Short S.17 Kent

SCIPIO Class

Airliner of Imperial Airways

Modelled for Flight Simulator 2004 by

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Introduction

The Scipio class flying boats of Imperial Airways entered service in 1931, and served through most of the thirties on the Brindisi – Athens – Alexandria stages of the Imperial Airways network.

The Short Kent was famous as the most comfortable and luxurious airliner of its time.

Max speed, 137 mph (220 km/h) . Gross weight, 32000 lb (14400 kg). Span, 113 ft. 0 in (34.40 m). Length, 78 ft 5 in (23.90).

Typical cruising speed was 96 mph (about 85 kts), range only 450 miles, approx. 400 n.m. or 720 km. The range was the main handicap of the S.17, it could not cross the Mediterranean without making a stop at Crete.

The engines were 4 supercharged Bristol Jupiter XFMB's of 550 hp.

The Short Kent had room for a maximum 16 passengers.

Names and registration numbers

Scipio   G-ABFA
Sylvanus   G-ABFB
Satyrus   G-ABFC

The Mediterranean crossing was a part of Imperial Airways long routes London-Cape Town and London-Singapore. The trips were flown in many stages. The passengers slept in hotels on the way, and changed aircraft a couple of times. Until about 1936 the trip from Paris to Brindisi in Italy was by train.

Using the panel

The main panel

The panel is only a rough approximation to the real thing, based on a single, not very good photo of the flight deck of the the Short S17L Scylla (landplane version of the S.17 Kent), and probably very inaccurate. Most of the gauges are from the FS2004 DH-88 Comet, the Ford Trimotor or the Lockheed Vega, some of them modified for a 4-engined aircraft. The two fuel gauges and the ADF tuner are from various freeware sources.

To the right are the main engine instruments: The throttles and the RPM indicators. Hold the mouse cursor over the throttle levers to see the throttle setting in %. The Sperry autopilot is included for convenience, it was almost certainly not present in the real aircraft. The autopilot is that of the FS2004 Lockheed Vega, so you can probably find instructions in the FS2004 Learning Centre. The autopilot defaults to 'heading hold', so the best way to engage it is to press CTRL+SHIFT+H followed by CTRL+H.

The propellers have fixed pitch, so the RPM gauges are for reference only. You cannot control RPM directly, only with the throttle.

European aircraft of the early and middle 1930's relied on a kind of radio navigation not supported by Microsoft Flight Simulator. From time to time, the Wireless (radio) Operator called ground-based radio stations to get directional bearings, from which he could deduce the position and inform the pilot. Instead of this, I have included an ADF Radio Compass.

The basic instruments need no explanation, I hope. This simulation only uses the 'main' fuel tanks, so the 'aux' dials always show 0.


Auxiliary panels

SHIFT+2: The GPS map. Of course, GPS did not exist in 1931, and you can only use it as a convenient real-time map. You cannot use it for automatic navigation. Think of the GPS window as a substitute for the maps and instruction you would get from your second pilot and the Wireless Operator. Do not use the GPS if you regard it as a way of cheating!

Flying instructions

This information is available during your flight, just press F10 to call up the electronic kneeboard, and select the reference tab.

Before Takeoff

Elevator trim ½ division up.
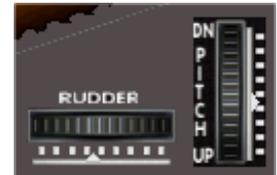
Takeoff and initial climb

Full throttle. Takeoff is easy at 65-75 mph (58-67 kts).

When safely airborne reduce throttle to 90%. Let the aircraft accelerate to 82 mph (73 kts) and begin to climb, initially at 600-800 fpm (depending on weight)

En route climb

Reduce throttle to 83-85%.

Cruise

Recommended cruising speed is (only!) 96 mph true airspeed Your main instrument here is the airspeed indicator. A throttle setting of around 65% is about right, but you must adjust this from time to time to hold the correct airspeed.

Airliners of 1931 did not fly very high, altitudes of 1000-3000 ft above sea level were the most common, although the S.17 Kent had supercharged engines and could fly higher if necessary. At 3500 feet, cruising speed will be about 90 mph (80 kts) IAS (indicated airspeed).

Descent and landing

You are on your own when landing – Flight Simulator does not include "runways" for flying boats. Reduce altitude to 1000 ft, and find a suitable place for landing against the wind. Taxi to the shore to let the passengers out. (Press SHIFT +E and SHIFT +E+2 to open the doors, CTRL+SHIFT+F1 to shut the engines down)

Routes to fly!

The aircraft used in 1933

London-Paris   Handley Page 42W Heracles
Brindisi-Alexandria   **Short S.17 Kent 'Scipio'** flying boats

African route

Alexandria-Nairobi   Handley Page 42E Hannibal
Nairobi-Cape Town   AW.15 Atalanta (11 passengers)

Indian route

Cairo-Karachi   Handley Page 42E Hannibal
Karachi-Singapore   AW.15 Atalanta (9 passengers)

I have myself released a model of the AW.15 Atalanta in march 2004, you can find it on www.flightsim.com and www.avsim.com.

There are at least two good models of the HP.42 available for FS2004 at the time of writing (march 2004). My favourite is by Derek Palmer, you can get it by downloading hp42ew1.zip from the major download sites.

London-Cairo

City	Remarks
London	HP.42W Heracles airliner. Croydon Airport does not exist today. Croydon is in southern London, so Gatwick is a better substitute than Heathrow.
Paris	Le Bourget is the airport to use. ***Sleep at your hotel.***
Brindisi	Paris-Brindisi by train. ***Sleep in the train.*** ***Shift to your S.17 Kent 'Scipio' class flying boat***.
Athens	
Alexandria	On the trip to Alexandria you must make a stop at Crete for refuelling. ***Sleep at your hotel.***

Cairo-Cape Town

Stops in *italics* are in a timetable of 1935 described as optional, and the stop at Atbara was omitted.

City	New name (if different)	Remarks
Alexandria (Egypt)		HP.42 E "Hannibal" class airliner
Cairo		
Assiut	*Asyut*	
Luxor		*Return trip only*
Assuan	*Aswan*	
Wadi-Halfi (Anglo-Egyptian Sudan)	Wadi-Halfi (Sudan)	***Sleep at your hotel.***
Atbara		Not included in the timetable of 1935
Khartoum		
Kosti		*This airfield does not exist today. Fly straight to Malakal or Juba*
Malakal		
Juba		
Entebbe (Uganda)		
Kisumi (Kenya)		
Nairobi		***Sleep at your hotel.*** Shift to an AW.15 Atalanta airliner for the rest of the trip.
Moshi (Tanganyika terr.)	*Moshi (Tanzania)*	*Kilimanjaro Intl (HTKJ) is close.*
Dodoma		
Mbeya		***Sleep at your hotel.***
Mpika (N. Rhodesia)	*Mpika (Zambia)*	
Broken Hill	Kabwe	
Salisbury (S. Rhodesia)	Harare (Zimbabwe)	***Sleep at your hotel.***
Bulawayo		
Pietersburg (Transvaal)	*Pietersburg (South Africa)*	
Johannesburg		***Sleep at your hotel.***
Kimberley (Cape province)	Kimberley (South Africa)	
Victoria West		
Cape Town		

If you want complete detail of departure times etc. please consult www.imperial-airways.com or the Imperial Airways CD

Cairo-Singapore

Stops in *italics* are in a timetable of 1936 described as optional

City	New name (if different)	Remarks
Alexandria (Egypt)		HP.42E "Hannibal" airliner
Cairo		
Gaza (Palestine)		
Rutbah Wells (Arabia)	Ar Rutbah (Iraq) – but there is no airfield today	Nearest airfield in FS2004 is H2 (OR1I)
Baghdad (Iraq)		***Sleep at your hotel.***
Basra		
Koweit (Persian Gulf)	*Kuweit (Kuweit)*	
Bahrein	Bahrain (Bahrain)	
Sharjah	Sharjah (United Arab Emirates)	***Sleep at your hotel.***
Gwadar (Muscat)	*Gwadar (Pakistan)*	
Karachi (India)	Karachi (Pakistan)	Change to an AW.15 Atalanta airliner for the rest of the trip.
Jodhpur (India)	Jodhpur (India)	***Sleep at your hotel.***
Delhi		
Cawnpore	Kanpur	
Allahabad		
Calcutta	Kolkata	***Sleep at your hotel.***
Akyab (Burma)	Sittwe (Myanmar)	.
Rangoon	Yangon	
Bangkok (Siam)	Bangkok (Thailand)	***Sleep at your hotel.***
Alor Star (Malaya)	Alor Setar (Malaysia)	
Singapore (Malaya)	Singapore (Singapore)	The big airport today is Changi (WSSS)

If you want complete detail of departure times etc. please consult www.imperial-airways.com or the Imperial Airways CD

References

Much of this material is based on information found on the internet:

www.imperial-airways.com

and on a CD-ROM available from www.archivebritain.com:

"Imperial Airways (Royal Aeronautical Society Archive Series Vol.3)"