



TABLE OF CONTENTS

I	INTRODUCTION	1
II	EXECUTIVE SUMMARY	3
II.1	OPPORTUNITY	3
II.2	BUSINESS IDEA.....	4
II.3	MARKET, DEMAND AND SALES FORECAST	5
II.4	INVESTMENT, REVENUES AND PROFITABILITY	6
III	MARKET ANALYSIS.....	8
III.1	DESCRIPTION OF THE CIVIL UAV MARKET.....	8
III.2	OVERALL SIZE.....	8
III.3	GROWTH OF THE MARKET	9
IV	EXTERNAL ANALYSIS.....	11
IV.1	APPLICATIONS FOR CIVIL UAVS.....	11
IV.2	CUSTOMERS.....	13
IV.3	MARKET DEMAND.....	14
	<i>IV.3.i Top-down approach</i>	14
	<i>IV.3.ii Bottom-up approach.....</i>	16
IV.4	COMPETITORS ANALYSIS	23
	<i>IV.4.i Substitutes</i>	24
	<i>IV.4.ii Direct competitors.....</i>	30
	<i>IV.4.iii Competitors analysis conclusion</i>	32
IV.5	BARRIERS TO ENTRY	32
IV.6	TECHNOLOGICAL ASPECTS.....	33
	<i>IV.6.i The product</i>	33



<i>IV.6.ii Existing technologies</i>	34
<i>IV.6.iii The COMETS system</i>	35
<i>IV.6.iv UAV limitations</i>	36
IV.7 GOVERNMENTAL – LEGAL.....	38
<i>IV.7.i Certification:</i>	38
IV.8 ECONOMIC	38
<i>IV.8.i Overcoming Economic Insecurity</i>	39
<i>IV.8.ii Economy future</i>	39
<i>IV.8.iii Cultural</i>	40
<i>IV.8.iv Immigration</i>	41
V INTERNAL ANALYSIS.....	43
V.1 INTRODUCTION.....	43
V.2 PERSONAL SKILLS.....	43
<i>V.2.i Self management:</i>	44
<i>V.2.ii Independent Learning:</i>	44
<i>V.2.iii Goal skills:</i>	44
V.3 TECNICAL SKILLS.....	45
V.4 KNOWLEDGE OF THE SECTOR	45
V.5 MANAGEMENT CAPABILITIES.....	46
V.6 FINANCIAL CAPABILITIES	47
V.7 RESOURCES.....	47
V.8 CAPABILITIES.....	48
V.9 VRIO ANALYSIS.....	48
<i>V.9.i Valuable.....</i>	48
<i>V.9.ii Rare</i>	49
<i>V.9.iii Inimitable</i>	49



<i>V.9.iv</i> <i>Organized</i>	50
V.10 VALUE CHAIN	50
VI SWOT ANALYSIS AND STRATEGY	53
VI.1 SWOT ANALYSIS.....	53
<i>VI.1.i Strengths</i>	53
<i>VI.1.ii Weaknesses</i>	53
<i>VI.1.iii Opportunities</i>	54
<i>VI.1.iv Threats</i>	55
<i>VI.1.v SWOT Matrix</i>	55
VI.2 TOOLS FOR STRATEGIC DECISION MAKING.	58
<i>VI.2.i Boston Consulting Gropup Matrix</i>	58
<i>VI.2.ii General Electric Matrix</i>	59
<i>VI.2.iii Strategic profile</i>	60
VI.3 SWOT-CFKE ANALYSIS	61
VI.4 CONTINGENCY PLAN	64
VI.5 RISK MANAGEMENT PLAN.....	65
<i>VI.5.i Introduction</i>	65
<i>VI.5.ii Risk Management Plan</i>	65
<i>VI.5.iii Risk identification</i>	66
<i>VI.5.iv Risk Impact Severity</i>	66
<i>VI.5.v Probability of occurrence</i>	67
<i>VI.5.vi Overall Project Risk Hazard</i>	67
<i>VI.5.vii Mitigation</i>	68
<i>VI.5.viii Control and reporting</i>	68
<i>VI.5.ix Risk analysis</i>	68



VII	HEALTH AND SAFETY PLAN.....	70
VII.1	RESPONSIBILITIES.....	70
VII.1.i	<i>Managers</i>	70
VII.1.ii	<i>Engineers</i>	71
VII.1.iii	<i>Operators.....</i>	71
VII.2	KEY ELEMENTS OF SUCCESSFUL HEALTH AND SAFETY MANAGEMENT	72
VIII	QUALITY PLAN.....	75
VIII.1	QUALITY PURPOSE.....	75
VIII.2	SCOPE OF THE MANAGEMENT SYSTEM.....	75
VIII.3	QUALITY POLICY	76
VIII.4	CORPORATE SOCIAL RESPONSIBILITY	76
VIII.5	CERTIFICATION.....	78
VIII.5.i	<i>Airworthiness certification</i>	78
VIII.5.ii	<i>Certificate of Authorization (COA)</i>	79
VIII.5.iii	<i>Manufacturing Certification.....</i>	79
VIII.5.iv	<i>Maintenance certification</i>	80
VIII.5.v	<i>Installing certification.....</i>	80
VIII.6	NORMS OF USE OF THE UAVS.....	80
IX	JURIDICAL PLAN	84
IX.1	TYPE OF SOCIETY.	84
IX.2	APPLICABLE LEGISLATION.....	85
IX.3	COMPANY INCORPORATION	86
IX.3.i	<i>General Proceedings of Constitution of the company.....</i>	86
IX.3.ii	<i>Proceedings in Property</i>	89
IX.3.iii	<i>Proceedings for the Ministry of Labor.....</i>	90
IX.3.iv	<i>Proceedings in City Council.....</i>	92



X	MARKETING PLAN.....	93
X.1	INTRODUCTION TO THE MARKETING PLAN.....	93
X.2	SEGMENTATION PROCESS.....	93
	<i>X.2.i Developing a Segmentation Hypothesis</i>	94
	<i>X.2.ii Market Research.....</i>	102
	<i>X.2.iii Selection of the Target Segment.....</i>	105
X.3	MARKETING MIX	122
	<i>X.3.i Product Management</i>	123
	<i>X.3.ii Pricing Strategy.....</i>	125
	<i>X.3.iii Placement</i>	134
	<i>X.3.iv Promotion Plan.....</i>	144
XI	OPERATIONS.....	148
XI.1	INTRODUCTION	148
XI.2	MATERIAL RESOURCES	149
	<i>XI.2.i Forest Fire Monitoring</i>	151
	<i>XI.2.ii Border & Coastal Patrol.....</i>	152
	<i>XI.2.iii Earth Observation.....</i>	152
XI.3	HUMAN RESOURCES	153
	<i>XI.3.i Forest Fire Monitoring</i>	153
	<i>XI.3.ii Border & Coastal Patrol.....</i>	153
	<i>XI.3.iii Earth Observation.....</i>	154
XI.4	PROCESSES DEFINITION.....	155
	<i>XI.4.i Sales and contracting</i>	155
	<i>XI.4.ii Service Execution.....</i>	156
	<i>XI.4.iii Engineering & Customizing Product.....</i>	158
	<i>XI.4.iv Data Processing and Delivery.....</i>	159



XI.5 START-UP OPERATIONS	160
<i>XI.5.i Location Selection</i>	161
<i>XI.5.ii Offices Furnishing & Set-up</i>	161
<i>XI.5.iii Commercial agreement Negotiation</i>	162
<i>XI.5.iv Standard Airframe Selection</i>	162
<i>XI.5.v Ground Control Unit Vehicle Selection</i>	163
<i>XI.5.vi Component Initial Provisioning</i>	164
<i>XI.5.vii Certification Process</i>	165
<i>XI.5.viii Insurance Contracting</i>	168
XI.6 OPERATING COSTS	170
XII HUMAN RESOURCES PLAN	171
XII.1 INTRODUCTION	171
XII.2 ORGANIZATION CHART	171
XII.3 JOBS DESCRIPTION	172
<i>XII.3.i Board of Directors</i>	173
<i>XII.3.ii Manager/Operations Director</i>	174
<i>XII.3.iii Administrative assistant</i>	176
<i>XII.3.iv Salesforce</i>	177
<i>XII.3.v Operators</i>	178
XII.4 STAFF PLANNING	179
XII.5 INCOMES POLICY.....	180
XII.6 HUMAN RESOURCES POLICIES	181
<i>XII.6.i Recruitment process</i>	181
<i>XII.6.ii Training and education</i>	181
<i>XII.6.iii Performance evaluation</i>	182



XIII	FINANCIAL PLAN.....	183
XIII.1	INTRODUCTION	183
XIII.2	INITIAL CONSIDERATION AND ECONOMIC ENVIRONMENT	183
XIII.2.i	<i>Underlying assumptions</i>	183
XIII.2.ii	<i>General assumptions</i>	184
XIII.2.iii	<i>Taxes and Labour Costs</i>	185
XIII.3	ACCOUNTING FOR THE UNIVERSITY AGREEMENT	187
XIII.4	START-UP SUMMARY	188
XIII.4.i	<i>Start-up assets.....</i>	188
XIII.4.ii	<i>Depreciation & Amortization.....</i>	189
XIII.4.iii	<i>Start-up expenses.....</i>	190
XIII.5	FUNDING.....	190
XIII.5.i	<i>Social Capital</i>	190
XIII.5.ii	<i>Long-term debt</i>	191
XIII.6	DIVIDENDS POLICY.....	192
XIII.7	FORECASTS	193
XIII.7.i	<i>Sales Forecast.....</i>	193
XIII.8	FINANCIAL STATEMENTS.....	196
XIII.8.i	<i>Pro forma Balance Sheet.....</i>	196
XIII.8.ii	<i>Pro forma Profit and Loss Account.....</i>	197
XIII.8.iii	<i>Pro forma Cash-Flow (FCF) Statement.....</i>	199
XIII.9	FINANCIAL ANALYSIS	200
XIII.9.i	<i>Break-even analysis.....</i>	200
XIII.9.ii	<i>Sensitivity analysis.....</i>	201
XIII.10	RATIOS ANALYSIS	203
XIII.10.i	<i>Liquidity.....</i>	203



XIII.10.ii	<i>Solvency</i>	204
XIII.10.iii	<i>Profitability</i>	205
XIII.10.iv	<i>Efficiency</i>	206
XIV	CONCLUSIONS	207
XV	REFERENCES	208



TABLE OF FIGURES

FIGURE 1. CIVIL UAV INNOVATION GOALS	8
FIGURE 2. TOTAL MARKET FOR CIVIL UAVS IN EUROPE, 2006 – 2015 [22].....	9
FIGURE 3. THE TOTAL MARKET SHARES FOR CIVIL AND COMMERCIAL UAV MARKETS IN EUROPE (2006 – 2015).....	10
FIGURE 4. APPLICATIONS OF CIVIL UAVS.....	12
FIGURE 5. SPANISH REGIONS WITH HIGH FOREST FIRE RISK.....	16
FIGURE 6. DITRIBUTION OF RESOURCES OF THE MINISTERIO DE MEDIO AMBIENTE, WINTER 2008 [6]	17
FIGURE 7. DITRIBUTION OF RESOURCES OF THE MINISTERIO DE MEDIO AMBIENTE, SUMMER 2008 [6].....	17
FIGURE 8. TOTAL MARKET FOR FOREST FIRE MANAGEMENT UAVS IN EUROPE, 2006-2015.....	20
FIGURE 9. ARCHITECTURE OF COMETS	36
FIGURE 10. MIGRATION RATE PER 1.000 INHABITANTS [10].....	42
FIGURE 11. PERSONAL SKILLS	43
FIGURE 12. VALUE CHAIN OF FALUAV & SERVICES.....	50
FIGURE 13. RISK PLANNING.....	65
FIGURE 14. RISK VALUATION	67
FIGURE 15. FALUAV RISK HAZARD	69
FIGURE 16. MARKETING PLAN DEVELOPING PROCESS [14].....	93
FIGURE 17. SEGMENTATION PROCESS [14].....	94
FIGURE 18. HYPOTHESIS SEGMENTATION PROCESS [14].....	94
FIGURE 19. PRIORIZATION OF THE AXES.....	100
FIGURE 20. SEGMENTATION HYPOTHESIS	101
FIGURE 21. DEFINITIVE SEGMENTATION HYPOTHESIS	105
FIGURE 22. VALUE OF THE DIFFERENT SEGMENTS	108



FIGURE 23.	COMPARISON OF CAPABILITIES TO COMPETE IN THE MARKET ..	118
FIGURE 24.	FALUAV COMPETITIVE FIT	120
FIGURE 25.	TARGET SEGMENT SELECTION.....	121
FIGURE 26.	THE FOUR P COMPONENTS OF THE MARKETING MIX	122
FIGURE 27.	PRICING STRATEGY PROCESS	126
FIGURE 28.	DIFFERENT COSTS THAT COMPOSE THE PRICE.....	127
FIGURE 29.	OPTIMAL PRICE BASED ON DEMAND ESTIMATE	129
FIGURE 30.	COST AND PERCEIVED BENEFITS OF THE DIFFERENT PRICE COMPONENTS.....	132
FIGURE 31.	CHANGES IN PRICE STRUCTURE	133
FIGURE 32.	CHANNEL PRIORITIES FOR CIVIL GUARD SEGMENT	141
FIGURE 33.	CHANNEL PRIORITIES FOR ENVIRONMENTAL AUTHORITIES SEGMENT	142
FIGURE 34.	CHANNEL PRIORITIES FOR PRODUCTION COMPANIES AND ADVERTISING AGENCIES SEGMENT.....	143
FIGURE 35.	FALUAV & SERVICES LOGO	145
FIGURE 36.	VOLKSWAGEN TRANSPORTER WITH FALUAV LOGO	145
FIGURE 37.	FALUAV WEB SITE: WWW.TELEFONICA.NET/WEB2/FALUAV.....	146
FIGURE 38.	LOWER FLOOR.....	149
FIGURE 39.	UPPER FLOOR.....	150
FIGURE 40.	ARGOS UAV	151
FIGURE 41.	UAV NEEDS FOR FFM	151
FIGURE 42.	UAV NEEDS FOR B&C PATROL.....	152
FIGURE 43.	UAV NEEDS FOR EO.....	152
FIGURE 44.	TOTAL NEED OF UAVS	153
FIGURE 45.	HHRR FOR FFM	153
FIGURE 46.	CONTRACTING POLICY FOR FFM	153



FIGURE 47.	HHRR FOR B&C PATROL	153
FIGURE 48.	CONTRACTING POLICY FOR B&C PATROL	154
FIGURE 49.	HHRR FOR EARTH OBSERVATION.....	154
FIGURE 50.	CONTRACTING POLICY FOR EARTH OBSERVATION	154
FIGURE 51.	TOTAL NEEDS OF PERSONNEL	154
FIGURE 52.	OVERALL CONTRACTING STRUCTURE.....	154
FIGURE 53.	SALES & CONTRACTING FLOW-CHART	155
FIGURE 54.	SERVICE EXECUTION FLOW-CHART.....	156
FIGURE 55.	ENGINEERING & CUSTOMIZING PRODUCT FLOW-CHART	158
FIGURE 56.	DATA PROCESSING AND DELIVERY FLOW-CHART	159
FIGURE 57.	RELATIONS BETWEEN PROCESSES	160
FIGURE 58.	OFF-ROAD CAPABILITY	163
FIGURE 59.	CONTROL UNIT COCKPIT (CARGO BAY).....	164
FIGURE 60.	ORGANIZATION CHART	171
FIGURE 61.	OPERATIONAL LEVELS	172
FIGURE 62.	UNIVERSIDAD DE SEVILLA AGREEMENT WITH FALUAV	188
FIGURE 63.	DEBT TO CAPITAL STRUCTURE	190
FIGURE 64.	YEARLY PAYMENTS OF THE LOAN	192
FIGURE 65.	FALUAV REVENUES DEPENDING ON THE MARKET	193
FIGURE 66.	EXPENSES DISTRIBUTION	194
FIGURE 67.	EAT	197
FIGURE 68.	EAT/SALES	198
FIGURE 69.	PROFORMA CASHFLOW	200
FIGURE 70.	YEARLY BREAK EVEN.....	201
FIGURE 71.	NET PROFIT (DISREGARDING COASTAL AND BORDER PATROL) .	202



FIGURE 72. PRO-FORMA CASH-FLOW (DISREGARDING COASTAL AND BORDER PATROL)	203
FIGURE 73. PROFITABILITY RATIOS.....	206



TABLE OF TABLES

TABLE 1.	UAV MARKET FORECAST	9
TABLE 2.	WORLD UAV MARKET	14
TABLE 3.	MARKET STRUCTURE	15
TABLE 4.	TARGET MARKET	15
TABLE 5.	ENVIRONMENT MINISTRY BUDGET DEDICATED TO THE FOREST FIRE PREVENTION AND FIGHTING.....	18
TABLE 6.	FOREST FIRE MANAGEMENT BUDGETS (AUTONOMOUS REGIONS) ..	19
TABLE 7.	FOREST FIRE TARGET MARKET	19
TABLE 8.	FALUAV FOREST FIRE MARKET.....	20
TABLE 9.	GUARDIA CIVIL BUDGET.....	21
TABLE 10.	FALUAV BORDER PATROL MARKET	22
TABLE 11.	FALUAV EARTH OBSERVATION MARKET.....	23
TABLE 12.	RISK ASSESSMENT	66
TABLE 13.	PROBABILITY OF OCCURRENCE.....	67
TABLE 14.	POTENTIAL CUSTOMERS OF FALUAV	95
TABLE 15.	PRINCIPAL CHARACTERISTICS OF THE POTENTIAL CUSTOMERS	98
TABLE 16.	CLASSIFICATION OF THE CUSTOMERS:.....	100
TABLE 17.	SAMPLING SIZE AND PROCEDURE FORMARKET RESEARCH.....	103
TABLE 18.	VALUE OF POTENTIAL CUSTOMER SEGMENTS [16] [17][18][19]	107
TABLE 19.	FALUAV CAPABILITIES VS COMPETITORS	119
TABLE 20.	CUSTOMER'S FOUR CS	123
TABLE 21.	SPECIFIC TARGET BENEFITS.....	124
TABLE 22.	COMPARISON OF CAPABILITIES TO COMPETE IN THE MARKET	125
TABLE 23.	OPTIMAL PRICE BASED ON DEMAND ESTIMATE	129
TABLE 24.	AVERAGE PRICE OF THE COMPETITORS	130



TABLE 25.	RISK FACTOR THAT INCREMENT THE PRICE	131
TABLE 26.	FALUAV PRICES	134
TABLE 27.	CHANNEL ATTRACTIVENESS	136
TABLE 28.	PROFITABILITY OF MEDIA CHANNEL	138
TABLE 29.	PROFITABILITY OF PROMOTIONS AND DIRECT CONTACT	139
TABLE 30.	PROFITABILITY OF SALES FORCE & CONTACTS	140
TABLE 31.	PRINCIPAL CHANNELS	143
TABLE 32.	UAV INTERNACIONAL EVENTS.....	147
TABLE 33.	LIST OF USABLE INSURANCE COMPANIES	169
TABLE 34.	STAFF PLANNING.....	179
TABLE 35.	SALESFORCE	179
TABLE 36.	OPERATORS PLANNING	180
TABLE 37.	INCOMES POLICY	181
TABLE 38.	VAT COLLECTED AND PAID BY FALUAV	186
TABLE 39.	SOCIAL SECURITY EXPENSES	186
TABLE 40.	INITIAL START-UP EXPENSES AND ASSETS.....	188
TABLE 41.	ASSET DEPRECIATIONS.....	189
TABLE 42.	FALUAV REVENUES	193
TABLE 43.	DETAIL OF THE BALANCE SHEET.....	196
TABLE 44.	OTHER OPERATING EXPENSES, FROM P&L	198
TABLE 45.	EBT, CORPORATE TAX AND EAT, FROM P&L	199
TABLE 46.	LIQUIDITY RATIOS	204
TABLE 47.	SOLVENCY RATIOS	205
TABLE 48.	PROFITABILITY RATIOS	205
TABLE 49.	EFFICIENCY RATIOS.....	206