

1941 - Beyond

Ever been captivated by a bird almost motionless, just riding the air?

This is James' paper plane, looks kind of boring right? But trust us, it flies really well and has a cool name 'The SquaroSoarus'. It qualified for the World Championships with a glide time of 22.8 seconds in the air. It still retains the national 'Time Aloft' record. Can you beat that record?

Centenary snippet

In 2014 the Australian Air Force Cadets took delivery of eleven new ASK 21Mi self launching gliders. They look super slick and are located all around Australia for cadets to QualiFLY on to get their wings, how cool is that!!!! So if you feel like a 'soarathon' one day, check out at aafc.org.au

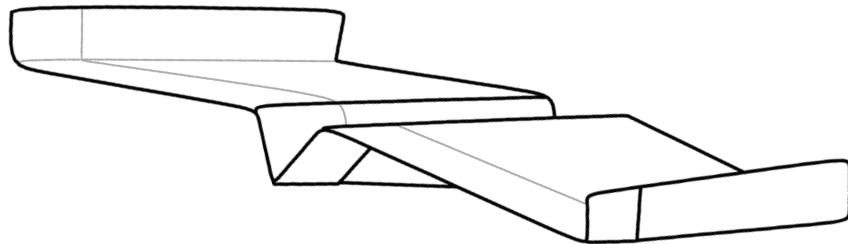


Image: FLGOFF (AAFC) Paul Rosenzweig, Public Affairs Officer, Aviation Operations Wing, Australian Air Force Cadets

MISSION - GLIDING

Time aloft is a competitive paper plane discipline that requires a Paper Pilot to optimise the design of folds to balance three specific performance capability requirements:

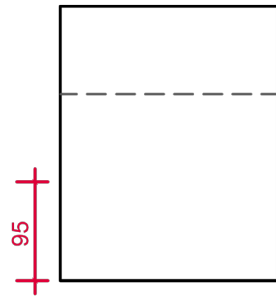
- 1) Withstand a fast forceful near vertical throw.
- 2) Quickly level out once at the peak height of the throw.
- 3) Sustain a long constant glide ration in slow and wide circles.

INSTRUCTIONS

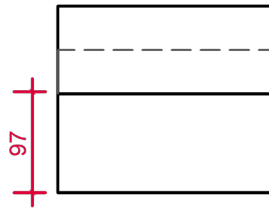
Follow steps to fold 'The SquaroSoarus'.

— — **VALLEY FOLD**

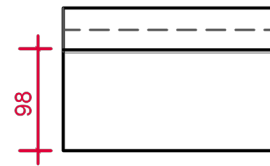
— — — **MOUNTAIN FOLD**



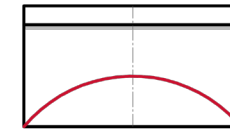
STEP 1
Fold down so that folded section finished 95mm from the base of the sheet.



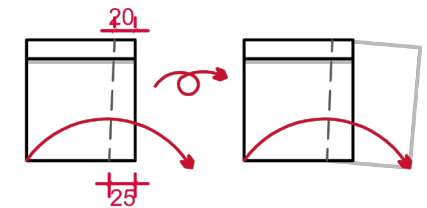
STEP 2
Repeat, this time folding 2mm shy of the previous fold.



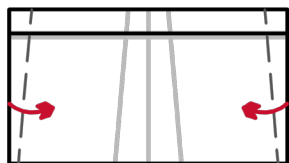
STEP 3
Repeat, this time folding 1mm shy of the previous fold.



STEP 4
Mountain fold in half, keeping the band of folds visible on the outside.



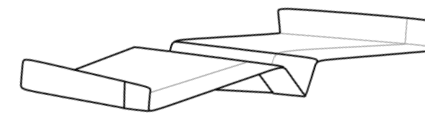
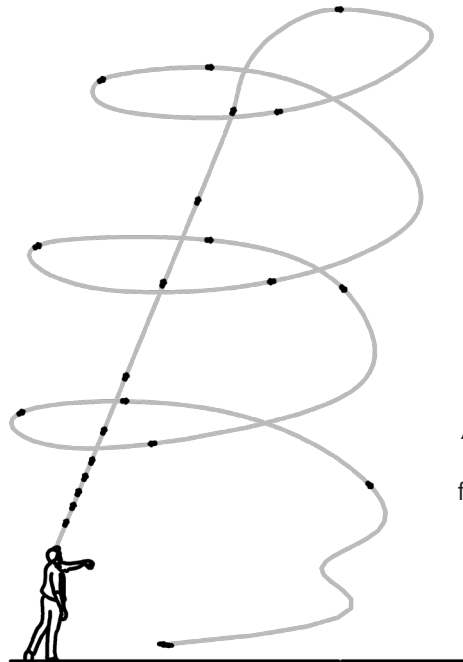
STEP 5
Fold each wing down one layer at a time. Noting the angle of attack dimensions as shown. After flipping match the second wing with the first one folded.



STEP 6
Flatten out and fold matching winglets above the wing as shown on each side. Make sure these folds run parallel with the wing folds. Re-establish wing folds.



STEP 7
Check dihedral angle of wings is as shown.



TEST FLIGHTS
Hold where the paper is thickest. Amplify the power of your throw by crouching, knees fully bent, loaded for launch. Throw forcefully upward in a spinning near vertical throwing action.

FLYING TIP

See flight path illustrations on the optimal helix glide. Lightly trim if needed after each throw. After a few powerful throws the paper loses rigidity. It may be time to re-load with a fresh plane.

To see videos visit the website.