

instruction / návod



## Boulton Paul Balliol "Civilian and Foreign Users"

Following the end of World War Two, the British Air Ministry issued Specification T.7/45 calling for a three seat training aircraft which should replace the North American Harvard in the training scheme of both the FAA and RAF. Initially, the Armstrong Siddeley Mamba turboprop engine was considered for the design which should also incorporate a three seat cockpit arrangement with the instructor and his pupil seated side by side and the observer behind them. The project was named the Balliol T Mk.I and went into a competition with Avro's design the Athena. The prototype Balliol was taken aloft for the very first time on 30 May 1947 being powered by a Bristol Mercury radial. The second prototype, already fitted with the Mamba turboprop took off its maiden flight on 17 May 1948 becoming the world's first single-engined aircraft to be powered by a turboprop powerplant. However, the Air Ministry changed their opinion on a modern trainer aircraft design and issued an updated specifications T.14/47 calling for a Merlin Mk.35 engine and only a two-seat cockpit. To these specifications, Boulton Paul designed the type Balliol T.2/Sea Balliol T.21 which became the final military type to be driven by the famous Merlin engine. The Balliol was a highly interesting machine having a folding wing of a laminar airflow cross-section and a huge cockpit with side-by-side pilot seats and the type eventually beat the competing Avro's Athena. For the use of the RAF, the T.2 version was produced and the machines saw service mainly with No.7 Flying Training School at Cottesmore and the RAF College at Cranwell. The navalized T.21 version was delivered to the FAA having a special naval equipment, arrester hook, smaller-diameter propeller, strengthened undercarriage legs and hydraulically operated folding wings (the original Balliol design already featured manually operated folding system). The production gave a total of 196 T.2s and another 30 of the navalized T.21s. The latter saw service with FAA training units as well as aboard HMS Triumph, then a cadet training ship. The Balliol / Sea Balliol remained in service until the early 1960s when they were replaced by more modern jet engine powered types and were offered for export to the Royal Ceylon Air Force. The RCyAF made use of a dozen of refurbished airframes, six of which were lost during their service with the RCyAF, the survivors withdrawn in the late 1960s. Boulton Paul company had also one airframe in use as a demonstrator, being painted plum red overall with white trimmings, bearing civil registration G-ANZF and serial VR603.

Specifications:

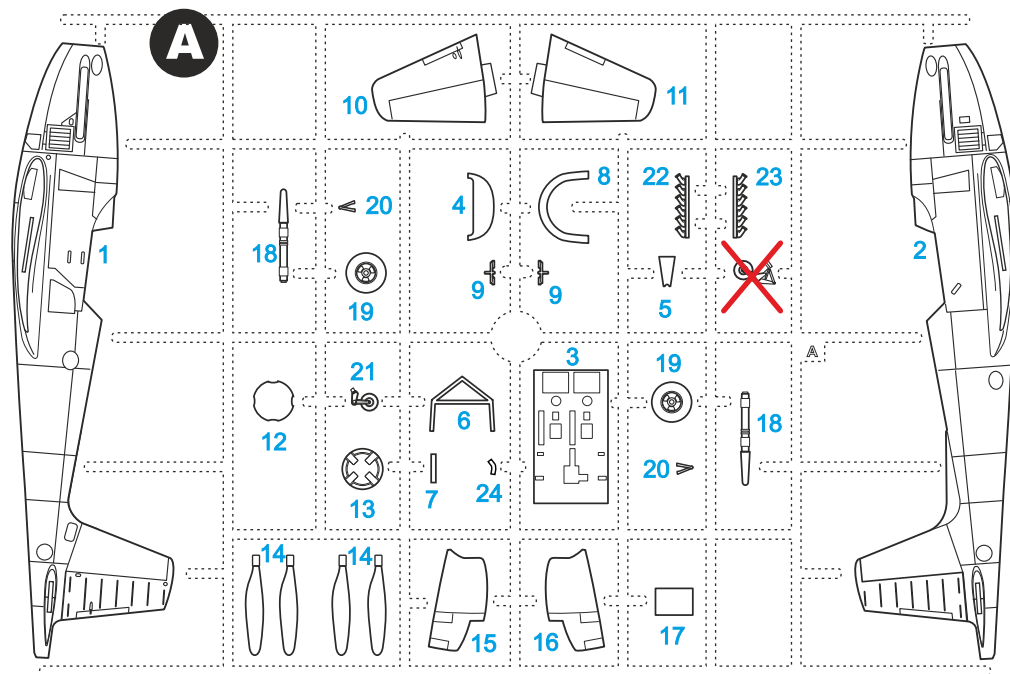
Wingspan: 11.99 m, Length: 10.71 m, Max. Speed: 464 kmh, Range: 1,063 km, Service Ceiling: 9,909 m.



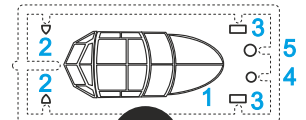
Britské Air Ministry vydalo po druhé světové válce specifikace T.7/45 na třímístný pokračovací cvičný letoun, který by nahradil v systému výcviku RAF i FAA americké stroje Harvard (Texan). Původně požadovalo turbopropový motor Armstrong Siddeley Mamba, Pilot a cvičený žák měli sedět vedle sebe, pozorovatel za nimi. Projekt pojmenovaný Balliol T Mk.I soutěžil s projektem firmy Avro (Avro Athena). První prototyp vzlétl 30.5.1947, poháněný ale hvězdicovým motorem Bristol Mercury. Druhý prototyp, zalétaný 17.5.1948, dostal turboprop Armstrong Siddeley Mamba. Stal se tak prvním jednomotorovým letounem poháněným turbopropovým motorem. Air Ministry ale změnilo názor na to, jak by měl moderní cvičný letoun vypadat. Vydalo upravené specifikace T.14/47. Ty požadovaly motor Merlin Mk. 35 a pouze dvomístnou kabinu. Na základě těchto specifikací vznikl Balliol T.2/Sea Balliol T.21. Díky tomu se stal Balliol posledním bojovým letounem poháněným slavným motorem Merlin. Balliol byl velmi zajímavý stroj s křídlem o laminárním profilu (křídlo bylo sklopné), piloti seděli vedle sebe pod rozměrným překrytem. V soutěži proti Avro Athena firma Boulton&Paul uspěla. Pro RAF byla vyráběna verze Balliol T.2. Stroje byly zařazeny hlavně k FTS No.7 a k RAF College. FAA byla dodávána verze T.21 s námořním vybavením, přistávacím hákem a křídly sklopnými hydraulicky. Celkem bylo vyrobeno 196 kusů pozemní verze T.2 a 30 kusů námořní verze T.21. Sea Ballioly létaly u cvičných jednotek FAA a na cvičné letadlové lodi HMS Triumph. Ve službě vydržely Ballioly/Sea Ballioly do začátku šedesátých let, kdy byly nahrazeny proudovou technikou. V době kdy byly Ballioly vyřazovány ze služby, byly nabídnuty RCyAF, královskému ceylonskému letectvu. To zakoupilo dvanáct generálkovaných strojů a používalo je do konce šedesátých let. Firma B-P používala jako předváděcí stroj sériového čísla VR603 a imatrikulací G-ANZF. Ten létal v barvě označované jako plum red s bílými doplňky.

TTD:

Rozpětí: 11.99 m, délka: 10.71 m, max. rychlost: 464 km/h, dolet: 1 063 km, dostup: 9 909 m,



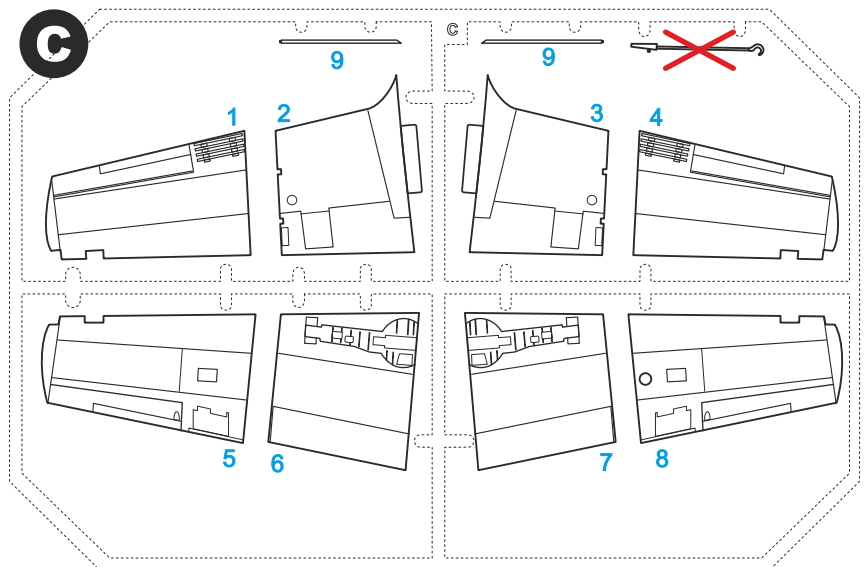
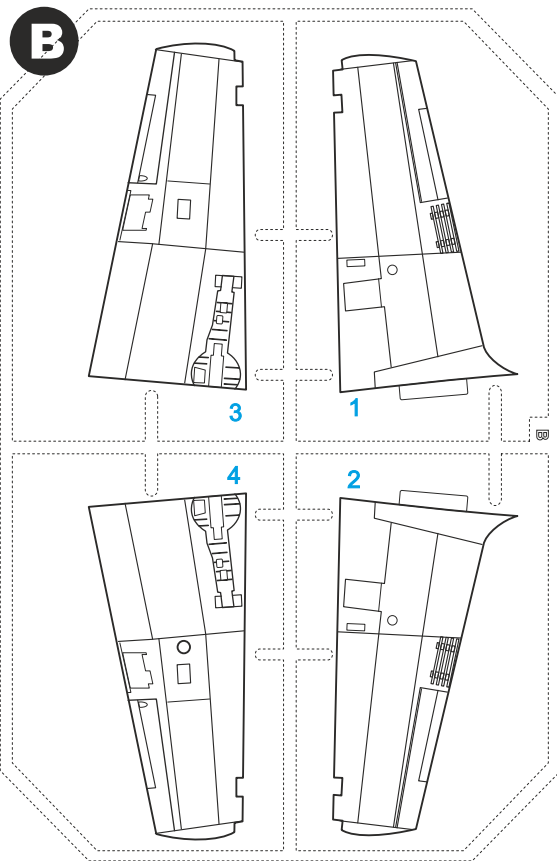
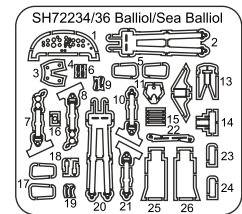
### Clear Parts (CP)



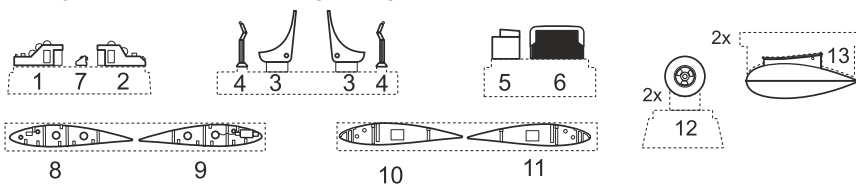
### Film Parts (FP)



### Photo-Etched Parts (PP)



### Polyurethane Parts (PUR)



Barvy GUNZE/ GUNZE Colour No.		
A	Lesklá černá / Gloss BLACK	H2/C2
B	Matná černá / Matt BLACK	H12/C33
C	Ocel / STEEL	H18/C28
D	Opálený kov / BURNT IRON	H76/C61
E	Plátno / TAN	H27/C44
F	Tm. šedá / DARK GREY	H53/C13
G	Žlutá / YELLOW	H4/C4
H	Barva pneu / TIRE BLACK	H77/C137
I	Bílá / WHITE	H11/C11
J	Červená / RED	H3/C3
K	Hliník / ALUMINIUM	H8/C8

### SYMBOLS



MOŽNOST VOLBY  
OPTIONAL  
NACH BELIEBEN  
OPTION



POUŽIT KYANOAKRYLÁTOVÉ LEPIDLO  
INSTANT CYANOACRYLATE GLUE  
ZYANOAKRYLÁTKLEBER  
ADHÉSIF CYANOACRYLAT



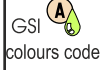
OHNOUT  
BEND  
BIEGEN  
COURBER



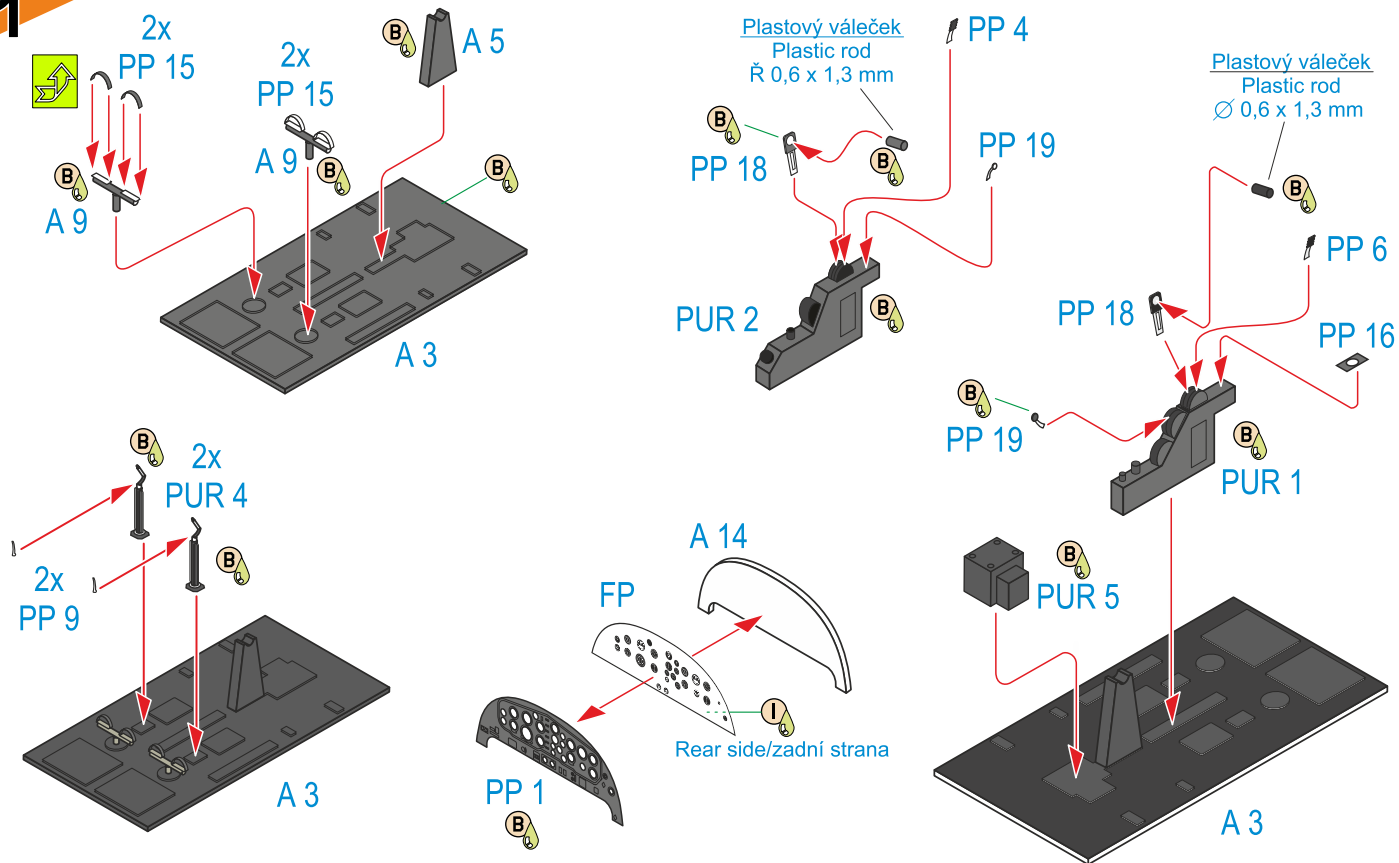
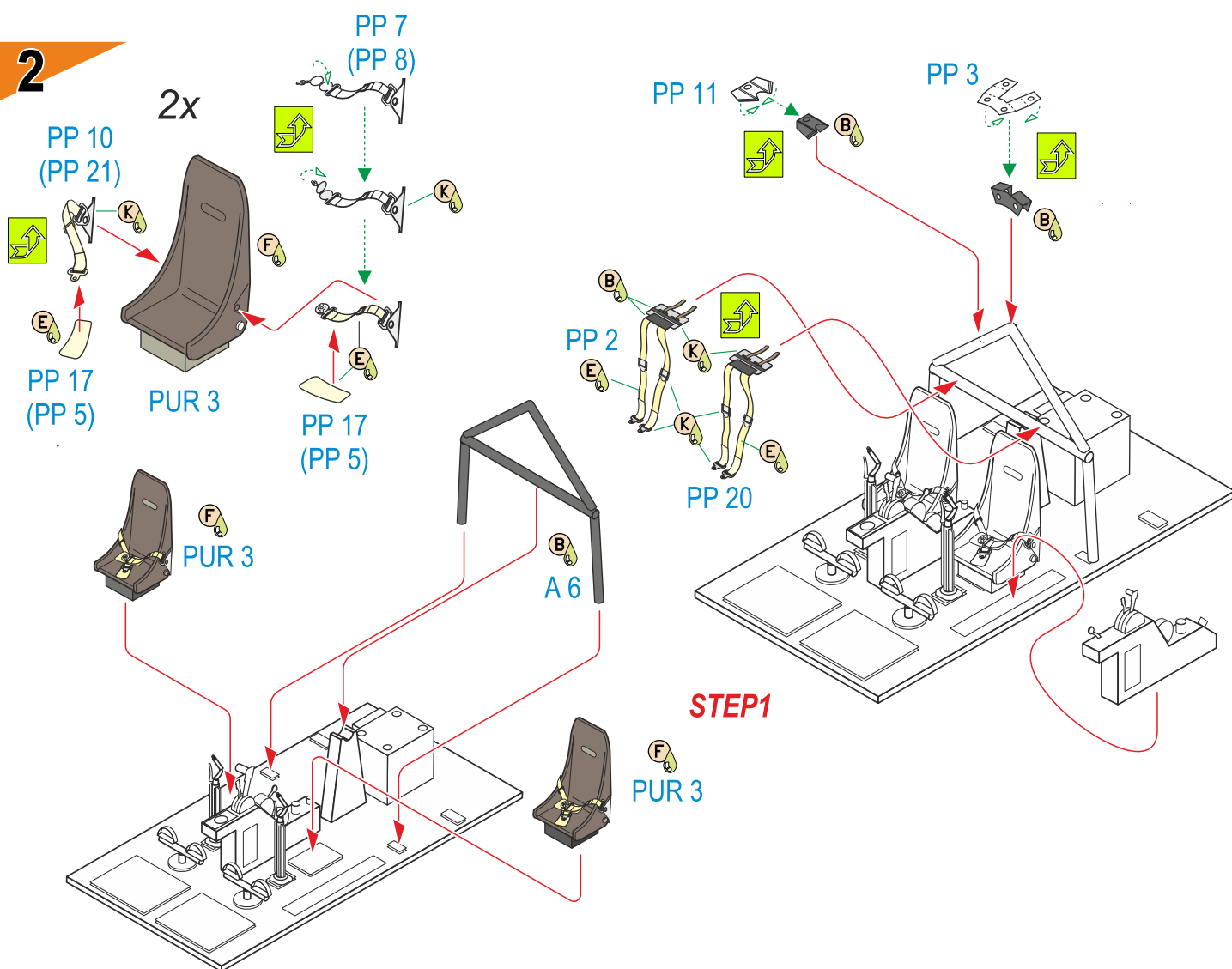
ZHOTOVIT NOVÉ  
SCRATCH BUILD  
FERTIGSTELLEN  
ACHEVER



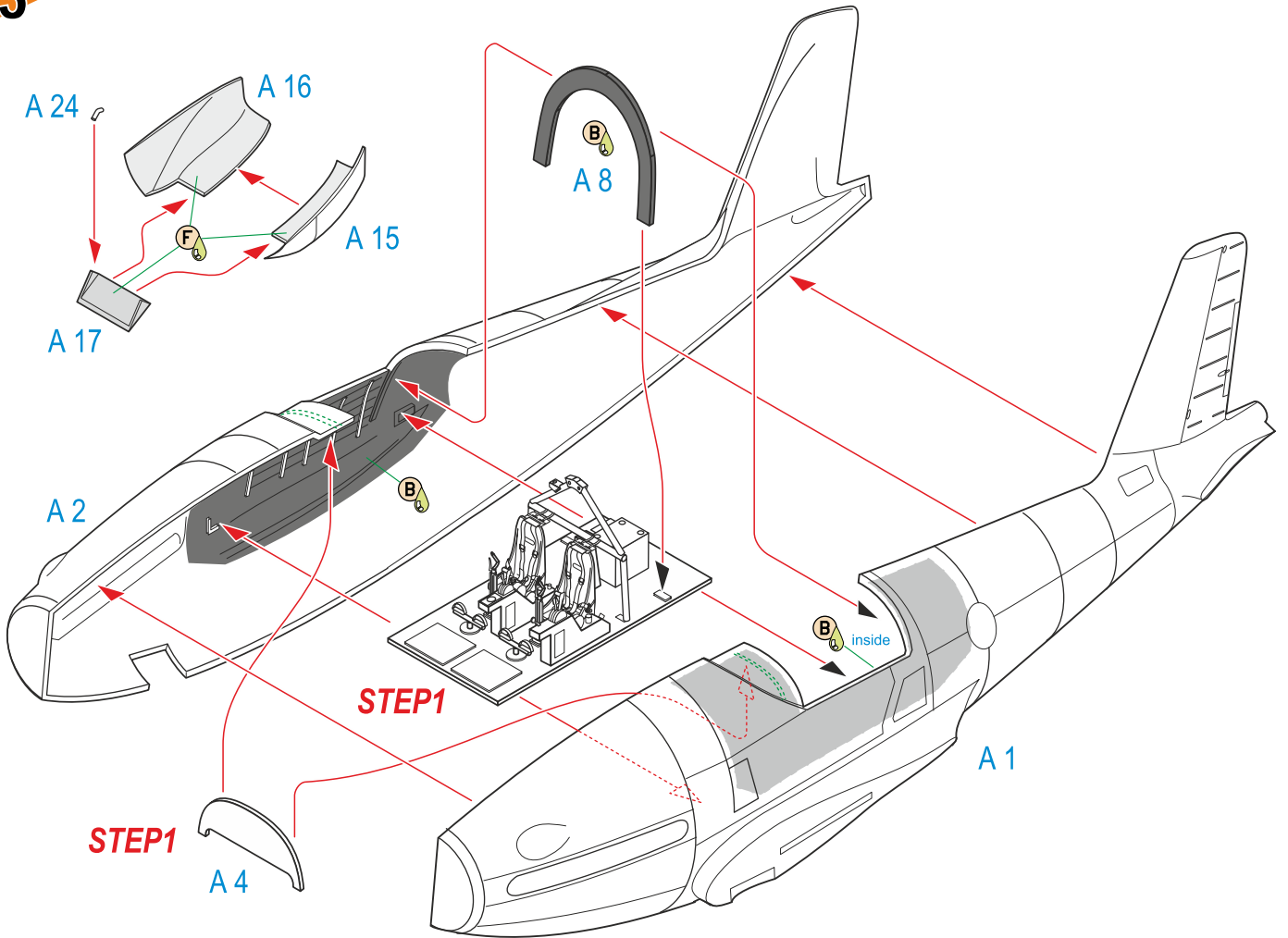
ODŘÍZNOUT/VRTAT  
CUT OFF/DRILL  
ABSCHNEIDEN/BOHREN  
DETACHER



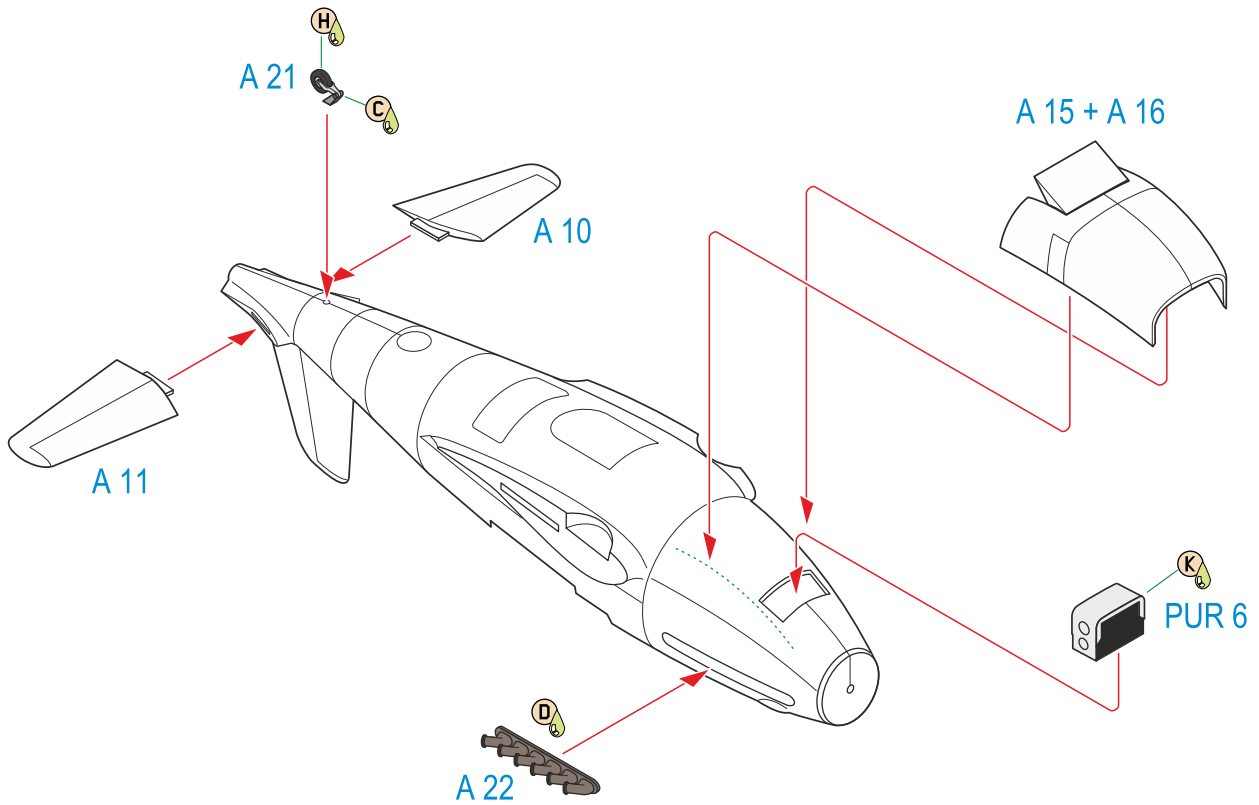
NATŘÍT  
COLOUR  
FARBEN  
PEINDRE

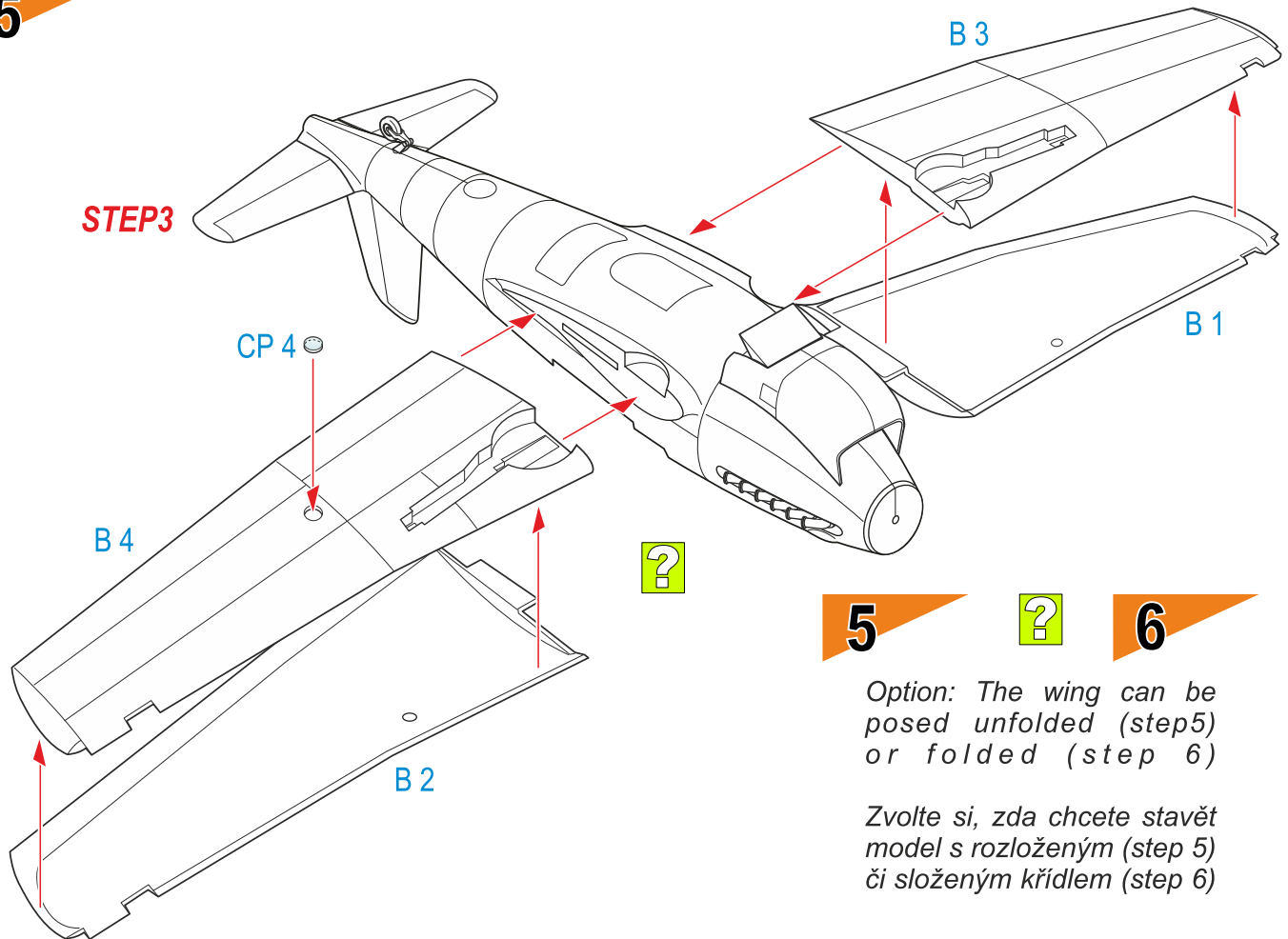
**1****2**

3



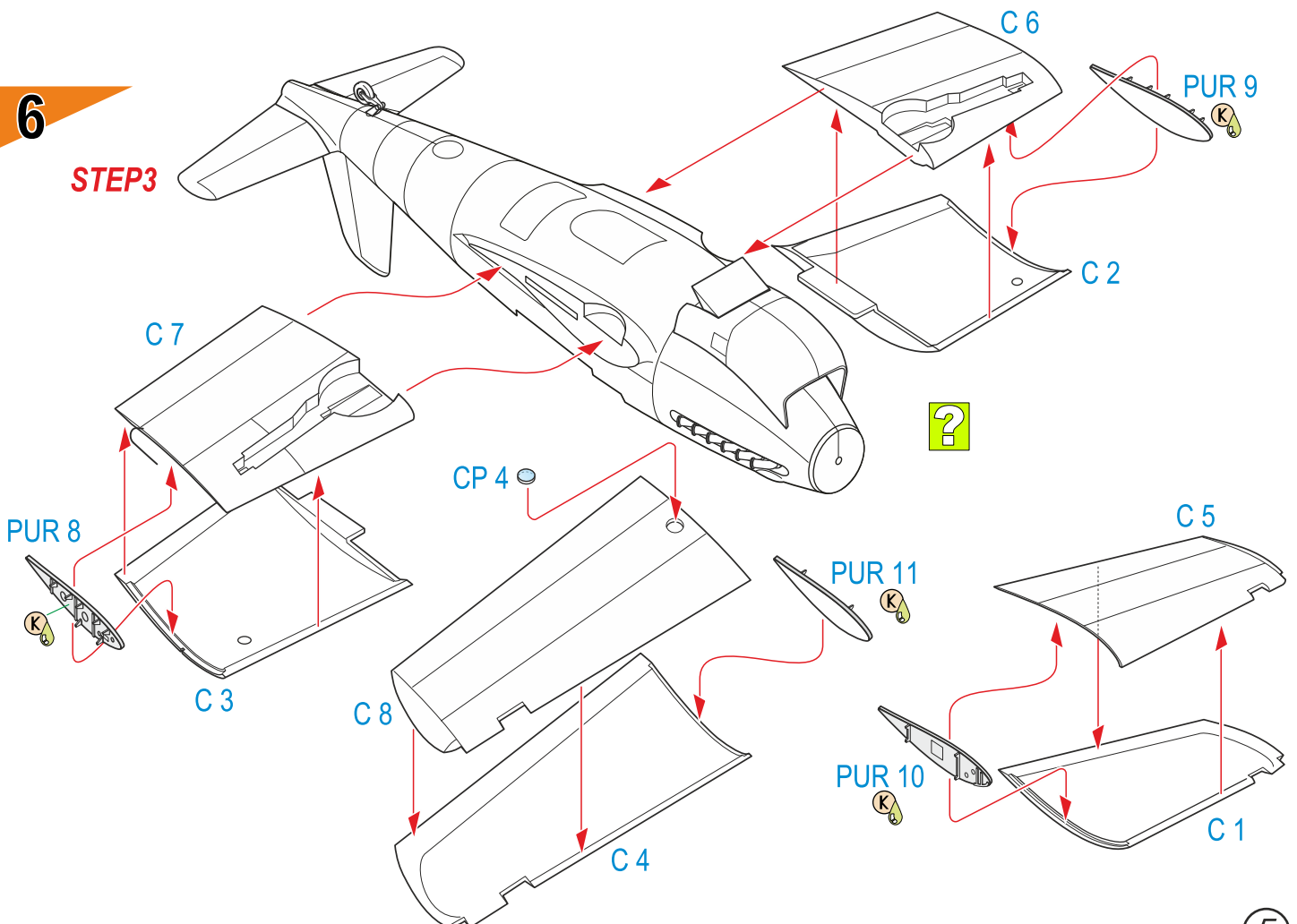
4



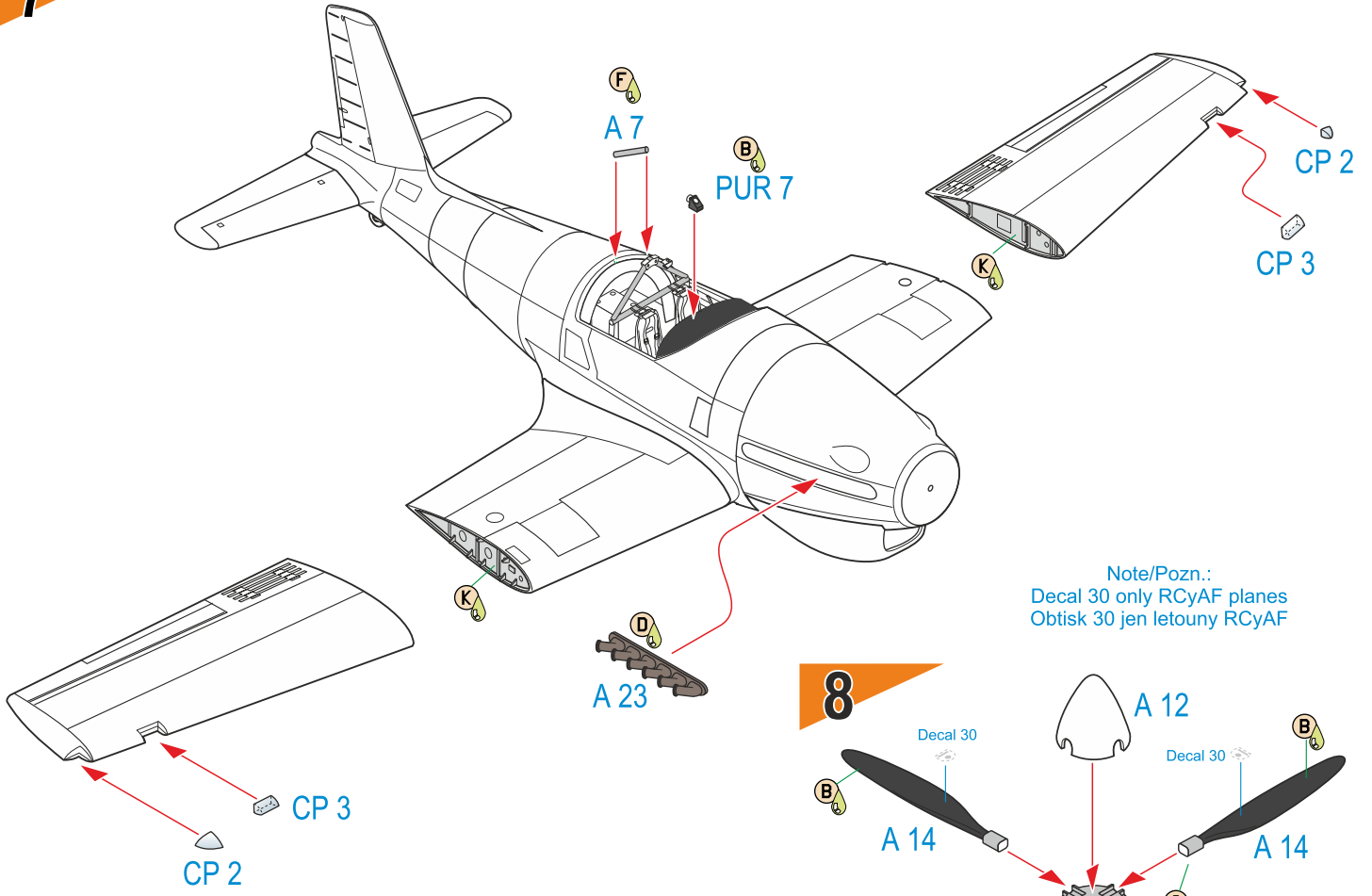
**5****5****6**

Option: The wing can be posed unfolded (step5) or folded (step 6)

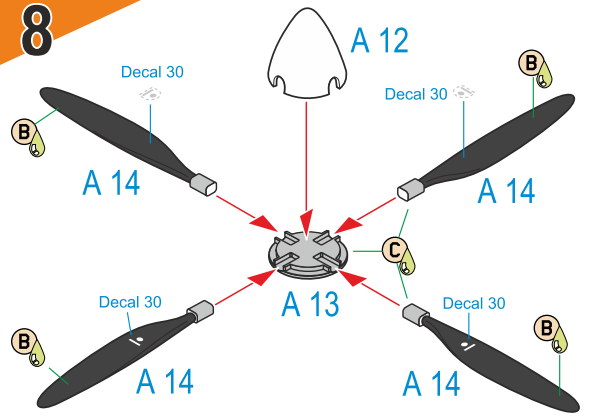
Zvolte si, zda chcete stavět model s rozloženým (step 5) či složeným křídlem (step 6)

**6**

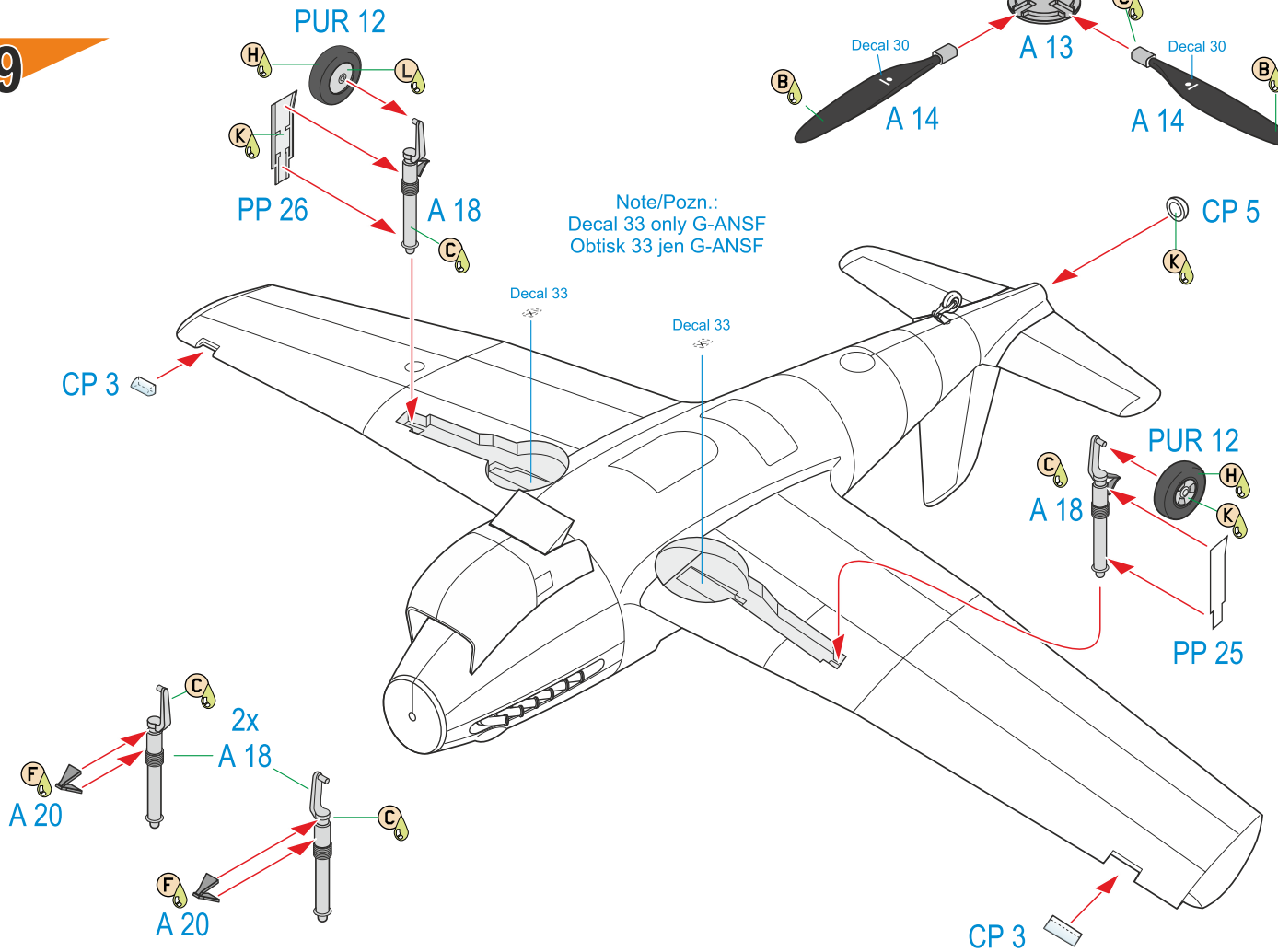
# 7

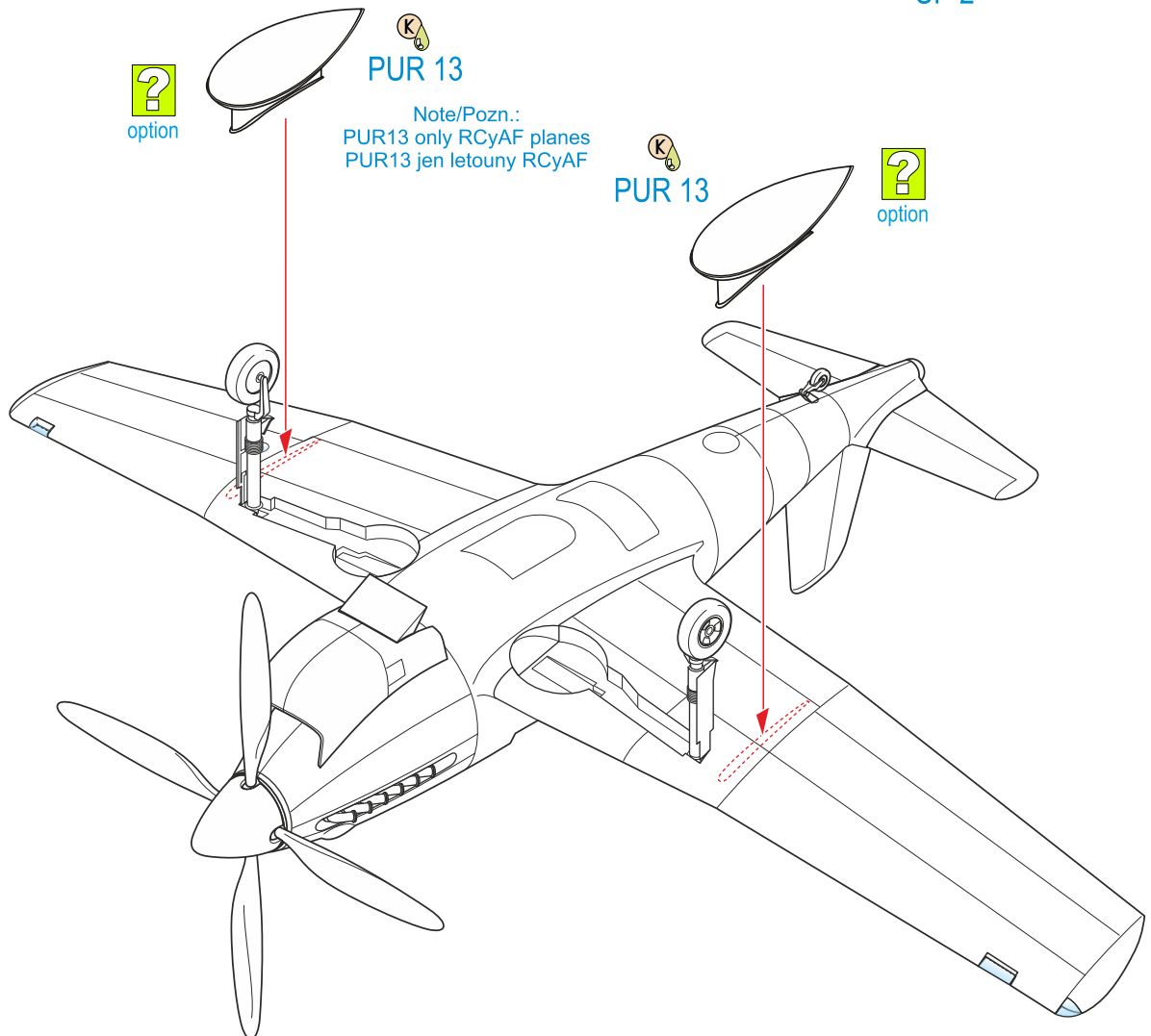
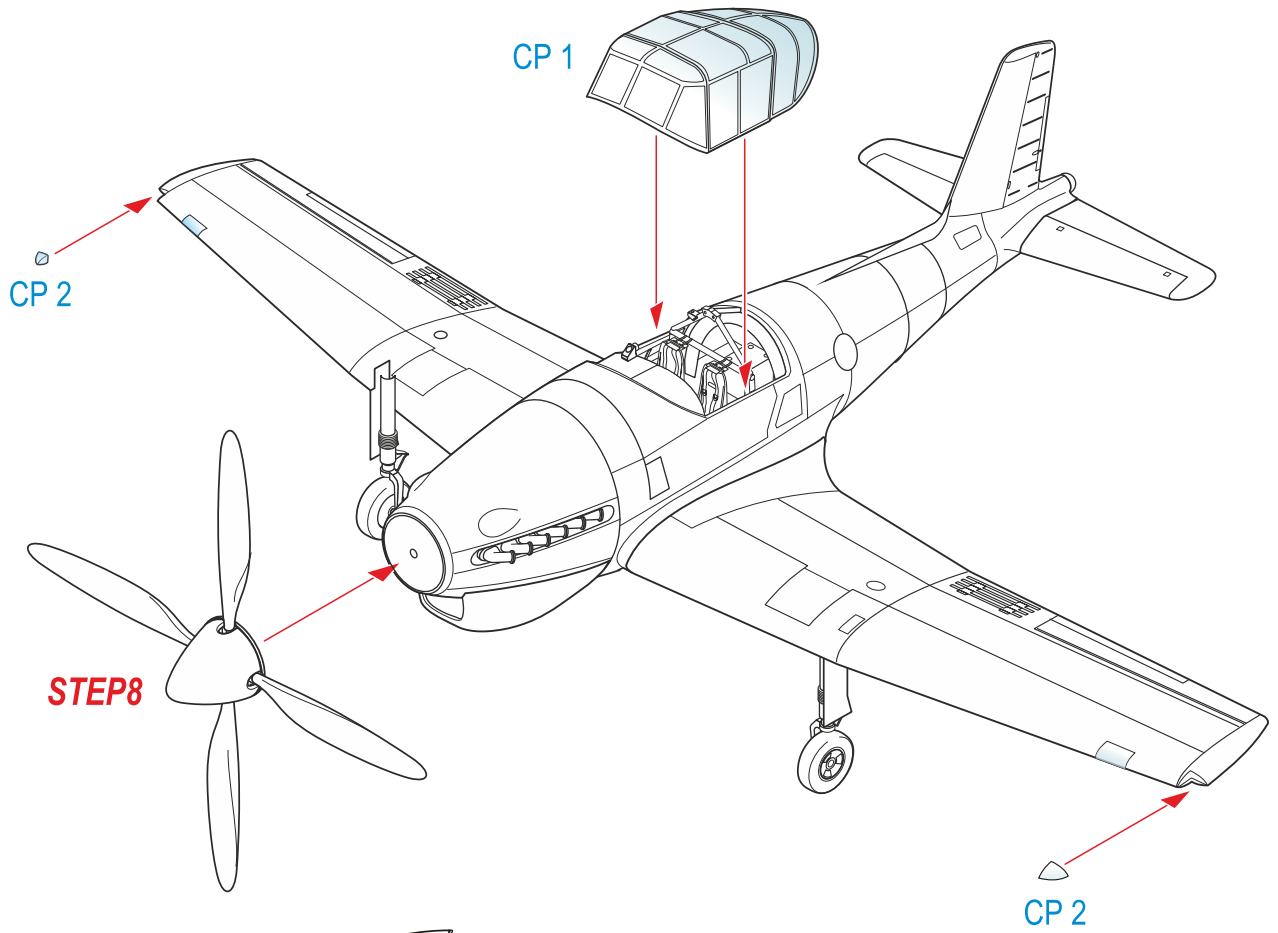


# 8

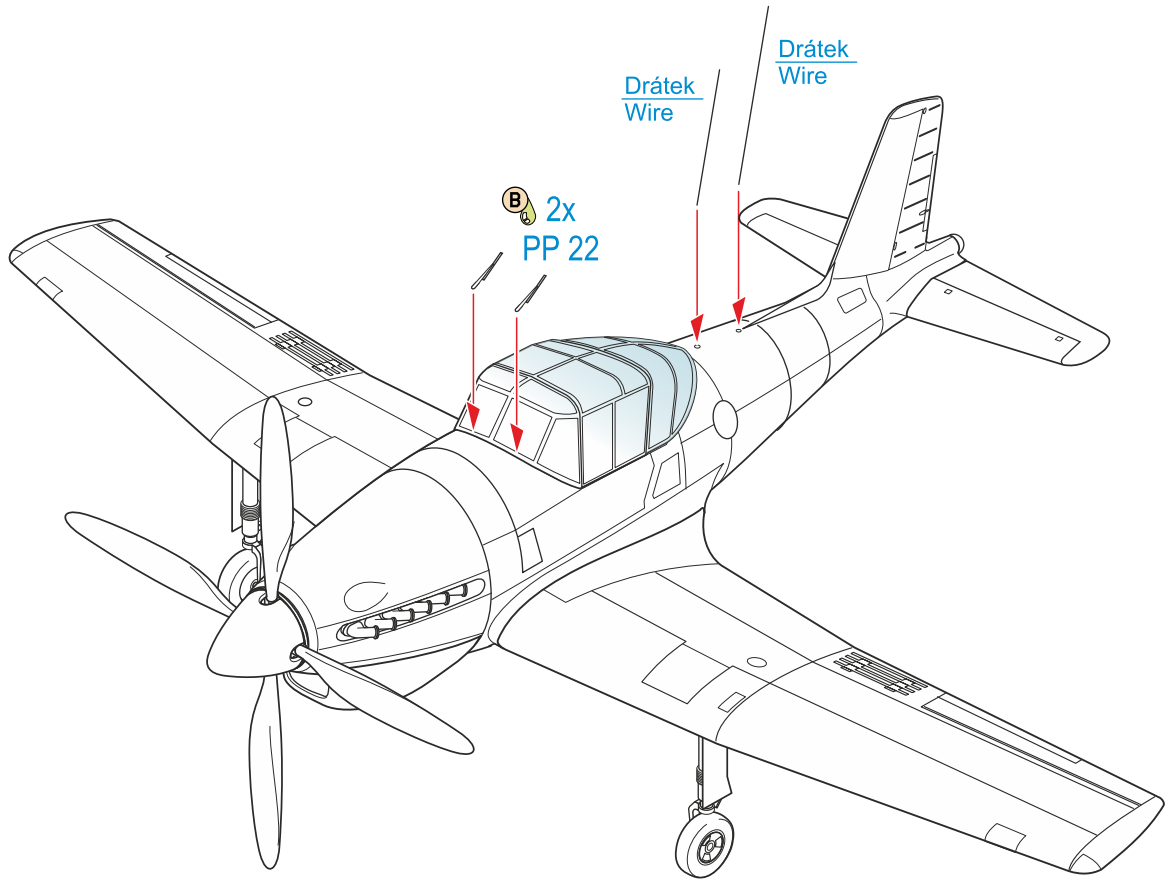
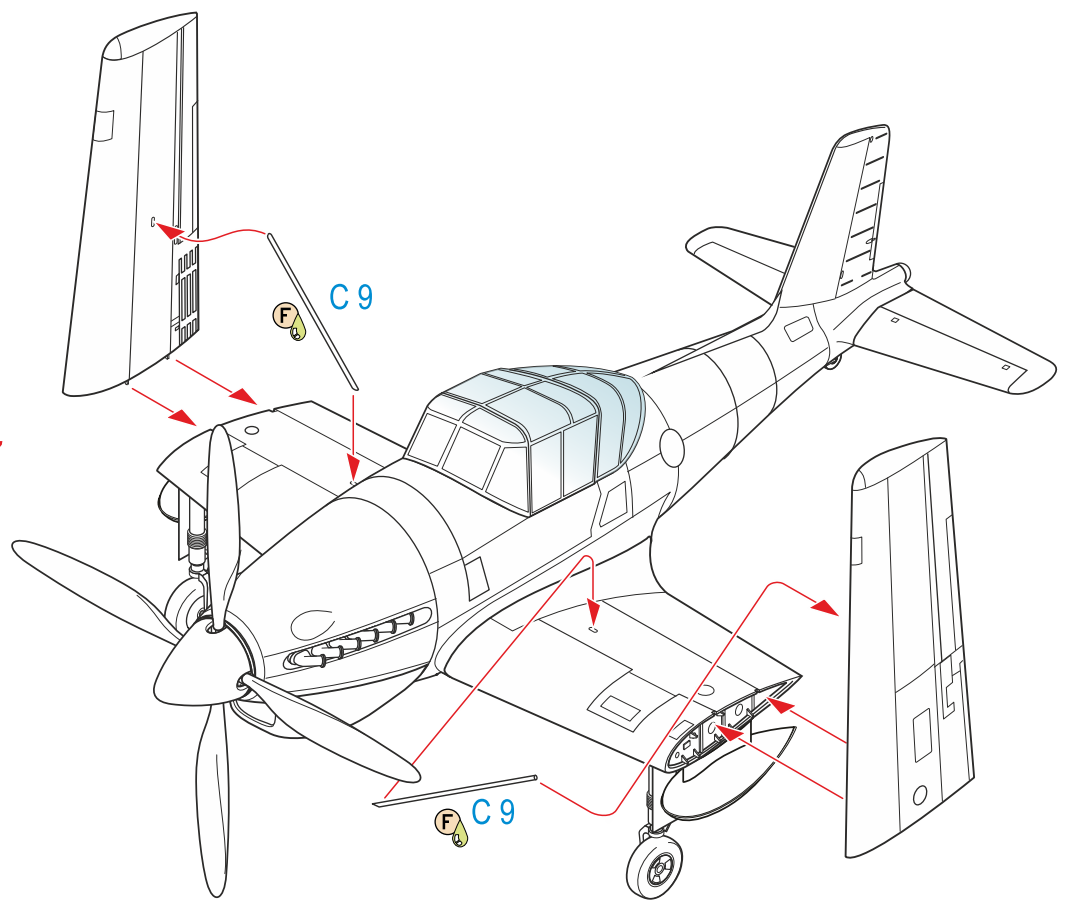


# 9





**?**  
**STEP 7**

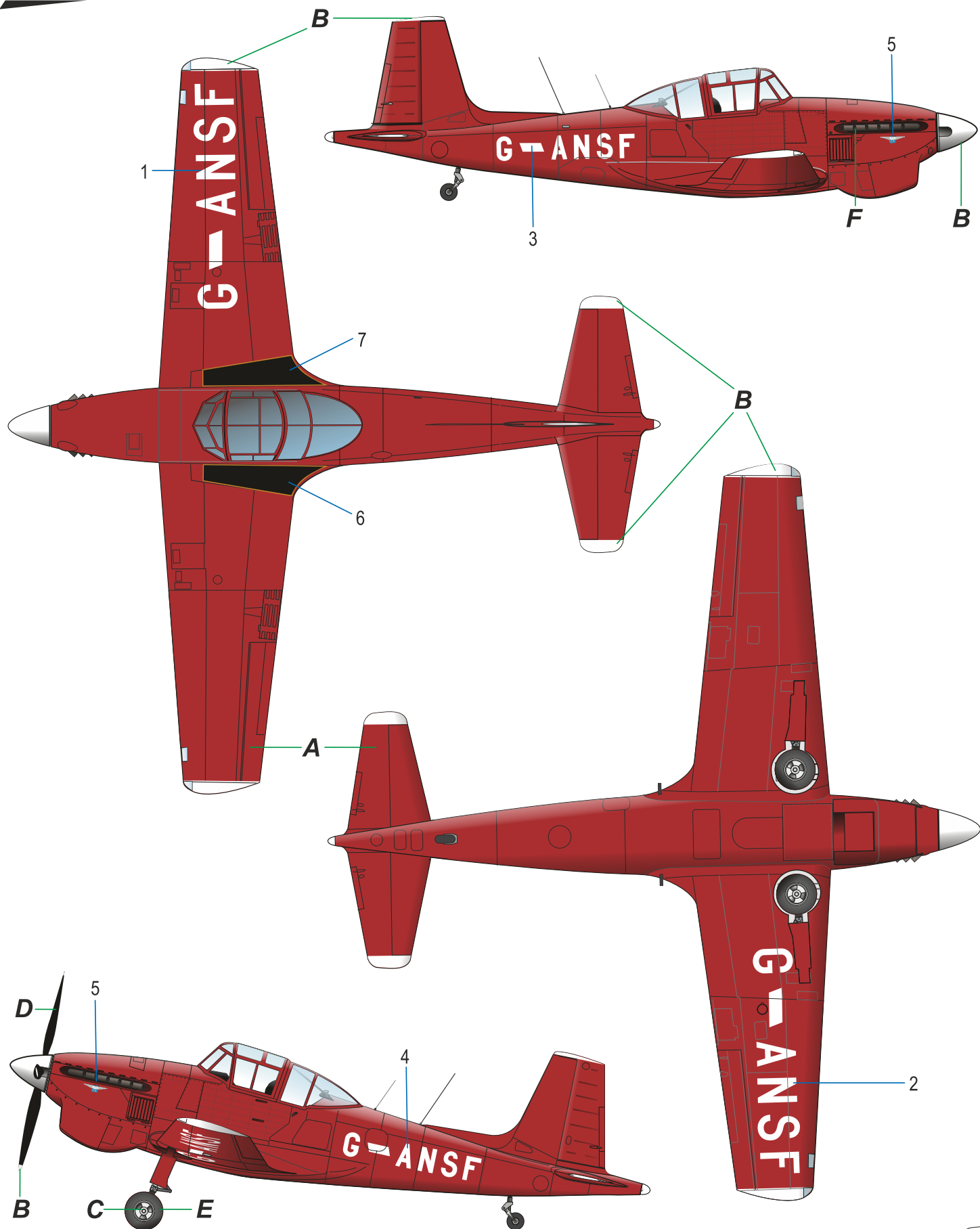




Boulton-Paul Balliol T.2, G-ANSF, a factory demonstrator, Farnborough, 1954.

Boulton Paul Balliol T.2, G-ANSF, tovární předváděcí letoun, Farnbrough, 1954.

**CAMO. A**



**A** Švestková Červená  
Plum Red



**B** Bílá  
White  
H11/C62



**C** Stříbrná  
Silver  
H8/C8



**D** černá  
Black  
H12/C33



**E** barva pneu  
Tire Black  
H53/C13



**F** opálený kov  
Burnt Iron  
H76/C61

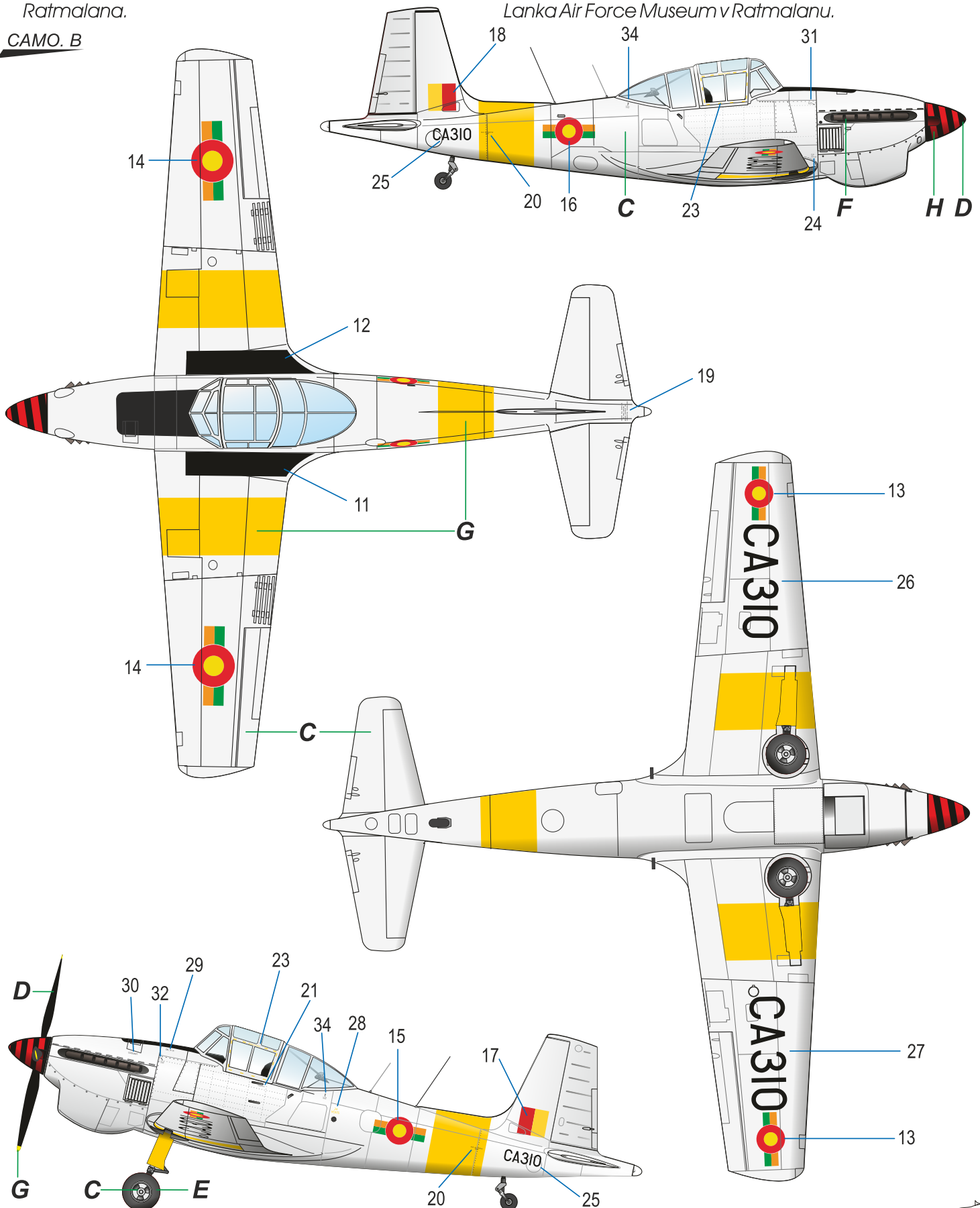








SH72365 Boulton Paul Balliol

Boulton Paul Balliol T.2, CA310, No.1 FTS, Royal Ceylon AF, Katunayake, 1958. CA310 was a second batch machine and flew with a painted on spiral on its spinner. Having been repainted, the machine is now on display in the Sri Lanka Air Force Museum at Ratmalana.

Boulton Paul Balliol T.2, CA310, No.1 FTS, Royal Ceylon AF, Katunayake, 1958. Stroj CA310 byl dodán v rámci druhé objednávky Balliolů. Létal se spirálou na vrtulovém kuželu. Stroj je nyní vystavován jako muzejní exponát v nepůvodním zbarvení v Sri Lanka Air Force Museum v Ratmalanu.

**CAMO. B**



- |   |  |  |   |   |  |
|---|--|--|---|---|--|
| <b>C</b>  Stříbrná<br>Silver<br>H8/C8 | <b>D</b>  černá<br>Black<br>H12/C33 | <b>E</b>  barva pneu<br>Tire Black<br>H53/C13 | <b>F</b>  opálený kov<br>Burnt Iron<br>H76/C61 | <b>G</b>  Žlutá<br>Yellow<br>H4/C4 | <b>H</b>  Červená<br>Red<br>H3/C3 |
|---|--|--|---|---|--|

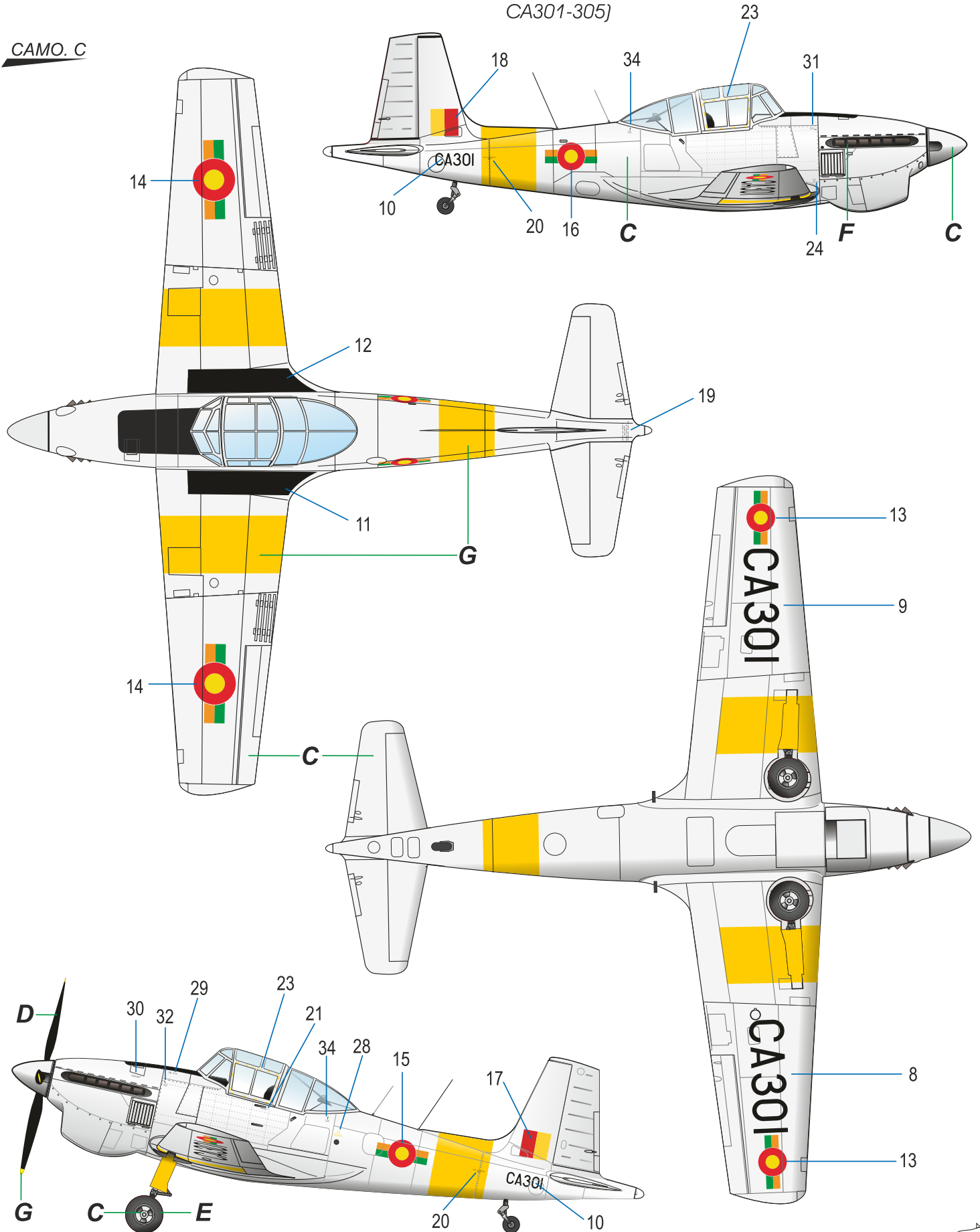
SH72365 Boulton Paul Balliol



Boulton Paul Balliol T.2, CA301, No.1 FTS, Royal Ceylon Air Force, Katunayake, 1954. Aircraft CA301 was delivered within the initial batch of four (other sources say five – CA301 to CA305) Balliols.

Boulton Paul Balliol T.2, CA301, No.1 FTS, Royal Ceylon AF, Katunayake, 1954. Stroj CA301 byl dodán v rámci první objednávky na čtyři kusy Balliolů. (jiné podklady uvádí první dodávku pěti kusů CA301-305)

**CAMO. C**



- |                                      |                                    |  |   |                                   |
|--------------------------------------|------------------------------------|--|---|-----------------------------------|
| <b>C</b> Stříbrná<br>Silver<br>H8/C8 | <b>D</b> černá<br>Black<br>H12/C33 | <b>E</b> barva pneu<br>Tire Black<br>H53/C13 | <b>F</b> opálený kov<br>Burnt Iron<br>H76/C61 | <b>G</b> Žlutá<br>Yellow<br>H4/C4 |
|--------------------------------------|------------------------------------|--|---|-----------------------------------|



SH72217



*"Silver Wing"*  
Blackburn Skua Mk.II

SH72251



*"Bolo in Canadian Service"*  
Digby Mk.I

SH72287



*"Over D-Day Beaches"*  
Boston Mk.IIIA

SH72306



*"Home Fleet"*  
Barracuda Mk.II

SH72317



Gloster Meteor T Mk 7.5

SH72322



*"British Single Seaters"*  
Folland Gnat F Mk.I

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