

ARMSTRONG WHITWORTH AW.55 APOLLO



Model Developed by Peter Larkham © 2007

Dedicated to Squadron Leader Eric G Franklin OBE DFC AFC
Chief test pilot Armstrong Whitworth
1947 - c 1964



Eric Franklin

Pack Contents

- Armstrong Whitworth Apollo model X 2 G-AIYN and VX224
- Coventry Airport AFCAD and Add on Scenery depicted in the 1950's including all hangars, Armstrong Whitworth Factory/hangar complex and control tower
- Editvoicepack Apollo call sign



First of all, thank you for downloading these freeware flight simulator 2004 models.

Sir W.G. Armstrong Whitworth Aircraft Ltd

‘Pioneers of Progress’

Present the A.W.55..... **A P O L L O**

This delightfully streamlined airliner from the Classic Fifties is now only barely remembered in the U.K and probably almost unknown to the world at large. It has its origins as the prime contender after W.W.2 in the race for a medium range turboprop airliner in contention with the Viscount 630. Had the manufacturers chosen the R.R. Dart as the power plant instead of the troublesome A.S. Mamba, then maybe the course of history in British aviation at that time would have been quite different. Who knows?

Only two flying airframes plus a test fuselage were made and unfortunately are no longer with us but under the aegis of F.S., we present our interpretation for your pleasure and enjoyment.





Handling notes for the... **A P O L L O**

Due to the fuselage length creating a short lever arm, a degree of longitudinal instability exists and this has been built into the flight characteristics. Therefore it should be remembered to ALWAYS set the Trim Meter to '0' before take off. Do NOT attempt take off in full AP mode other than setting Heading and/or Wing leveller. Use of height and/or speed settings will only cause a stalled take off.

Rotation is achieved at about 130 KIAS (149 mph). On full power, the aircraft will climb away quite steeply and should be trimmed to -1 or -2 for normal operation and when using the A.P. will fly with a neutral trim. Max speed is 287 KIAS (330mph), while cruise should be set at 246 KIAS (276mph). Flying with 1, 2 or 3 engines is quite happily accepted by this powerful aircraft.

Landing should be attempted at about 115 KIAS (132mph) with full flaps plus a little positive trim. Use of reverse pitch will rapidly slow the aircraft to a halt and of course reversing is a further option if required.

Having said all this, the **APOLLO** is generally very forgiving and will reward your careful flying many times over.

Aerophile

Cockpit Layout



Key to cockpit gauges

Switches & indicators

- 1: Exits (Front passenger door open/close)
- 2: Seatbelt
- 3: Smoking
- 4: De-ice
- 5: Pitot

Lighting

- 6: Passenger cabin
- 7: Cockpit panel
- 8: Landing
- 9: Navigation
- 10: Strobe

Circuits

- 11: Avionics

- 12: Battery
- 13: Engine Auto start

Warning Indicators

- 14: Engine generator lights
- 15: Stall/over speed & brake warning
- 16: Inner/middle & outer marker
- 17: Parking brake indicator
- 18: Under carriage
- 19: Doll eye Descent
- 20: Engine reverse
- 21: Oil pressure
- 22: Fuel Pressure

Ground Handling

- 23: Taxi speed
- 24: Auto Taxi after landing

Engine Management

- 25: Prop RPM x 4
- 26: ITT x4
- 27: Torque x 4
- 28: Turbine RPM x4
- 29: Exhaust Gas Temperature x4 (EXH)

Main 6

- 30: Airspeed Indicator (MPH) x2 (ASI)
- 31: Artificial Horizon x2
- 32: Altimeter
- 33: ILS
- 34: Vertical Speed Indicator (VSI)
- 35: Turn & Bank Indicator

Miscellaneous

- 36: Distance Measuring Equipment (DME)
- 37: Elevator trim

- 38: Clock
- 39: Outside Air Temperature (OAT)
- 40: Magnetic compass
- 41: Aircraft recognition plate
- 42: Synchroscope
- 43: Auto Pilot
- 44: Pilot view point adjust
- 45: Prop feather & Fuel mixture
- 46: Throttles
- 47: Dual oil pressure x2
- 48: Dual fuel flow x2
- 49: Dual fuel pressure x2
- 50: Manual Ignition & engine start
- 51: Generators
- 52: Radar
- 53: Fuel tank x6
- 54: G meter
- 55: Angle of Attack (AOA)
- 56: Flaps
- 57: ATC/MAP/COMMS (pop up)
- 58: Animated yoke

Apollo Communications



Animated Parts

All the usual external moving parts including elevator and aileron trim.

Passenger door Front – SHIFT then E (or internal cockpit toggle switch)

Passenger door rear – SHIFT then E then 2

Pilot boom mike pops up when parking brake is released

Engine cowlings open on port outer engine using the default F9 key for wing fold

Exit sign turns green when rear passenger door is open

Internal passenger door release handles move but you'll be lucky if you catch the animation

Animated yoke internal 2D cockpit and viewable from spot view

Drop down landing lights

Steerable nose wheel

Lighting

Navigation

Strobe

Cockpit

Cabin

Landing

Wheel bay

These models are fitted with manual and auto engine start and the start up sequence is 1 inner port – 2 inner starboard – 3 outer port – 4 outer starboard to maintain realism.

ARMSTRONG WHITWORTH FACTORY/HANGAR COMPLEX COVENTRY (BAGINTON)

I also decided to build the original huge factory /hangar complex which is included with this pack, along with a 1950's AFCAD for Coventry and other associated hangars and control tower. The AW factory/hangar complex was originally constructed purely for screenshot purposes, only the idea expanded.

The placement of this scenery was done using the default scenery but can be enhanced with other free or shareware packages.

The scenery folder is called Coventry50s and can be used with FS2004 as a replacement for the default modern Coventry or/and be used with Bill Lyons 'Golden Wings', though the 1950's is a little new for this series.

The Coventry 50's scenery is also available as a separate download and can be found at www.avsim.com as cov50.zip and hopefully elsewhere

Installation is straight forward, just copy the Coventry50s folder to the ADD ON scenery folder and install in the usual way.

Please refer to Apollo installation readme.txt for comprehensive installation instructions



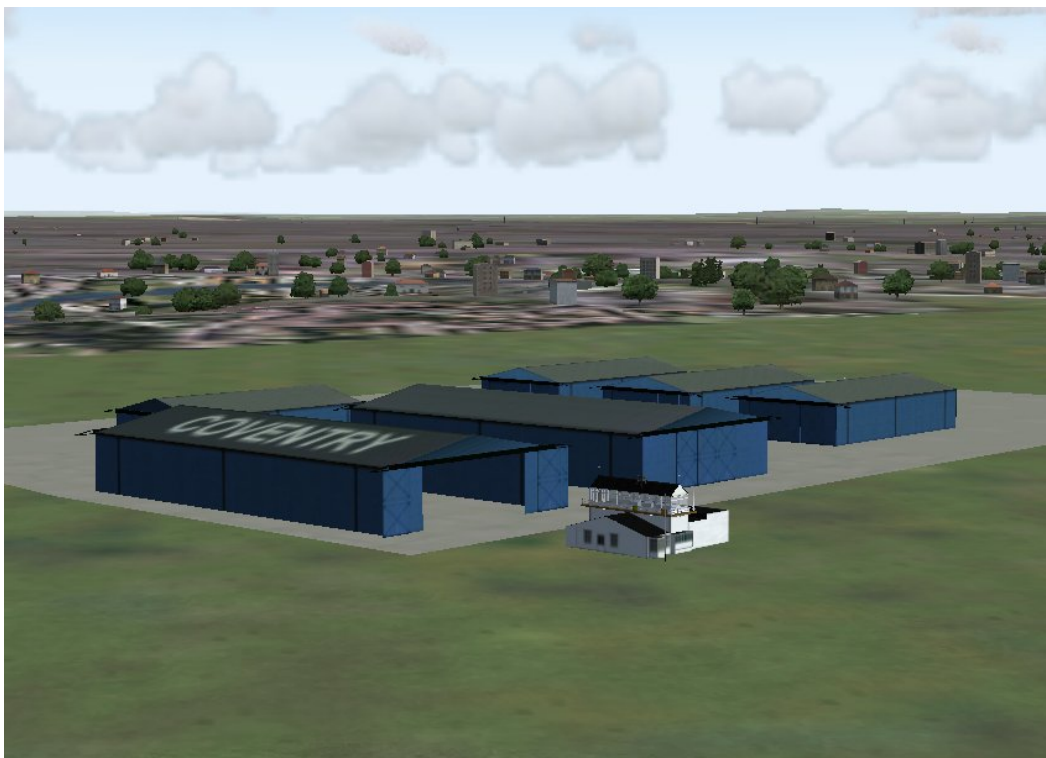
COVENTRY CIVIC AERODROME, BAGINTON..... In the Fifties.

This grass Aerodrome has a total area of some 387 acres and a longest take-off and landing run available of approximately 2,000 yards. Granted a licence for public use in October 1946 by the Ministry of Civil Aviation after wartime use by the Air Ministry, Baginton is the home of the local flying club and Alvis the aero engine manufacturers. Adjacent to the aerodrome Eastern boundary a large factory unit has been leased to Sir W.G. Armstrong Whitworth Aircraft Ltd for the testing and flying of aircraft manufactured by the company.

In presenting this new version of Baginton as a fifties time capsule, we have attempted to correct the positions and sizes of Control Tower, hangars, associated buildings and the removal of today's hard runways. In all good conscience we do not pretend to have included everything by any means.

The vast AWA factory is in essence reasonably accurate and the Control Tower has been backdated in appearance from contemporary photographs.

However, a degree of artistic licence has been unavoidable mainly due to insufficient photographic archive material. Hopefully, you will enjoy these altered historic surroundings in which to fly your classic airliners and light aircraft.





Acknowledgements

Most projects take benefit with some input from people in the flight sim community; therefore this is the section where they all get a worthy mention.

John Larkham – Cheers Dad for the many months of tireless effort and tweaking of the flight Dynamics and countless hours of test flying. Also, thanks goes to all the people you contacted regarding collating much of the information for this project.

Dave Haskell – For granting me permission to modify the Hermes cockpit which was the only one I could find suitable to use for the Apollo, Thank you Dave.

John McKeon – For airport design advice and guidance, Thanks for putting me on the right path John

Hans Hermann – Thank you for the Art lesson and invaluable advice, my techniques have even more hopefully improved.

George Hauzenberger – Thanks George, I always appreciate your cheery encouragement and help when I encounter technical problems.

Garry Russell – Thank you Garry for kindly hosting the screenshots on CBFSIM forum and encouraging me to complete this project.

Dave Booker and David Maltby – For granting permission to utilise some photographic images used in the Apollo's rear cockpit details Thank you gents.

Classic British Flightsim Forum – Thanks to all for the encouragement chaps..... wizard prang!

www.cbfsim.org

GAUGE CREDITS

A huge thank you to all the talented gauge designers below and to those who are not known

Detlev Rohmer
Dome Fliteware
Dragonflight Design
ERK Panels
Europe Flight Sim Creators EFSC
Flightsim Developers
FPDA – Andreas Jaros
Melville Consulting
Microsoft
Rob Barendregt

NOTICE

This is the rarely read section that states all items contained within this package remain the sole property of the various copyright holders and that no file contained within can be used in any other project pay or freeware without the individual consent of the appropriate copyright holder.

Because this is FREEWARE, NO part of this package can be

- 1 – Uploaded to any pay for entry/use website.
- 2 – Included on any means of digital storage commercially.
- 3 – Used in any other project.
- 4 – Modified or disassembled in any way

Without my prior permission

Repaints can be uploaded without my consent but must not include any part of the model, just the textures.

Uploaded repaints must be genuine reproductions not fantasy designs for the sake of authenticity.

Thank you

Peter Larkham

tek@ic24.net

Coming shortly – 1950's AI Traffic package utilising various add on aircraft + another rare British classic aircraft

Copyright © 2007, Peter Larkham. All rights reserved.

No part of this document may be reproduced or transmitted in any form commercially, by any means (electronic, photocopying, recording, or otherwise) without the prior permission of the author.

Microsoft and Microsoft Flight Simulator 2004: A Century of Flight are trademarks or registered trademarks of Microsoft Corp.