

**INDIVIDUAL HISTORY**

**AVRO ROTA K4232 / SE -AZB**  
**MUSEUM ACCESSION NUMBER 79/A/1785**

- 14 Feb 34 Ten Avro 671 (Cierva C-30A) Rota aircraft, serials K4230 -K4239 ordered under contract No. 294074/33 and built under licence by Avro at Manchester,K4232 with the constructors number R3/CA/40. Two others, K4296 and K4775 were ordered for experimental trials and all 12 delivered between Aug 34 and May1935. (In addition to the RAF machines, 65 C30As were built by Avro- 37 for the UK civil market and 28 for export including foreign air forces between July1934 and June 1938).
- 25 Aug 34 Delivered to the RAF School of Army Co-operation at RAF Old Sarum, Wilts by an RAF pilot from Manchester. This unit was allocated nine autogiros, but they were delivered without operating/maintenance manuals and were initially stored at Hanworth and Hamble. Photos including K4232- Aircraft Illustrated Feb 81 p.68; Aircraft Illustrated Annual 1982 p.29; Flight 27 June 1935 p.722; cover of "Flying" 7 Jan 1939; Aeroplane Monthly 1986 UK Aircraft and Museums Guide p.26.  
Colour scheme - overall silver, polished cowling, roundel on sides and top of fuselage, black lettering. Pilot training course commenced 10 Sep1934, using six C30A aircraft.
- 20 Sept 34 Flying logbook of W R Wills-Sandford (extracts on Avro rota correspondence file) records 15-minute dual flight; pilot F/L Heyworth-Booth. Followed by Wills-Sandfords' first solo on Rota- 30 minutes and then a 65-minute solo flying practice flight, including landings.
- 27 Sept 34 Wills-Sandford LB records a further three 'Flying Practice 'flights; 15 minutes with LAC Bray as passenger; 10 minutes with Lt Anderson as passenger, and 10 minutes with P/O Pink as passenger.
- 28 Jan 35 Will-Sandford LB records 25-minute dual instruction flight with F.O MacGregor.
- 29 Jan 35 Wills-Sandford LB records 10-minute solo landings and demonstration flight

- 4 Feb 35 35-minute Dual Instruction with F/L MacGregor as passenger – Wills-Sandford LB, followed by 45 minute Dual instruction flight with F/O Morrish and a further 45 minutes with F/L MacGregor.
- 7 Feb 35 Two more flights in Wills-Sandford LB; 25 minutes dual instruction followed by a further 25 minute flight, both with F/L MacGregor.
- 18 Feb 35 10-minute test flight – Wills-Sandford LB.
- 25 Feb 35 40-minute dual instruction flight, F/O Weldon as passenger; Wills-Sandford LB.
- 26 Feb 35 Another busy day in the Wills-Sandford LB; 20 minutes dual instruction with F/O Weldon ; 10-minute solo flight; and 25 minute flight Old Sarum to Netheravon plus dual practice with F/O Weldon again, finishing with 5 minutes Dual instruction with Captain McGregor.
- 18 Mar 35 20-minute solo flight; Flying practice – first trip since modification of rotor blades possibly due to cracking.
- 8 Apr 35 Return flight – Old Sarum – Knighton Down – Old Sarum, 10 minutes each way, F/L Ward as passenger – Wills-Sandford LB.
- 24 Apr 35 10 minute solo demonstration flight – Wills-Sandford LB.
- 25 Apr 35 One of three autogyros flown in formation at Air Ministry Press Day; pilot Pilot Officer W.R. Wills-Sandford. One-hour formation flight, preceded by dual circuits and landings – 30 minutes and two formation practice flights, one of 40 minutes and one of 10 minutes, and a further 15 minute formation flight also.
- 2 May 35 15-minute solo Slow flying practice flight – Wills-Sandford LB.
- 3 May 35 Further 15-minute solo slow flying practice – Wills-Sandford LB.
- 21 May 35 5-minute dual flight with F/O Weldon – Wills-Sandford LB.
- 27 Sept 35 Wills-Sandford LB records 15 minute flying practice, passenger LAC Bray; 10 minutes flying practice with Lt Anderson, and 10 minutes flying practice with P/O Pink.
- 6 Nov 35 5- minute solo test flight - Wills-Sandford LB
- 5 Dec 35 25-minute flight in total – 2 staff given air experience flights. Wills-Sandford LB.

- 7 Jan 36 Three flights recorded in Wills-Sandford LB; 15 minutes solo, with three landings; flight as passenger – flown to Peterborough from Old Sarum by G/C Blount; and solo flight Langford back to Old Sarum.
- 15 Feb 36 To No.2 Squadron, RAF Hawkinge, Kent then flying Hawker Audax army co-operation aircraft.
- 21 Aug 36 To A&AEE Martlesham Heath, Suffolk for type trials.
- 04 Oct 37 Returned to School of Army Co-operation.
- 05 Sep 38 To No.26 Maintenance Unit Cowley (Repair Depot), having flown 88 hours (Following a high attrition rate, surviving Rotas were withdrawn to No.26 MU between April and September 1938). Some were sold off for civilian use, though four, including K4232, remained in storage at Hanworth and Hamble.
- 06 Mar 39 Struck off charge, but retained in storage.
- May 39 K4232 was sold to the Warden Aviation & Engineering Co (Prop. Richard Shuttleworth) at Old Warden Park, Biggleswade, Beds, apparently acquired from nearby RAF Cardington, together with fellow Avro Rotas K4233 and K4235 and various spares including ‘two good fuselages’ (K4230 and K4238, both scrapped at Old Warden in late 1939) the three airframes costing one guinea each as discovered by researcher Gordon Fraser in 2002/4. Offered for sale on the civil market at £100 each, minus engines and instruments, but not sold due to the outbreak of WW2.
- Not flown, and retained RAF identities; under the Compensation (Defence) Act, 1939, requisitioned (rather than impressed as happened with active civilian owned aircraft), as requisition no.1090, officially as of 3 May 1941, with £60 per aircraft paid as compensation.
- 1 Jul 40 To newly formed No. 5 Radio Maintenance Unit, RAF Duxford, Cambs. (Unit CO was Flying Officer R.A. Brie)
- 21 Sep 40 Unit retitled No. 5 Radio Servicing School.
- Feb 41 To Calibration Flight, No.74 (Signals) Wing, Duxford, Cambs as one of 4 Rotas still on charge, with another 13 civil Rotas impressed. Used for radar calibration. Used for the slow, precise flying needed to calibrate the aerial arrays of coastal defence Chain Home radar installations.
- The autogyros usually operated on individual detachment, flying from an airfield close to the radar station to which they were assigned for calibration.

The Rotas flew out into the English Channel and back; Fighter escorts were provided, and occasionally needed, in areas where enemy aircraft might be encountered - (see Flying Review Dec 1962 p.25 for such an encounter with two Fw190s in Jul.43.). These included Gladiators, Skuas and later, Hurricanes.

- 3 May 41 Rather belated formal requisition order as an impressed aircraft, presumably a paper 'tidying up' exercise. K4232, K4233 and K4235 all impressed on this date.
- Feb 42 Autogyros of No.74 Wing became No. 1448(Radar Calibration) Flight. On Detachment each machine worked with a designated radar station, the detachment staff consisting of pilot, fitter, and rigger.
- 02 Mar 42 Flight moved to RAF Halton, Bucks.
- 10 Oct 42 K4232 suffered Cat.B. damage - to Cunliffe Owen for repair.
- 11 Mar 43 Returned to No.1448 Flight, by then at RAF Halton.
- 15 Jun 43 No 529 (Rota) Squadron formed at Halton from No. 1448 Flight and K4232 transferred to the new unit from 23 Jun. This was the first and only operational Autogyro Squadron, Coded KX -
- 18 Aug 44 Unit moved to Upper Culham Farm, Wargrove, near Reading, Berks. At this time the unit operated 12 Hornet Moths, 1 Tiger Moth and 15 C30s.
- 15 May 45 K4232 flown to No. 5 MU RAF Kemble, Glos along with AP507 now displayed in the Science Museum, South Kensington (This latter aircraft was originally allotted for preservation by the Air Historical Branch 21 March 1946, - PRO AIR 2/10, 187);
- Five other C30s followed the same route that day, the last seven C30s going to Kemble in November 1945; HM580 (now at IWM Duxford) making the last ever RAF autogyro flight on 26 November 1945.
- 20 Dec 45 No 529 Squadron disbanded - all of its Autogyros went to No 5 MU for disposal. By 15 Feb 1946 there were 15 C.30A type Autogyros stored at Kemble.
- 21 May 46 K4232 sold to Cierva Autogyro Co. Southampton, Hants.(Cierva purchased five former No.529 Squadron C30s).
- c. Jul 46 To Sweden. Sold to Rolf von Bahrs Company, AB Helicopter - Flyg, at Bromma, a long established Autogyro operator.
- Jun 52 Appeared on the Swedish register as SE- AZB.Flew in overall silver with blue lettering on fuselage sides as one of 7 C30As operated by

the company, 3 of them ex RAF machines. Photos - Aircraft Illustrated Annual 1982 p. 27 & 31. At one time fitted with modified tailfin/rudder for flying training.

- 1967 Used for test flying of 2-blade rotor at SAAB airfield at Linköping. CoA expired the same year. By then carried the engine from C30 A SE- AFI and the rotor head from. SE-AEA Latterly stored at Linköping. (These two aircraft also survive in museums; 'AFI at Schipol, 'AEA at Stockholm)
- 1977 Still stored by SAAB at Linköping. Negotiations underway between the RAF Museum and Rolf von Bahr. Purchased by RAF Museum for \$15,000.
- Jun 78 Shipped from Sweden via Tilbury Docks, with some spares, on the SS Stellaria, arriving 11 June.
- 14 Jun 78 Delivered to RAF Museum Reserve Collection and Restoration Centre, Cardington.  
Photos - Aircraft Illustrated Sep 78 p.462; Aeroplane Monthly Dec.78 p.619; The Flying M May 1981 p.15.
- Restored at Cardington to pre-war condition. Photo Jun 80 prior to installation of Genet Major engine- Aircraft Illustrated Sep 80 p.428; Photo fully restored at Cardington- Aircraft Illustrated Feb 81 p.69.
- Jan 81 Delivered by team from RAF Abingdon to RAF Museum Hendon for display. Photos as first displayed - Air Extra 36 p.22; Flypast Feb 1999 p.55; Air Enthusiast July/August 2003 p.33.
- 28-29 Aug 96 Dismantled prior to movement on one-year loan to Spanish Air Force. To be used as pattern aircraft in construction of replica in conjunction with the Juan de la Cierva Foundation - the replica C30A incorporates some original components, some including original rotorhead and blades provided by the RAFM.
- 19 Sep 96 To Cardington for temporary storage pending collection by Spanish Air Force from RAF Northolt.
- 23 Jan 97 Collected from Northolt by Spanish Air Force, and flown out in the hold of a Spanish Air Force C-130H Hercules to the military airfield at Albacete in south-east Spain . As the pattern aircraft, K4232 was dismantled and its parts measured to permit construction of a tailplane and new steel tubular fuselage and wooden fuselage ribs.
- 26 Jan 98 Returned to RAFM via RAF Northolt and placed back on display. Photos; Flypast January 2003 p.49; The Flying M Spring 2007 pp.10-11.

21 Sep 07      By road to RAF Halton for display at RAF Halton Aircraft  
Apprentices Association Triennial Rotorcraft Display on 22  
September, returning to Hendon later that day.

Other surviving ex RAF C30A aircraft.

K4235 (G- AHMJ) Kermit Weeks, USA 1998 -ex Shuttleworth Trust, Old Warden.

AP506 (G-ACWM) International Helicopter Museum, Weston Super-Mare - (parts)

AP507 (G- ACWP) Science Museum South Kensington.

HM580 (G-ACUU) Imperial War Museum, Duxford.

**TEXT; ANDREW SIMPSON**

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