

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	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 – 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 lose 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

813-03-02: Into Rio Amazonis

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 Final Hdg 301	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..... Land –Rio Amazonas runway 30 Length – 5,065ft Width – 82ft Surface – Asphalt					1.5NM	00+01
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 FS2k2

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!.....				271deg	1.9NM	00+01
	To Fix 03. Once you are over the sea, turn right to 317deg. Waypoint reached when the DME reads 4.7NM.....				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.....				074deg	14.5NM	00+06
	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.....				Av c'se 121deg	56.8NM	00+24
	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.....				Av c'se 152deg	36.5NM	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.....				206deg	4.7NM	00+02
	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				Final Hdg 284deg	9.7NM	00+04
Flight No. 813-03-03	Arrival Airport Elev. – 164ft.		Estimated totals for this flight>>>			127.5NM	00+54

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813-03-04: Follow the Yellow Brick Road

Well it's a concrete road actually! Watch out for the steep approach with a bend in it.

Don't take any notice of where FSNav tells you to commence your descent.

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 – 12	Init. Hdg – 121deg.	Init. Alt – 5,500ft	Apt Elev. – 2,667ft				
Galbraith Lake (PAGB) Alaska To Chandalar Shelf (5CD) Alaska	Departure: To Fix 01. After take off continue on runway heading 121deg, and start your climb towards 5,500ft. Look out to your right – the waypoint is when the valley opens out, just after passing over a small lake.....				121deg	5.7NM	00+03	
	Enroute: To Fix 02. Turn right to 158deg, and follow the valley upwards. There is a road that also tracks up the left hand side of the valley – use this to keep on track. The waypoint is the very top of the valley, shortly after passing through a small V shaped section, where you will find a small corrie and will be faced by a dead end. Start to slow down to 100kts.....				158deg	15.1NM	00+07	
	To Fix 03. Follow the road round to the right.....				194deg	1.4NM	00+01	
	Approach: To Fix 04. Turn left almost immediately so as to pass over the lowest part of the ridge. The road goes a trifle higher, but you will see it at soon as you are over the ridge. Get your undercarriage down and go to full flaps as quickly as possible. Dive at around 2,000 FPM and aim for the bend in the road, try to be at about 3,700 ft at this point.....				179deg	3.2NM	00+02	
	To Fix 05. Follow the road, and you will start to see some dark huts at the end of the runway appearing from behind the side of the mountain. When you can see both huts turn left and hug the side of the mountain as closely as you dare, keep an eye out of the right hand window to check when to turn on finals..				168deg Final Hdg	1.0NM	00+01	
	To runway. Turn right to 190deg. and land on the, rather short runway..... Land – Chandalar Shelf runway 19 Length – 2,529ft Width – 80ft Surface – Oil treated				190deg	0.3NM	00+00	
Flight No. 813-03-04	Arrival Airport Elev. – 164ft.		Estimated totals for this flight>>>				26.7NM	00+14

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813-03-05: Into the Valleys

This is an interesting flight along a selection of valleys, followed by a difficult landing.

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 – 12	Init. Hdg – 090deg.	Init. Alt – 1,500ft	Apt Elev. – 118ft			
Valdez (PAVD) Alaska To Thompson Pass (K55) Alaska	Departure: To Fix 03. Tune Nav 1 to JOH VORTAC 117.70. After take off turn left to 090deg, climb to 1,500ft and head towards the end of the bay.....				090deg	8.7NM	00+04
	Enroute: To Fix 05. Continue to head over the water to the end of the bay.....				Av c'se 073deg	4.4NM	00+02
	To Fix 07. Follow the valley round to the left, and then right. Waypoint is when the DME reads 42.9 NM.....				Av c'se 023deg	4.2NM	00+02
	To Fix 09. Turn left, and head up the snow-covered valley. Set the throttle and pitch controls for full climb rate, and climb to 4,500ft. Watch the DME as you climb up the pass, the waypoint is reached when the DME reads 47.7NM.....				Av c'se 311deg	7.9NM	00+04
	To Fix 11. Turn right to 345deg and head along the valley.....				345deg	4.0NM	00+02
	To Fix 12. Follow the wide valley round to the right, and as it narrows start your descent towards 3,000ft. Waypoint is when the DME reads 52.4NM.....				076deg	3.5NM	00+01
	To Fix 13. Follow the valley round to the right, which then opens out into a wide brown valley.....				122deg	4.0NM	00+02
	To Fix 14. Note the time, turn left to 074deg, and keep as close to the left wall of the valley as you dare.....				074deg	1.9NM	00+01
	To Fix 15. Turn left to 041deg, and keep as close to the left wall of the valley as you dare. Waypoint reached 1.5mins after Fix 13.....				041deg	1.9NM	00+01
	To Fix 16. Make a right 180deg turn as tightly as you can.....				–	0.6NM	00+01
	Approach: To Fix 17. You will see a road in front of you. Head along the left side of the road, and aim to pass through the small valley, as the road climbs over the hill to the right. Get the aeroplane into a landing configuration with full flaps, and descend to exactly 2,300ft.....				220deg	2.8NM	00+01
	To Fix 18. Keep to the right and hug the hill as closely as you can. Make sure you are at 2,300ft.....				241deg	0.4NM	00+01
	To runway. The runway will appear in a shallow bowl in front of you. Keep round to the right to give yourself a bit more room, and then sideslip to the left and hope you can stop before the end of this rather short runway.....				Final Hdg 230deg	0.7NM	00+01
Land – Thompson Pass Runway 23 Length – 2,530ft Width – 90ft Surface – Dirt							
Flight No. 813-03-05	Arrival Airport Elev. – 2,076ft.		Estimated totals for this flight>>>			54.0NM	00+23