5.87	Resolute/Spence Bay/Gjoa Haven	403	746	4.14
9	Tues 5.5.87	Gjoa Haven/Cambridge Bay/ Cambridge Bay	330	611	4.36
10	Wed 6.5.87	Cambridge Bay/Yellowknife	473	876	5.02
11	Sat 4.7.87	Yellowknife/Norman Wells/Inuvik	860	1593	8.18
12	Sun 5.7.87	Inuvik/Barter Island/Prudhoe Bay	790	1463	7.03
13	Mon 6.7.87	Prudhoe Bay/Barrow/ Kotzebue/Kiwalik	645	1195	5.58
14	Tues 7.7.87	Kiwalik/Little Diomedes/ Nome/Anchorage	894	1656	8.27

Actual distances flown, taken from the flight logs, are shown in nautical miles.  
Any discrepancies in the conversion to kilometres are due to rounding.

# Appendix B

## How the helicopter flies



Helicopters are called "rotary wing" aircraft because the main rotor acts as a wing by providing lift as it rotates. The tail rotor counteracts the turning movement of the body caused by the main rotor.

My helicopter, VH-DIK, a Bell JetRanger III, is powered by an Allison gas turbine engine. Gas from the burning fuel spins a turbine, which drives the rotors. When the starter button is pressed, a small motor runs the turbine up to about 7000 rpm. The throttle is then opened, introducing fuel into the combustion chamber, where a spark plug ignites it. The flame increases the turbine speed to about 25,000 rpm, when the starter button can be released.

The rotors are designed to operate at constant speeds. In the JetRanger the main rotor spins at 394 rpm and the tail rotor at about 2500 rpm. Three main controls are used to vary the helicopter's speed, direction and attitude: between the pilot's feet is the "cyclic", a lever similar to the joystick in a fixed-wing aircraft; to the pilot's left is a lever called the "collective", and the other main controls are the foot pedals.

Flying a helicopter requires constant interaction of the major controls. In a hover, for instance, it is almost impossible to move one without having to move the other two.

**The Collective.** This lever controls vertical movement through two "pitch" rods that vary the pitch of the main rotor. Pitch change is constant during the complete rotation of the rotor. If the collective is lifted during a hover, the helicopter will rise vertically because the extra pitch thus provided gives extra lift.

**The Cyclic.** Used for forward, backward and sideways movement. When it is pushed forward the blade pitch increases as the rotor passes towards the rear of the helicopter and decreases towards the front. The rotor tilts up at the back and down at the front, causing the helicopter to move forward. Tilting the cyclic to the left results in extra pitch on the right-hand side and less on the left. As the rotor's plane of rotation tilts to the left the helicopter moves in that direction. This operation of the cyclic control means that the pitch changes during every rotation – that is, 394 times a minute, or over six times a second.

**The Pedals.** When the pitch on the main rotor blades is increased the fuselage of the aircraft wants to turn in the opposite direction. (For every action there is an equal and opposite reaction.) This is arrested by using the pedals to increase the pitch on the tail rotor blades. When the left pedal is pushed the pitch is increased, and by pushing the right pedal the pitch is decreased.

Helicopters have been described as "so unstable and difficult to fly that it's like riding a one-wheeled bike on top of a billiard ball". In fact it's not that difficult, and once you have the knack of it – after about 50 hours of training – it will become second nature. The only way to fly well is to practise so much that you operate the controls without having to think about it.

**Auto-Rotation.** There is a common belief that if the engine fails the helicopter will drop like a brick. Fortunately, this isn't true. Helicopters

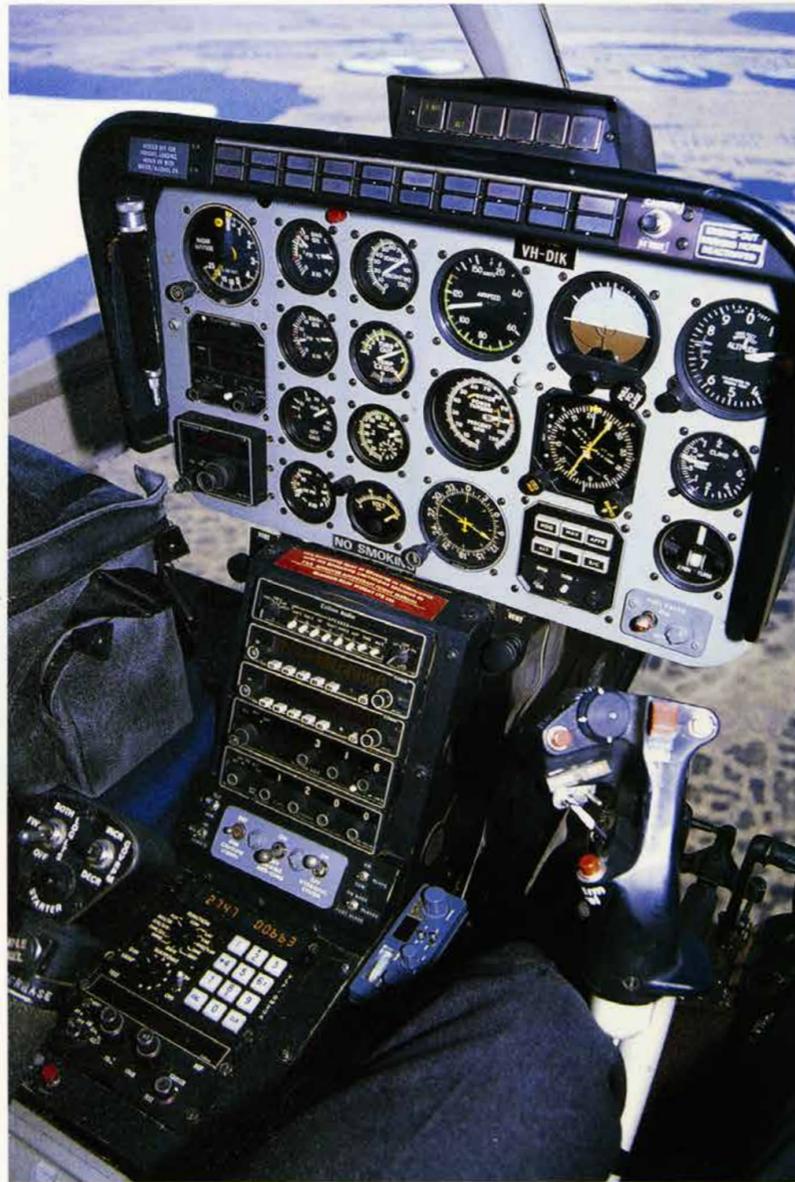
actually glide beautifully, slower than the gliding speed of most fixed-wing aircraft. This is called auto-rotation and the pilot can arrest the glide near the ground and land quite softly at near-zero speed. If the engine stops, the pilot simply enters auto-rotation by pushing the collective right down. This puts the main rotor blades into minimum pitch, and the air coming up through them as the helicopter descends keeps them turning. The JetRanger will descend at 55 knots and glide about 4000 ft for every 1000 ft of descent. When within 10 metres of the ground the collective is raised and the inertia in the rotor system provides sufficient lift to arrest the descent.

**Forced Landing Over Water.** My only chance of getting out of the helicopter safely in the event of engine failure over water (and I flew more than 18,000 km over water on my around-the-world flight) would be to immediately enter auto-rotation (as described above) and glide, letting the helicopter gradually drop into the water. As it settled, I would tilt the cyclic to the left so the machine would roll over, destroying the blades as they struck the water. I would then grab my life raft and get out through the pilot's door, which is on the right-hand side. That's the theory of it anyhow, but in practice there would be a good chance that the fuselage would rotate as the blades hit the water, so I would probably end up under water and upside down. I've been told the helicopter would sink within 30 seconds.



*Above: Delta India Kilo in the air near Resolute. Right: Pip replenishes my film stocks in Resolute. The long-range fuel tanks, one on top of the other, seen in the cabin, extended Delta India Kilo's range from 400 to 900 nautical miles, and enabled me to make the North Pacific shipboard landing.*





## Technical Details

VH-DIK, *BELL JETRANGER III* is made mainly of aluminium and fibreglass and is very light. Empty weight when delivered from the factory is only about 725 kilograms; full weight is 1450 kg. The main rotor, which is 10 m long, is made of aluminium and the tail rotor is stainless steel. Cruising speed is about 120 knots (220 km/h). Fuel consumption is approximately 98 litres per hour of Jet A1, which is similar to household kerosene, but aviation gasoline can be used for a limited time.

### The instruments and controls

The common reaction on seeing *Delta India Kilo's* instruments and controls was to say how complicated they looked and to ask how I could possibly keep track of them while flying. After spending long hours in *Delta India Kilo I* became so familiar with every switch, button, instrument and control that I could locate them with my eyes closed.

The flight instruments are grouped on the right-hand side of the main panel, directly in front of the pilot. They indicate how the helicopter is flying and therefore were the ones I consulted most.

The navigation instruments are on the left-hand side of the panel.

The engine instruments are grouped around the centre and on the console below the panel. These are important but I did not have to look at them as often as I did the flight instruments.

### Flight

1. *Pressure altimeter* gives the altitude (in feet) above a set pressure datum, usually sea level.
2. *Vertical speed indicator (VSI)* shows the rate of climb and descent.
3. *Turn and balance indicator* shows when and at what rate the helicopter is turning and if the turn is balanced.
4. *Artificial horizon (AH)* is an important instrument that gives the attitude of the helicopter when the horizon is obscured. It was essential when I flew in Arctic white-out conditions.
5. *Airspeed indicator* is also very important as it shows the aircraft's speed and enables the pilot to calculate the distance covered in a given time.
6. *Radar altimeter* measures the distance above the ground. I normally fly at low altitudes and this instrument was crucial when the ground was obscured.
7. *Horizontal situation indicator (HSI)* is

a gyro-stabilised compass with an input from a small magnetic compass situated in the tail.

### Navigation

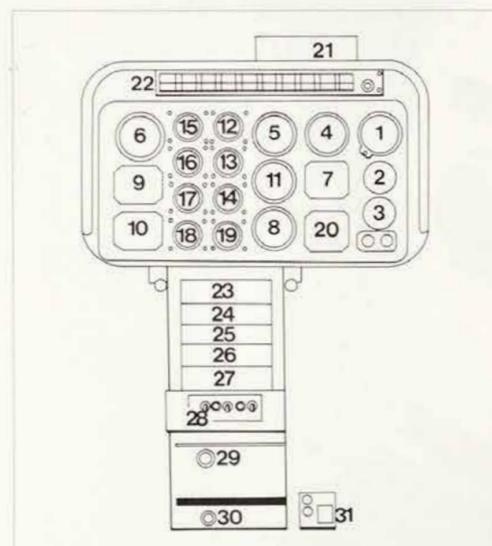
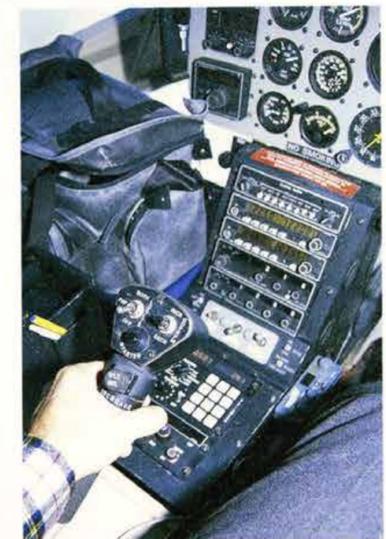
8. *Automatic direction-finding indicator (ADF)* is a compass-like instrument that gives the direction to a transmitting station.
9. *Distance-measuring equipment (DME) indicator* shows distance and speed from a tuned station.
10. *Collins navigation receiver* shows the correct bearing for VHF Omni Range (VOR) stations, which can be tuned in and displayed on the HSI (see 7).

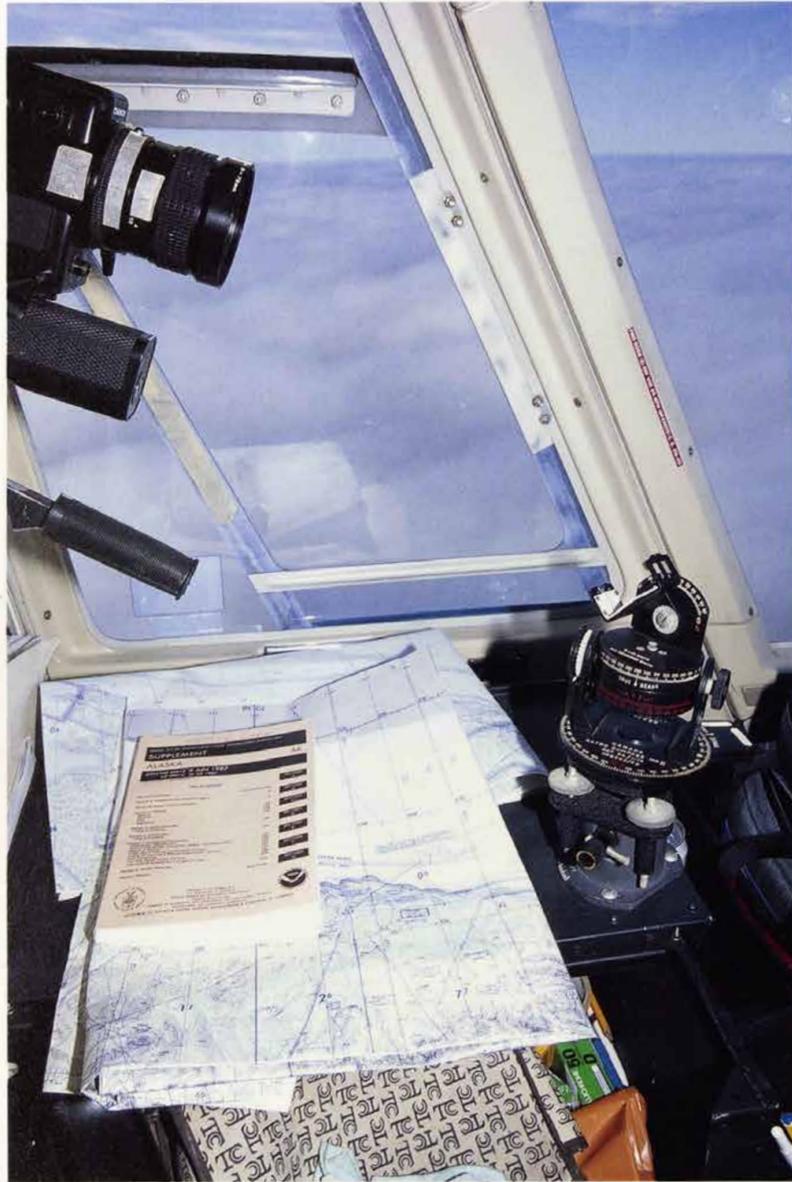
### Engine

11. *Dual tachometer* indicates the speed of the main rotor and power turbine. While the engine is running it will show 100 per cent (394 rpm).
12. *Torque meter* gives the percentage of engine power being applied.
13. *Turbine outlet temperature gauge* indicates the temperature of the engine flame. This gauge and the torque meter are consulted when changing power to make sure the engine's limitations are not exceeded.
14. *Gas-producer rpm indicator* shows the rotation speed of the gas-producer turbine and compressor.
15. *Engine oil temperature and pressure* are shown on a dual gauge.
16. *Transmission oil temperature and pressure* are also on a dual gauge.
17. *Fuel quantity gauge* indicates remaining fuel in US gallons.
18. *Fuel pressure and load meter gauge* indicates whether the pumps are providing sufficient pressure for normal engine operation. This dual instrument also shows the percentage of electrical load.
19. *Voltmeter* is fitted because of the extra navigation equipment in the aircraft.
20. *Collins autopilot* enables the aircraft to fly automatically along a set course. It is not approved for use at low altitudes.
21. *Autopilot annunciator panel* gives information on autopilot operation.
22. *Enunciator lights* give instant warning of failures or incorrect operation of the aircraft. Lights indicate engine failure, low rotor rpm, temperature and pressure in the transmission, fuel pump and generator failure, and faulty battery. Chip-indicator lights warn of metal chips in the engine, transmission and tail rotor gearboxes.
23. *Audio switching panel* enables the various transmitters, transceivers and other equipment to be switched to headphones or speaker, or



The cyclic (*above*) is similar to the joystick in a fixed-wing aircraft, and various switches on it allowed me to operate a number of the helicopter's controls without removing my hand. *Right*: The collective, which controls vertical movement.





Above: My movie camera was mounted on the left-hand side of the cockpit above my map cabinet. The sun compass, invaluable in polar regions, is seen mounted on the cabinet. I snapped the self-portrait (left) while I was flying over northern Alaska.



disconnected altogether. The rotary switch on the left allows the microphone to be connected to each piece of equipment as required.

24. *VHF 1 communications transceiver* allows communication with air traffic controllers on the 118-132 MHz aircraft band.

25. *VHF 2* is a duplicate of the *VHF 1*.

26. *Automatic direction-finding receiver (ADF)* is used to tune into a station, which may be a special non-directional beacon (NDB) or a local radio station (see also 8).

27. *Transponder* is used in air traffic control areas to give the radar controller positive identification of an aircraft "blip" by sending a signal back when the radar beam hits the aircraft.

28. *Switch panel*. The switch on the left enables the autopilot to sense inputs from the VOR or the VLF Omega navigation system. The switch below it allows the pilot's microphone to be connected to the *VHF-FM* transceiver (see 31).

29. *VLF Omega navigation system* determines the aircraft's position accurately wherever a signal is present.

30. *HF transceiver* covers 2-22 MHz, and allows single-side band communication with air traffic control and amateur radio operators virtually anywhere in the world.

31. *VHF-FM transceiver* has 55 channels and allowed me to talk with ships at sea for weather forecasts and to make radiotelephone calls.

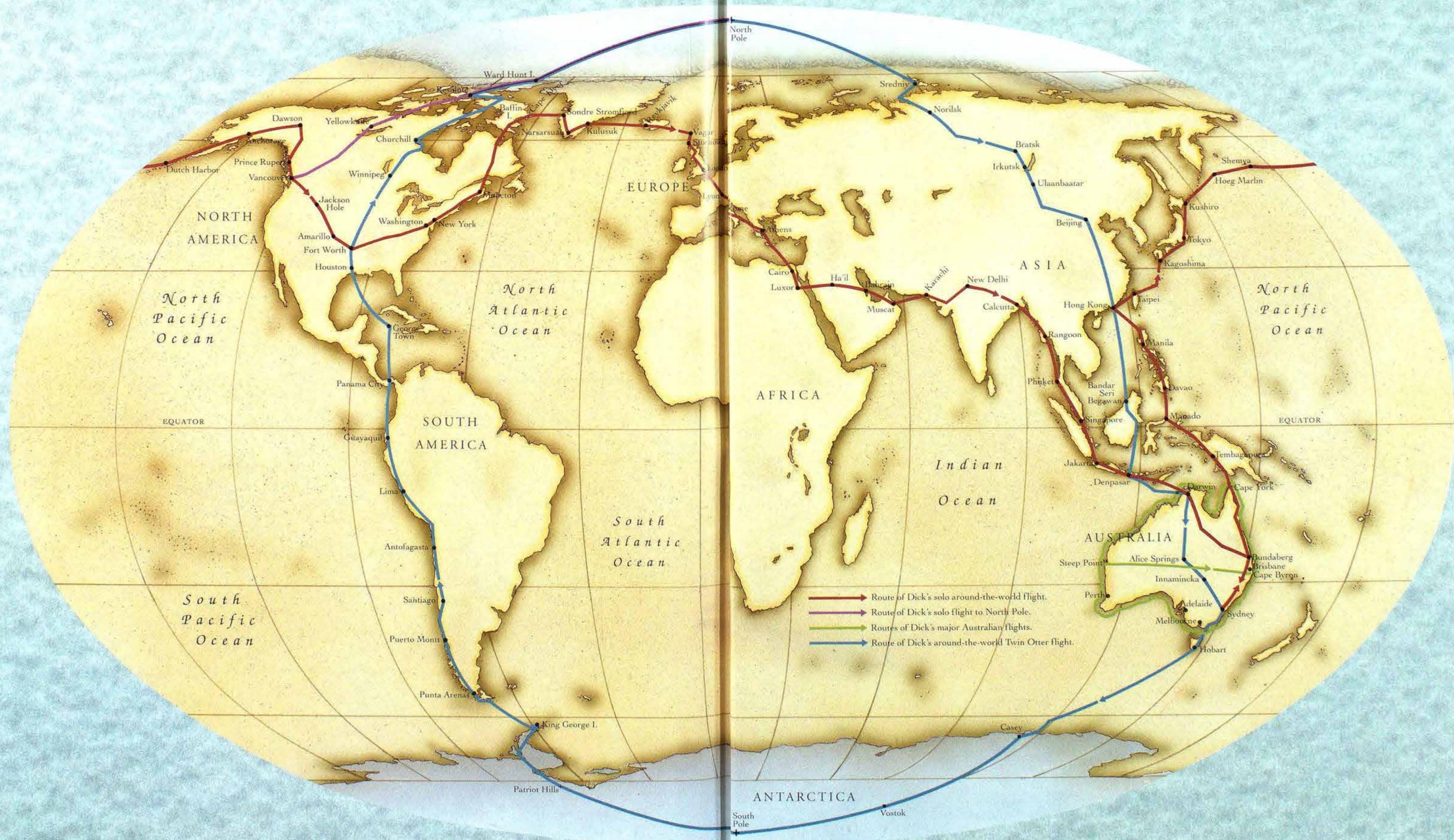
The cyclic, or joystick, has a number of switches so I can operate various controls without removing my hand from it. The switches are for overriding the autopilot, the complete release of the autopilot, adjusting attitude through the autopilot, remotely changing frequencies on the *VHF* radios, operating the transponder, selecting radio transceiver and passenger intercom, turning on the movie camera, switching the intercom to the tape-recorder.

I mounted a torch on the side of the instrument panel so I could light the instruments in case of an electrical system failure at night. A small magnetic compass is mounted on the right-hand side of the cockpit in case the gyrocompass failed. A World War II sun compass was mounted on my map cabinet for use in polar regions. A panel above my head contains 30 circuit-breakers and 10 switches, controlling all the electrical and electronic instruments in the aircraft.



*Delta India Kilo* today soars over the main gallery of Sydney's Powerhouse Museum, in the livery it wore on my pole flights and fitted with the extra fuel tanks and my mounted film camera.

COURTESY POWERHOUSE MUSEUM, MUSEUM OF APPLIED ARTS & SCIENCES



Dick Smith, 48, is Australia's best-known adventurer, the founder of the Australian Geographic Society and the publisher and editor-in-chief of its journal, *Australian Geographic*, which he launched in 1986. He also publishes the *Australian Encyclopaedia*, which he restored to Australian ownership. From 1988–92 he was on the board of Australia's Civil Aviation Authority, the last two years as its chairman. Although the name Dick Smith is synonymous with helicopters, he is also an experienced fixed-wing pilot – in 1988–89 he flew a Twin Otter around the world via both Poles. His story of that flight, *Our Fantastic Planet*, is the companion volume to this book.



DIK – for *Delta India Kilo* – are the registration letters of the tiny single-engined helicopter that Dick Smith made famous in 280,000 km of airborne adventures. This is Dick's fascinating story, illustrated with his photographs, of their record flights around the world, to the North Pole and through Outback Australia. It's a story told by Australia's best-known adventurer for adventurers everywhere.