

Biggles's Challenges

Many years ago when I was but a small boy (and had hair!) I came across a book written by Captain W.E. Johns which described the heroic actions of a certain James Bigglesworth known by both friend and foe alike as "Biggles". I was immediately hooked on the stories, many of the early ones were apparently based on Captain W.E. Johns real experiences during World War I, and continued to read them on and off until my mid teens.

William Earl Johns was born in 1893 in Bengeo, Hertfordshire, England. During World War I he first served as machine-gunner, and from 1918 as fighter pilot with the RFC in France. He was shot down over Mannheim, became a POW, escaped, was caught again and sentenced to death and was only saved by the sudden ending of the war. He stayed with the Royal Air Force until 1931, first as flight instructor and later recruiting officer. When he left his rank was "Flying Officer", however he added "Captain" to his name after becoming a successful author. Captain W.E. Johns wrote a total of 98 Biggles books the first ("The Camels Are Coming") in 1932 and the last ("Biggles does some homework") in 1968.

Biggles was an ace pilot and could land his aeroplane anywhere, in any circumstances, in any conditions. These flights are designed to show that you are a similar, if not better, ace with a DC-3. I suggest, however that you do make sure that you have completed your last will and testament before setting out on these perilous flights!

One last thing – I bet that your chat up lines are/were considerably better than Biggles's. The following is from "The Camels Are Coming", where he meets the love of his life, Marie Janis. When his magneto shorts out, after picking up a new Camel from the Aircraft Park, Biggles makes a forced landing near Clarmes. At a nearby house he meets "a vision of blonde loveliness wrapped up in blue silk, smiling at him". "You were looking for me, perhaps?" she asks him, to which he replies, "Mademoiselle, I've been looking for you all my life".



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813-03-01: Into the Crater

This flight takes off from Las Palmas, Peru which is situated 249ft ASL, and ends at Jauja which is 10,898 ft ASL. The tricky bit is that the Jauja runway lies at the bottom of a crater, the sides of which rise nearly 2,000ft higher than the runway.

If you are using FSNav you may need to change a couple of parameters before you set off, by making the the following changes to the 'Aircraft' settings. First, make a note of the current settings as these must be reset to their original figures afterwards. Within FSNavigator left click on the little black aircraft symbol. The panel that opens is the 'aircraft' settings panel. In the 'Altitude [ft]:' window change the setting to 15500 after noting the current setting, probably 11500. In the 'Descent' window change the 'Descent', 'Rate [fpm]' to 700. Again, note the current setting, probably 500.

As you are going to be flying at 15,500ft I suggest that you either practice holding your breath for an hour or so, or take oxygen equipment for you and your (foolhardy) passengers. Secondly don't forget to lean the mixture out (past the "Auto Lean") position as you climb up the valley.

From - To	<u>Flight Description.</u> "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE (leg) HH+MM
	Dep. Rwy – 1	Init. Hdg – 010deg.	Init. Alt – 15,500ft	Apt Elev. – 249ft			
Las Palmas (SPLP) Peru To Jauja (SPJJ) Peru	Departure: To Fix 02. Tune Nav1 to LIM VOR/DME 113.80, and set OBS to 079deg. Tune the ADF to LP 300.0. After take off, turn a few degrees left until the ADF points to LP on a bearing of 190deg.....				351deg	2.2NM	00+01
	Enroute: To Fix 03. Turn right to 010deg and follow the OB course from LP. Start your climb towards 15,500ft. Waypoint reached when the OBS needle centres.....				010deg	9.5NM	00+05
	To Fix 04. Turn right to 079deg and follow the OB OBS needle up the valley.....				079deg	26.2NM	00+12
	To Fix 05. Follow the valley round to the left on a course of 044deg, and continue up the valley. You need to have reached your cruising altitude before you reach the top of the valley.....				044deg	26.2NM	00+10
	To Fix 06. Turn sharp right to 143deg and keep to the right of the mountain peak. Waypoint reached when the OBS needle centres again.....				143deg	16.9NM	00+06
	To Fix 07. Turn left to 079deg and follow the OBS needle. Start your descent to 13,500ft when the DME reads 78NM. The waypoint is the right hand end of the small lake that lies on the left edge of the crater.....				079deg	31.7NM	00+12
	Approach: To Fix 09. Make a 180deg left turn to 259deg, and descend to exactly 12,600ft. At the same time reduce speed to 85kts, and get the flaps and undercarriage down. The waypoint is the white concrete road..... To Fix 10. Turn sharp left to 143deg and follow the road as it goes towards the crater – don't loose it..... To runway. As soon as you are over the crater, make a sharp side slipping turn to the left, and when you are getting near the crater wall (and you can hear the passengers scream!), make another turn to the right to line yourself up with the runway..... Land – Jauja runway 15 Length – 9,416ft Width – 148ft Surface – Oiltreated				259deg 143deg Final Hdg 152deg	2.7NM 2.6NM 0.8NM	00+02 00+02 00+01
Flight No: 813-03-01	Arrival Airport Elev. – 10,898ft.				Estimated totals for this flight>>>		118.8NM 00+51

Biggles's Challenges

813-03-02: Into Rio Amazonas

This is a fairly short flight from Macas to Rio Amazonas. The tricky bit is that the Rio Amazonas runway lies at the bottom of a crater, the sides of which rise nearly 4,000ft higher than the runway.

From - To	<u>Flight Description.</u> "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE (leg) HH+MM
	Dep. Rwy – 2	Init. Hdg – 006deg.	Init. Alt – 7,500ft	Apt Elev. – 3,280ft			
Macas (SEMC) Ecuador To Rio Amazonas (SESM) Ecuador	Departure: To MAS. Tune Nav1 to PAV VOR/DME 113.10, and set OBS to 006deg. Tune Nav 2 to AMV VOR/DME 112.70 and set the OBS to 292deg. Tune the ADF to MAS 405.0. After take off, I suggest that you turn slightly to the right to avoid the ridge at the end of the runway.....				022deg	2.7NM	00+01
	Enroute: To Fix 01. Turn right to 006deg and follow the OB course towards PAV. Start your climb towards 7,500ft, and follow the OBS needle. Waypoint reached when Nav 1 DME reads 20 NM.....				006deg	28.4NM	00+12
	To Fix 02. Turn right to 021deg, and start your descent towards 7,300ft (not very far!). Get the flaps and undercarriage down, and the speed to no more than 85kts. Waypoint reached when the Nav 2 DME needle centres.....				021deg	18.2NM	00+07
	Approach: To Fix 03. Turn left to 292deg and head for the crater, and as soon as you are over the rim – watch the VME, push the stick forwards to achieve a descent rate of 4,000 FPM. When the speed builds up slacken off the descent rate and hold to around 1,000 FPM throughout the rest of the approach.....				292deg	5.9NM	00+02
	To Fix 06. Head as far as you dare into the corner of the crater. You will see a road or river climbing vertically up the crater wall – aim to the right of this.....				318deg	1.5NM	00+01
	To Fix 09. Make a sharp 180deg turn to the left. Be careful not to over bank the aeroplane. You should be at around 5,400ft ASL.....				211deg	0.8NM	00+01
	To Fix 11. Go as close to the right hand crater wall as you dare, and as far as you can into the corner. You can see a couple of blue rivers running down the wall – aim for the confluence. You should be at around 4,200ft ASL here.....				138deg	0.8NM	00+01
	To runway. Make even sharper 180deg turn to the left, you may need to apply some power to avoid stalling. Also try to keep an eye on the VME.....				Final Hdg 301	1.5NM	00+01
	Land –Rio Amazonas runway 30 Length – 5,065ft Width – 82ft Surface – Asphalt						
Flight No. 813-03-02	Arrival Airport Elev. – 3,421ft.				Estimated totals for this flight>>>		59.8NM 00+26

Biggles's Challenges

813-03-03: Into Greenland

This is a low level flight which starts from a very short runway that has a very tall hill conveniently placed at the far end! You then fly up a fjord, and land at an aerodrome where the runway is obscured until the last moment.

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE (leg) HH+MM
	Dep. Rwy – 32	Init. Hdg – 317deg.	Init. Alt – 1,500ft	Apt Elev. – 32ft			
Sisimiut (BGSS) Greenland To Sondre Stromfjord (BGSF) Greenland	Departure: To Fix 02. Tune Nav1 to SS DME 108.15. Set up for a short field take off. Lift off at about 75kts, and turn sharp left to 271deg. Don't worry too much about gaining altitude – concentrate on the turn and not running into the mountain!..... To Fix 03. Once you are over the sea, turn right to 317deg. Waypoint reached when the DME reads 4.7NM.....				271deg	1.9NM	00+01
					317deg	3.4NM	00+02
	Enroute: To Fix 04. Turn right to 047deg, and follow the coast. Waypoint is the mouth of the fjord, where the DME reads 14.4NM. Keep an eye out of the right window to see the mouth of the fiord..... To Fix 07. Turn right and follow the fjord. You will pass a glacier on your right as you go up the fjord. The DME will read 56.4NM at the waypoint..... To Fix 10. Don't go straight on, but follow the fjord round to the right, and continue to follow it right until the very end where a large glacier empties into the fjord. Tune Nav 1 to Kangerlussuaq runway 28 ILS/BC/DME 109.55.....				074deg Av c'se 121deg Av c'se 152deg	14.5NM 56.8NM 36.5NM	00+06 00+24 00+15
	Approach: To Fix 11. Turn right to 206deg. You will see another fjord opening in front of you (not very well defined in FS9). Keep an eye on ILS – the waypoint is reached when the needle centres..... To runway. Turn right to 284deg. and follow the needle (don't forget that it's a back course). Do not start your descent, but get the aeroplane into a landing configuration. You will not be able to see the runway until you get very close. When you can see the runway threshold (DME will read about 2.4NM), start your descent. You will need to descend at around 800FPM to give yourself a chance of stopping on the runway. Land – Kangerlussuaq runway 28 Length – 9,250ft Width – 197ft Surface – Asphalt				206deg Final Hdg 284deg	4.7NM 9.7NM	00+02 00+04
Flight No. 813-03-03	Arrival Airport Elev. – 164ft.		Estimated totals for this flight>>>			127.5NM	00+54

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813-03-06: Poles and Holes

This challenge is for Flight Sim 2004 only, and was inspired by John Lawler's post on the web.

The flight involves a tricky take off where you need to miss a couple of poles that the aerodrome construction company thoughtfully left at the end of the runway. You can't go between them (well I can't!!), so you must make a sharp turn to avoid them. Then there are a few miles of busy VOR navigation, followed by a descent into an aerodrome built at the bottom of a deep hole. There are two approaches detailed in the flight plan. Approach 1 is for DC-3's using Trev Morson's aircraft.cfg file, whilst Approach 2 is for the "standard" .cfg file.

From - To	<u>Flight Description.</u> "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE (leg) HH+MM
	Dep. Rwy – 2	Init. Hdg – 244deg.	Init. Alt – 4,500ft	Apt Elev. – 3,448ft			
Stanke Dimitrov Highway Strip (LB1B) Bulgaria To Radomir Dolni Rakovets (LB0C) Bulgaria	Departure: To Fix 03. Tune Nav 1 to SIN VOR/DME 111.45 and set the OBS to 244deg. Tune Nav 2 to BLC VOR/DME 116.10 and set the OBS to 310deg. As you start your take off roll, you will see two poles either side of the runway. Do not fly between them, but turn to the right as soon as you leave the ground and fly between the pole and the tree! Make a left turn to 244deg, head towards the VOR and start to climb towards 4,500ft. Waypoint reached when the Nav 2 OBS needle centres.....				244deg	5.3NM	00+02
	Enroute: To Fix 04. Turn right to 310deg and head towards the VOR. Tune Nav 1 to KAL VOR/DME 114.50 and set the OBS to 012deg. Waypoint reached when the Nav 1 OBS needle centres.....				310deg	18.6NM	00+07
	To Fix 05. Turn right to 012deg and head towards the VOR. Tune Nav 2 to BLO VOR/DME 117.50 and set the OBS to 077deg. Waypoint reached when the Nav 1 OBS needle centres.....				012deg	8.8NM	00+03
	Approach 1: To Runway. Turn right to 111deg, and start your descent to 2,100ft. You should aim to arrive at the edge of the crater with full flaps and with the undercarriage down. As soon as you get over the edge of the crater loose height as quickly as possible and land on the runway in front of you.....				111deg	13.1NM	00+05
	Approach 2: To Runway. Turn right to 111deg, and start your descent to 2,100ft. You should aim to arrive at the edge of the crater with full flaps and with the undercarriage down. As soon as you get over the edge of the crater loose height and aim for the far right corner of the crater. Make a 180deg tight turn to the left, to avoid stalling you may need to add power, and land on the runway in front of you..... Land – Radomir Dolni Rakovets 11/29 Length – 8,187ft Width – 160ft Surface – Asphalt				Final Hdg 291deg	14.2NM	00+06
Flight No. 813-03-06	Arrival Airport Elev. – 626ft.			Estimated totals for this flight>>>		46.9nm	00+18