

CHAPTER V

CONCLUSION AND SUGGESTION

Chapter 5 discusses the conclusions of the research and suggestions for further development.

5.1 Conclusion

After measuring the drag force and lift force, as well as calculating the coefficient of drag and coefficient of lift, then doing a flight test, the following conclusions are obtained:

1. The value of the coefficient of drag on the wing with the addition of slat at an angle of attack below 20° is greater than that of a plain wing, when it is at an angle of attack above 20° the value of the coefficient of drag on a plain wing is greater than that of a wing with slats. The value of the coefficient of drag on the tip slat wing is greater than the value of the coefficient of drag on the full slat wing and root slat wing.
2. The value of the coefficient of lift on an unmanned aircraft using the addition of a slat is greater than that of a plain wing. In full slat wing the maximum coefficient of lift is at $\alpha = 25^\circ$, while the maximum plain wing coefficient of lift is at $\alpha = 15^\circ$. The maximum coefficient of lift of the root slat wing and tip of the slat wing is at but the value of the coefficient of lift of the root slat wing is greater.
3. The addition of slats on the wing of the airplane can help reduce the radius of maneuver because the addition of slats can increase the lift force on the aircraft.
4. The slat position using a full slat wing can reduce the maneuver radius by up to 20%, which is the best position of the slat to reduce the maneuver radius.

5.2 Suggestion

The suggestions from this research for further development are :

1. In the use of measuring instruments, the calibration and sensitivity of the measuring instruments must be considered.
2. The flight test can be carried out when the weather is good or not windy so that the data obtained is good.