



AROUND THE WORLD AT 90 KNOTS



THE CHIPMUNK CIRCUMNAVIGATION

SQUADRON LEADER BILL PURCHASE MBE

CHIPMUNK 75th ANNIVERSARY REVISED EDITION

*This book is dedicated to
all who have experienced the
thrill of flight in the*
CHIPMUNK



THE AIRCRAFT

| | WP 833 | WP 962 |
|-----------------|------------------------------|------------------------------|
| In-service Date | 15 th August 1952 | 3 rd January 1953 |
| Hours Flown | 15,590hrs 35mins | 12,196hrs 55mins |
| Total Landings | 52,193 | 28,030 |

(Hours and Landings as at 1998-02-07, RAF Newton, final RAF service flights)

Accompany The Team on our Journey AROUND THE WORLD



*THE 1997 CHIPMUNK PILOTS
CED HUGHES, TONY COWAN, BILL PURCHASE*

Meanwhile, in parallel with aircraft preparation, fund raising had continued to the point where sufficient funds to mount the exercise were in hand. Tony Cowan visited Air Vice Marshal Tim Jenner (Assistant Chief of the Air Staff) in London to appraise him of the situation and receive official approval for Exercise Northern Venture to commence as planned. The support aircraft, a Police Aviation Services (PAS) turbine engine-powered Islander was chartered and Tony Severs nominated as the dedicated pilot. Tony, a recently retired RAF helicopter pilot flying for PAS based in Newcastle, was quickly commissioned into the RAF Volunteer Reserve to give the expedition full military pilot manning.

Despite unenthusiastic support and predictions from 'prophets of doom' of failure in some rugged and remote portion of the route, confidence within the team remained at the highest level and individuals had no doubts in their ability to

complete the circumnavigation successfully. Our aircraft were in peak condition and, with their rugged construction and vintage technology, were well suited to withstand the rigours of the flight. Meticulous in-depth planning complemented by through training, skill and experience of the whole team, left little to chance and we had every confidence in our ability to succeed.

It was in this positive state of mind that the team positioned at the Royal Air Force College, Cranwell on 19th May 1997 for departure on the 20th, for the first leg of the longest journey ever attempted (still, to this day) by de Havilland Chipmunks.

Survival equipment and training had been a high priority in all aspects of planning from the earliest stages and warrants special attention in a separate chapter towards the end of this book where a detailed appraisal of our equipment is presented.

MONDAY 19th MAY, 1997**RAF NEWTON (EGXN) – RAF CRANWELL (EGYD)****18nm, 20mins****HUGHES (WP962) / PURCHASE (WP833)**

*THE SKYLARKS READY TO GO FROM RAF CRANWELL,
RESPLENDENT IN THEIR 1997 'RED ARROWS' PAINT SCHEME.*

CED HUGHES ON BOARD WP962 IN THE FOREGROUND, BILL PURCHASE ABOARD WP833 BEHIND

After fifteen months of planning, and one unsuccessful attempt at taking two vintage Chipmunks around the world, a further complication arose to thwart the team. With departure arranged for Tuesday 20th May from RAF Cranwell, and a visit to London City Airport for the official farewell from Air Vice Marshal Tim Jenner, the Assistant Chief of the Air Staff in MOD and other dignitaries including the Russian Air Attaché, the Chipmunks were stuck in their hangar at RAF Newton! Inclement weather with low cloud and poor visibility had blanketed the area from Friday 16th May preventing the short 10 minute hop to Cranwell.

Late on the Monday afternoon however, the fog thinned and the cloud base lifted enough to allow Ced Hughes and Bill Purchase the opportunity of moving the aircraft to Cranwell. Before tucking the aircraft away into the comfort of a hangar, a photo opportunity was seized with the two vintage Chipmunks parking alongside a gleaming line of Red Arrows. Two little 'Skylarks' beside the

predatory 'Hawks'. The historical 'SKYLARK' call sign had been chosen for the flight to commemorate the Central Flying School (CFS) Chipmunk formation team of four aircraft which flew in the 60s and 70s, delighting air show enthusiasts with their highly manoeuvrable and compact display.

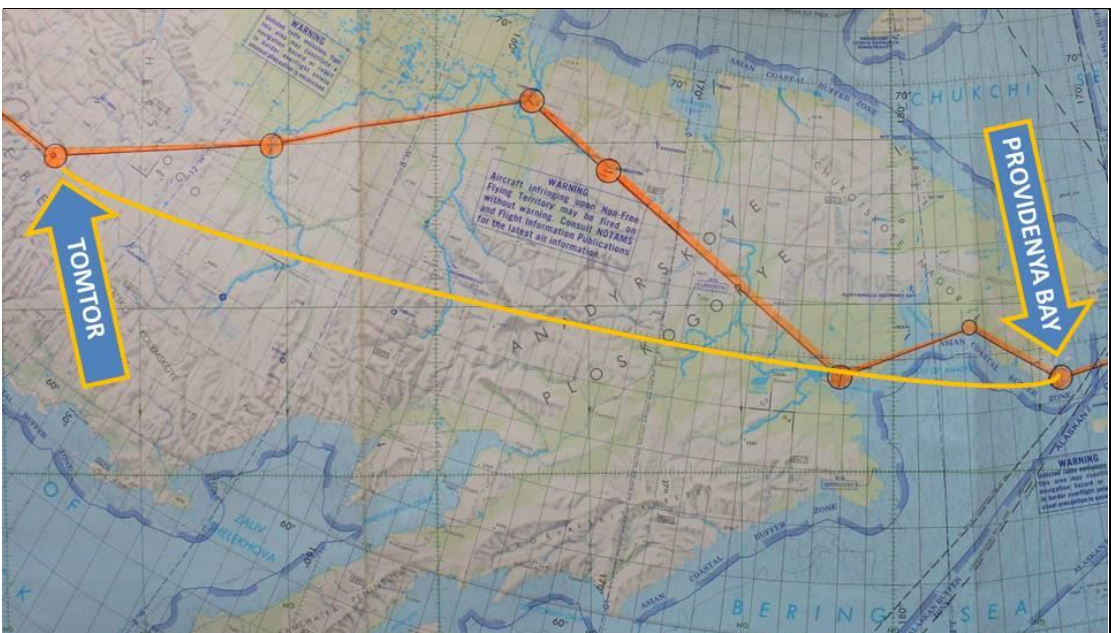
The Islander, already pre-positioned at Cranwell by Tony Severs, was parked in the hangar surrounded by a wide variety of equipment. Spares pack-up, personal belongings, first aid box, flight maps, survival equipment, fuel cans and a multitude of additional items made a formidable sized heap. It was obvious from the start that all the equipment on the outside was never ever going to be shoe-horned into the aircraft.

A swarm of painters descended onto the Islander to affix the logos of sponsors and supporters of the venture onto every available flat surface in sight. It was only much later during the voyage that we noticed that 'De Havilland' was incorrectly spelled with only one 'L'. Once the

The GPS indicates only 885 nautical miles to Provideniya Bay, but that is a straight line on an almost direct Easterly track whereas our planned track to Zyryanka takes us towards the Northeast (see below).



TOMTOR'S 'COLD POLE' MONUMENT
(FROM A POST-CARD)



RU-0196 (TOMTOR) TO UHMD (PROVIDENIYA BAY) DIRECT ROUTE (YELLOW)
VERSUS THE ACTUAL ROUTE TO ENSURE FUEL AVAILABILITY, SHOWN ON THE GNC-1 CHART



ALONE WITH ONE'S THOUGHTS, OVER GREENLAND

NUUK - NARSARSUAQ**271nm, 2hrs 35mins****COWAN (WP962) / HUGHES (WP833)**

Ced replaced Bill in the Chipmunk and we took off for Narsarsuaq, again climbing to 10,000 ft. to clear the ice cap for the 2 hour 35 minutes flight. Along this portion of the route, the ice cap was generally very smooth with occasional wind ridges defiling the otherwise level surface. Narsarsuaq, once an American airbase, had a gravel strip runway beautifully situated alongside an ice-free coastal inlet with a backdrop of a 2,500 ft. mountain. The two original 'GI' barrack blocks of modular concrete construction had been tastefully renovated and refurbished with the addition of a central dining hall, reception area and bar joining the original buildings together. Efficiency was the order of the day at Narsarsuaq, and 20 minutes after landing we were in the hotel having refuelled, serviced and picketed the aircraft.

As promised by Ivan Hart, a meal awaited in the *Narsarsuaq Hotel* which sounded much more romantic than the original American Military name of "*Bluey West One*"!!!

We have now covered half of the coastal route from Kangerlussuaq to Kulusuk in 4 hours 35

minutes flying time leaving a 4 hours trip for tomorrow.

Considering that direct flight across the ice cap would have taken in the region of 4 hours 30 minutes, it is frustrating to be forced to fly almost double the time to conquer Greenland because of weather conditions. (*And this is summer.*)



THE AWESOME GREENLAND ICE-CAP AT 10,000 ft.



CED HUGHES LOOKING A LITTLE RELAXED AFTER THE PRECEDING FEW DAYS



(Right) RAF CRANWELL CADETS WHO SUPPORTED NORTHERN VENTURE AS 'BULLDOG OPERATIONS'



RIAT 1997 – THE THREE NORTHERN VENTURE AIRCRAFT CLUSTERED AROUND THE MARQUEE, WITH THE SPARE CHIPMUNK IN THE BACKGROUND

AUXILLIARY FUEL TANK – INSTALLATION AND TEST

The discussion on page 2 concerning the auxiliary fuel tank gives a good general description of its construction and its capacity. The following additional details of its construction, installation and test come from Bill Purchase's personal notebook, recording planning events leading up to the 1996 departure.

Tank construction began at RAF Newton in early April (1996), in expectation of assembly commencing on the 19th and allowing a week to assemble and a further week to install. If ever there was a case of *"the sooner you have a plan, the sooner you know you're behind"*, this is it.



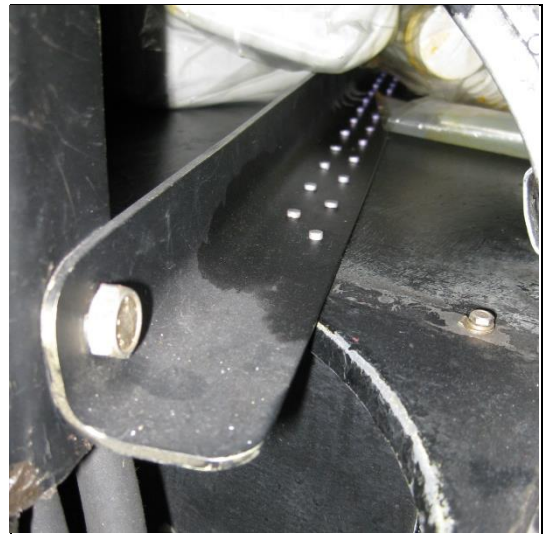
DAVE GILL AND THE LATE PETE SMITH,
WORKING ON COMPLETING WP833's AUXILIARY TANK

Initial bending of the tank structure required 30 tons of pressure on the press. Drilling of rivet holes was a protracted process because of the location of many of them and work continued into the 21st. Then, just as assembly was about to begin it was determined that the components have to be anodized, which required sending the tank components from Newton to Sheffield. The pieces returned on schedule and assembly began on May 1st. As it turned out, the delay was fortuitous, since it was determined that installation of the avionics cabling couldn't have been as easily-accomplished with the tank in place.

The tank was designed to occupy the space vacated by the removed rear seat. This used the same attachment screw holes as for the seat with the addition of four further screws along the front edge (these being specially installed, they not being present in other aircraft). It was then decided to provide further rigidity and load-bearing to the installation by installing braces from alongside the tank back into the stowage space behind the rear cockpit. Initially the plan was to fully rivet these in place until it was realised that any necessary maintenance en route would require removal of the

tank to permit access to control cables beneath the usual seat installation location. Further delay occurred while revised drawings were prepared and the actual installation did not start until May 15th, taking three days to complete.

In order to select fuel from the auxiliary fuel tank a second selector lever was installed in the front cockpit. This operated the fuel cock situated in the rear cockpit using a torsion bar. The handle had a fancy brass grip to it and resembled that of a vintage car's gear stick, rather than anything especially aeronautical.



WP962 IN THE RAF MUSEUM, HENDON,
SHOWING A TANK BRACING SUPPORT

(the mount for this is seen half-way up the right-hand side of the tank, as seen in the photograph to left)

Photo / Copyright: Editor

By now Hunting, an enthusiastic supporter of Northern Venture, had become frustrated by the delays which were increasingly leading to the conclusion that WP833 and the auxiliary tank would not make it to the RIAT 1996 at Farnborough, taking place on May 20th and 21st. With the installation completed the aircraft was raised on jacks into a flying position and a test fill took place on May 19th. The tank took 23½ Imperial gallons (107 litres) to the neck and 24¼ gallons (110 litres) to the absolute top. It was then drained and the low fuel light came on with 1.62 Imperial gallons (7.34 litres) remaining. The installation was leak-free and tested OK but gusty conditions precluded an air test until the following day.



CED'S COCKPIT CHART FROM THE SAULT STE. MARIE TO DOWNSVIEW LEG
THE SCRIBBLED MARKING ABEAM CAPE CROKER IS THE 1HR MARK, ABOUT 4 MINS AHEAD OF SCHEDULE.

EXPEDITION SUMMARY

| Date | To | ICAO | NMs | hh:mm | Lead (serial) / Wing (serial) |
|-------------------------------|------------------------|-------------------------------|----------------|-------|-------------------------------|
| RAF CRANWELL - MOSCOW | | | | | |
| 1997-05-20 | CRANWELL | EGYD | | | |
| " | LONDON CITY | EGLC | 125 | 1:30 | HUGHES (962) / PURCHASE (833) |
| " | RAF MANSTON | EGMH | 50 | 0:45 | COWAN (962) / PURCHASE (833) |
| " | MÜNSTER-OSNABRÜCK | EDDG | 255 | 2:40 | PURCHASE (833) / COWAN (962) |
| 1997-05-21 | BERLIN SCHÖNEFELD | EDDB | 233 | 2:20 | COWAN (962) / HUGHES (833) |
| 1997-05-23 | WARSAW | EPWA | 283 | 3:25 | HUGHES (833) / PURCHASE (962) |
| 1997-05-26 | VILNIUS | EYVI | 235 | 2:25 | PURCHASE (833) / COWAN (962) |
| " | PSKOV | ULOO | 230 | 2:20 | COWAN (962) / HUGHES (833) |
| 1997-05-27 | MOSCOW SHEREMET'EVO | UUUE | 360 | 4:05 | HUGHES (833) / PURCHASE (962) |
| MOSCOW - KRASNOYARSK | | | | | |
| 1997-05-30 | KAZAN I | UWKD | 415 | 3:50 | PURCHASE (833) / COWAN (962) |
| " | KAZAN II (UPLIFT FUEL) | 55° 47' 15"N 049° 11' 43"E | INCLUDED BELOW | | COWAN (962) / HUGHES (833) |
| " | KAZAN I | UWKD | 26 | 0:20 | COWAN (962) / HUGHES (833) |
| 1997-05-31 | CHELYABINSK | USCC | 436 | 4:10 | COWAN (962) / HUGHES (833) |
| 1997-06-01 | OMSK | UNOO | 412 | 3:40 | HUGHES (833) / PURCHASE (962) |
| 1997-06-03 | KEMEROVO | UNEE | 441 | 4:55 | PURCHASE (833) / COWAN (962) |
| 1997-06-04 | KRASNOYARSK | UNKM | 227 | 2:25 | COWAN (962) / HUGHES (833) |
| KRASNOYARSK - ZYRYANKA | | | | | |
| 1997-06-05 | ACHINSK | UNKS | 65 | 0:45 | HUGHES (833) / PURCHASE (962) |
| " | BRATSK | UIBB | 383 | 3:40 | HUGHES (833) / PURCHASE (962) |
| 1997-06-06 | KIRENSK | UIKK | 229 | 2:30 | PURCHASE (833) / COWAN (962) |
| " | LENSK | UJRL | 277 | 2:50 | COWAN (962) / HUGHES (833) |
| 1997-06-07 | YAKUTSK | UEEE | 452 | 4:35 | HUGHES (833) / PURCHASE (962) |
| 1997-06-09 | MAGAN (UPLIFT FUEL) | UEMM | 8 | 0:05 | HUGHES (833) / COWAN (962) |
| " | TOMTOR | RU-0196 | 388 | 3:55 | HUGHES (833) / COWAN (962) |
| 1997-06-10 | ZYRYANKA 9KM STRIP | 65° 44' 18"N 150° 42' 28"E | 272 | 2:35 | COWAN (962) / PURCHASE (833) |
| ZYRYANKA - NOME | | | | | |
| 1997-06-10 | CHERSKIY | UESS | 309 | 2:45 | PURCHASE (962) / HUGHES (833) |
| 1997-06-11 | KEPERVEYEM | UHAK | 120 | 1:20 | PURCHASE (833) / COWAN (962) |
| " | ANADYR | UHMA | 336 | 3:20 | COWAN (962) / HUGHES (833) |
| 1997-06-12 | ANADYR (WX ABORT) | UHMA | 310 | 3:40 | HUGHES (833) / PURCHASE (962) |
| 1997-06-13 | PROVIDENIYA BAY | UHMD | 267 | 2:50 | PURCHASE (833) / COWAN (962) |
| " | NOME (ARRIVE 06-12) | PAOM | 208 | 2:15 | COWAN (962) / HUGHES (833) |

FLIGHT AUTHORISATION AND FLYING TIMES

Flight

| ACTION BEFORE FLIGHT | | | | | | | | |
|-------------------------------------|--------------------------|-----------------|-------------------------------------|-------------------------------------|--------------------------|----------------------------|-------------------------------------|---------------------|
| SERIAL NO. OF FLIGHT | AIRCRAFT TYPE AND NUMBER | NAME OF CAPTAIN | NAMES OF CREW, PUPILS or PASSENGERS | DUTY/DATE | TIME ORDERED TO TAKE-OFF | APPROX. DURATION OF FLIGHT | INITIALS OF OFFICER ORDERING FLIGHT | INITIALS OF CAPTAIN |
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) |
| NORTHERN VENTURE - CHIPMUNKS | | | | | | | | |
| CHIPMUNK | | | | | | | | |
| 1 | WP 962 | HUGHES | SOLO | NEWTON - CRANWELL | A/R | 15 | GH | W |
| 2 | WP 833 | PURCHASE | SOLO | NEWTON - CRANWELL | A/R | 15 | GH | W |
| 3 | WP 962 | HUGHES | SOLO | CRANWELL - LONDON CITY | A/R | A/R | GH | W |
| 4 | WP 833 | PURCHASE | SOLO | CRANWELL - LONDON CITY | A/R | A/R | GH | W |
| 5 | WP 962 | COWAN | SOLO | LONDON CITY - MANSTON | A/R | A/R | GH | W |
| 6 | WP 833 | PURCHASE | SOLO | LONDON CITY - MANSTON | A/R | A/R | GH | W |
| 7 | WP 962 | COWAN | SOLO | MANSTON - MUNSTER | A/R | A/R | GH | W |
| 8 | WP 833 | PURCHASE | SOLO | MANSTON - MUNSTER | A/R | A/R | GH | W |
| 9 | WP 962 | COWAN | SOLO | MUNSTER - SCHONEFELD | A/R | A/R | GH | W |
| 10 | WP 833 | HUGHES | SOLO | MUNSTER - SCHONEFELD | A/R | A/R | GH | W |
| 11 | WP 962 | PURCHASE | SOLO | SCHONEFELD - WARSAW | A/R | A/R | GH | W |
| 12 | WP 833 | HUGHES | SOLO | SCHONEFELD - WARSAW | A/R | A/R | GH | W |
| 13 | WP 962 | COWAN | SOLO | WARSAW - VILNIUS | A/R | A/R | GH | W |
| 14 | WP 833 | PURCHASE | SOLO | WARSAW - VILNIUS | A/R | A/R | GH | W |
| 15 | WP 962 | COWAN | SOLO | VILNIUS - PSKOV | A/R | A/R | GH | W |
| 16 | WP 833 | HUGHES | SOLO | VILNIUS - PSKOV | A/R | A/R | GH | W |
| 17 | WP 962 | PURCHASE | SOLO | PSKOV - MOSCOW ^{SHER1} | A/R | A/R | GH | W |
| 18 | WP 833 | HUGHES | SOLO | PSKOV - MOSCOW | A/R | A/R | GH | W |
| 19 | WP 962 | COWAN | SOLO | MOSCOW SHERMETEVO - KAZAN | A/R | A/R | GH | W |
| 20 | WP 833 | PURCHASE | SOLO | MOSCOW SHERMETEVO - KAZAN | A/R | A/R | GH | W |
| 21 | WP 962 | COWAN | SOLO | KAZAN - KAZAN 2 RETURN ^T | A/R | A/R | GH | W |
| 22 | WP 833 | HUGHES | SOLO | KAZAN - KAZAN 2 RETURN ^T | A/R | A/R | GH | W |
| 23 | WP 962 | COWAN | SOLO | KAZAN - CHELYABINSK | A/R | A/R | GH | W |
| 24 | WP 833 | HUGHES | SOLO | KAZAN - CHELYABINSK | A/R | A/R | GH | W |
| 25 | WP 962 | PURCHASE | SOLO | CHELYABINSK - OMSK | A/R | A/R | GH | W |
| 26 | WP 833 | HUGHES | SOLO | CHELYABINSK - OMSK | A/R | A/R | GH | W |
| | 13 | | | | | | | |

AND WHERE DID THOSE 'PLANES GO ?

WP962 Chipmunk T.10 c/n C1-0809

After a degree of pressure from the Northern Venture team to see one of its Chipmunks preserved, WP962 was put on display at the Royal

Air Force Museum, Hendon, where you can visit her today.



WP962, AS ORIGINALLY POSITIONED IN THE RAF MUSEUM, 2010-03-26 ...

Photo / Copyright: Editor



... AND IN THE MUSEUM'S REVISED 'RAF 100' DISPLAY ARRANGEMENT, 2018-10-22, WITH AN EXAMPLE OF THE "RICH MAN'S" VERSION BEHIND (SPITFIRE F.24).

Photo / Copyright: Editor



THE RAF MUSEUM'S SIGN IN FRONT OF WP962, EMPLOYING TO GREAT EFFECT THE AUTHOR'S ICONIC PHOTOGRAPH OF EXERCISE NORTHERN VENTURE. ABOVE ALL OTHERS, THIS PHOTO HAS COME TO EPITOMISE THE EXPEDITION.

Photo / Copyright: Editor