Peter Rake's
Cessna C-165
Air Master

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C3 1/32 ply

laminate F4/F4A like so

F4A

F4

spar stubs glue to F4/F4A
F4A sets dihedral angle

F4 1/32 ply

F4A 1/16 balsa

T1 1/16 balsa

T2 1/16 balsa

C3
MR
ML
C3
RT
CS
X
scrap balsa fill
for skid
block balsa

MR 1/32 ply

MA 1/32 ply

ML 1/32 ply

cabin glazed to here

F4
F4A
CS
F1
1/32 balsa
N
C3
C2
C1
F1A
F2
BALANCE
F3
FS1
RT
MA
C3
fuselage frame
1/16 sq. balsa
F1A 1/16 balsa
F2 1/16 balsa
tail from 1/16 balsa
size or shape shown
T1
rudder exit (FS3)
this side
horn
T2
laminate outline
from 3 off 1/16x1/32
1.5 mm carbon rod
F1
laminate 2 off 1/16 balsa

1/16 balsa planking
sand to shape
once cowl is complete
block balsa
scrap balsa
fairings
block balsa hatch
for battery access

spats are optional
not all aircraft have them
1" wheels

S2 3/32 balsa

S1 3/32 balsa

N 1/16 balsa

C1 1/32 ply

C2 1/32 ply

F3 1/32 ply

bind & glue
F3
RT fits here
18 swg u/c wire
S1
S2
FS3 1/16 balsa
(rudder exit)

1/32 ply control horn

locating dowels fit here
spar fits here

bevel inside
of tab
(see top view)
score and crack here
bend in front
FS1 1/16 balsa

FS2 1/16 balsa
(elevator exit)

X 1/16 balsa
fits between
top longerons
against tailplane

CS 1/16 balsa

RT 1/32 ply

F5 1/16 balsa

partial section through wing/fuselage join

1/32 balsa
F4A
F4
R1
R2
spar
FS1
covering
WT
WT
carve parts WT
to this shape

T3 1/16 balsa

tail from 1/16 balsa
size or shape shown
T3
laminate outline
from 3 off 1/16x1/32
T4
T5
horn
rounded bass
joiner

T4 1/16 balsa

T5 1/16 balsa

c/tail stick
locating dowel
glue spar extension
to formers F4/F4A
(sets dihedral)
3/32x3/16 bass spar
R1
1/32 balsa
top only
R2
R3
R4
R5
R6
R7
use angle guide
to set rib for d/h
c/tail stick
locating dowel
3/32x3/16 l.e.
WT
TE

WT 1/8 balsa
laminate 2 off

rib angle guide 1/16 balsa

TE 1/8 balsa

R7 1/16 balsa
R6 1/16 balsa
R5 1/16 balsa
R4 1/16 balsa
R3 1/16 balsa
R2 1/16 balsa
R1 1/16 balsa

3/32x3/16 l.e.
WT
R7
R6
R5
R4
R3
R2
1/32 balsa
top only
R1
c/tail stick
locating dowel
glue spar extension
to formers F4/F4A
(sets dihedral)
3/32x3/16 bass spar
use angle guide
to set rib for d/h
c/tail stick
locating dowel
TE