

**A Design Report for the Transportation Aircraft Designed in Aircraft Systems Design E3  
with a Specific Focus on the Design Aspects Covered by the Author.**

Philip Beswick @00662943

The University of Salford

Aircraft Systems Design E3

Dr O K Ariff, Dr Andreea Koreanschi

28/03/25

## **Abstract**

Some abstract yada yada yada

**A Design Report for the Transportation Aircraft Designed in Aircraft Systems Design E3  
with a Specific Focus on the Design Aspects Covered by the Author.**

## **Contents**

List of Figures . . . . .	4
List of Tables . . . . .	4
List of Equations . . . . .	4
<b>1 Introduction</b>	<b>5</b>
<b>2 Overview of Group Design and Market Survey</b>	<b>5</b>
2.1 Market Survey . . . . .	5
2.2 Design Overview . . . . .	5
<b>3 Primary Tasks</b>	<b>5</b>
3.1 Initial Weight Estimation . . . . .	5
3.2 Centre of Gravity . . . . .	5
3.3 Environmental Control Systems . . . . .	5
<b>4 Secondary Tasks</b>	<b>5</b>
4.1 Aircraft Drag Prediction . . . . .	5
4.2 Tail and Fin Design . . . . .	5
<b>5 Design Review</b>	<b>5</b>
<b>6 Group Work Evaluation</b>	<b>5</b>
<b>7 Conclusions</b>	<b>5</b>
<b>8 Appendix</b>	<b>5</b>
References . . . . .	5

**List of Figures**

**List of Tables**

**List of Equations**

## **1 Introduction**

## **2 Overview of Group Design and Market Survey**

### **2.1 Market Survey**

### **2.2 Design Overview**

## **3 Primary Tasks**

### **3.1 Initial Weight Estimation**

### **3.2 Centre of Gravity**

### **3.3 Environmental Control Systems**

## **4 Secondary Tasks**

### **4.1 Aircraft Drag Prediction**

### **4.2 Tail and Fin Design**

## **5 Design Review**

## **6 Group Work Evaluation**

## **7 Conclusions**

## **8 Appendix**