ANNEX A

Aeroplane Types

13th Edition
August 2016

IMPORTANT NOTICE:

This will be the last time this document will be published. See for details the Foreword.

ASSOCIATION OF EUROPEAN AIRLINES

FOREWORD

The 2016-2017 winter season will be the last time the "AEA Recommendations for de-icing/anti-icing aeroplanes on the ground" and the "AEA Training Recommendations and Background Information for De-Icing /Anti-Icing of Aeroplane on the Ground" are published. Before the start of the 2017-2018 winter season, both documents will be withdrawn completely from the AEA website and a reference will be made to the new SAE Global Deicing Standards AS6285 (Deicing procedures) and AS6286 (Deicing training, including 6 slash-sheets with detailed training information).

On a request from the IATA, these SAE Global Deicing Standards are being established for the last 5 years by the SAE G-12 Committee on aircraft ground deicing in close cooperation with the AEA De-icing W/G. AEA made the agreement that the moment the SAE Global Deicing Standards are published, the AEA deicing documents (both the Procedures/methods and the Training documents) would be cancelled/withdrawn to have just one deicing standard worldwide.
The current ISO de-icing document 11076 "Aircraft — De-icing/anti-icing methods on the ground" is solely referring to the AEA deicing document, so this will either be cancelled as well or changed into a reference to the SAE AS6285 document.

The SAE Global Deicing Standard documents will most likely be published very soon. It concerns the AS6285, "Aircraft Ground Deicing/anti-icing processes" and the AS6286, "Training and Qualification Program for Deicing/Anti-icing of Aircraft on the Ground", Main document.

The AS6286 Training document has a main document and 6 so called slash-sheets with all the detailed information in separate slash-sheets for Equipment, Fluids, Holdover time, Methods, Health/Safety and Aircraft diagrams with no-spray areas. These slash-sheets are not yet ready for publication.

Since the publication of the SAE Global Deicing Standards will most likely be relatively late and the training document is not complete (slash-sheets not yet ready), the AEA deicing W/G decided in their May 2016 meeting that they will publish an updated procedures/methods document once more to give users the time and opportunity to adjust and get used to the new situation and be able to fully switch over to this new standard for their own procedures and instructions for winter 2017-2018.
The current AEA deicing training manual will stay as is on the AEA website, no update needed.

The expectation is that all the SAE Global Deicing Standard documents will be published this year or early next year, well before the 2017-2018 winter season starts. This means that from this 2017-2018 winter season the AEA deicing documents will disappear from the AEA website and people will be referred to the SAE Global Deicing Standard documents.

The main differences with the AEA deicing documents will be that there are no holdover time tables and no Q.A. checklist example included into the AS6285 and AS6286 documents. Also, the mid-season check on truck nozzles is not mandatory, but discussions are on-going on this subject for future revisions.
Further, the SAE documents are not for free despite the AEA de-icing W/G's opinion that they should be.

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1.1 Aeroplane Types

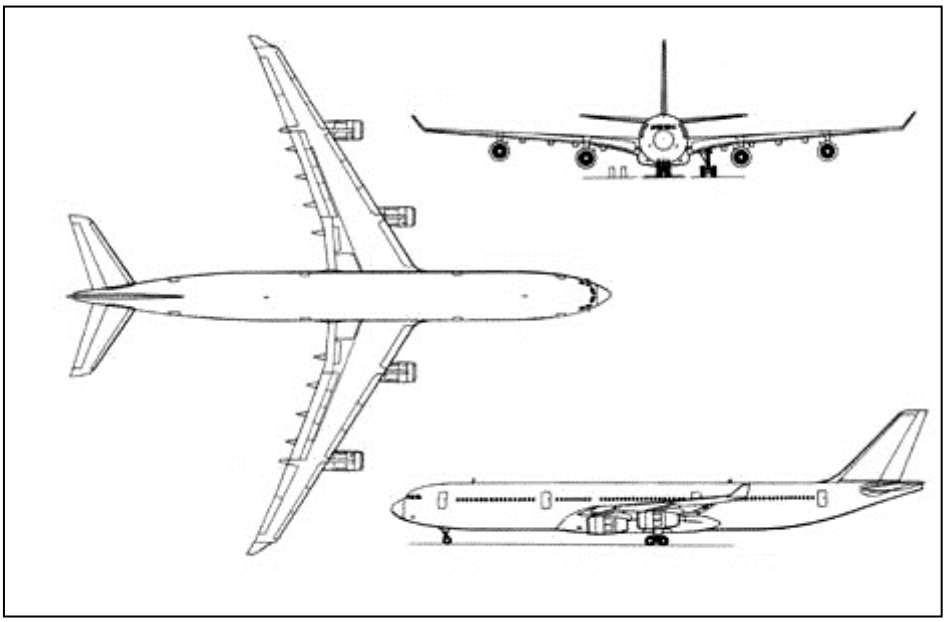
NOTE: The wing and horizontal tail surface areas mentioned in this Annex A are not verified to reflect only the wetted areas (the area that is sprayed with de-anti-icing fluids) for each aeroplane type. Some wing and horizontal stabilizer areas may or may not include flight controls, wing-to-fuselage panels, winglets etc. The figures shall therefore only be used as an indication. Always check with the operator or aeroplane manufacture for the correct figure of wetted areas

1.1.1 Airbus

All dimensions are for reference only and are approximate. Latest revision of aeroplane data shall be used in operation . The figures given may differ when compared with other manuals and therefore verification must be made if using these figures directly in operation. These numbers are rounded up for easier use in operation. The dimensions for the upper fuselage area and the vertical stabilizer surface area are not mentioned here. Relevant aeroplane manufacturer and airline operator manuals should be referenced when treating these areas.

1.1.1.1 Airbus A340

Manufacturer	Airbus
Type	A340 (-200/-300)
Wing area	362 m^2
Horizontal stabilizer area	70 m^2
Total surface area	432 m^2
Height overall	17 m
Wingspan	61m
Fuselage, 1/3 surface area	351 m^2 (340-200), 376 m^2 (340-300)

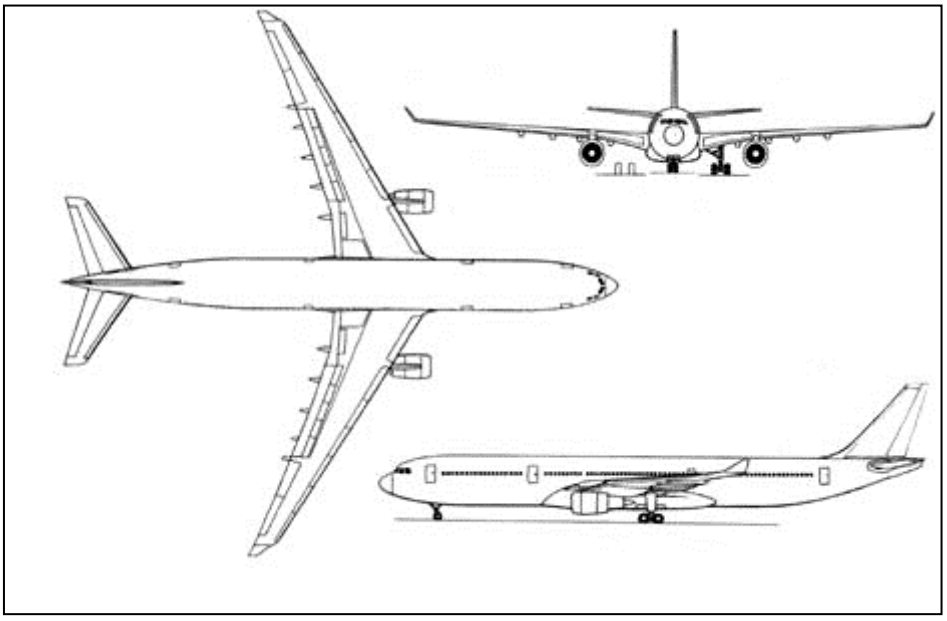


Manufacturer	Airbus
Type	A340 (-500/-600)
Wing area	437 m^2
Horizontal stabilizer area	70 m^2
Total surface area	507 m^2
Height overall	18 m
Wingspan	64 m
Fuselage, 1/3 surface area	401 m² (A340-500), 445 m² (A340-600)

1.1.1.2 Airbus A330

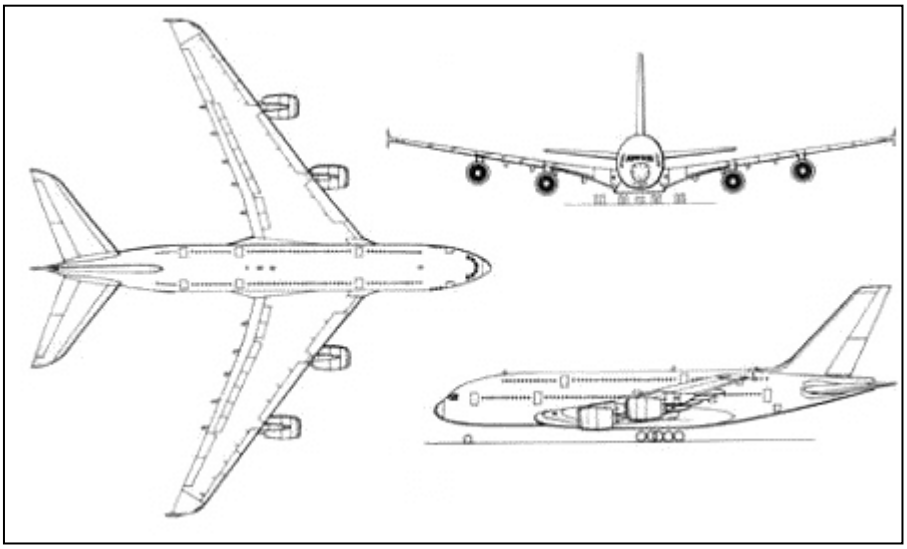
Manufacturer	Airbus
Type	A330 (-200)
Wing area	362 m^2
Horizontal stabilizer area	70 m^2
Total surface area	432 m^2
Height overall	18 m
Wingspan	61 m
Fuselage, 1/3 surface area	348 m²

Manufacturer	Airbus
Type	A330 (-300)
Wing area	362 m^2
Horizontal stabilizer area	70 m^2
Total surface area	432 m^2
Height overall	17 m
Wingspan	61 m
Fuselage, 1/3 surface area	380 m²



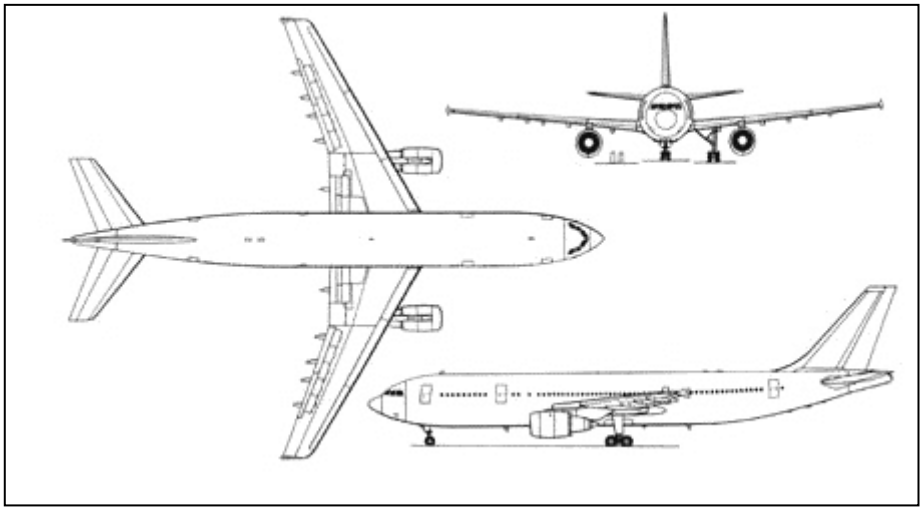
1.1.1.3 Airbus A380

Manufacturer	Airbus
Type	A380
Wing area	733 m^2
Horizontal stabilizer area	187 m^2
Total surface area	920 m^2
Height overall	24 m
Wingspan	80 m
Fuselage, 1/3 surface area	546 m^2



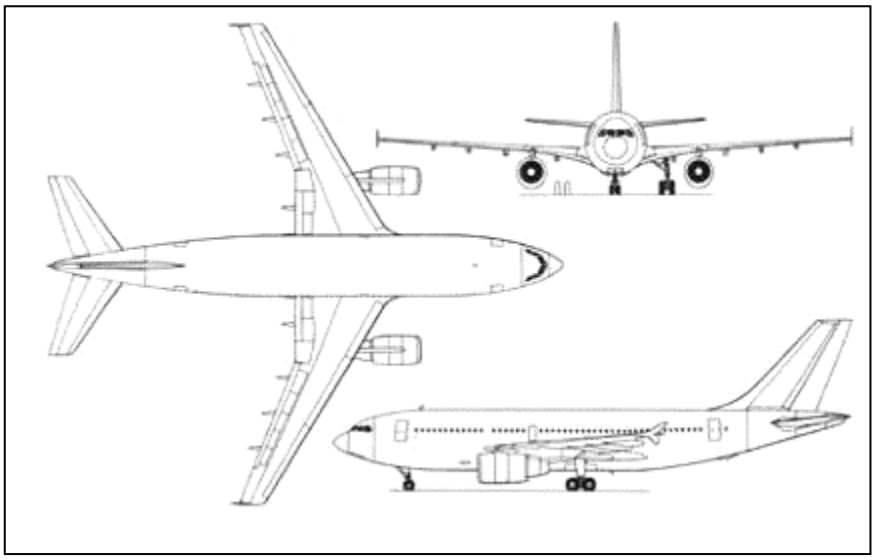
1.1.1.4 Airbus A300

Manufacturer	Airbus
Type	A300 (-600R)
Wing area	260 m^2
Horizontal stabilizer area	45 m^2
Total surface area	305 m^2
Height overall	17 m
Wingspan	45 m
Fuselage, 1/3 surface area	320 m^2



1.1.1.5 Airbus A310

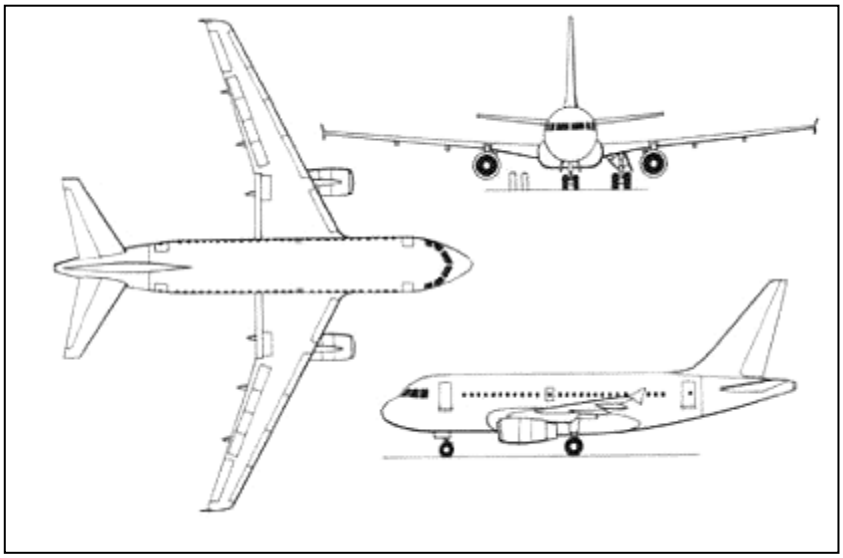
Manufacturer	Airbus
Type	A310
Wing area	219 m^2
Horizontal stabilizer area	45 m^2
Total surface area	264 m^2
Height overall	16 m
Wingspan	44 m
Fuselage, 1/3 surface area	276 m²



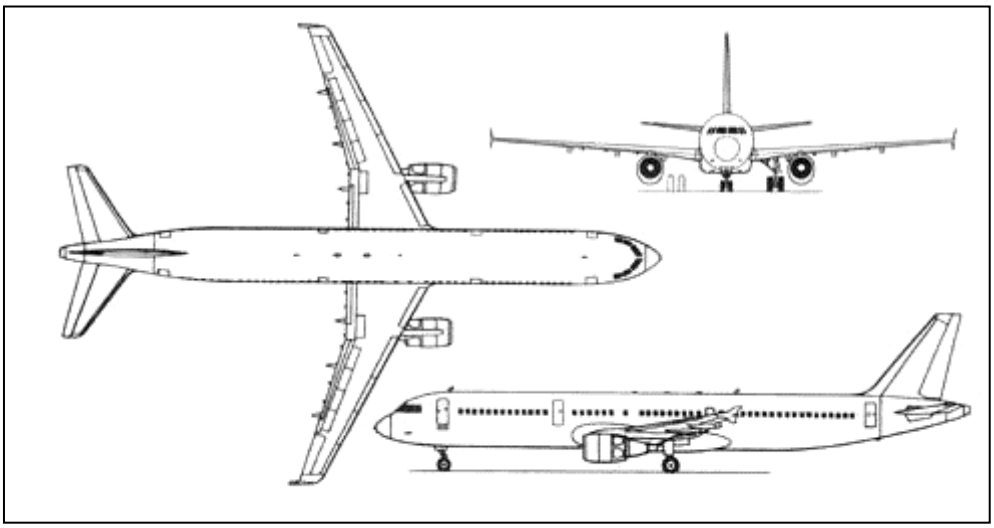
1.1.1.6 Airbus A318/319/320/321

Manufacturer	Airbus
Type	A321 / A320 / A319 / A318
Wing area	123 m^2
Horizontal stabilizer area	31 m^2
Total surface area	154 m^2
Height overall	13 m / 12 m / 12 m / 12 m
Wingspan	35 m / 35 m / 34 m / 35 m
Fuselage, 1/3 surface area	130 m² (A318), 140 m² (A319), 156 m² (A320), 185 m² (A321)

Airbus A318



Airbus A321



1.1.1.1 Airbus A350-900

Manufacturer	Airbus
Type	A350-900
Wing area (incl. inb. wingtip devices)	367 m^2
Horizontal stabilizer area	69 m^2
Total surface area	436 m^2
Height overall	17 m
Wingspan	65 m
Fuselage, 1/3 surface area	357 m^2

1.1.2 Boeing

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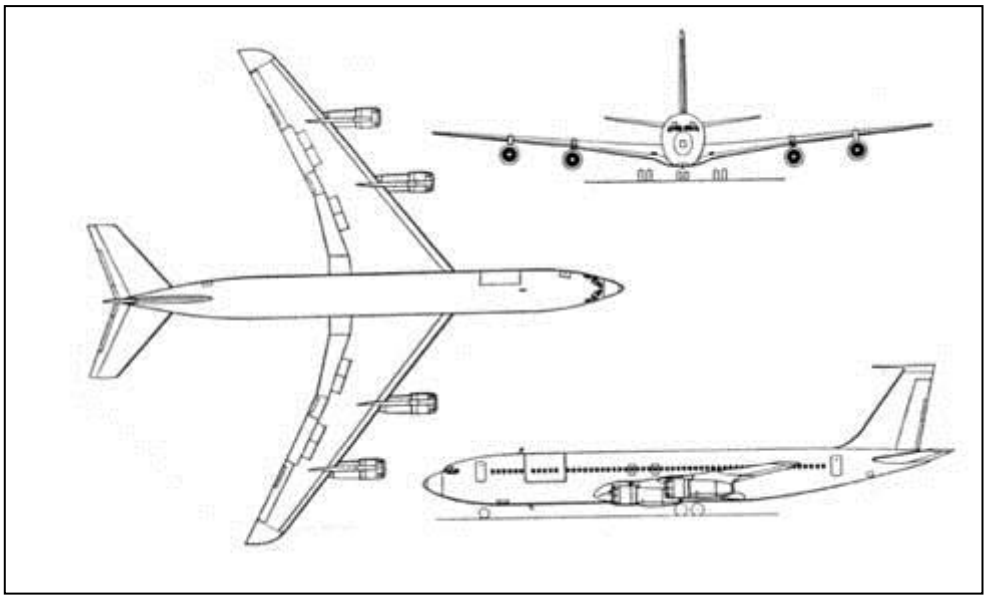
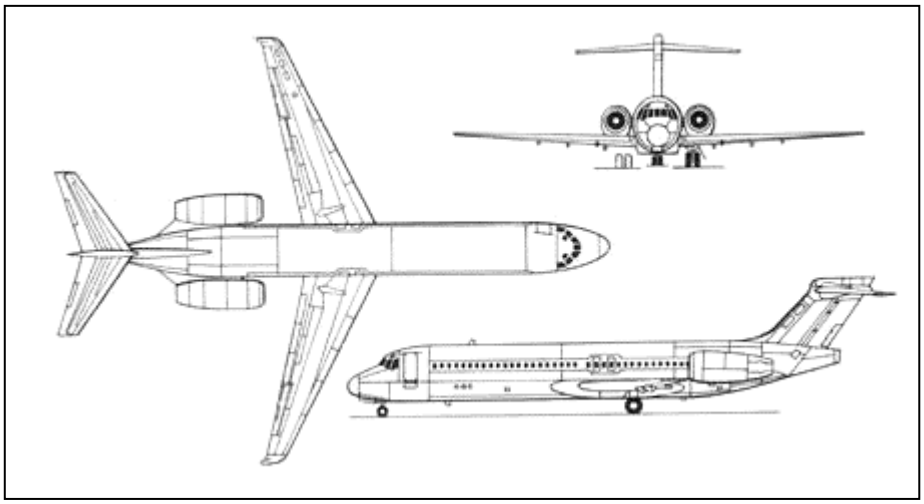
1.1.2.1 Boeing 707

Manufacturer	Boeing
Type	B-707
Wing area	184 m^2
Horizontal stabilizer area	59 m^2
Total surface area	243 m^2
Height overall	13 m
Wingspan	40 m
Fuselage, 1/3 surface area	174 m^2



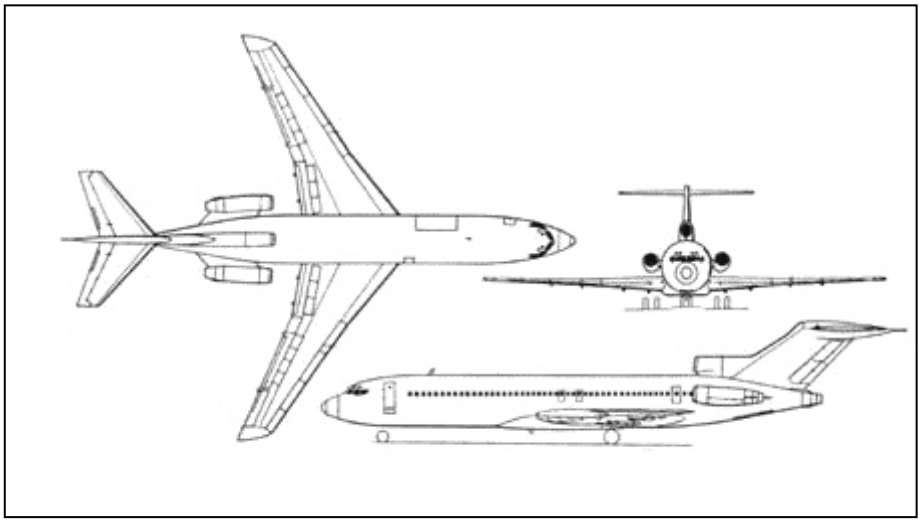
1.1.2.2 Boeing 717

Manufacturer	Boeing
Type	B-717-200
Wing area	93 m^2
Horizontal stabilizer area	26 m^2
Total surface area	119 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	193 m^2



1.1.2.3 Boeing 727

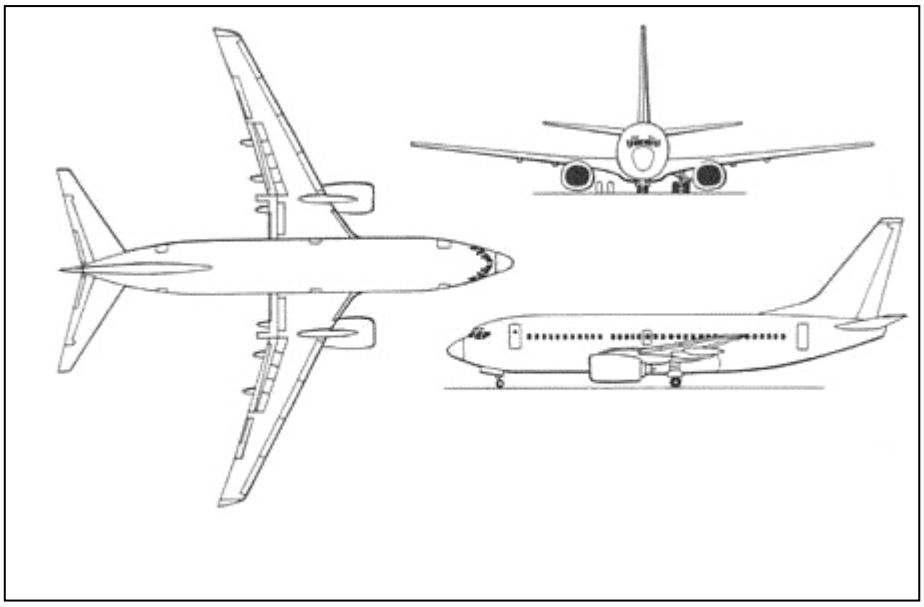
Manufacturer	Boeing
Type	B-727
Wing area	158 m^2
Horizontal stabilizer area	35 m^2
Total surface area	193 m^2
Height overall	11 m
Wingspan	33 m
Fuselage, 1/3 surface area	122 m^2



1.1.2.4 Boeing 737

Manufacturer	Boeing
Type	737 (-600/-700/-800/-900)
Wing area	125 m^2
Horizontal stabilizer area	33 m^2
Total surface area	158 m^2
Height overall	13 m
Wingspan	35 m
Fuselage, 1/3 surface area	123 m² ((B737-600), 132 m² (-700), 156 m² (-800), 166 m² (-900)

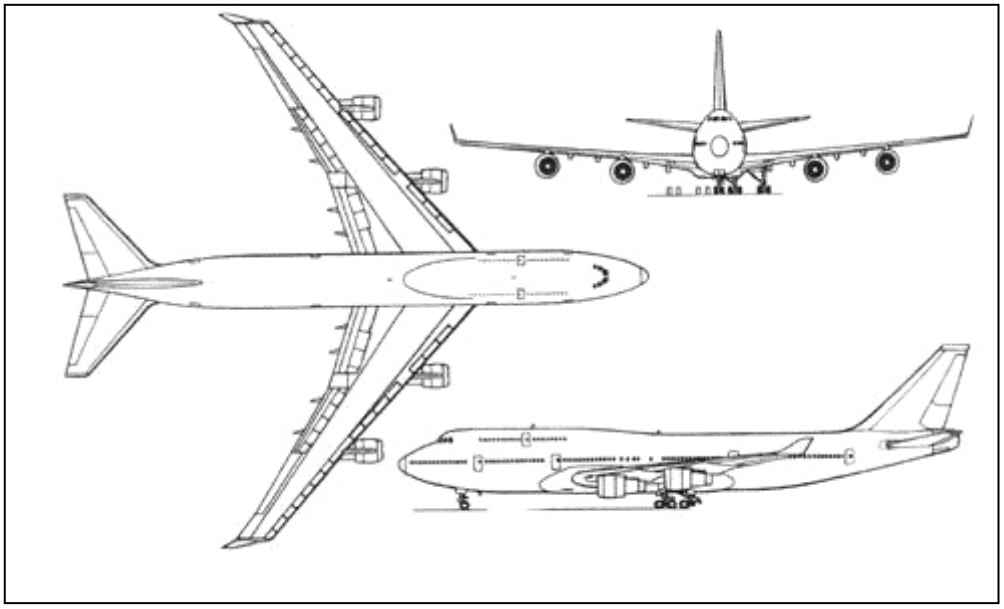
Manufacturer	Boeing
Type	737 (-200/-300/-400/-500)
Wing area	92 m^2 (-200) / 106 m^2
Horizontal stabilizer area	32 m^2
Total surface area	124 m^2 / 138 m^2
Height overall	12 m (-200) / 12 m
Wingspan	29 m (-200) / 29 m
Fuselage, 1/3 surface area	143 m²



1.1.2.5 Boeing 747

Manufacturer	Boeing
Type	747-100/-200/-300
Wing area	527 m^2
Horizontal stabilizer area	137 m^2
Total surface area	664 m^2
Height overall	20 m
Wingspan	60 m
Fuselage, 1/3 surface area	481 m²

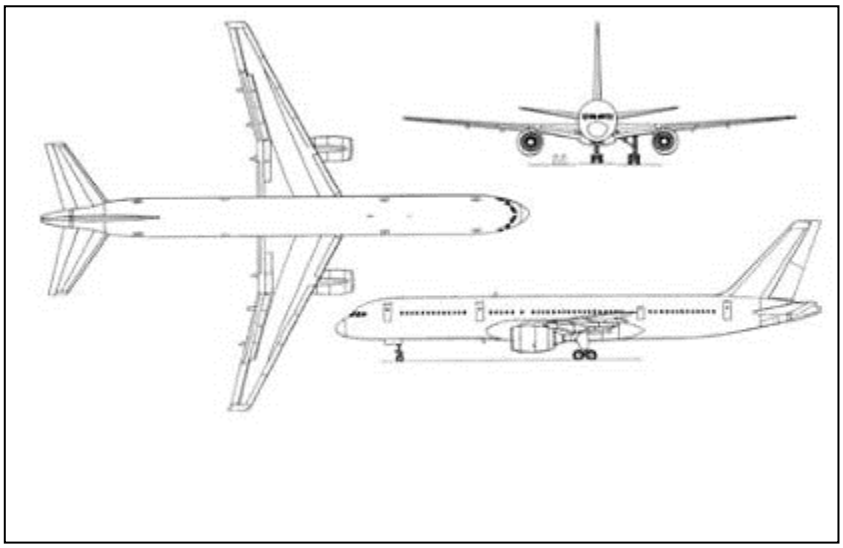
Manufacturer	Boeing
Type	747-400
Wing area	542 m^2
Horizontal stabilizer area	137 m^2
Total surface area	679 m^2
Height overall	20 m
Wingspan	65 m
Fuselage, 1/3 surface area	481 m²



Manufacturer	Boeing
Type	747-800
Wing area	554 m^2
Horizontal stabilizer area	140 m^2
Total surface area	694 m^2
Height overall	20 m
Wingspan	68 m
Fuselage, 1/3 surface area	481 m²

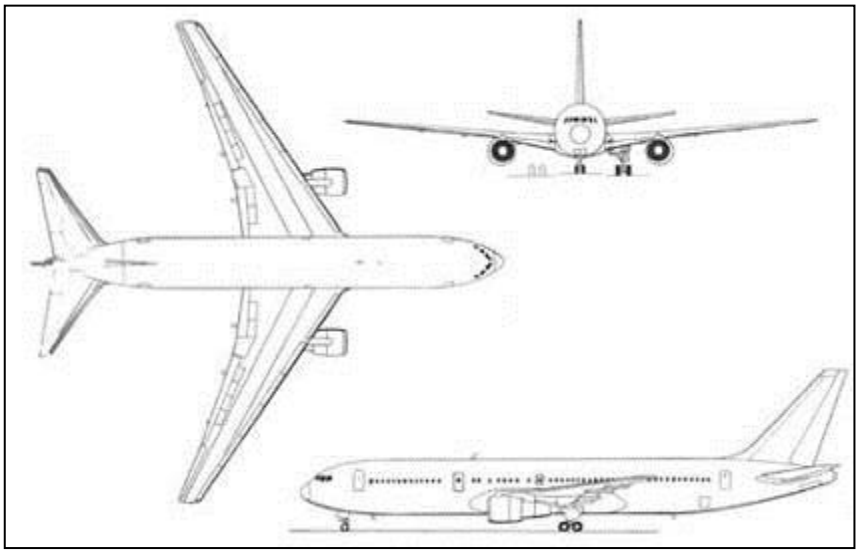
1.1.2.6 Boeing 757

Manufacturer	Boeing
Type	757-200
Wing area	186 m^2
Horizontal stabilizer area	51 m^2
Total surface area	237 m^2
Height overall	14 m
Wingspan	39 m
Fuselage, 1/3 surface area	186 m², 215 m² (B757-300)



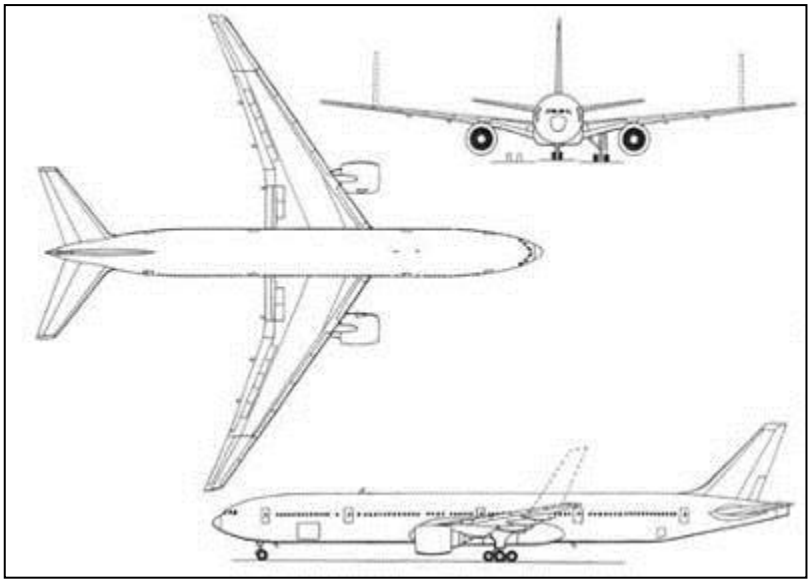
1.1.2.7 Boeing 767

Manufacturer	Boeing
Type	767 (-200/-300/-400)
Wing area	284 m^2
Horizontal stabilizer area	60 m^2
Total surface area	344 m^2
Height overall	16 m
Wingspan	48 m
Fuselage, 1/3 surface area	255 m² (B767-200), 289 m² (B767-300), 323 m² (B767-400)



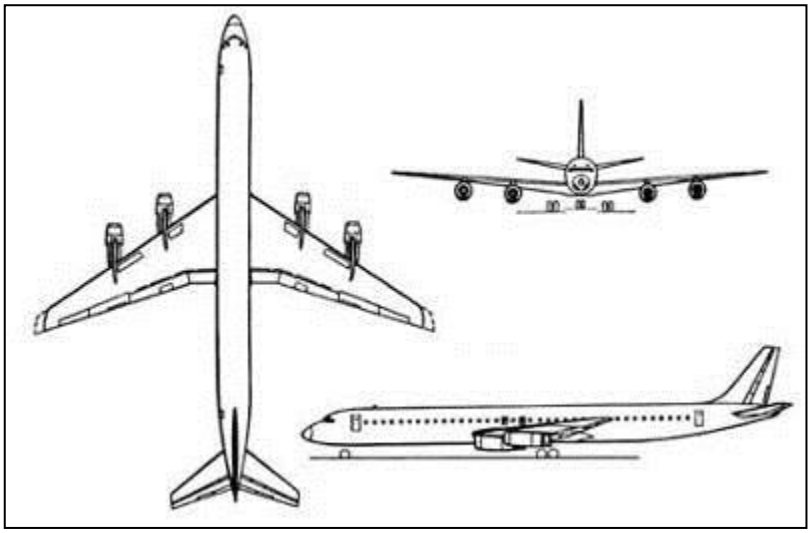
1.1.2.8 Boeing 777

Manufacturer	Boeing
Type	777 (-200 and -300 / 200LR and 300ER)
Wing area	428 m^2 (-200 and -300) / 431 m^2 /200LR and 300ER)
Horizontal stabilizer area	102 m^2
Total surface area	530 m^2
Height overall	19 m
Wingspan	61 m
Fuselage, 1/3 surface area	414 m² (-200/200LR), 480 m² (-300/300ER)



1.1.2.9 Boeing/MD DC-8

Manufacturer	Boeing /MD
Type	DC-8 Super 62/63
Wing area	272 m^2
Horizontal stabilizer area	51 m^2
Total surface area	323 m^2
Height overall	13 m
Wingspan	44 m
Fuselage, 1/3 surface area	199 m²

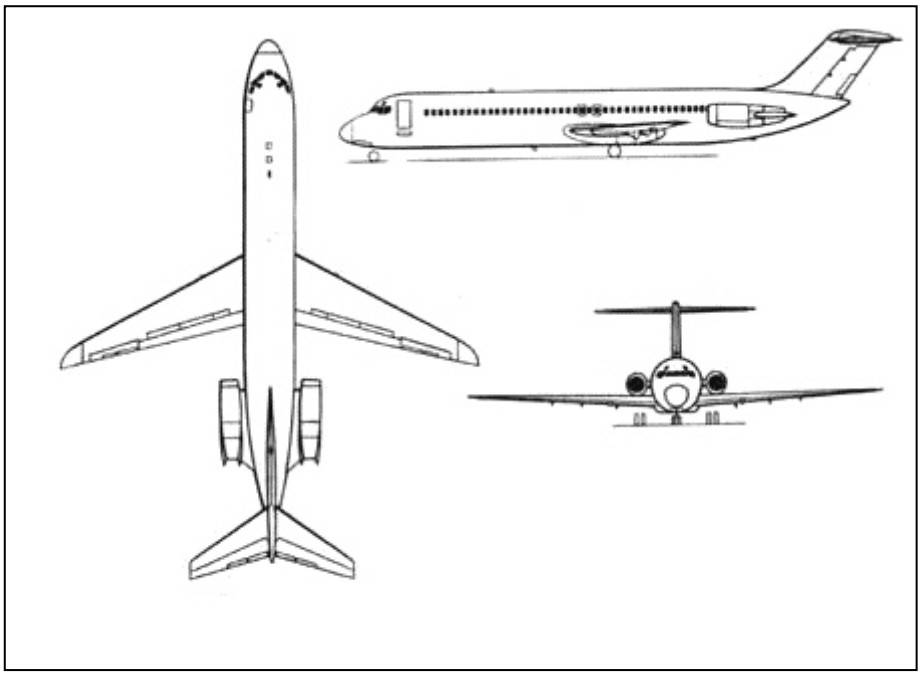


1.1.2.10 Boeing/MD, DC-9, MD-80, MD-90

Manufacturer	Boeing /MD
Type	DC-9-50
Wing area	93 m^2
Horizontal stabilizer area	26 m^2
Total surface area	119 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	158 m²

Manufacturer	Boeing /MD
Type	MD80/82/83
Wing area	118 m^2
Horizontal stabilizer area	30 m^2
Total surface area	148 m^2
Height overall	10 m
Wingspan	33 m
Fuselage, 1/3 surface area	158 m²

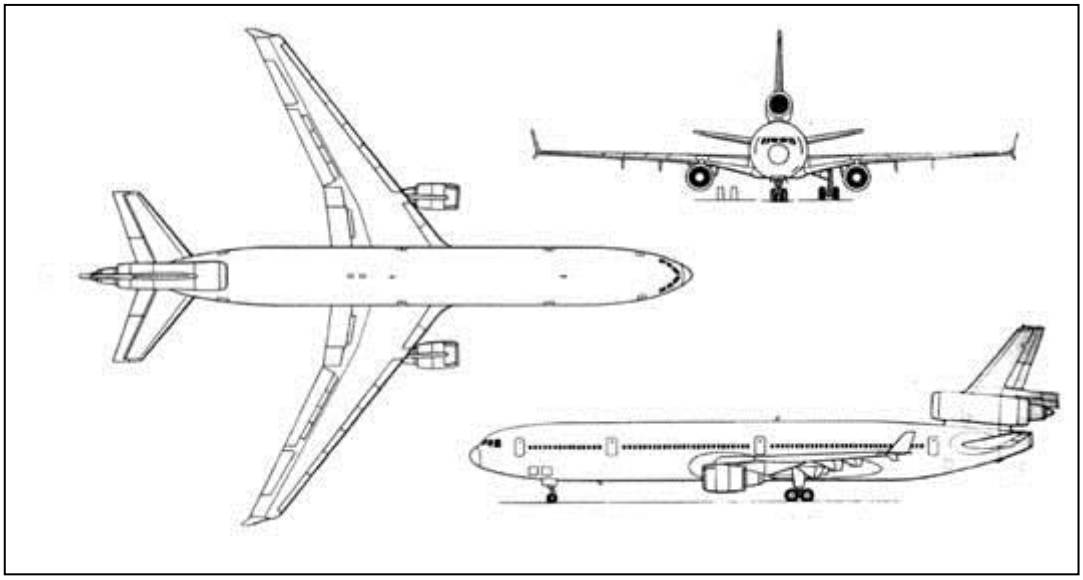
Manufacturer	Boeing /MD
Type	MD90-30
Wing area	113 m^2
Horizontal stabilizer area	30 m^2
Total surface area	143 m^2
Height overall	10 m
Wingspan	33 m
Fuselage, 1/3 surface area	163 m²



1.1.2.11 Boeing/MD, DC-10, MD-11

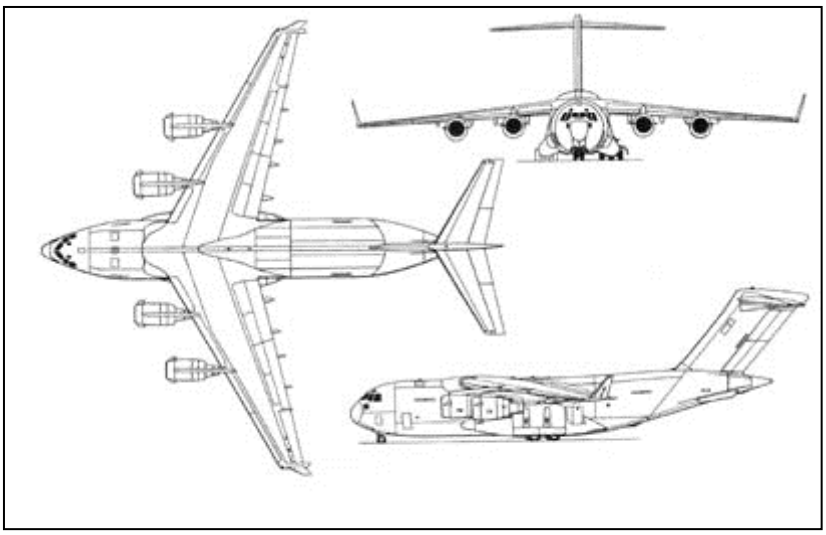
Manufacturer	Boeing /MD
Type	MD-11
Wing area	339 m^2
Horizontal stabilizer area	86 m^2
Total surface area	426 m^2
Height overall	18 m
Wingspan	52 m
Fuselage, 1/3 surface area	386 m^2

Manufacturer	Boeing /MD
Type	DC-10
Wing area	368 m^2
Horizontal stabilizer area	97 m^2
Total surface area	465 m^2
Height overall	18 m
Wingspan	51 m
Fuselage, 1/3 surface area	348 m^2



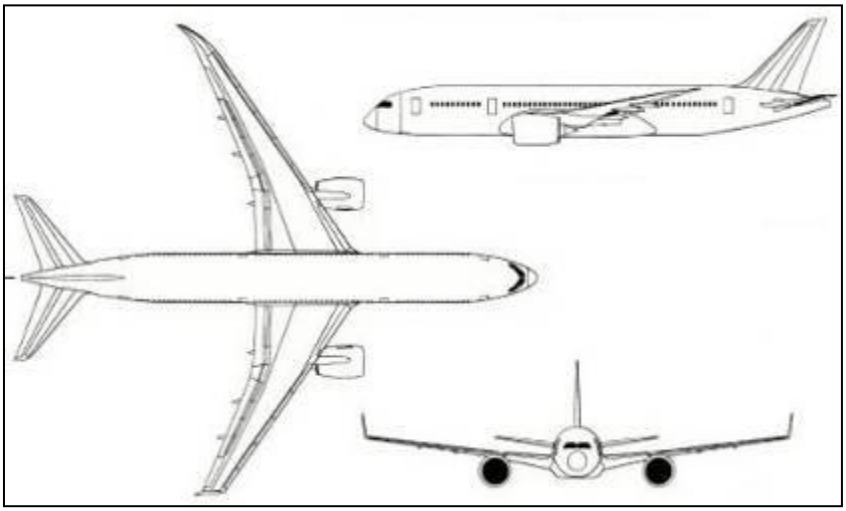
1.1.2.12 Boeing C17

Manufacturer	Boeing
Type	C17A Globemaster III
Wing area	354 m^2
Horizontal stabilizer area	79 m^2
Total surface area	433 m^2
Height overall	17 m
Wingspan	52 m
Fuselage, 1/3 surface area	384 m^2



1.1.2.13 Boeing 787-8

Manufacturer	Boeing
Type	787-8 Dreamliner
Wing area	313 m^2
Horizontal stabilizer area	128 m^2
Total surface area	441 m^2
Height overall	17 m
Wingspan	60 m
Fuselage, 1/3 surface area	295 m^2



1.1.3 Other Aeroplane

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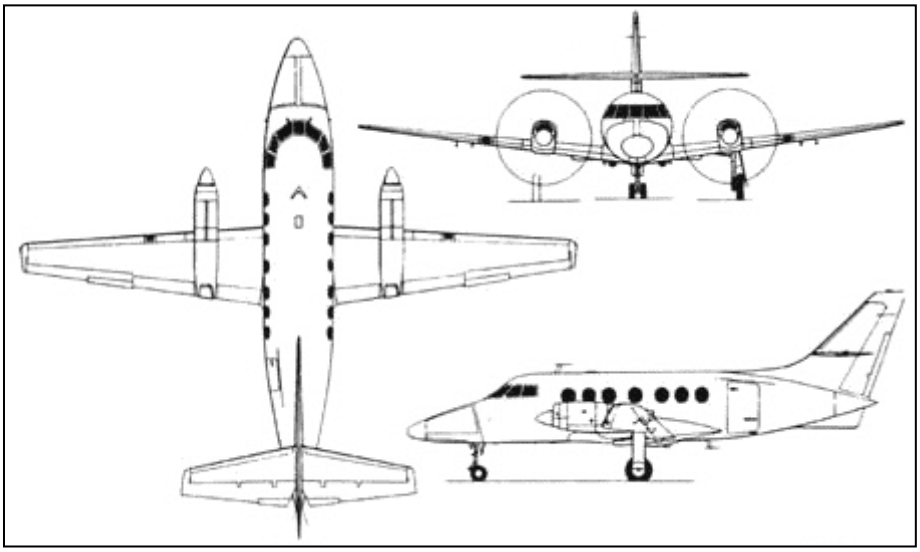
1.1.3.1 Bae, ATP

Manufacturer	Bae
Type	ATP
Wing area	79 m^2
Horizontal stabilizer area	16 m^2
Total surface area	95 m^2
Height overall	8 m
Wingspan	31 m
Fuselage, 1/3 surface area	69 m^2

1.1.3.2 Bae, Jetstream

Manufacturer	Bae
Type	Jetstream 31
Wing area	26 m^2
Horizontal stabilizer area	8 m^2
Total surface area	34 m^2
Height overall	6 m
Wingspan	16 m
Fuselage, 1/3 surface area	30 m^2

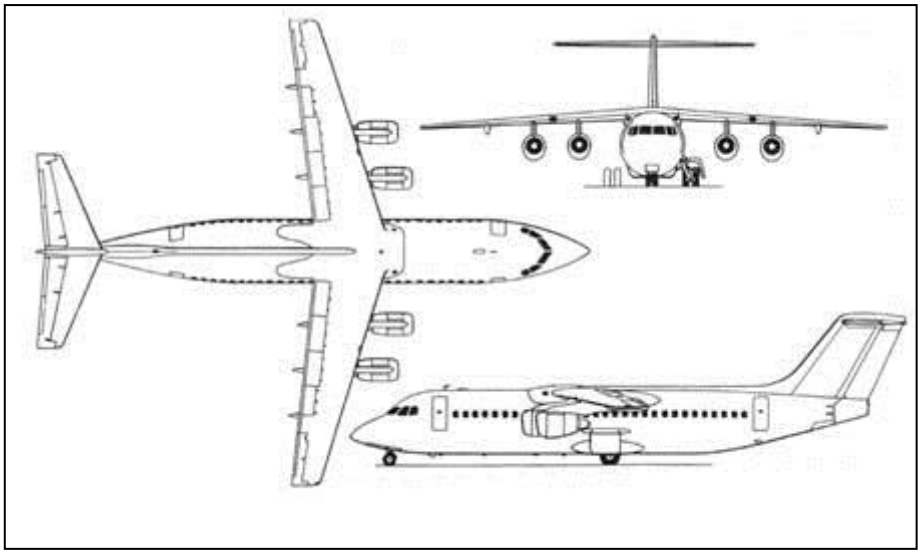
Manufacturer	Bae
Type	Jetstream 41
Wing area	33 m^2
Horizontal stabilizer area	9 m^2
Total surface area	42 m^2
Height overall	6 m
Wingspan	19 m
Fuselage, 1/3 surface area	40 m^2



1.1.3.3 Bae, Avro RJ, 146

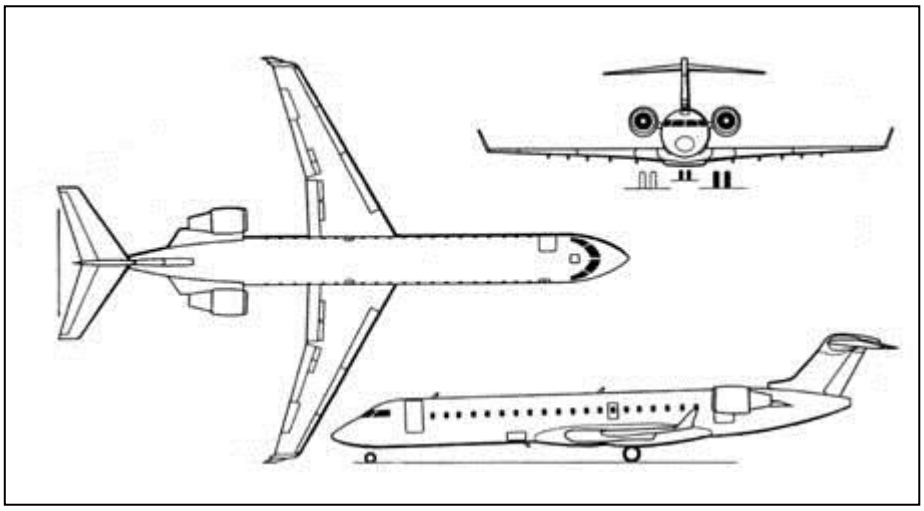
Manufacturer	Bae Systems
Type	AVRO RJ 70/85/100
Wing area	78 m^2
Horizontal stabilizer area	26 m^2
Total surface area	104 m^2
Height overall	9 m
Wingspan	27 m
Fuselage, 1/3 surface area	107 m^2

Manufacturer	Bae Systems
Type	146-300
Wing area	78 m^2
Horizontal stabilizer area	26 m^2
Total surface area	104 m^2
Height overall	9 m
Wingspan	27 m
Fuselage, 1/3 surface area	112 m^2



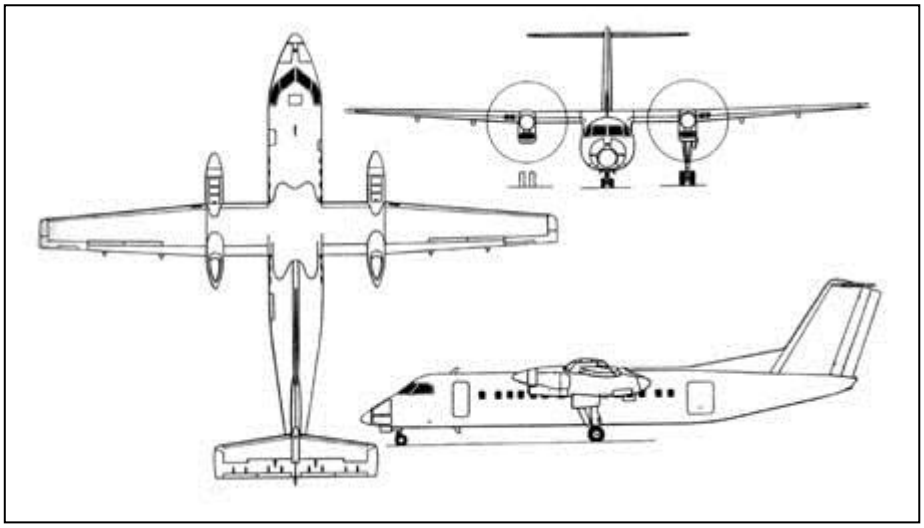
1.1.3.4 Bombardier, CRJ

Manufacturer	Bombardier
Type	CRJ-700
Wing area	69 m^2
Horizontal stabilizer area	21 m^2
Total surface area	90 m^2
Height overall	8 m
Wingspan	23 m
Fuselage, 1/3 surface area	91 m^2



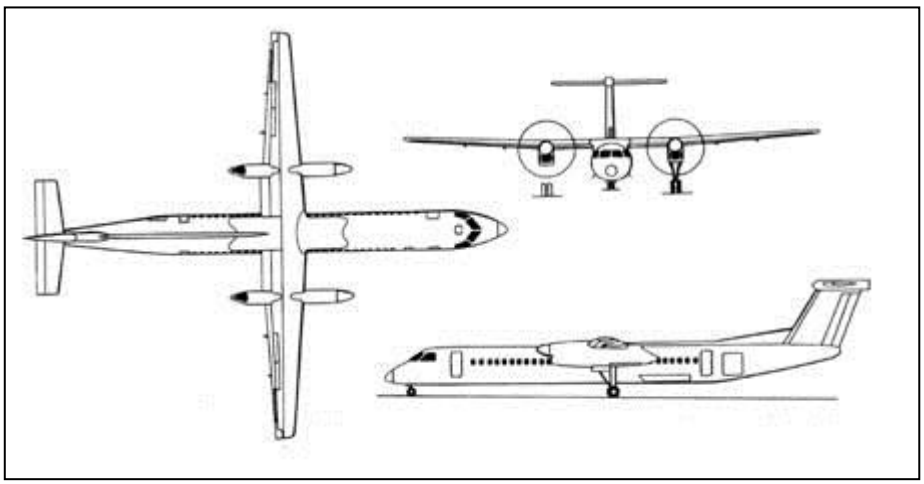
1.1.3.5 Bombardier, DHC-8, 100

Manufacturer	Bombardier
Type	DHC-8 DASH 8 Q100/200
Wing area	55 m^2
Horizontal stabilizer area	9 m^2
Total surface area	64 m^2
Height overall	8 m
Wingspan	26 m
Fuselage, 1/3 surface area	63 m^2



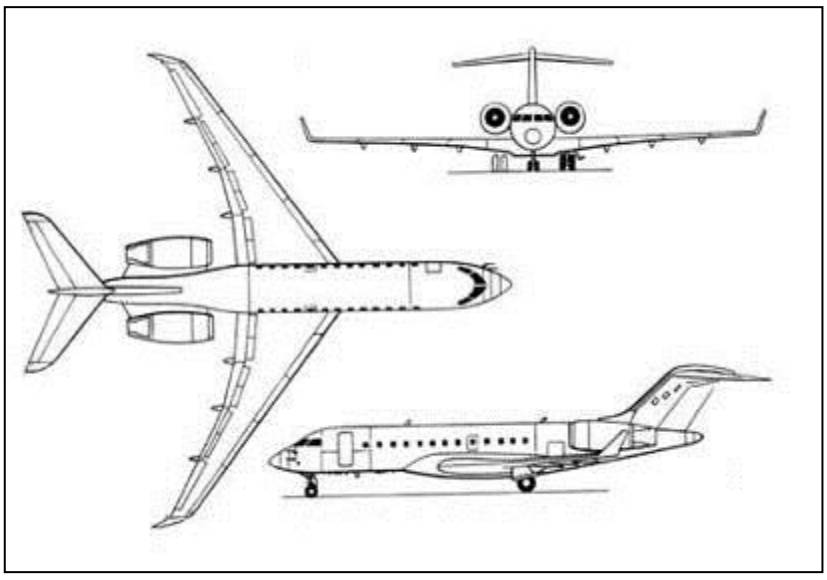
1.1.3.6 Bombardier, DHC-8

Manufacturer	Bombardier
Type	DHC-8 DASH 8 Q400
Wing area	64 m^2
Horizontal stabilizer area	17 m^2
Total surface area	81 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	63 m²



1.1.3.7 Bombardier, GE

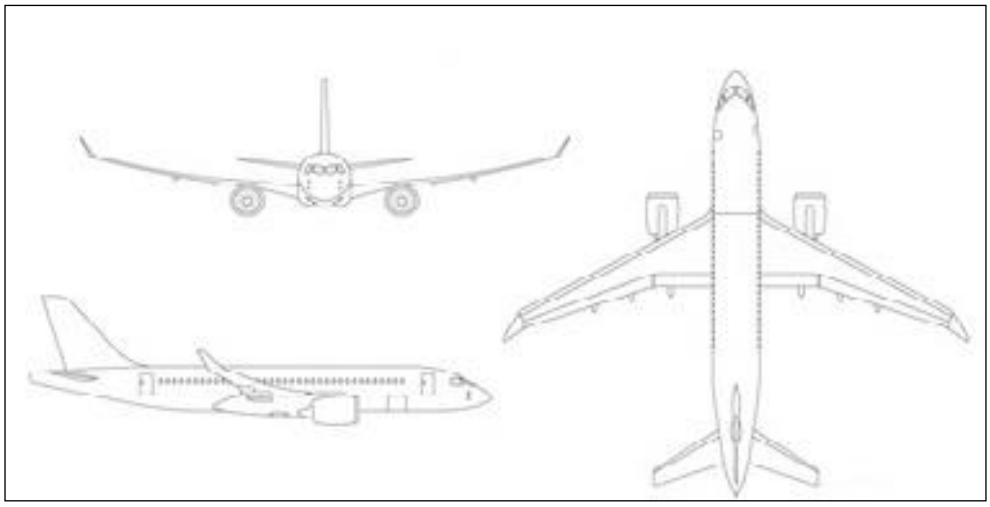
Manufacturer	Bombardier
Type	130-700 Global Express
Wing area	95 m^2
Horizontal stabilizer area	23 m^2
Total surface area	118 m^2
Height overall	8 m
Wingspan	29 m
Fuselage, 1/3 surface area	85 m²



1.1.3.8 Bombardier, C-Series

Manufacturer	Bombardier
Type	Cs100/300
Wing area	113 m^2
Horizontal stabilizer area	30* m^2
Total surface area	118 m^2
Height overall	11,5 m
Wingspan	35 m
Fuselage, 1/3 surface area	TBD. m^2

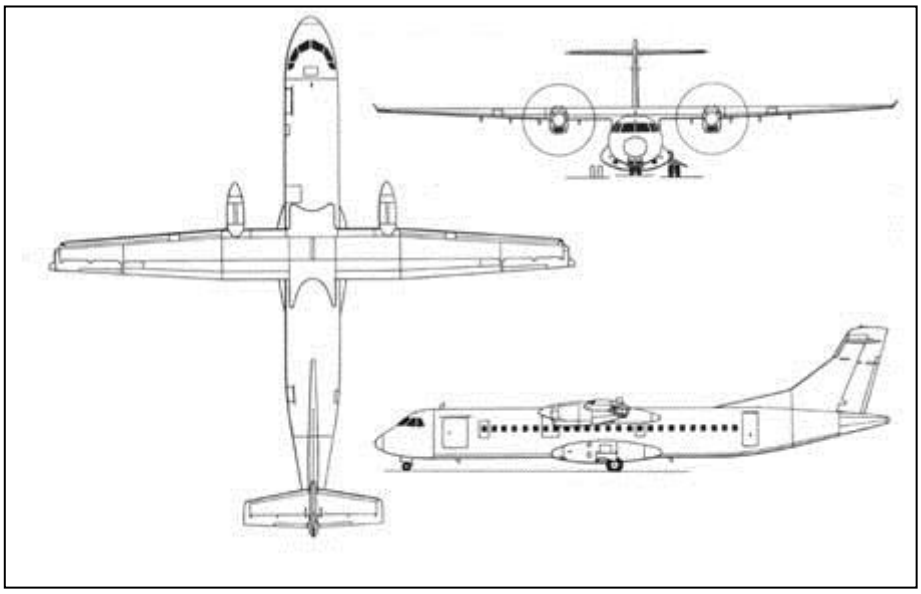
*) based on estimated tail surface area on comparable size A/C, as no exact data available



1.1.3.9 EADS, ATR-42/72

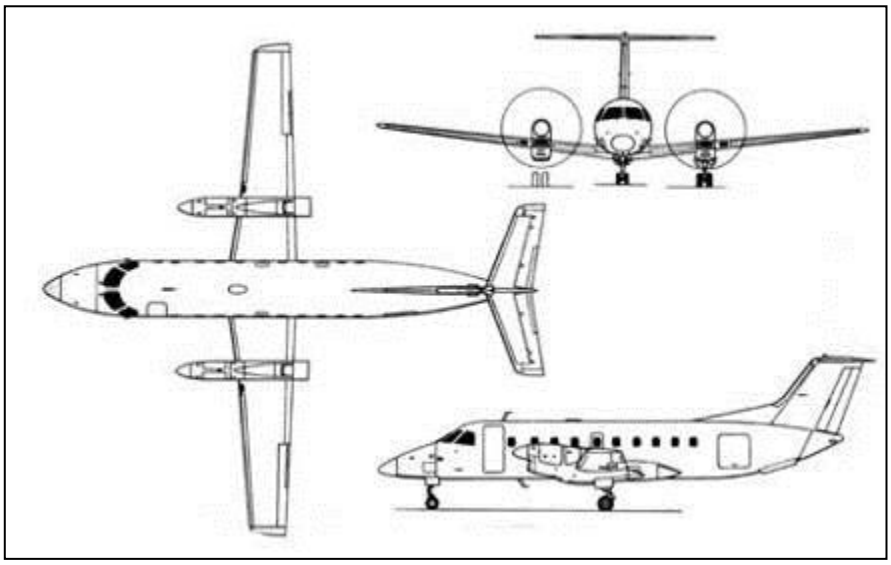
Manufacturer	EADS
Type	ATR-42
Wing area	55 m^2
Horizontal stabilizer area	12 m^2
Total surface area	67 m^2
Height overall	8 m
Wingspan	25 m
Fuselage, 1/3 surface area	55 m^2

Manufacturer	EADS
Type	ATR-72
Wing area	61 m^2
Horizontal stabilizer area	12 m^2
Total surface area	73 m^2
Height overall	8 m
Wingspan	28 m
Fuselage, 1/3 surface area	66 m^2



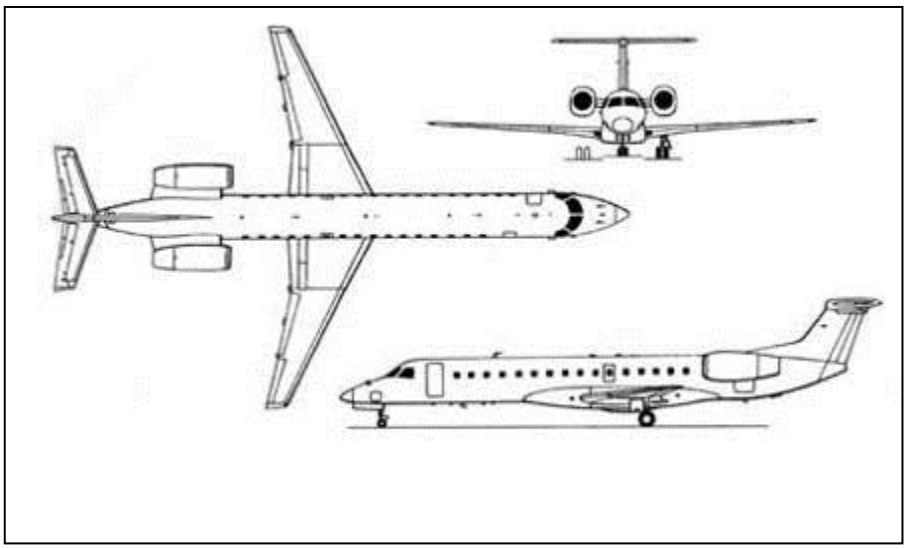
1.1.3.10 Embraer, 120

Manufacturer	Embraer
Type	120 Brasilia
Wing area	40 m^2
Horizontal stabilizer area	7 m^2
Total surface area	47 m^2
Height overall	7 m
Wingspan	20 m
Fuselage, 1/3 surface area	48 m^2



1.1.3.11 Embraer, 145

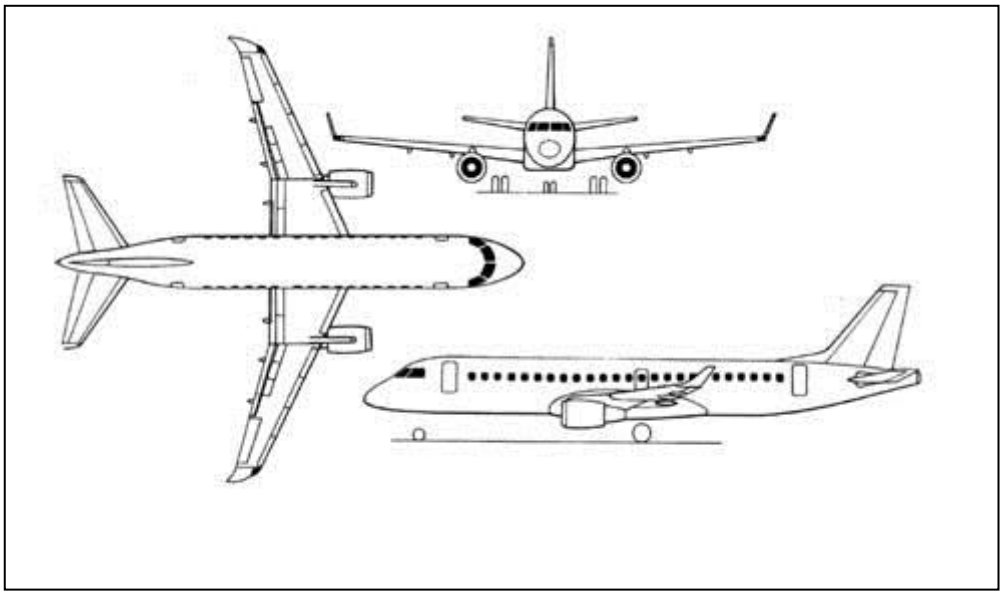
Manufacturer	Embraer
Type	ERJ-145
Wing area	52 m^2
Horizontal stabilizer area	12 m^2
Total surface area	64 m^2
Height overall	7 m
Wingspan	21 m
Fuselage, 1/3 surface area	71 m^2



1.1.3.12 Embraer, 170/175, 190/195

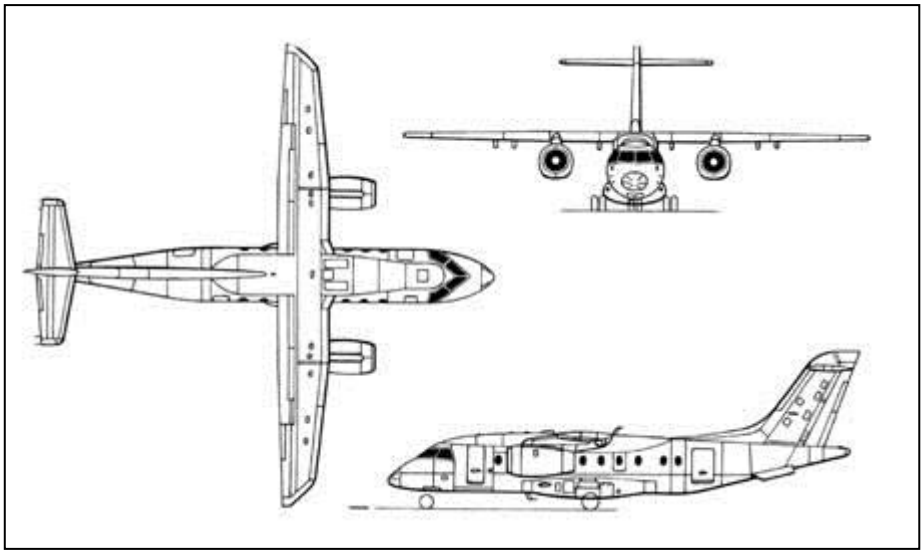
Manufacturer	Embraer
Type	ERJ-170/175
Wing area	73 m^2
Horizontal stabilizer area	24 m^2
Total surface area	97 m^2
Height overall	10 m
Wingspan	26 m
Fuselage, 1/3 surface area	94 m^2

Manufacturer	Embraer
Type	ERJ 190/195
Wing area	93 m^2
Horizontal stabilizer area	26 m^2
Total surface area	119 m^2
Height overall	11 m
Wingspan	29 m
Fuselage, 1/3 surface area	114 m^2



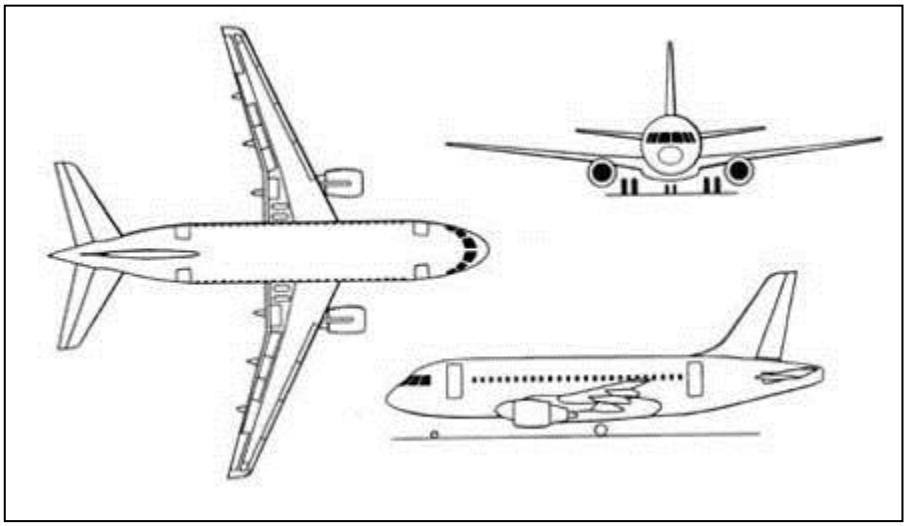
1.1.3.13 Fairchild, Dornier 328

Manufacturer	Fairchild
Type	Dornier 328 JET
Wing area	40 m^2
Horizontal stabilizer area	10 m^2
Total surface area	50 m^2
Height overall	8 m
Wingspan	21 m
Fuselage, 1/3 surface area	72 m^2



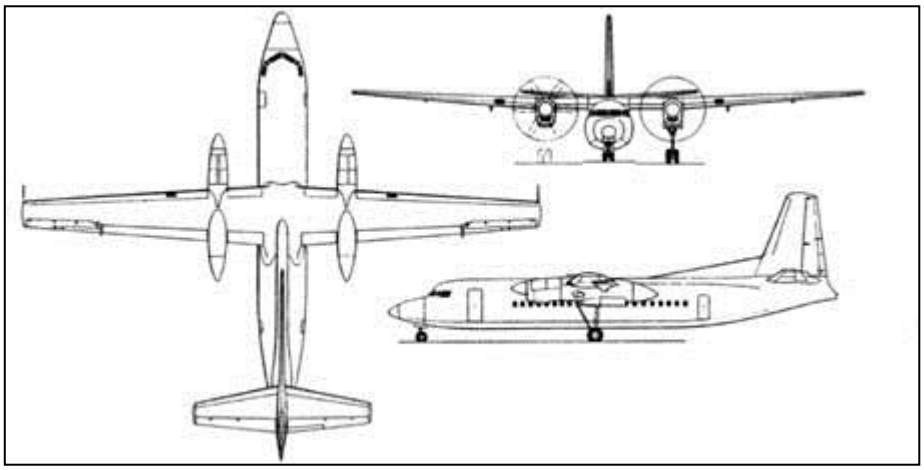
1.1.3.14 Fairchild, Dornier 728

Manufacturer	Fairchild
Type	Dornier 728 JET
Wing area	75 m^2
Horizontal stabilizer area	19 m^2
Total surface area	94 m^2
Height overall	4 m
Wingspan	28 m
Fuselage, 1/3 surface area	93 m^2



1.1.3.15 Fokker, 50

Manufacturer	Fokker
Type	50
Wing area	70 m^2
Horizontal stabilizer area	20 m^2
Total surface area	90 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	87 m^2



1.1.3.16 Fokker, 70

Manufacturer	Fokker
Type	70
Wing area	94 m^2
Horizontal stabilizer area	24 m^2
Total surface area	117 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	107 m^2

1.1.3.17 Fokker, 27

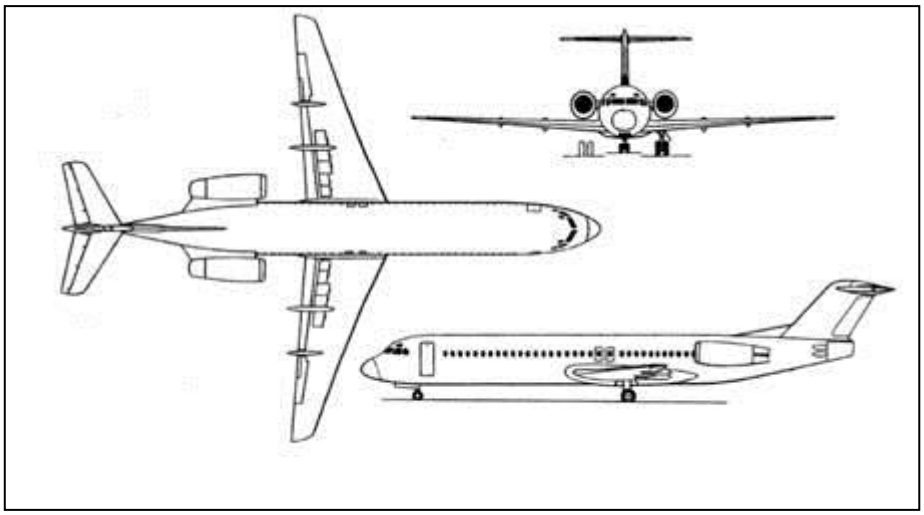
Manufacturer	Fokker
Type	27
Wing area	70 m^2
Horizontal stabilizer area	16 m^2
Total surface area	86 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	87 m^2

1.1.3.18 Fokker, 28

Manufacturer	Fokker
Type	F28 Fellowship
Wing area	79 m^2
Horizontal stabilizer area	20 m^2
Total surface area	99 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	95 m^2

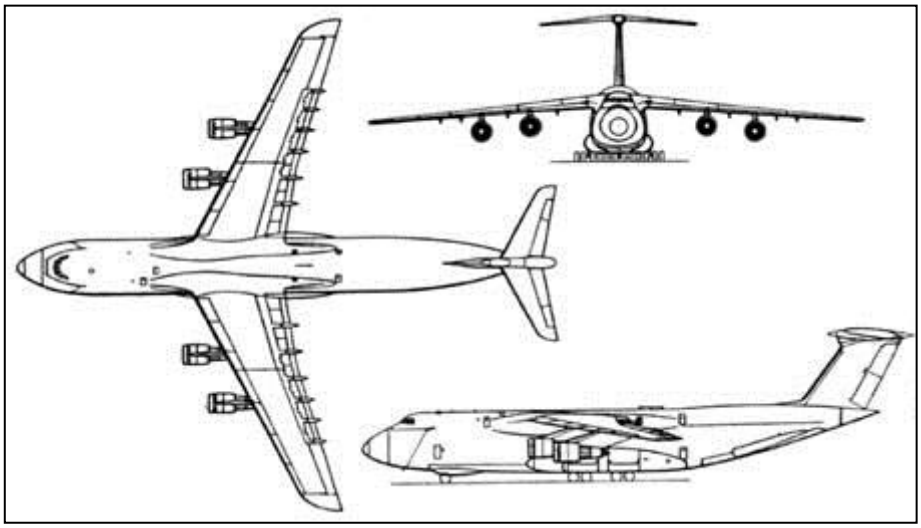
1.1.3.19 Fokker, 100

Manufacturer	Fokker
Type	100
Wing area	94 m^2
Horizontal stabilizer area	24 m^2
Total surface area	118 m^2
Height overall	9 m
Wingspan	29 m
Fuselage, 1/3 surface area	123 m²



1.1.3.20 Lockheed, Galaxy

Manufacturer	Lockheed
Type	Galaxy C-5
Wing area	576 m^2
Horizontal stabilizer area	90 m^2
Total surface area	666 m^2
Height overall	20 m
Wingspan	68 m
Fuselage, 1/3 surface area	513 m²



1.1.3.21 Lockheed, Hercules

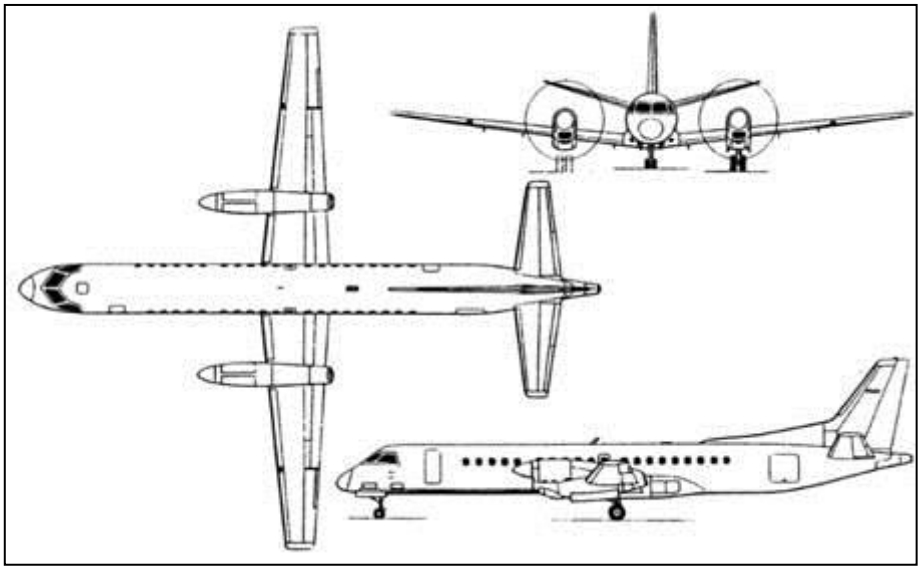
Manufacturer	Lockheed
Type	Hercules C-130J
Wing area	163 m^2
Horizontal stabilizer area	36 m^2
Total surface area	199 m^2
Height overall	12 m
Wingspan	41 m
Fuselage, 1/3 surface area	135 m^2

1.1.3.22 Saab, 340

Manufacturer	Saab
Type	340B
Wing area	42 m^2
Horizontal stabilizer area	12 m^2
Total surface area	54 m^2
Height overall	7 m
Wingspan	22 m
Fuselage, 1/3 surface area	48 m^2

1.1.3.23 Saab, 2000

Manufacturer	Saab
Type	2000
Wing area	56 m^2
Horizontal stabilizer area	19 m^2
Total surface area	75 m^2
Height overall	8 m
Wingspan	25 m
Fuselage, 1/3 surface area	66 m^2



1.1.4 General Russian and eastern production aeroplane types

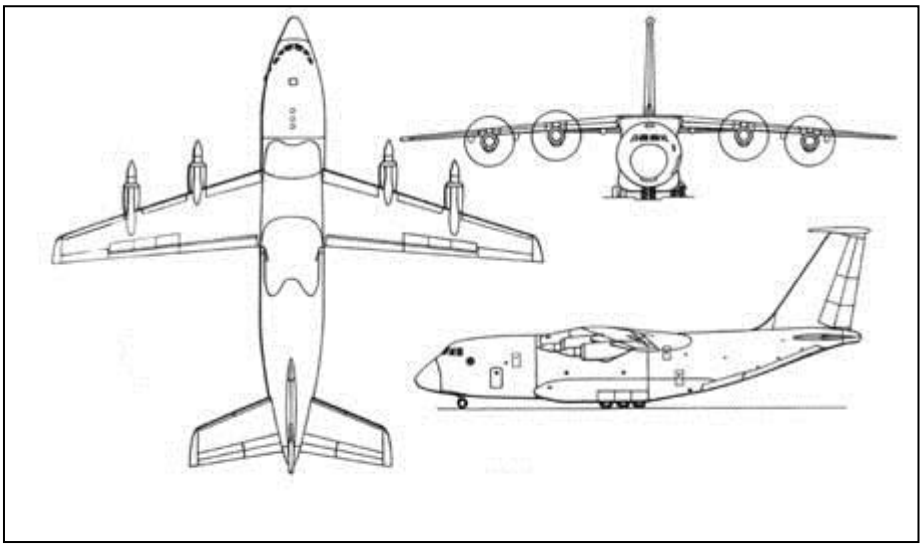
All dimensions are for reference only and are approximate. Latest revision of aeroplane data shall be used in operation . The figures given may differ when compared with other manuals and therefore verification must be made if using these figures directly in operation. These numbers are rounded up for easier use in operation. The dimensions for the upper fuselage area and the vertical stabilizer surface area are not mentioned here. Relevant aeroplane manufacturer and airline operator manuals should be referenced when treating these areas.

1.1.4.1 Antonov, AN-12

Manufacturer	Antonov
Type	AN-12
Wing area	130 m^2 (estimate)
Horizontal stabilizer area	30 m^2 (estimate)
Total surface area	160 m^2 (estimate)
Height overall	11 m
Wingspan	38 m
Fuselage, 1/3 surface area	121 m² (estimate)

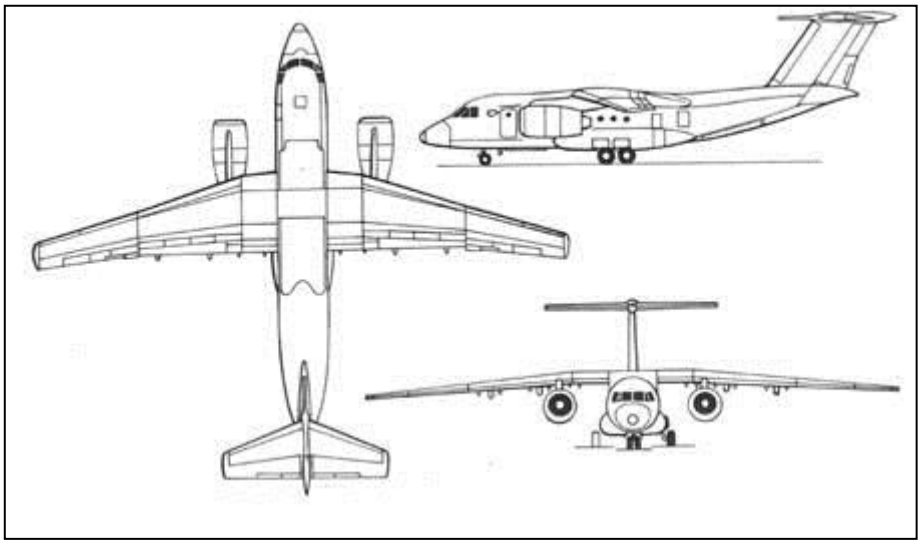
1.1.4.2 Antonov, AN-70

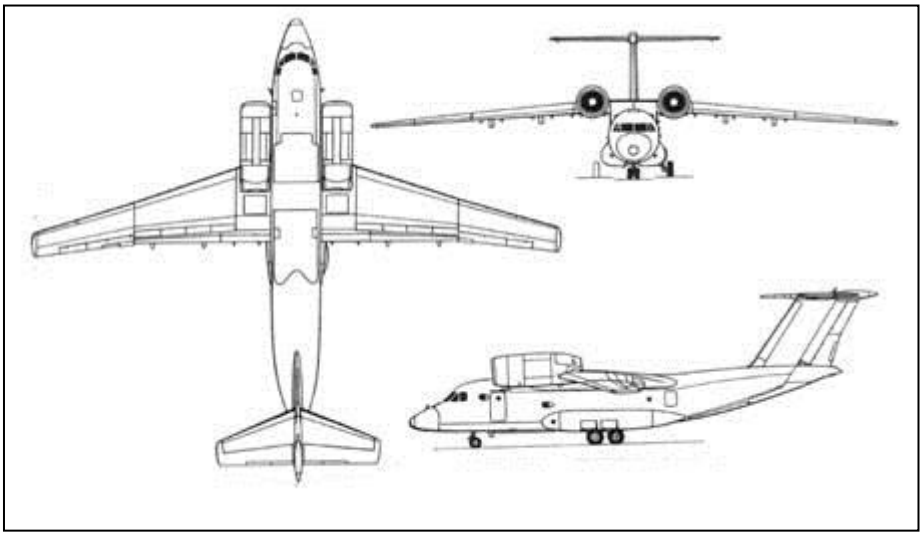
Manufacturer	Antonov
Type	AN-70
Wing area	250 m^2 (estimate)
Horizontal stabilizer area	40 m^2 (estimate)
Total surface area	290 m^2 (estimate)
Height overall	17 m
Wingspan	45 m
Fuselage, 1/3 surface area	158 m² (estimate)



1.1.4.3 Antonov, AN-74, AN-74T

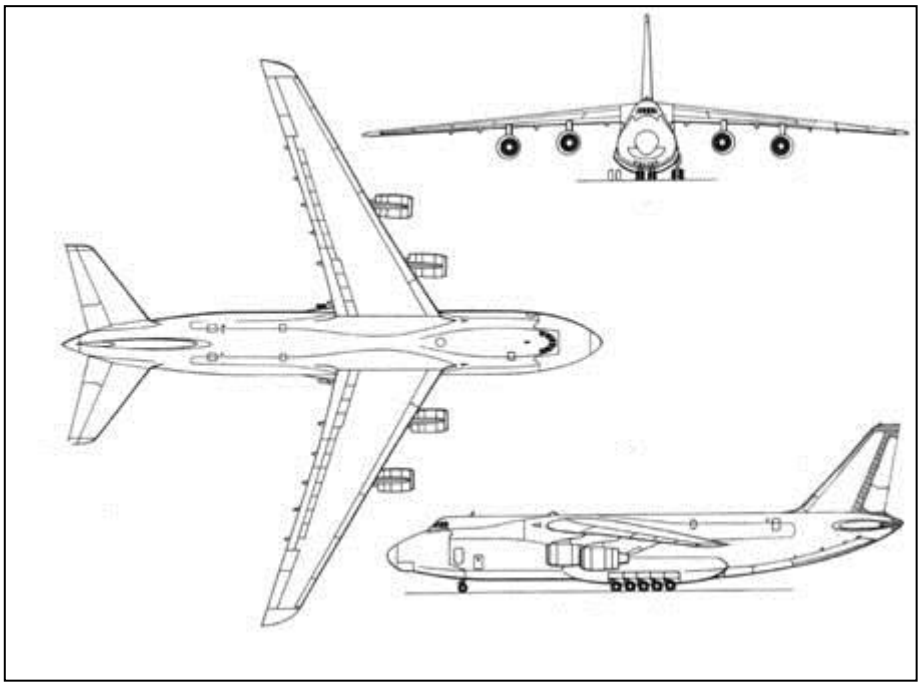
Manufacturer	Antonov
Type	AN-74
Wing area	99 m^2
Horizontal stabilizer area	24 m^2
Total surface area	123 m^2
Height overall	9 m
Wingspan	32 m
Fuselage, 1/3 surface area	91 m^2





1.1.4.4 Antonov, AN-124

Manufacturer	Antonov
Type	AN-124
Wing area	628 m^2
Horizontal stabilizer area	100 m^2 (estimate)
Total surface area	728 m^2
Height overall	22 m
Wingspan	74 m
Fuselage, 1/3 surface area	527 m²



1.1.4.5 Ilyushin, Il-62

Manufacturer	Iljushin
Type	Il-62
Wing area	280 m^2
Horizontal stabilizer area	36 m^2
Total surface area	316 m^2
Height overall	13 m
Wingspan	44 m
Fuselage, 1/3 surface area	211 m²

1.1.4.6 Ilyushin, Il-76

Manufacturer	Iljushin
Type	Il-76
Wing area	300 m^2
Horizontal stabilizer area	46 m^2
Total surface area	346 m^2
Height overall	15 m
Wingspan	51 m
Fuselage, 1/3 surface area	234 m²

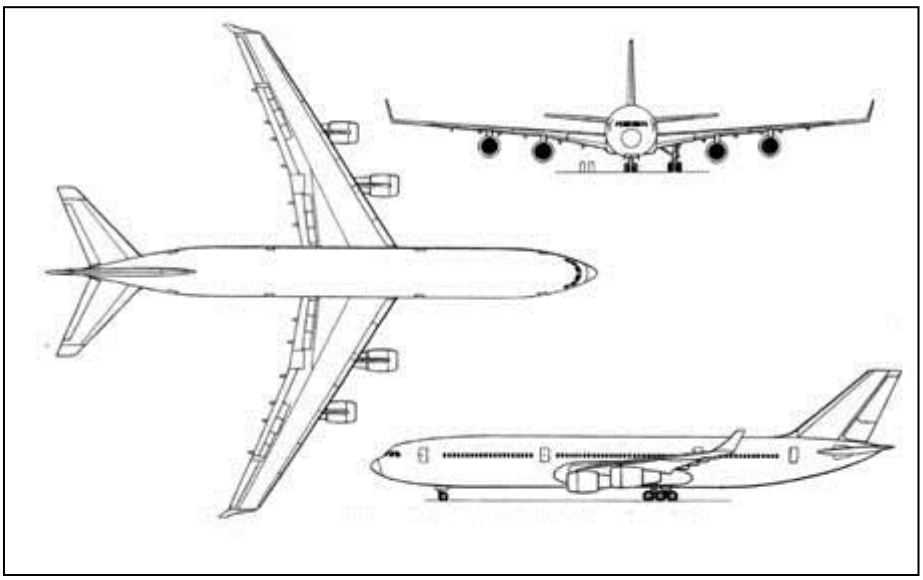
1.1.4.7 Ilyushin, Il-86

Manufacturer	Iljushin
Type	Il-86
Wing area	320 m^2
Horizontal stabilizer area	46 m^2
Total surface area	366 m^2
Height overall	16 m
Wingspan	49 m
Fuselage, 1/3 surface area	355 m²

1.1.4.8 Ilyushin, Il-96

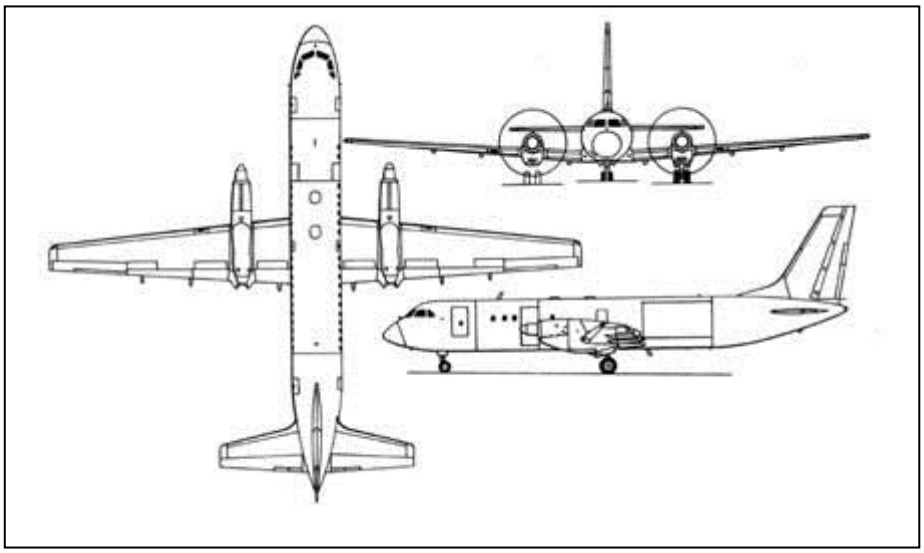
Manufacturer	Iljushin
Type	Il-96 (-300)
Wing area	392 m^2
Horizontal stabilizer area	97 m^2
Total surface area	489 m^2
Height overall	18 m
Wingspan	61 m
Fuselage, 1/3 surface area	353 m²

Manufacturer	Iljushin
Type	Il-96M
Wing area	392 m^2
Horizontal stabilizer area	97 m^2
Total surface area	489 m^2
Height overall	16 m
Wingspan	61 m
Fuselage, 1/3 surface area	353 m²



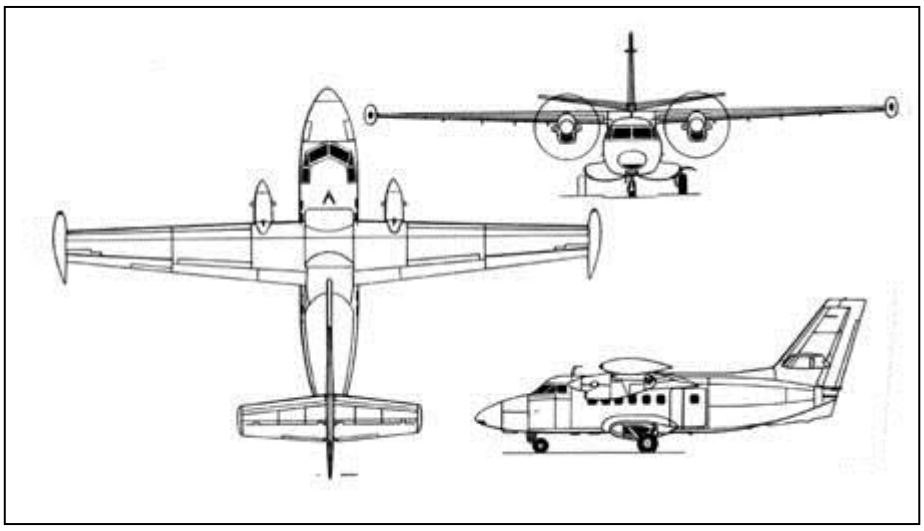
1.1.4.9 Ilyushin, Il-114

Manufacturer	Iljushin
Type	Il-114
Wing area	82 m^2
Horizontal stabilizer area	24 m^2
Total surface area	106 m^2
Height overall	10 m
Wingspan	30 m
Fuselage, 1/3 surface area	80 m^2



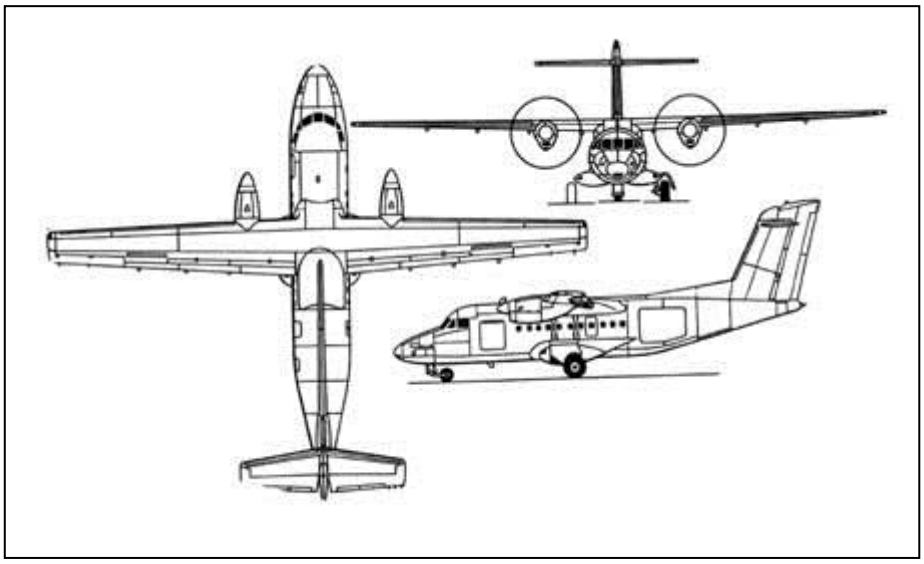
1.1.4.10 Let, L410

Manufacturer	Let
Type	L410
Wing area	35 m^2
Horizontal stabilizer area	7 m^2
Total surface area	42 m^2
Height overall	6 m
Wingspan	20 m
Fuselage, 1/3 surface area	30 m^2 (estimate)



1.1.4.11 Let, L610

Manufacturer	Let
Type	L610G
Wing area	56 m^2
Horizontal stabilizer area	9 m^2
Total surface area	65 m^2
Height overall	9 m
Wingspan	26 m
Fuselage, 1/3 surface area	61 m²

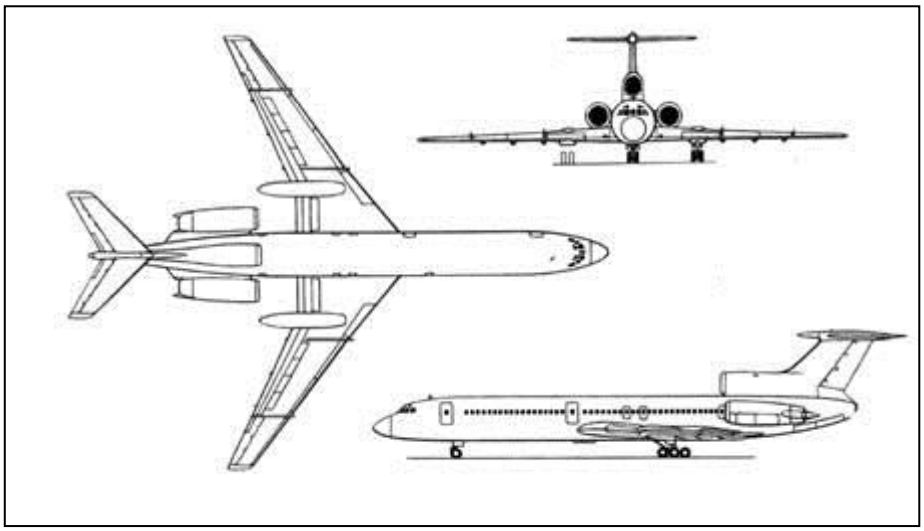


1.1.4.12 Tupolev, TU-134

Manufacturer	Tupolev
Type	TU-134
Wing area	128 m^2
Horizontal stabilizer area	31 m^2
Total surface area	159 m^2
Height overall	10 m
Wingspan	29 m
Fuselage, 1/3 surface area	113 m²

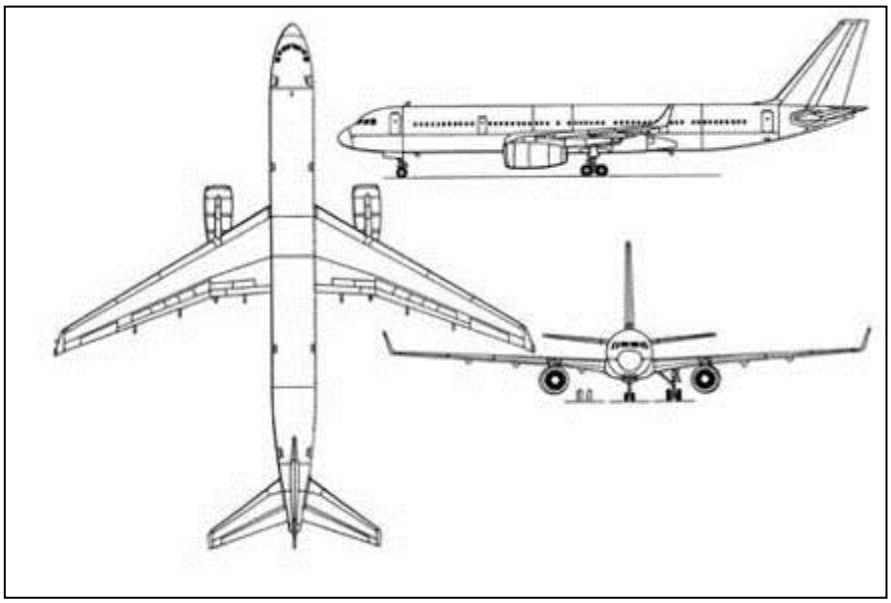
1.1.4.13 Tupolev, TU-154

Manufacturer	Tupolev
Type	TU-154M
Wing area	202 m^2
Horizontal stabilizer area	43 m^2
Total surface area	245 m^2
Height overall	12 m
Wingspan	38 m
Fuselage, 1/3 surface area	191 m²



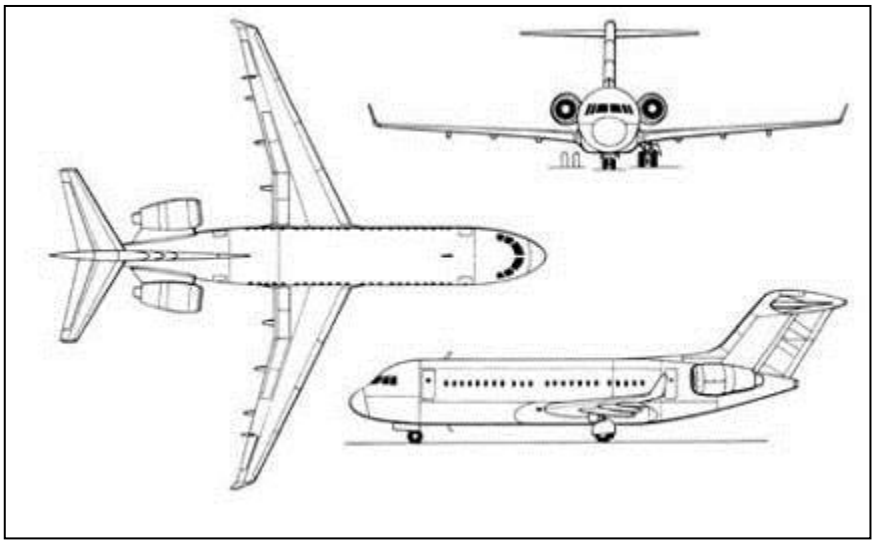
1.1.4.14 Tupolev, TU-204

Manufacturer	Tupolev
Type	TU-204
Wing area	183 m^2
Horizontal stabilizer area	43 m^2
Total surface area	226 m^2
Height overall	14 m
Wingspan	42 m
Fuselage, 1/3 surface area	255 m²



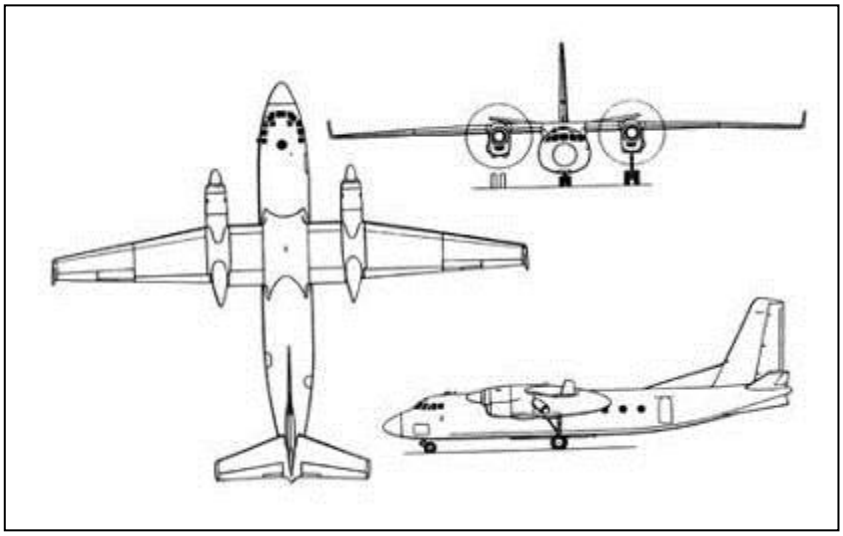
1.1.4.15 Tupolev, TU-334

Manufacturer	Tupolev
Type	TU- 334/336/354
Wing area	84 m^2
Horizontal stabilizer area	24 m^2
Total surface area	108 m^2
Height overall	10 m
Wingspan	30 m
Fuselage, 1/3 surface area	124 m^2



1.1.4.16 XAC

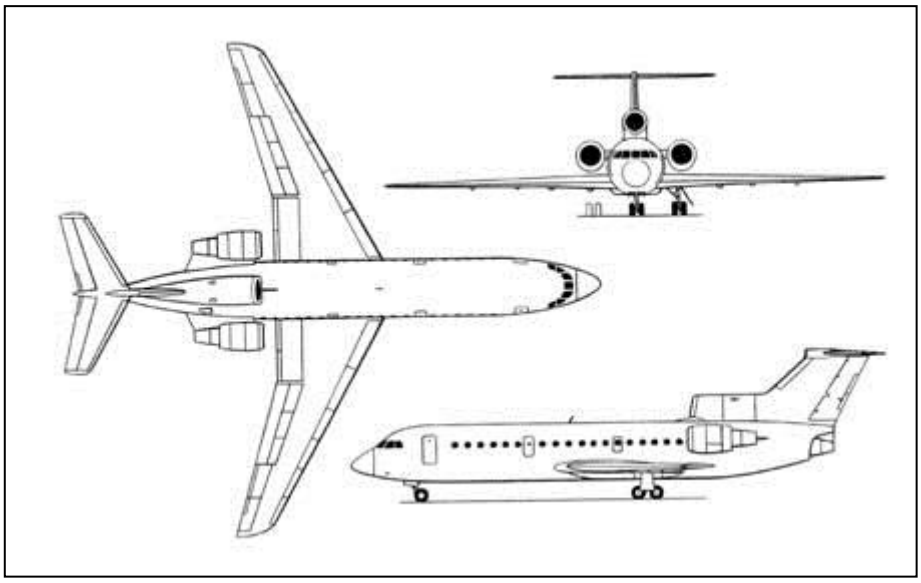
Manufacturer	XAC
Type	MA-60
Wing area	75 m^2
Horizontal stabilizer area	24 m^2 (estimate)
Total surface area	99 m^2
Height overall	9 m
Wingspan	25 m (estimate)
Fuselage, 1/3 surface area	69 m^2 (estimate)



1.1.4.17 Yakolev, YAK-40/42

Manufacturer	Yakolev
Type	YAK-40
Wing area	70 m^2
Horizontal stabilizer area	24 m^2 (estimate)
Total surface area	94 m^2
Height overall	7 m
Wingspan	25 m
Fuselage, 1/3 surface area	91 m^2

Manufacturer	Yakolev
Type	YAK-42D
Wing area	150 m^2
Horizontal stabilizer area	28 m^2
Total surface area	178 m^2
Height overall	10 m
Wingspan	35 m
Fuselage, 1/3 surface area	91 m^2



1.1.5 General Business Jets, small aeroplane

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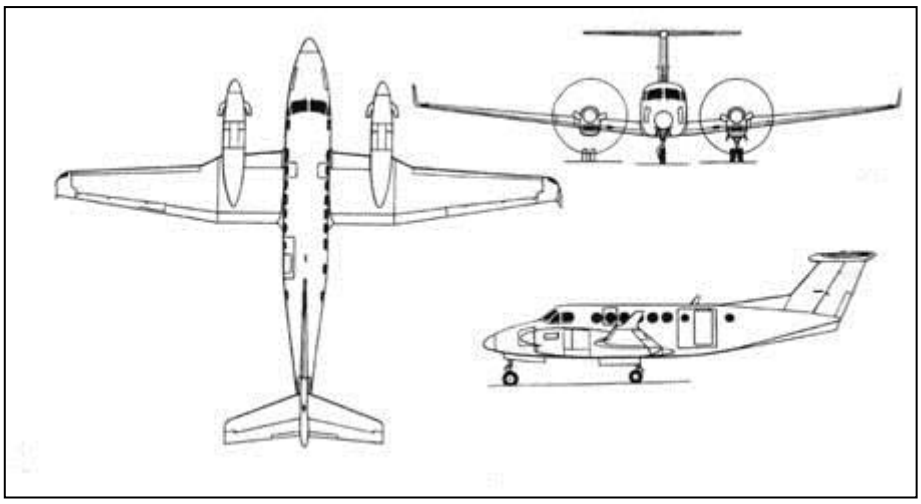
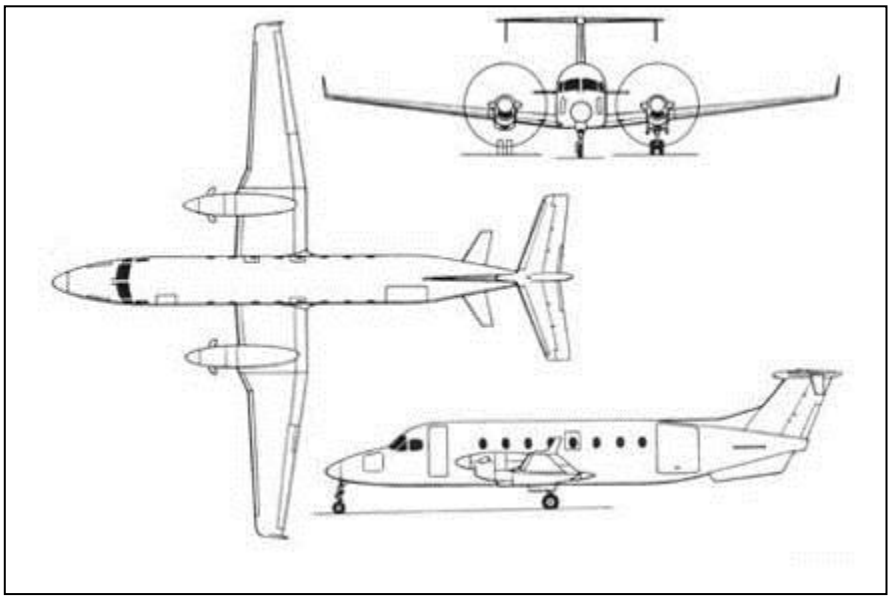
1.1.5.1 Beech, King Air 350

Manufacturer	Beech
Type	King Air 350
Wing area	29 m^2
Horizontal stabilizer area	7 m^2
Total surface area	36 m^2
Height overall	5 m
Wingspan	17 m
Fuselage, 1/3 surface area	20m^2 (estimate)



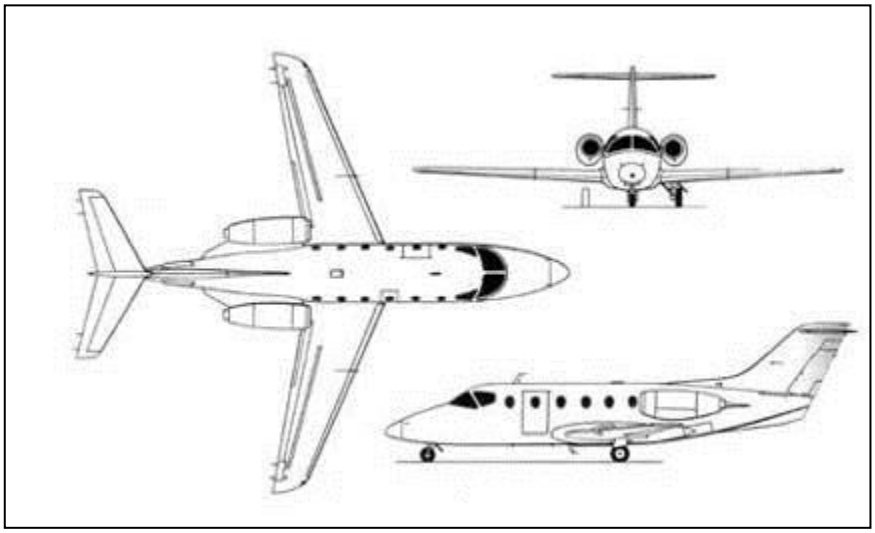
1.1.5.2 Beech, 1900

Manufacturer	Beech
Type	1900 D
Wing area	29 m^2
Horizontal stabilizer area	7 m^2
Total surface area	36 m^2
Height overall	5 m
Wingspan	17 m
Fuselage, 1/3 surface area	35 m²



1.1.5.3 Beech, 400

Manufacturer	Beech
Type	Beechjet 400 A
Wing area	23 m^2
Horizontal stabilizer area	6 m^2
Total surface area	29 m^2
Height overall	5 m
Wingspan	14 m
Fuselage, 1/3 surface area	30 m²

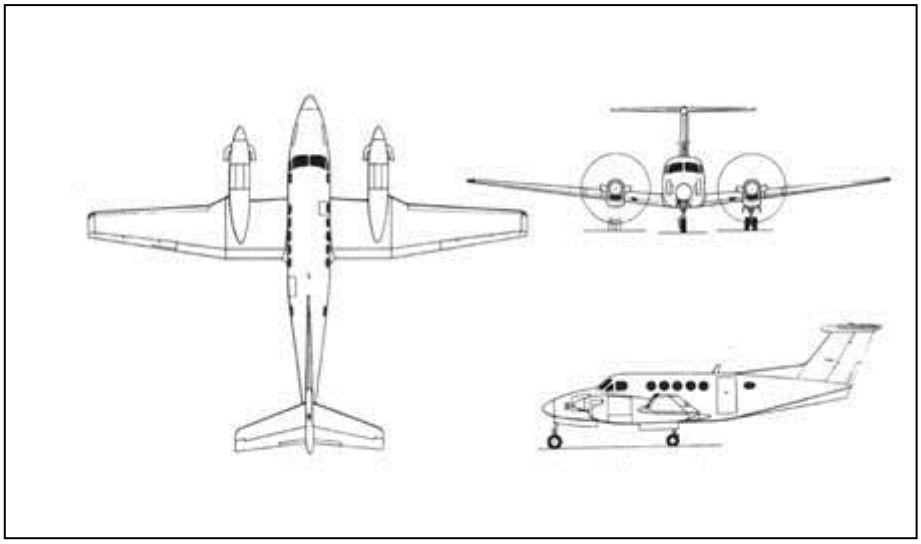


1.1.5.4 Beech, King Air 90

Manufacturer	Beech
Type	King Air C90B/C90SE
Wing area	28 m^2
Horizontal stabilizer area	5 m^2
Total surface area	33 m^2
Height overall	5 m
Wingspan	14 m
Fuselage, 1/3 surface area	15 m²

1.1.5.5 Beech, King Air 200

Manufacturer	Beech
Type	King Air B200
Wing area	29 m^2
Horizontal stabilizer area	5 m^2
Total surface area	34 m^2
Height overall	5 m
Wingspan	17 m
Fuselage, 1/3 surface area	19 m²

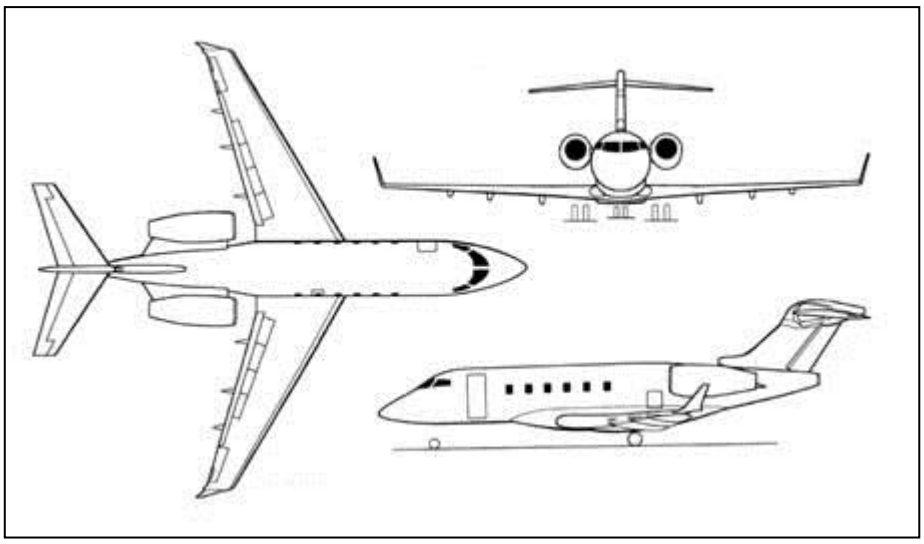


1.1.5.6 Bombardier, CL 100/200

Manufacturer	Bombardier
Type	CL 100/200
Wing area	55 m^2
Horizontal stabilizer area	10 m^2
Total surface area	65 m^2
Height overall	7 m
Wingspan	22 m
Fuselage, 1/3 surface area	75 m^2

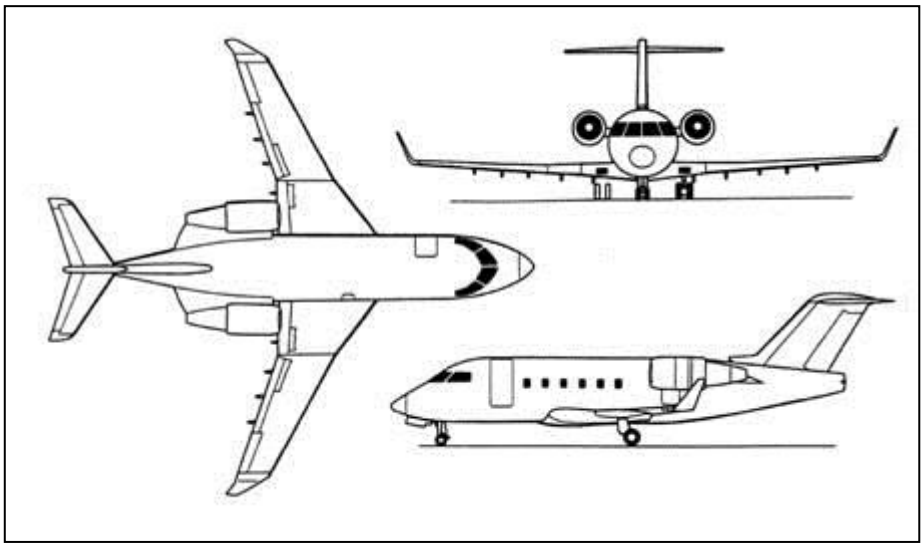
1.1.5.7 Bombardier, Continental

Manufacturer	Bombardier
Type	130-100 Continental
Wing area	49 m^2
Horizontal stabilizer area	4 m^2
Total surface area	53 m^2
Height overall	7 m
Wingspan	20 m
Fuselage, 1/3 surface area	51 m^2



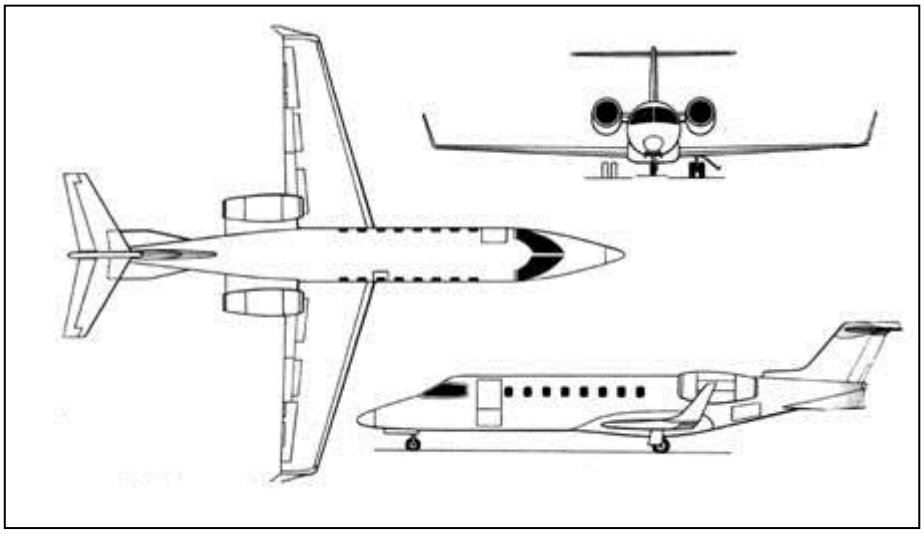
1.1.5.8 Bombardier, Challenger

Manufacturer	Bombardier
Type	Canadair CL600 Challenger
Wing area	49 m^2
Horizontal stabilizer area	7 m^2
Total surface area	56 m^2
Height overall	7 m
Wingspan	20 m
Fuselage, 1/3 surface area	59 m^2



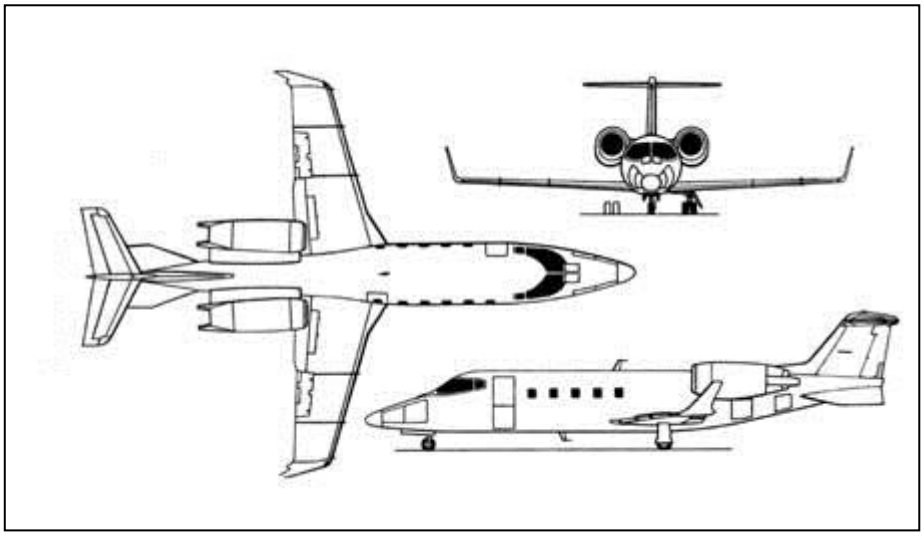
1.1.5.9 Bombardier, Learjet 45

Manufacturer	Bombardier
Type	LearJet 45
Wing area	29 m^2
Horizontal stabilizer area	5 m^2
Total surface area	34 m^2
Height overall	5 m
Wingspan	15 m
Fuselage, 1/3 surface area	33 m^2



1.1.5.10 Bombardier, Learjet 60

Manufacturer	Bombardier
Type	LearJet 60
Wing area	25 m^2
Horizontal stabilizer area	6 m^2
Total surface area	31 m^2
Height overall	5 m^2
Wingspan	14 m
Fuselage, 1/3 surface area	36 m²



1.1.5.11 Bombardier, Learjet 31A

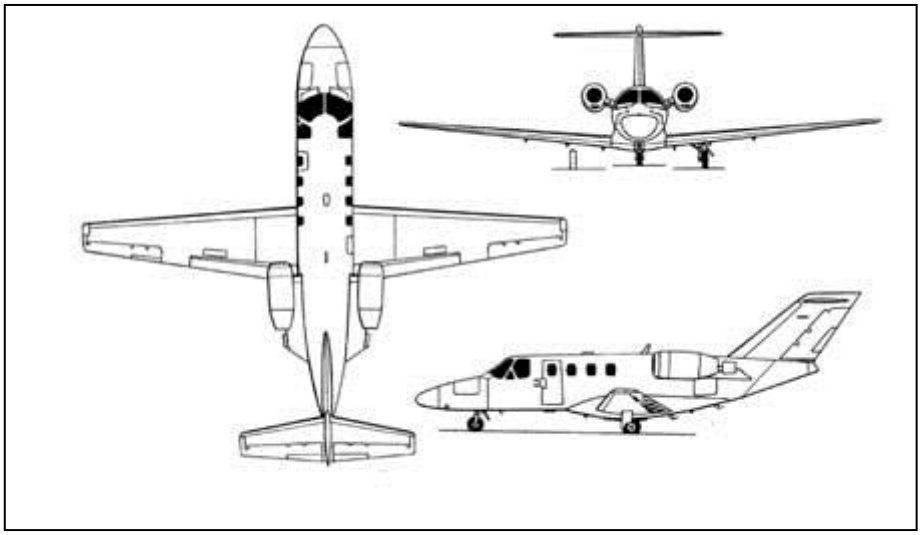
Manufacturer	Bombardier
Type	Learjet 31A
Wing area	25 m^2
Horizontal stabilizer area	6 m^2
Total surface area	31 m^2
Height overall	4 m
Wingspan	14 m
Fuselage, 1/3 surface area	25 m²

1.1.5.12 Cessna, Citation CJ1

Manufacturer	Cessna
Type	525 Citation CJ1
Wing area	23 m^2
Horizontal stabilizer area	6 m^2
Total surface area	29 m^2
Height overall	5 m
Wingspan	15 m
Fuselage, 1/3 surface area	20 m²

1.1.5.13 Cessna, Citation CJ2

Manufacturer	Cessna
Type	525 Citation CJ2
Wing area	25 m^2
Horizontal stabilizer area	7 m^2
Total surface area	32 m^2
Height overall	5 m
Wingspan	15 m
Fuselage, 1/3 surface area	24 m²



1.1.5.14 Cessna, Citation Bravo

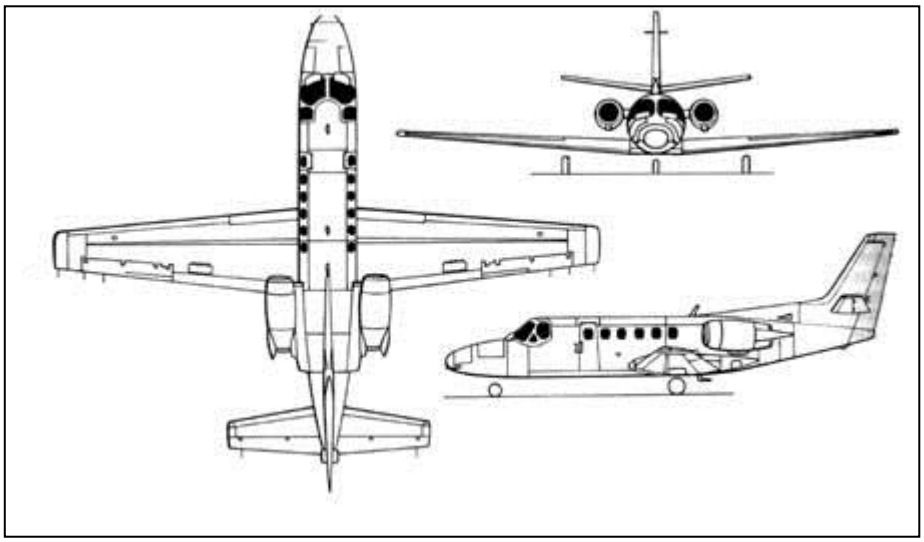
Manufacturer	Cessna
Type	550 Citation Bravo
Wing area	30 m^2
Horizontal stabilizer area	7 m^2
Total surface area	37 m^2
Height overall	5 m
Wingspan	16 m
Fuselage, 1/3 surface area	26 m² (estimate)

1.1.5.15 Cessna, Citation Encore

Manufacturer	Cessna
Type	560 Encore
Wing area	24 m^2
Horizontal stabilizer area	8 m^2
Total surface area	32 m^2
Height overall	5 m
Wingspan	16 m
Fuselage, 1/3 surface area	23 m²

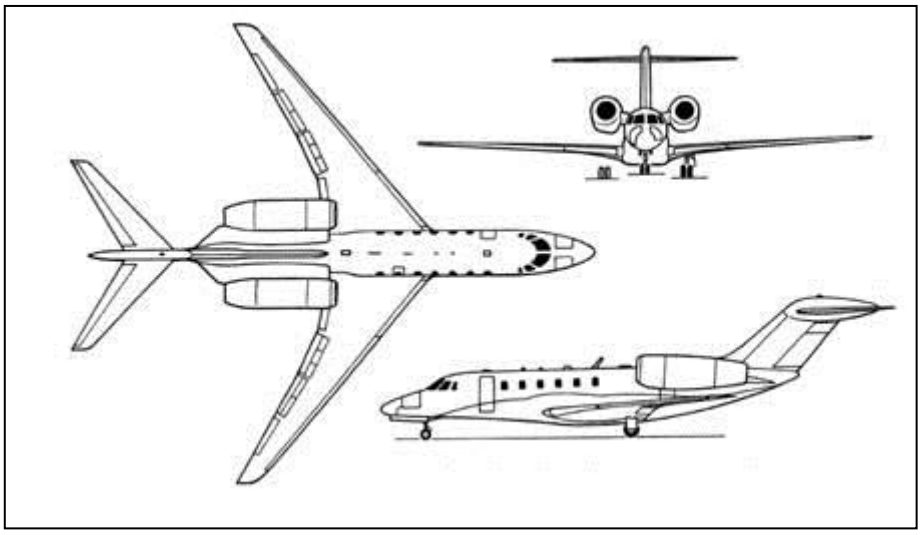
1.1.5.16 Cessna, Excel

Manufacturer	Cessna
Type	560 Excel
Wing area	35 m^2
Horizontal stabilizer area	8 m^2
Total surface area	43 m^2
Height overall	6 m
Wingspan	16 m
Fuselage, 1/3 surface area	34 m^2



1.1.5.17 Cessna, Citation X

Manufacturer	Cessna
Type	750 Citation X
Wing area	49 m^2
Horizontal stabilizer area	12 m^2
Total surface area	61 m^2
Height overall	6 m
Wingspan	20 m
Fuselage, 1/3 surface area	39 m^2

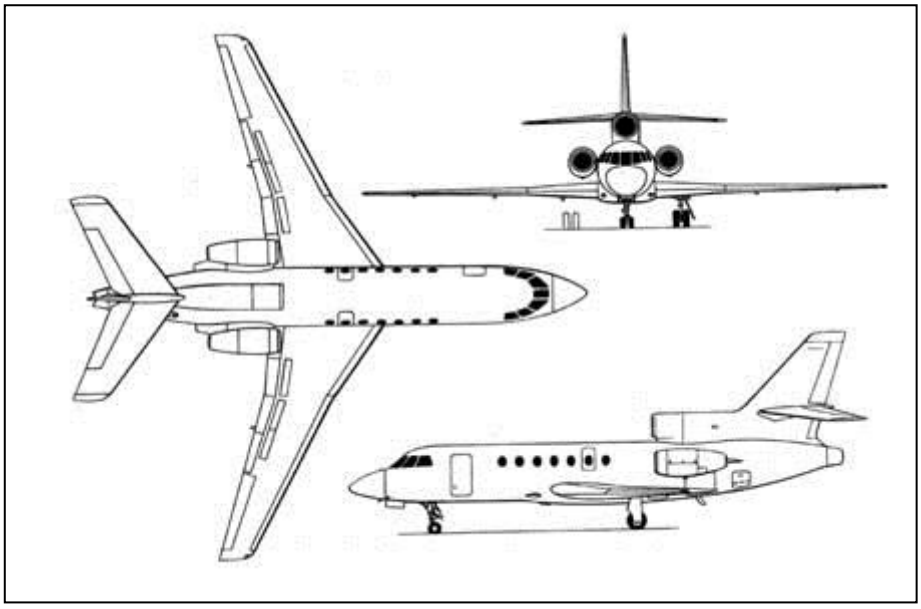


1.1.5.18 Cessna, Sovereign

Manufacturer	Cessna
Type	680 Citation Sovereign
Wing area	48 m^2
Horizontal stabilizer area	13 m^2
Total surface area	61 m^2
Height overall	7 m
Wingspan	20 m
Fuselage, 1/3 surface area	34 m^2

1.1.5.19 Dassault, Falcon 50

Manufacturer	Dassault
Type	Falcon 50 EX
Wing area	47 m^2
Horizontal stabilizer area	14 m^2
Total surface area	61 m^2
Height overall	7 m
Wingspan	19 m
Fuselage, 1/3 surface area	39 m^2

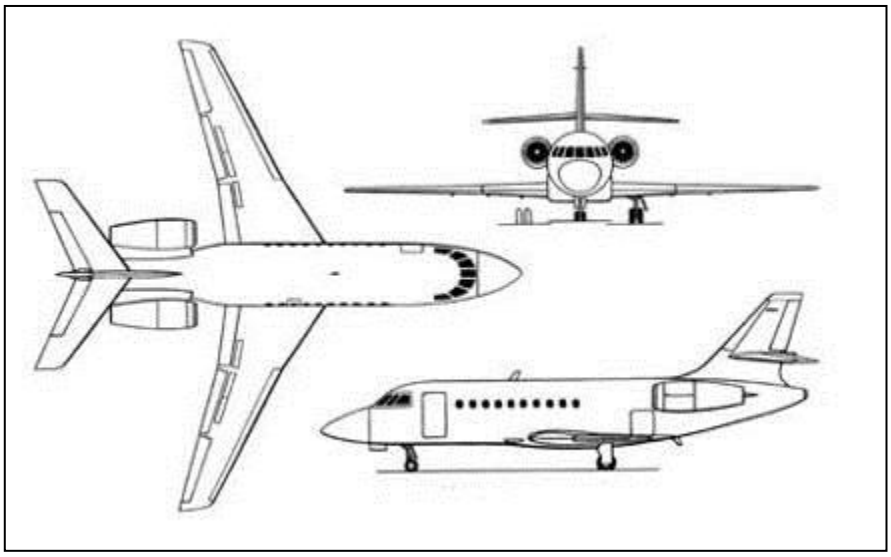


1.1.5.20 Dassault, Falcon 900

Manufacturer	Dassault
Type	Falcon 900B/C and 900EX
Wing area	49 m^2
Horizontal stabilizer area	14 m^2
Total surface area	63 m^2
Height overall	8 m
Wingspan	20 m
Fuselage, 1/3 surface area	53 m^2

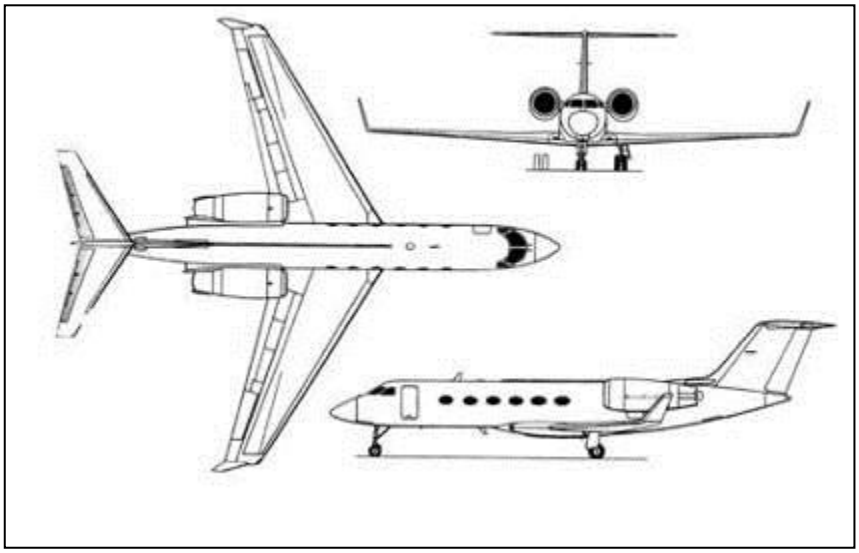
1.1.5.21 Dassault, Falcon 2000

Manufacturer	Dassault
Type	Falcon 2000
Wing area	50 m^2
Horizontal stabilizer area	14 m^2
Total surface area	64 m^2
Height overall	8 m
Wingspan	20 m
Fuselage, 1/3 surface area	53 m²



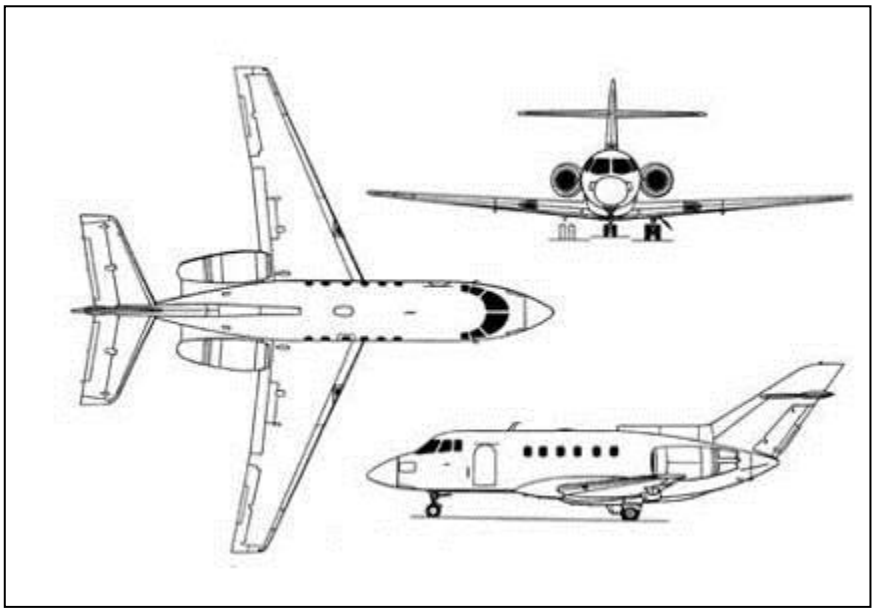
1.1.5.22 Gulfstream, IV

Manufacturer	Gulfstream Aerospace
Type	IV.SP, IV-MPA and IV-B
Wing area	89 m^2
Horizontal stabilizer area	19 m^2
Total surface area	108 m^2
Height overall	8 m
Wingspan	24 m
Fuselage, 1/3 surface area	74 m² (estimate)



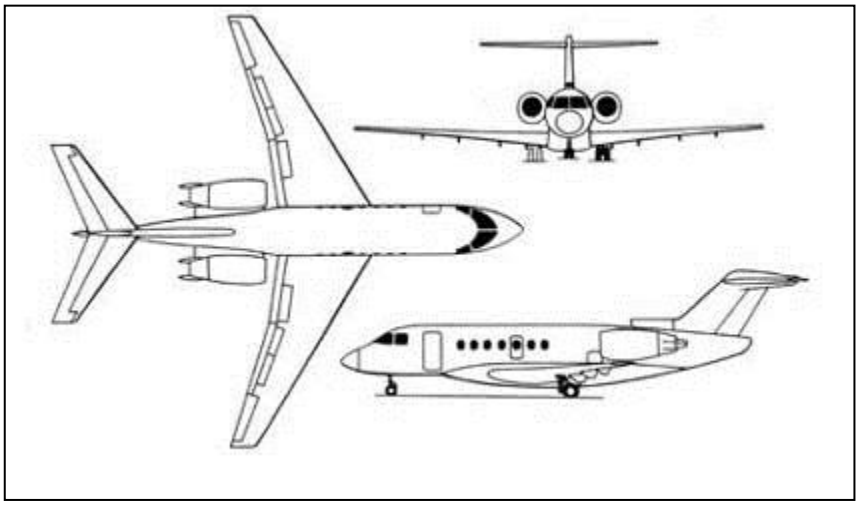
1.1.5.23 Hawker, 800

Manufacturer	Hawker
Type	800 XP
Wing area	35 m^2
Horizontal stabilizer area	10 m^2
Total surface area	45 m^2
Height overall	6 m
Wingspan	15 m
Fuselage, 1/3 surface area	30 m^2



1.1.5.24 Hawker, Horizon

Manufacturer	Hawker
Type	Horizon
Wing area	50 m^2
Horizontal stabilizer area	14 m^2
Total surface area	64 m^2
Height overall	6 m
Wingspan	19 m
Fuselage, 1/3 surface area	43 m^2

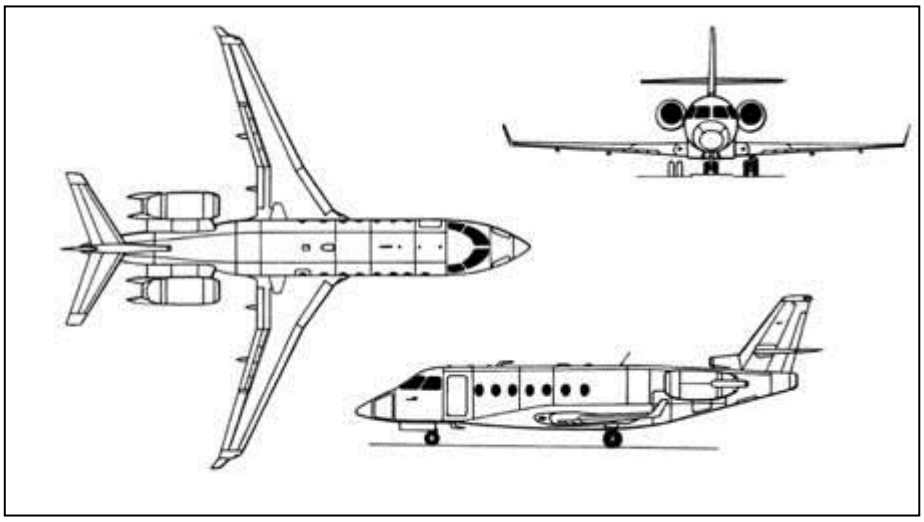


1.1.5.25 IAI, Astra

Manufacturer	IAI
Type	1125 Astra SPX
Wing area	30 m^2
Horizontal stabilizer area	10 m^2
Total surface area	40 m^2
Height overall	6 m
Wingspan	17 m
Fuselage, 1/3 surface area	34 m^2

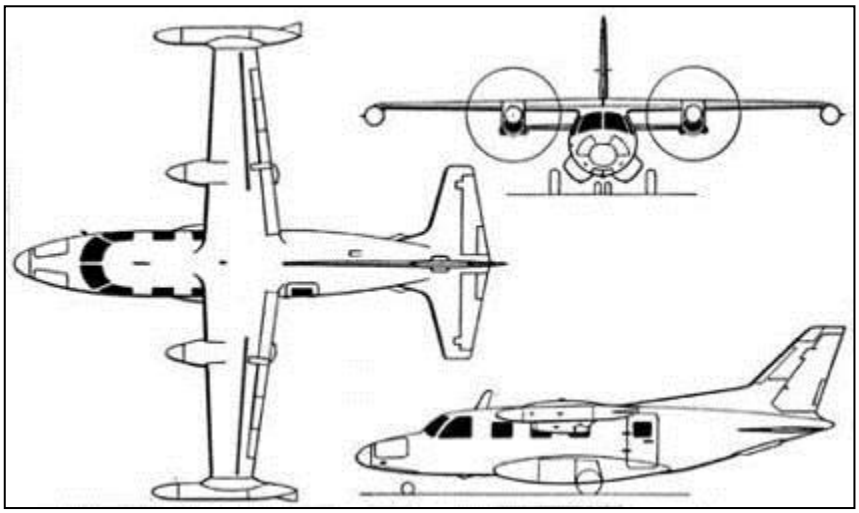
1.1.5.26 IAI, Astra

Manufacturer	IAI
Type	Galaxy
Wing area	30 m^2
Horizontal stabilizer area	10 m^2
Total surface area	40 m^2
Height overall	6 m
Wingspan	17 m
Fuselage, 1/3 surface area	34 m^2



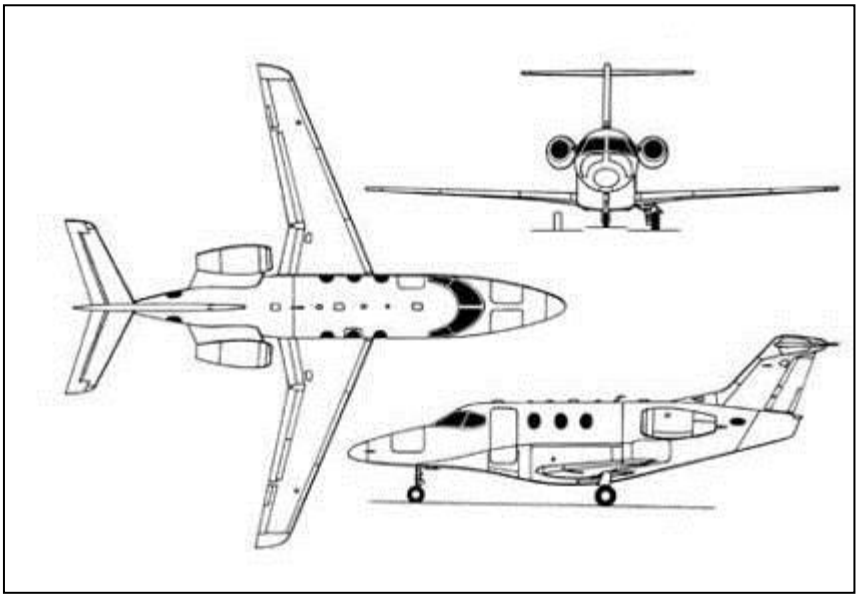
1.1.5.27 Mitsubishi, MU-2

Manufacturer	Mitsubishi
Type	MU-2J
Wing area	17 m^2
Horizontal stabilizer area	5 m^2
Total surface area	22 m^2
Height overall	5 m
Wingspan	12 m
Fuselage, 1/3 surface area	18 m² (estimate)



1.1.5.28 Raytheon, Premier

Manufacturer	Raytheon
Type	Premier 1
Wing area	23 m^2
Horizontal stabilizer area	5 m^2
Total surface area	28 m^2
Height overall	5 m
Wingspan	14 m
Fuselage, 1/3 surface area	26 m² (estimate)

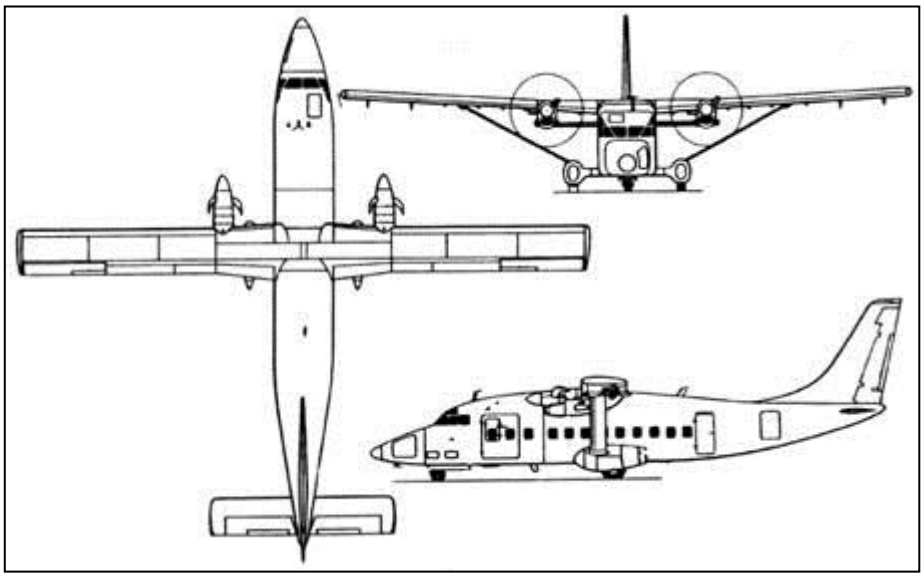


1.1.5.29 Shorts, 330

Manufacturer	Shorts
Type	330
Wing area	43 m^2
Horizontal stabilizer area	8 m^2
Total surface area	51 m^2
Height overall	5 m
Wingspan	23 m
Fuselage, 1/3 surface area	27 m^2

1.1.5.30 Shorts, 360

Manufacturer	Shorts
Type	360
Wing area	43 m^2
Horizontal stabilizer area	10 m^2
Total surface area	53 m^2
Height overall	8 m
Wingspan	23 m
Fuselage, 1/3 surface area	27 m^2



1.1.5.31 Sino, Swearinger

Manufacturer	Sino
Type	Swearinger SJ30-2
Wing area	18 m^2
Horizontal stabilizer area	4 m^2
Total surface area	22 m^2
Height overall	5 m
Wingspan	13 m
Fuselage, 1/3 surface area	9 m^2 (estimate)

1.1.6 Aeroplane category

The aeroplane wingspan and category is modified from the ICAO Annex 14 - Aerodrome Design Manual. The dimensions are as a reference only and up to date tables shall be used in operation . The wingspan is a good indication on the distances needed for separation of aeroplane. Remote de-icing /anti-icing should also consider the safety distance that is needed in between aeroplane. These figures are rounded up for easier use in operation and therefore does not necessary reflect the exact category or wingspan.

This table is sorted by category.

MANUFACTURER	TYPE	CATEGORY	WINGSPAN
Airbus	A380	F	80
Antonov	AN-124	F	74
Boeing	747-800	F	68
Lockheed	Galaxy C-5	F	68
Airbus	A350-900	E	65
Boeing	747-400	E	65
Airbus	A340 (-500/-600)	E	63
Boeing	777 (-2LR/-3ER)	E	63
Boeing	777 (-200/-300)	E	61
Airbus	A330 (-200)	E	61
Airbus	A330 (-300)	E	61
Airbus	A340 (-200/-300)	E	61
Ilyushin	Il-96 (-300)	E	61
Ilyushin	Il-96M	E	61
Boeing	747-100/-200/-300	E	60
Boeing	787-8	E	60
Boeing /MD	MD-11	D	52
Boeing	C17A Globemaster III	D	52
Ilyushin	Il-76	D	51
Boeing /MD	DC-10	D	51
Ilyushin	Il-86	D	49
Boeing	767 (-200/-300/-400)	D	48
Airbus	A300 (-600R)	D	45
Antonov	AN-70	D	45
Airbus	A310	D	44
Boeing /MD	DC-8	D	44
Ilyushin	Il-62	D	44
Tupolev	TU-204	D	42
Lockheed	Hercules C-130J	D	41
Boeing	B-707	D	40
Boeing	757-200	D	39
Antonov	AN-12	D	38
Tupolev	TU-154M	D	38
Yakolev	YAK-42D	C	35
Boeing	737 (-600/-700/-800/-900)	C	35
Airbus	A318	C	35
Airbus	A320	C	35
Airbus	A321	C	35
Airbus	A319	C	34

MANUFACTURER	TYPE	CATEGORY	WINGSPAN
Bombardier	Cs100/300	C	35
Boeing	B-727	C	33
Boeing /MD	MD80	C	33
Boeing /MD	MD90	C	33
Antonov	AN-74	C	32
Ilyushin	Il-114	C	30
Tupolev	TU- 334/336/354	C	30
Fokker	27	C	29
Fokker	50	C	29
Tupolev	TU-134	C	29
Boeing	737 (-300/-400/-500)	C	29
Embraer	ERJ 190/195	C	28
Bombardier	130-700 Global Express	C	29
Boeing /MD	DC-9-50	C	29
Boeing	B-717-200	C	29
Bombardier	DHC-8 DASH 8 Q400	C	29
Boeing	737 (-200)	C	29
Fokker	100	C	29
Fokker	70	C	29
Fokker	F28 Fellowship	C	29
Fairchild	Dornier 728 JET	C	28
EADS	ATR-72	C	28
Bae Systems	146	C	27
Bae Systems	AVRO RJ 70/85/100	C	27
Embraer	ERJ-170/175	C	26
Bombardier	DHC-8 DASH 8 Q100/200	C	26
Let	L610G	C	26
XAC	MA-60	C	25
Yakolev	YAK-40	C	25
Saab	2000	C	25
EADS	ATR-42	C	25
Gulfstream Aerospace	IV.SP, IV-MPA and IV-B	C	24
Bombardier	CRJ-700	C	24
Shorts	360	B	23
Shorts	330	B	23
Bombardier	CL 100/200	B	22
Saab	340B	B	21
Fairchild	Dornier 328 JET	B	21
Embraer	ERJ-145	B	21
Let	L410	B	20
Embraer	120 Brasilia	B	20
Cessna	750 Citation X	B	20
Bombardier	130-100 Continental	B	20
Bombardier	Canadair CL600 Challenger	B	20
Dassault	Falcon 2000	B	20
Dassault	Falcon 900B/C and 900EX	B	20
Cessna	680 Citation Sovereign	B	20
Bae	ATP	B	19
Dassault	Falcon 50 EX	B	19
Hawker	Horizon	B	19

MANUFACTURER	TYPE	CATEGORY	WINGSPAN
IAI	1125 Astra SPX	B	17
Beech	King Air 350	B	17
Beech	King Air B200	B	17
Beech	1900 D	B	17
IAI	Galaxy	B	17
Cessna	550 Citation Bravo	B	16
Cessna	560 Encore	B	16
Cessna	560 Excel	B	16
Bae	Jetstream 41	B	16
Bae	Jetstream 31	B	16
Bombardier	LearJet 45	B	15
Hawker	800 XP	B	15
Cessna	525 Citation CJ1	B	15
Cessna	525 Citation CJ2	B	15
Beech	King Air C90B/C90SE	B	14
Raytheon	Premier 1	B	14
Bombardier	Learjet 31A	B	14
Bombardier	LearJet 60	B	14
Beech	Beechjet 400 A	B	14
Sino	Swearinger SJ30-2	B	13
Mitsubishi	MU-2J	B	12

1.1.7 Amount of fluid for anti-icing with thickened fluids

In order to achieve published holdover times, a sufficient quantity of anti-icing fluid must be applied to the aircraft surfaces, in an even and continuous layer. The quantity of anti-icing fluid required will depend on the prevailing conditions during operations. Strong winds will usually reduce the quantity of anti-icing fluid actually reaching the aircraft surfaces. Other influences can be jet blast, spray distance, spray technique, visibility, colouring of fluids and the presence of first step fluid on the surfaces. The specific properties of the anti-icing fluid will also have an influence on the quantity to be sprayed. The table below provides an approximate fluid quantity for the anti-icing step in favourable conditions, assuming an anti-icing fluid coverage of 1 mm fluid thickness. It takes 1 litre of fluid to cover 1 m2 to a depth of 1 mm. Since application is never perfect, it may take more than 1 litre / m2 to achieve this 1 mm fluid thickness.
These figures include a buffer, depending on aircraft type, to account for a degree of overspray and overlap in order to achieve an even and sufficient fluid layer.

This table is sorted by manufacturer.

MANUFACTURER	TYPE	CATEGORY	FLUID QUANTITY (total amount in litres)		
			WINGS	TAIL	WINGS+TAIL
Airbus	A300 (-600R)	D	282	81	363
Airbus	A310	D	300	70	370
Airbus	A318	C	180	50	230
Airbus	A319	C	180	50	230
Airbus	A320	C	180	50	230
Airbus	A321	C	180	50	230
Airbus	A330 (-200)	E	480	100	580
Airbus	A330 (-300)	E	480	100	580
Airbus	A340 (-200/-300)	E	480	100	580
Airbus	A340 (-500/-600)	E	570	100	670
Airbus	A350 (-900)	E	480	100	580
Airbus	A380	F	910	220	1130
Antonov	AN-12	D	180	50	230
Antonov	AN-124	F	790	130	920
Antonov	AN-70	D	340	60	400
Antonov	AN-74	C	140	40	180
Bae	ATP	B	120	30	140
Bae	Jetstream 31	B	40	20	60
Bae	Jetstream 41	B	50	20	70
Bae Systems	146	C	110	40	150
Bae Systems	AVRO RJ 70/85/100	C	110	40	150
Beech	1900 D	B	50	20	70
Beech	Beechjet 400 A	B	40	10	50
Beech	King Air 350	B	50	20	70
Beech	King Air B200	B	50	10	60
Beech	King Air C90B/C90SE	B	50	10	60
Boeing	707	D	250	80	330
Boeing	717-200	C	140	40	180
Boeing	727	C	230	50	280

MANUFACTURER	TYPE	CATEGORY	FLUID QUANTITY (total amount in litres)		
			WINGS	TAIL	WINGS+TAIL
Boeing	737 (-200)	C	130	50	180
Boeing	737 (-300/-400/-500)	C	150	50	200
Boeing	737 (-600/-700/-800/-900)	C	180	50	230
Boeing	747-100/-200/-300	E	690	180	870
Boeing	747-400	E	710	180	890
Boeing	747-800	F	695	180	875
Boeing	757-200	D	260	70	330
Boeing	767 (-200/-300/-400)	D	390	90	480
Boeing	777 (-200/-300)	E	560	140	700
Boeing	777 (-2LR/-3ER)	E	565	140	705
Boeing	787-8	E	407	166	573
Boeing	C17A Globemaster III	D	480	110	590
Boeing /MD	DC-10	D	500	140	640
Boeing /MD	DC-8	D	370	70	440
Boeing /MD	DC-9-50	C	140	40	180
Boeing /MD	MD-11	D	450	120	570
Boeing /MD	MD80	C	170	50	220
Boeing /MD	MD90	C	160	50	210
Bombardier	Cs100/300	C	155	45	200
Bombardier	130-100 Continental	B	80	1000s table is sorted by category.rer to make the search for a particular aircraft type easier.	90
Bombardier	130-700 Global Express	C	140	40	180
Bombardier	Canadair CL600 Challenger	B	80	20	100
Bombardier	CL 100/200	C	80	20	100
Bombardier	CRJ-700	C	100	30	130
Bombardier	DHC-8 DASH 8 Q100/200	C	80	20	100
Bombardier	DHC-8 DASH 8 Q400	C	90	30	120
Bombardier	Learjet 31A	B	40	10	50
Bombardier	LearJet 45	B	50	10	60
Bombardier	LearJet 60	B	40	10	50
Cessna	525 Citation CJ1	B	40	10	50

MANUFACTURER	TYPE	CATEGORY	FLUID QUANTITY (total amount in litres)		
			WINGS	TAIL	WINGS+TAIL
Cessna	525 Citation CJ2	B	40	20	60
Cessna	550 Citation Bravo	B	50	20	70
Cessna	560 Encore	B	40	20	60
Cessna	560 Excel	B	60	20	80
Cessna	680 Citation Sovereign	B	70	20	90
Cessna	750 Citation X	B	80	20	100
Dassault	Falcon 2000	B	80	30	110
Dassault	Falcon 50 EX	B	70	30	100
Dassault	Falcon 900B/C and 900EX	B	80	30	100
EADS	ATR-42	C	80	20	100
EADS	ATR-72	C	90	20	110
Embraer	120 Brasilia	B	60	20	80
Embraer	ERJ 190/195	C	140	40	180
Embraer	ERJ-145	B	80	20	100
Embraer	ERJ-170/175	C	110	40	150
Fairchild	Dornier 328 JET	B	60	20	80
Fairchild	Dornier 728 JET	C	110	30	140
Fokker	100	C	140	40	180
Fokker	27	C	100	30	130
Fokker	50	C	100	30	130
Fokker	70	C	140	40	180
Fokker	F28 Fellowship	C	120	30	150
Gulfstream Aerospace	IV.SP, IV-MPA and IV-B	C	130	30	160
Hawker	800 XP	B	60	20	80
Hawker	Horizon	B	80	30	110
IAI	1125 Astra SPX	B	50	20	70
IAI	Galaxy	B	50	20	70
Ilyushin	Il-62	D	380	50	430
Ilyushin	Il-76	D	410	70	480
Ilyushin	Il-86	D	440	70	510
Ilyushin	Il-96 (-300)	E	510	130	640
Ilyushin	Il-96M	E	510	130	640
Ilyushin	Il-114	C	115	34	149
Let	L410	B	60	20	70
Let	L610G	C	80	20	100
Lockheed	Galaxy C-5	F	720	120	840
Lockheed	Hercules C-130J	D	220	50	270
Mitsubishi	MU-2J	B	30	10	40
Raytheon	Premier 1	B	40	10	50
Saab	2000	C	80	30	110
Saab	340B	B	70	20	90
Shorts	330	C	70	20	90
Shorts	360	C	70	20	90

MANUFACTURER	TYPE	CATEGORY	FLUID QUANTITY (total amount in litres)		
			WINGS	TAIL	WINGS+TAIL
Sino	Swearinger SJ30-2	B	30	10	40
Tupolev	TU- 334/336/354	C	120	40	160
Tupolev	TU-134	C	180	50	230
Tupolev	TU-154M	D	280	60	340
Tupolev	TU-204	D	250	60	310
XAC	MA-60	C	110	40	140
Yakolev	YAK-40	C	100	40	140
Yakolev	YAK-42D	D	210	40	250

1.2 Aeroplane Types – 'No Spray' areas

The general restrictions below apply to all aeroplane types. The list below states the requirements and the associated symbols, which are then used on the aeroplane type diagrams on the following pages to indicate (where necessary) the locations of 'no spray' areas, for each of the aeroplane types illustrated.
These illustrations are for general guidance only, and do not currently include every aeroplane type and variant. Refer to the aeroplane maintenance manual (AMM) or the Operator's manual for further information. In case of conflict, the AMM, or the Operator's manual, takes preference.


Do not spray into engine openings.


Do not spray flight deck windows or windscreens.


Do not spray main cabin windows.


Do not spray directly at or into pitot probes, TAT probes, or angle of attack sensors.


Do not spray directly at static ports.


Do not spray into APU inlet.


Do not spray into APU exhaust.


Do not apply fluid to aircraft brakes.


Do not spray into engine exhaust.


Do not spray into aircraft exhaust or intake vents.

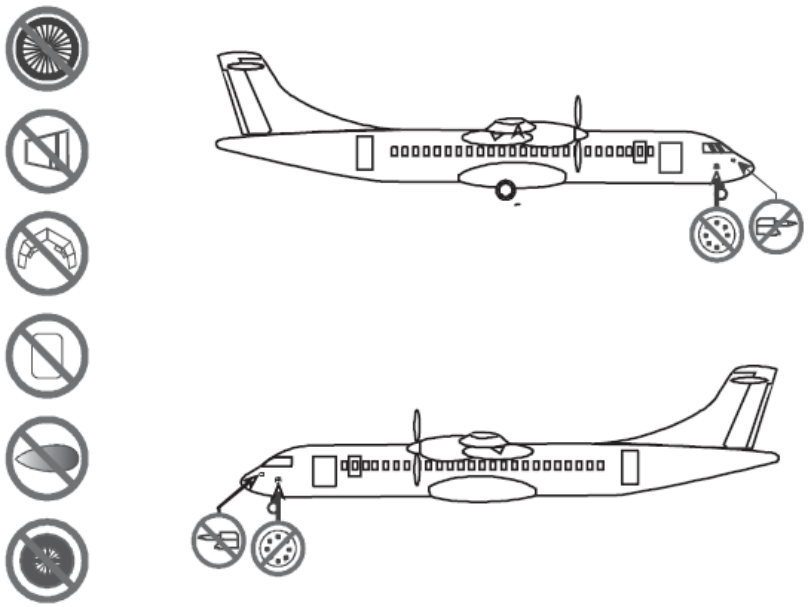

Do not spray into avionic vents.


Do not apply 100% Type II or IV to radome.

Apply deicing fluids at angles below 45 degrees.

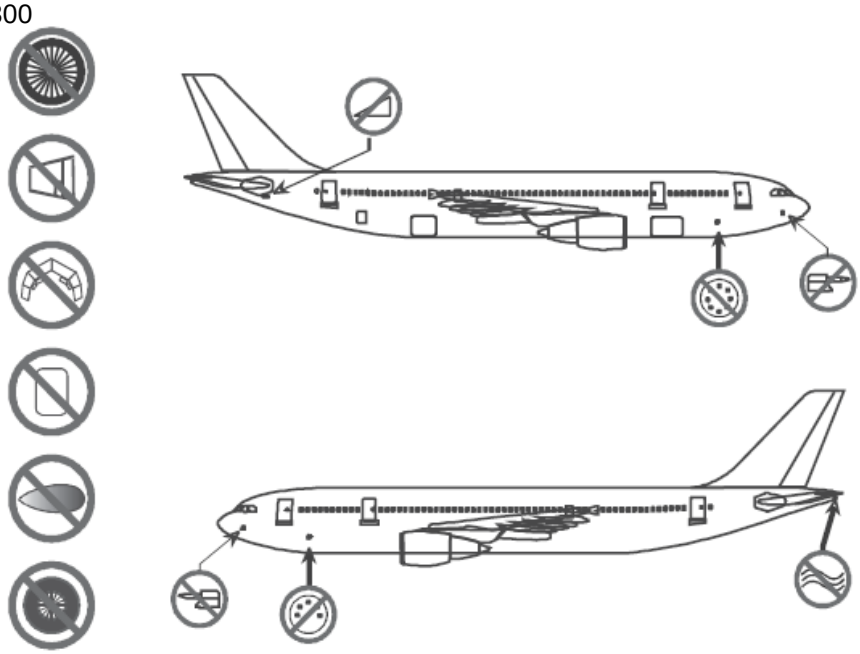

Do not spray onto propellor blades and into engine openings.

1.2.1 ATR-72



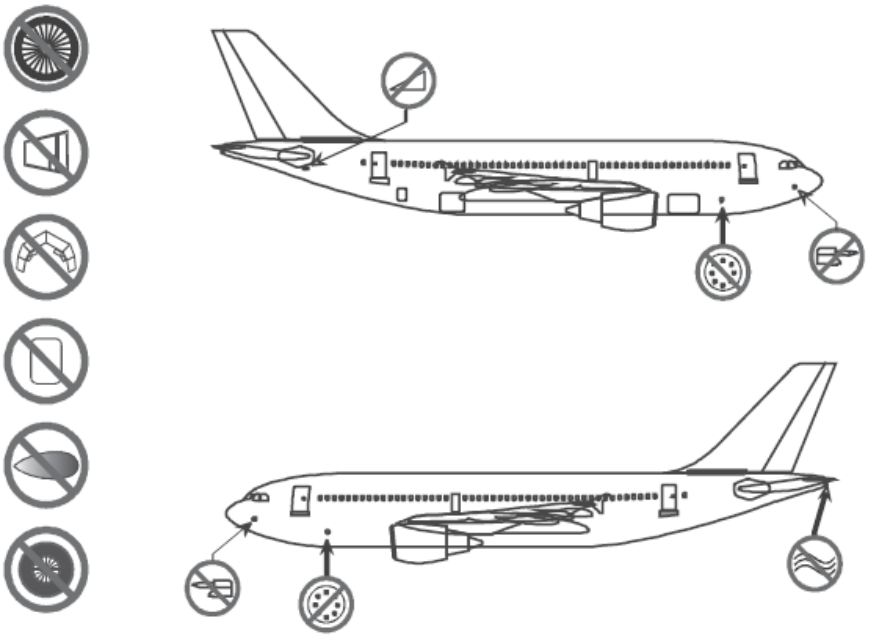
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.2 Airbus A 300



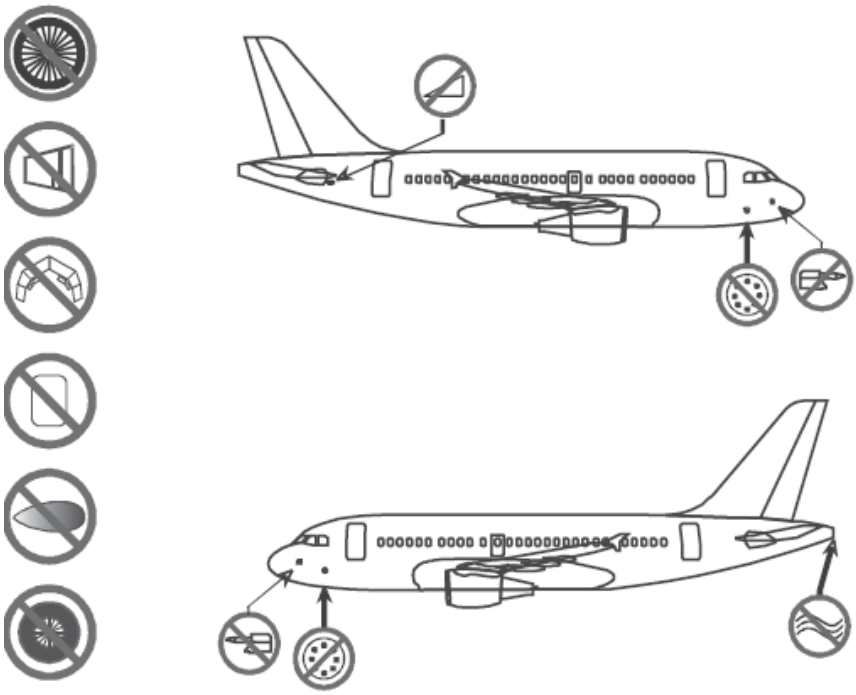
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.3 Airbus A 310



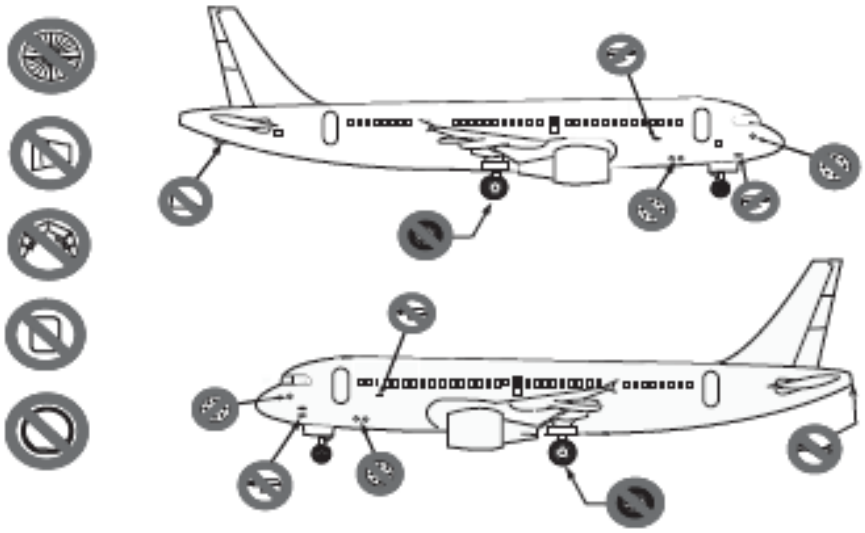
No Direct Application of Deicing/Anti-icing Fluid Allowed

1.2.4 Airbus A 318



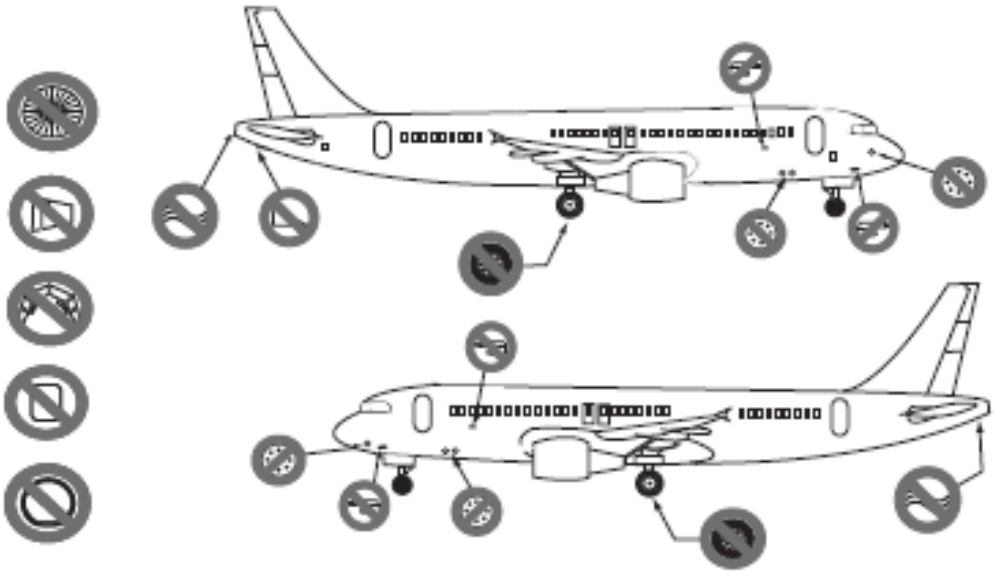
No Direct Application of Deicing/Anti-icing Fluid Allowed

1.2.5 Airbus A 319



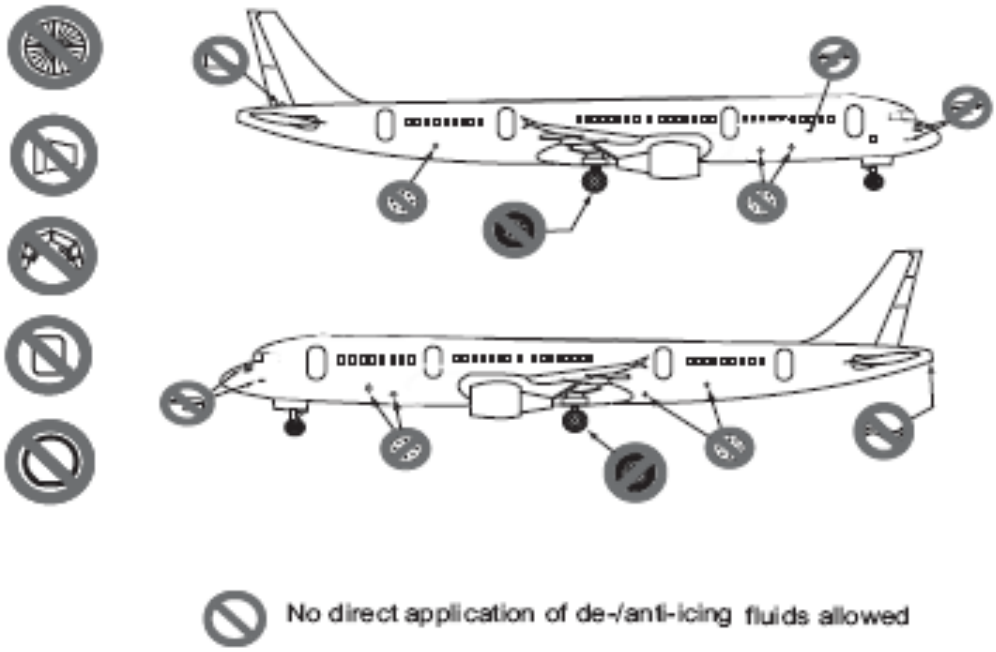
No direct application of de-/anti-icing fluids allowed

1.2.6 Airbus A 320



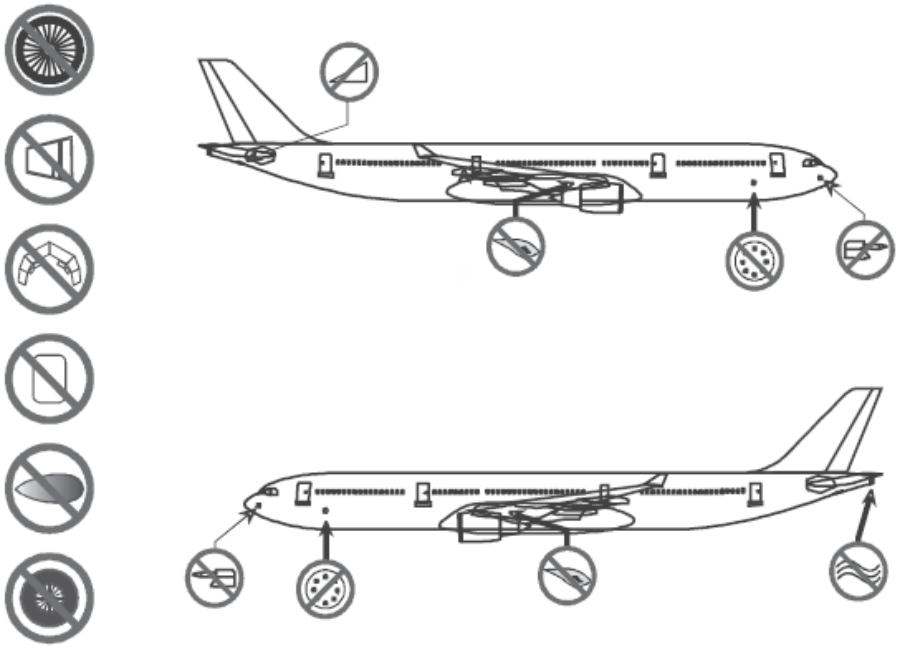
No direct application of de-/anti-icing fluids allowed

1.2.7 Airbus A 321



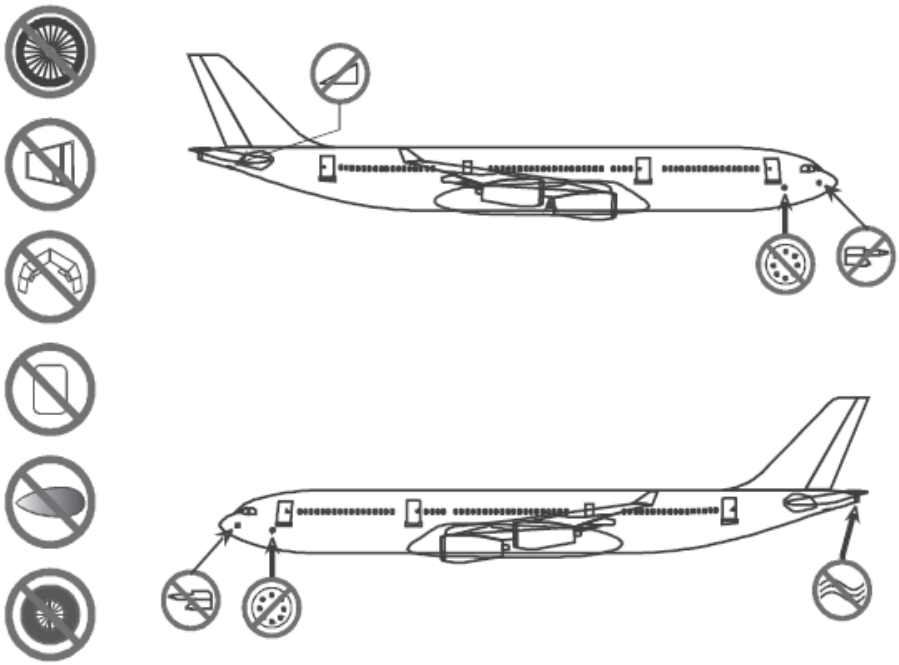
No direct application of de-/anti-icing fluids allowed

1.2.8 Airbus A 330



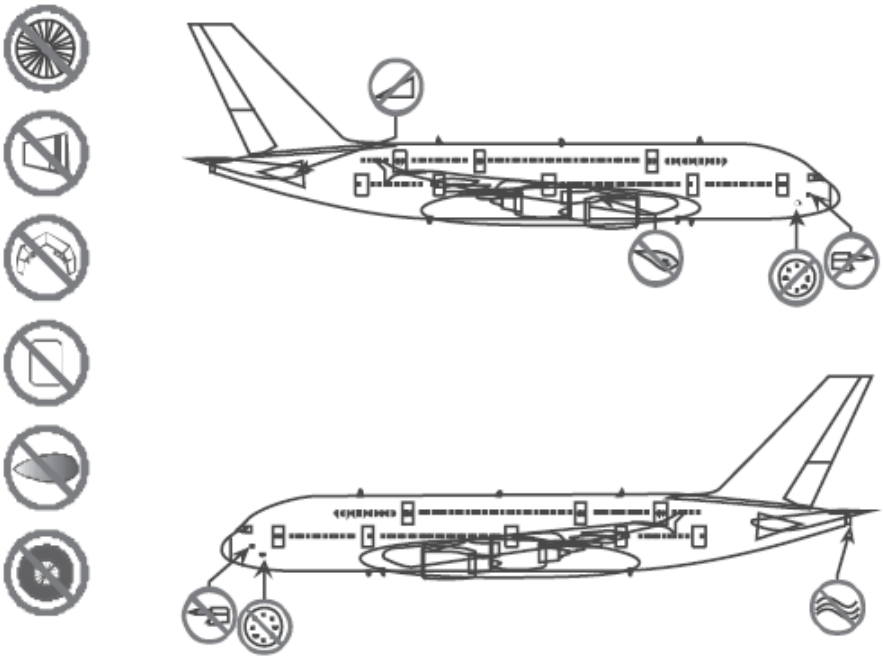
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.9 Airbus A 340



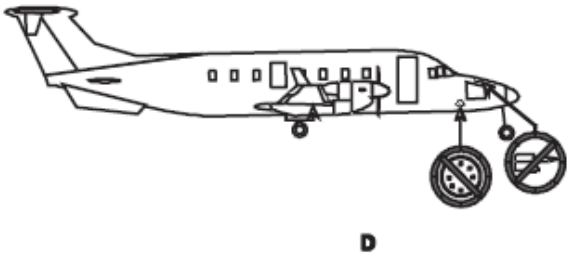
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.10 Airbus A 380

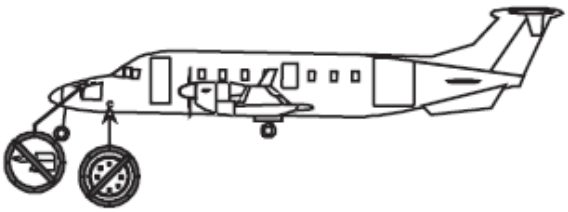


No Direct Application of De-icing/Anti-icing fluid allowed

1.2.11 Beechcraft 1900

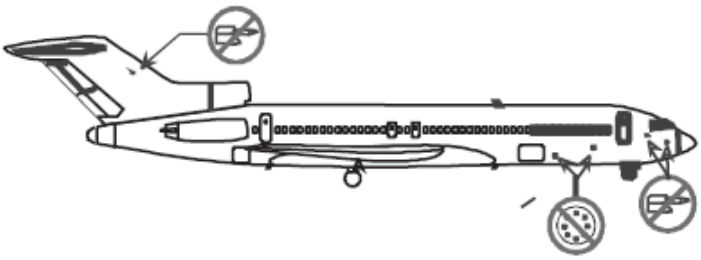


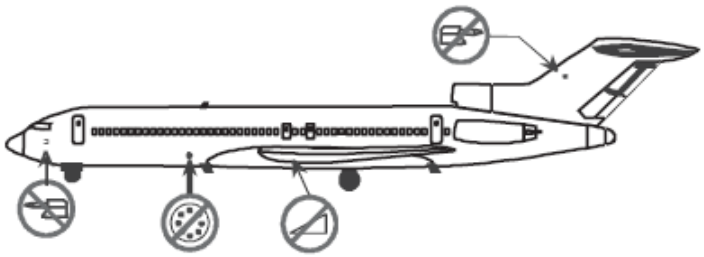
D



No Direct Application of De-icing/Anti-icing fluid allowed

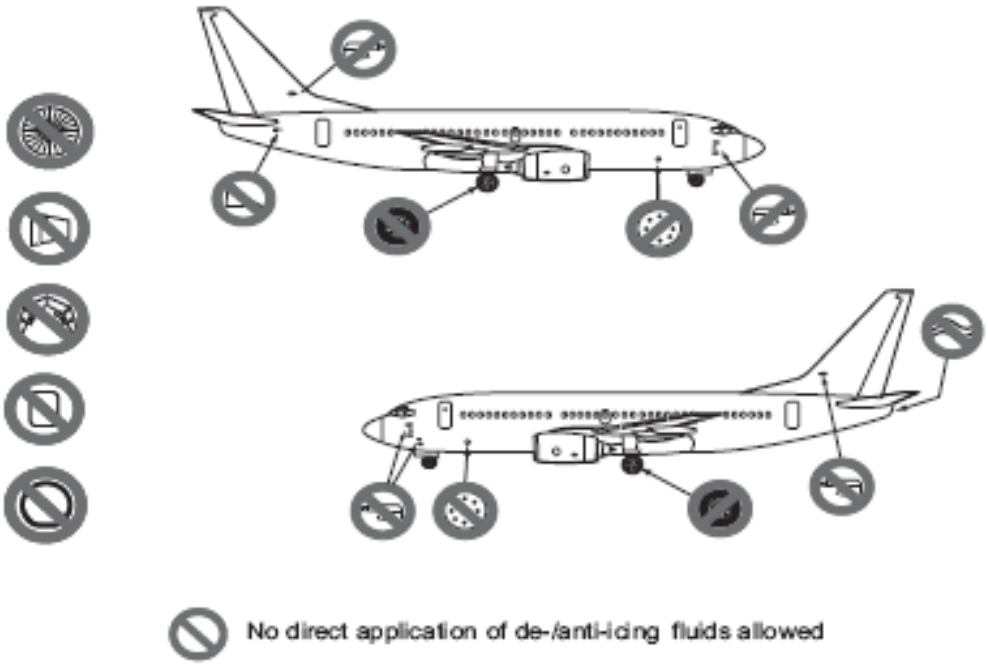
1.2.12 Boeing 727





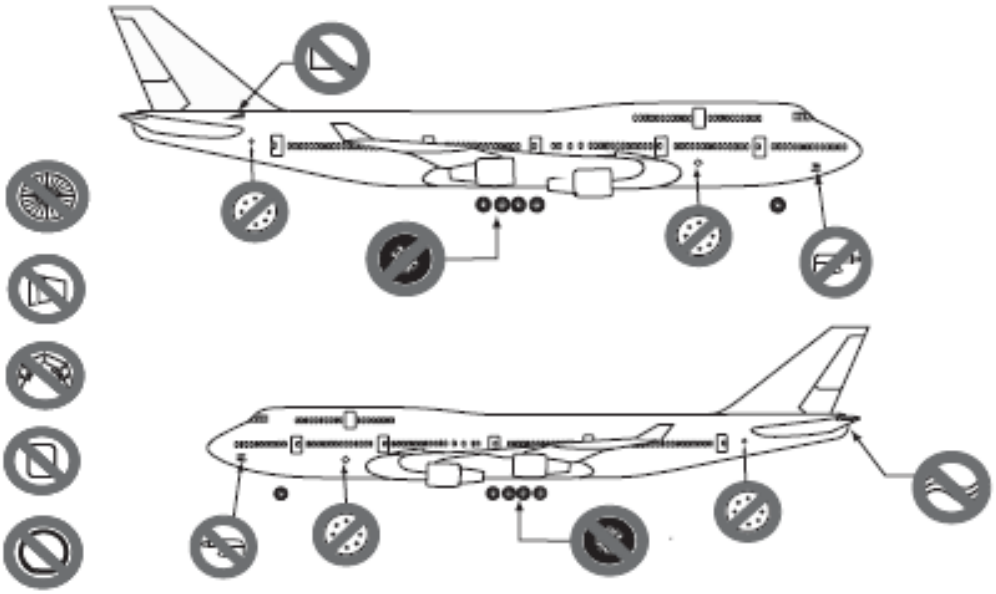
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.13 Boeing 737



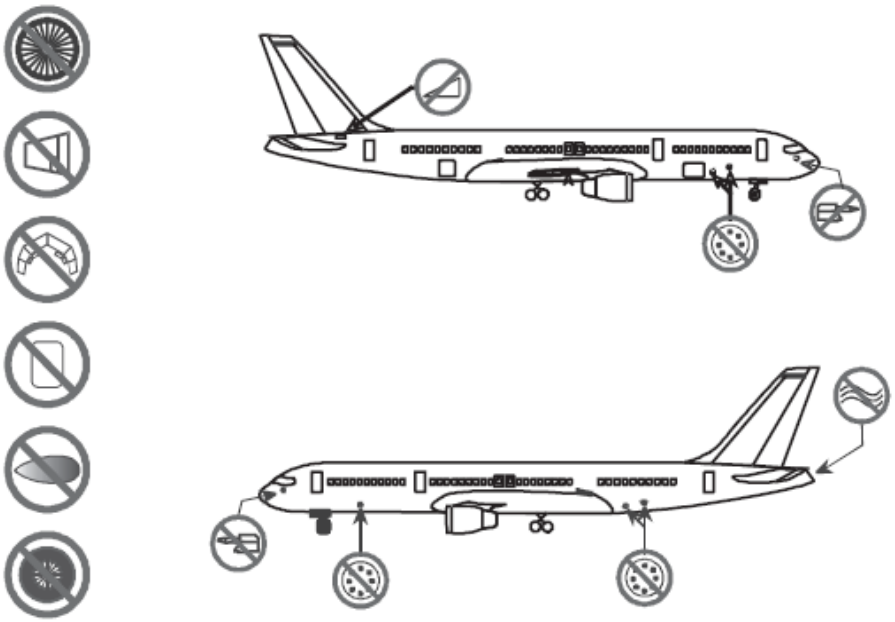
No direct application of de-/anti-icing fluids allowed

1.2.14 Boeing 747



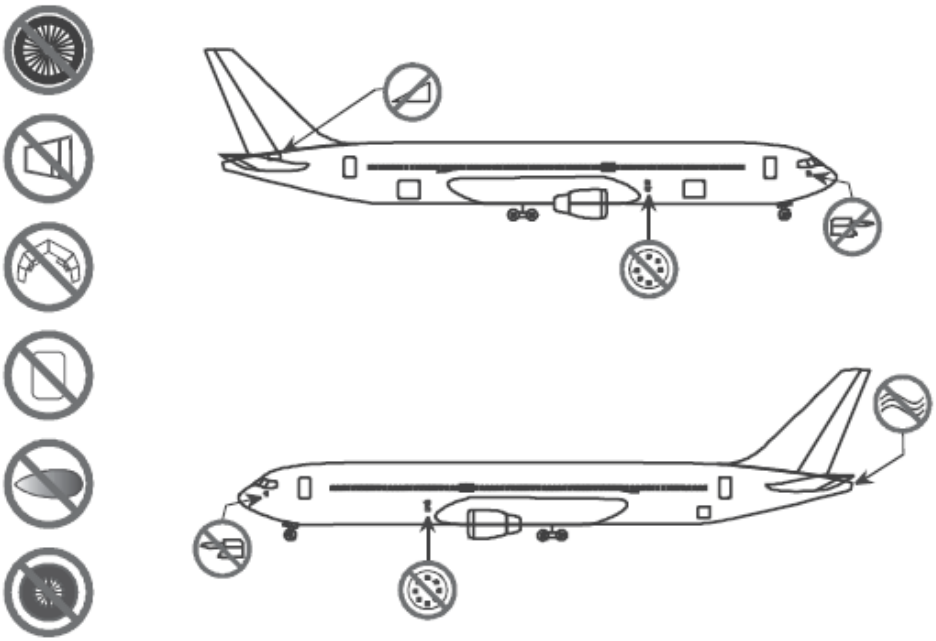
No direct application of de-/anti-icing fluids allowed

1.2.15 Boeing 757



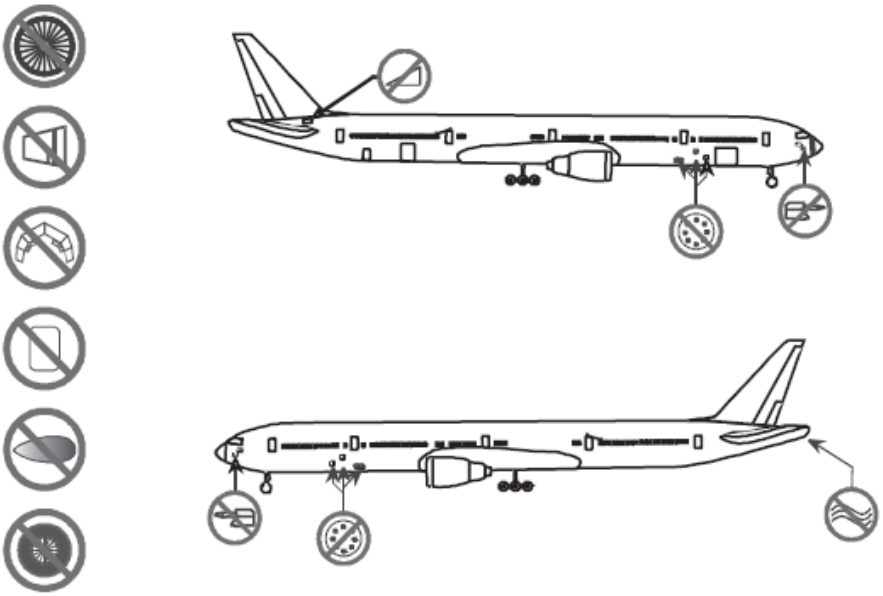
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.16 Boeing 767



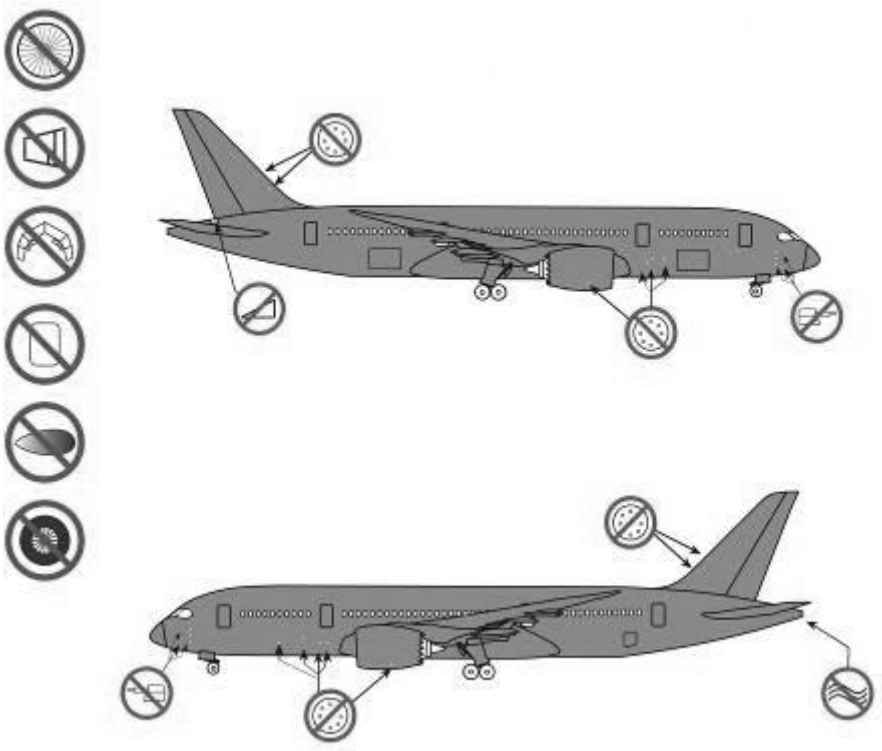
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.17 Boeing 777

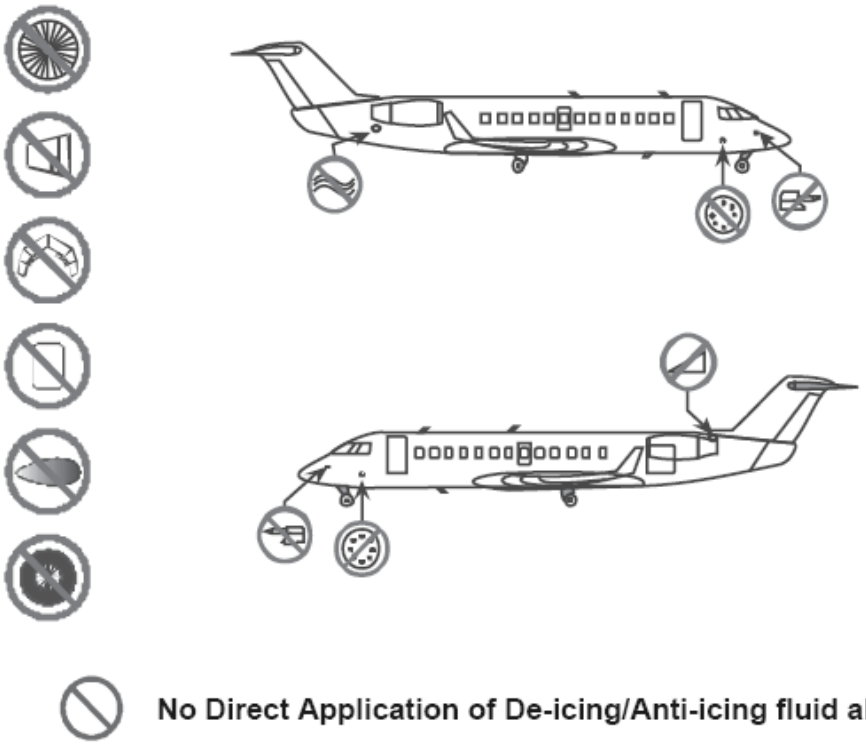


No Direct Application of De-icing/Anti-icing fluid allowed

1.2.18 Boeing 787

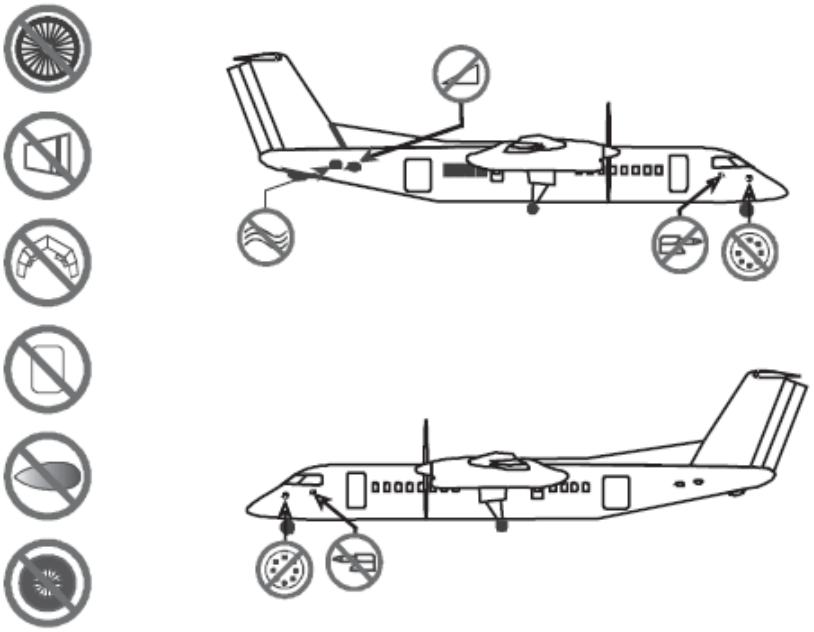


1.2.19 CRJ / CL 65

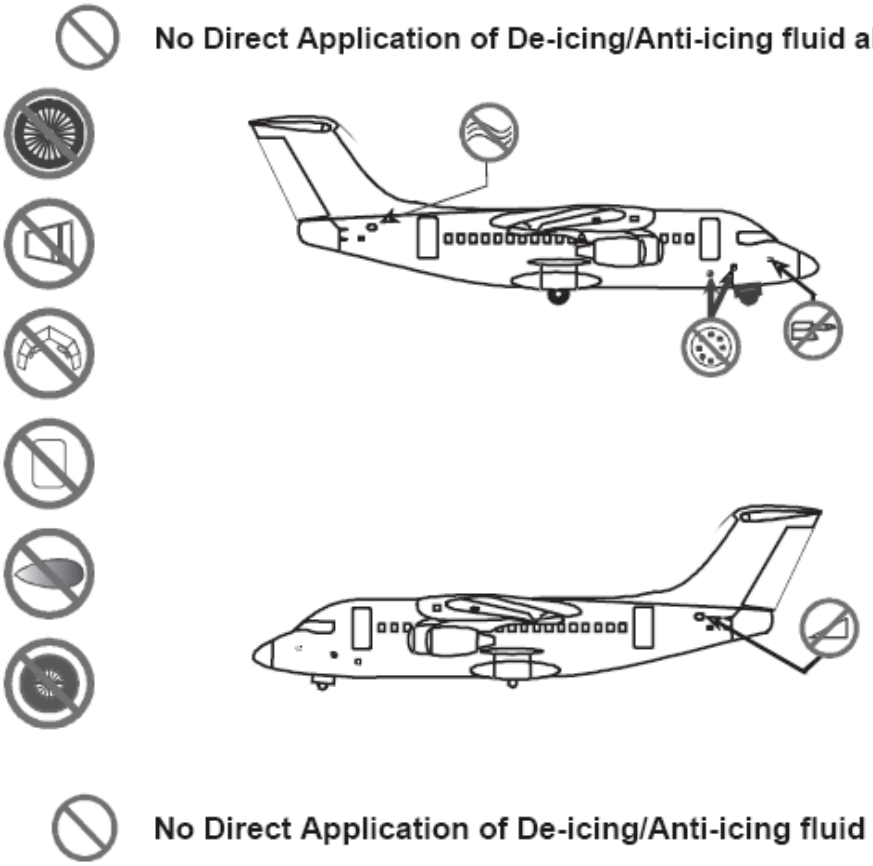


No Direct Application of De-icing/Anti-icing fluid allowed

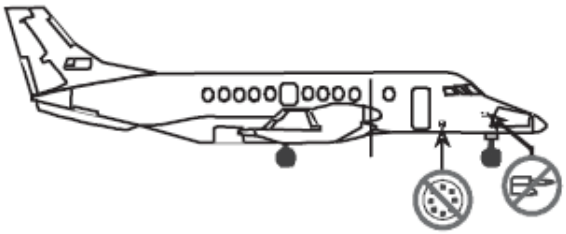
1.2.20 DH Canada DASH 8

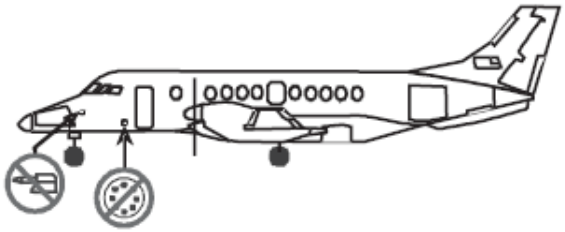


1.2.21 BAE 146



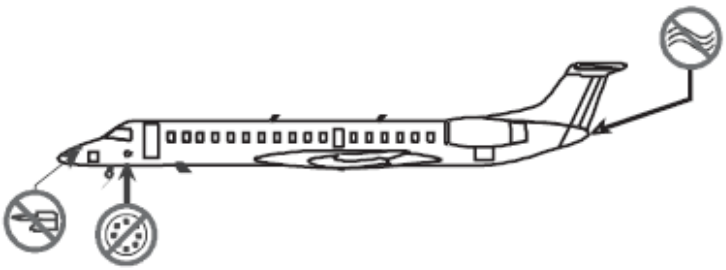
1.2.22 Jetstream 31/41





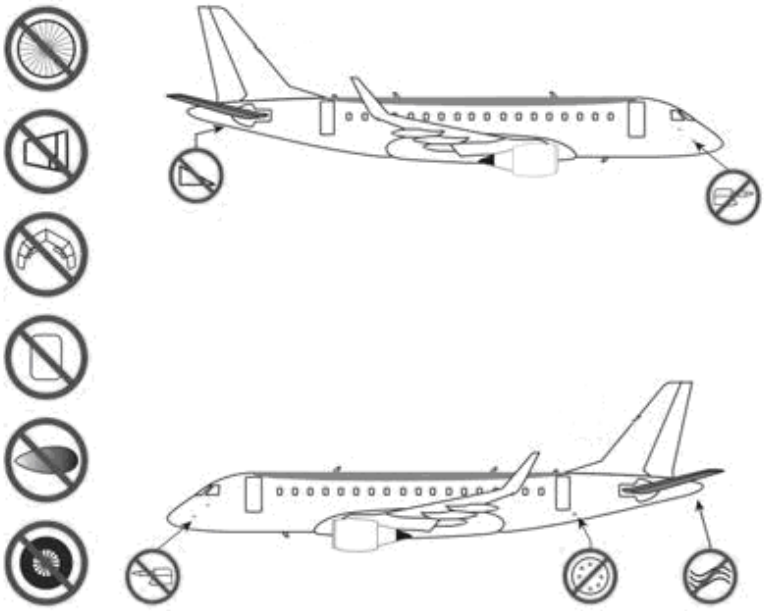
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.23 Embraer 135/145



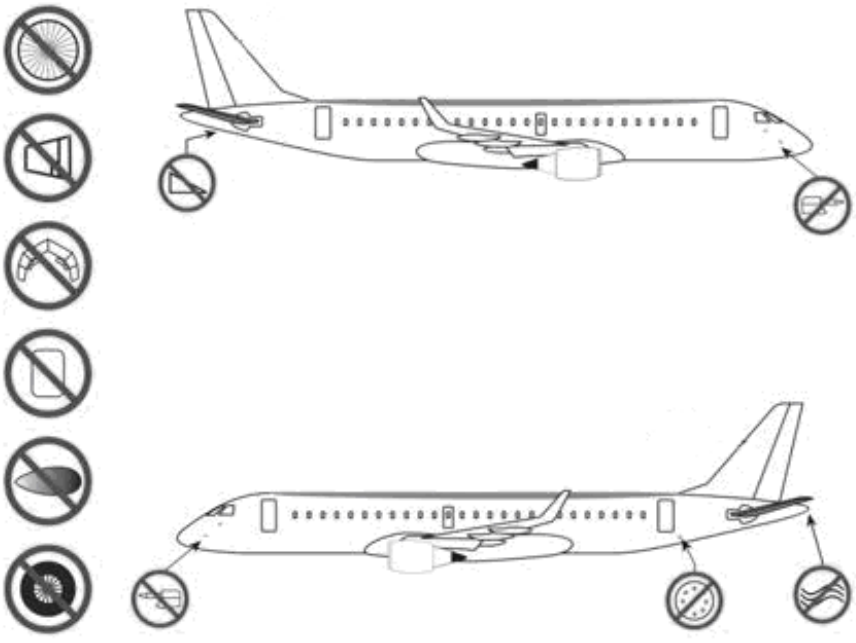
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.24 Embraer 170/175



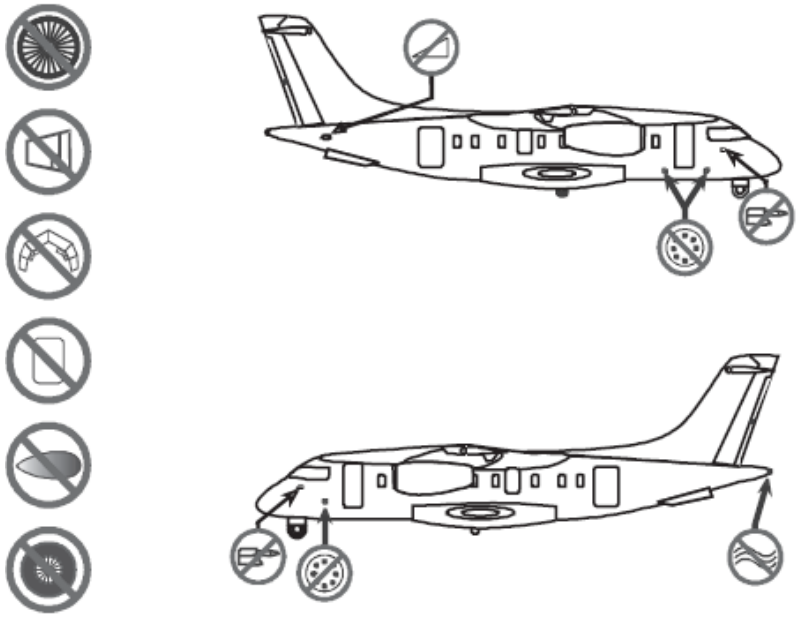
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.25 Embraer 190/195



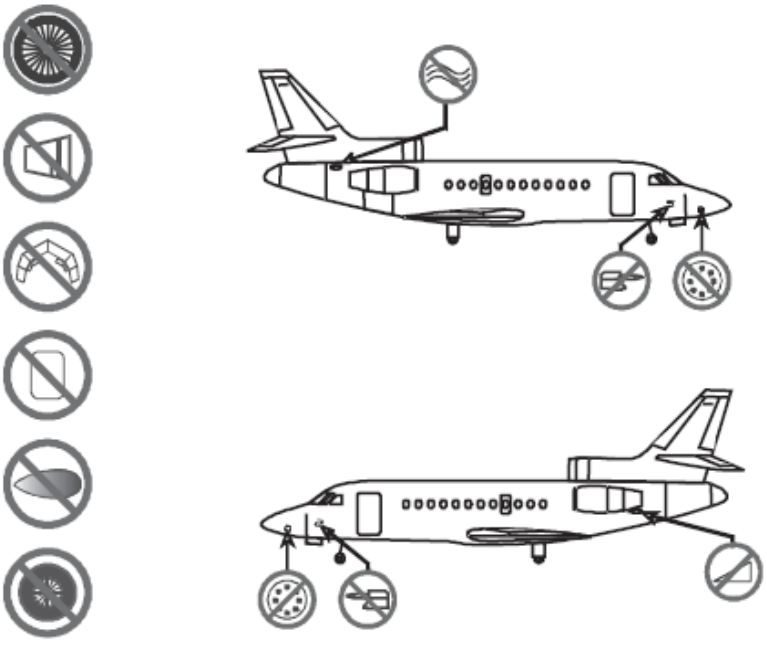
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.26 Dornier 328 JET



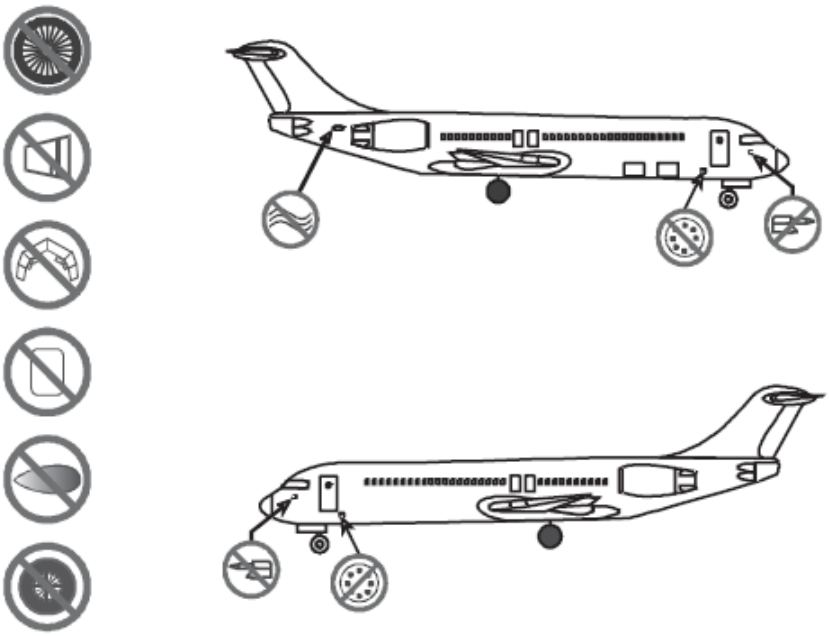
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.27 Falcon



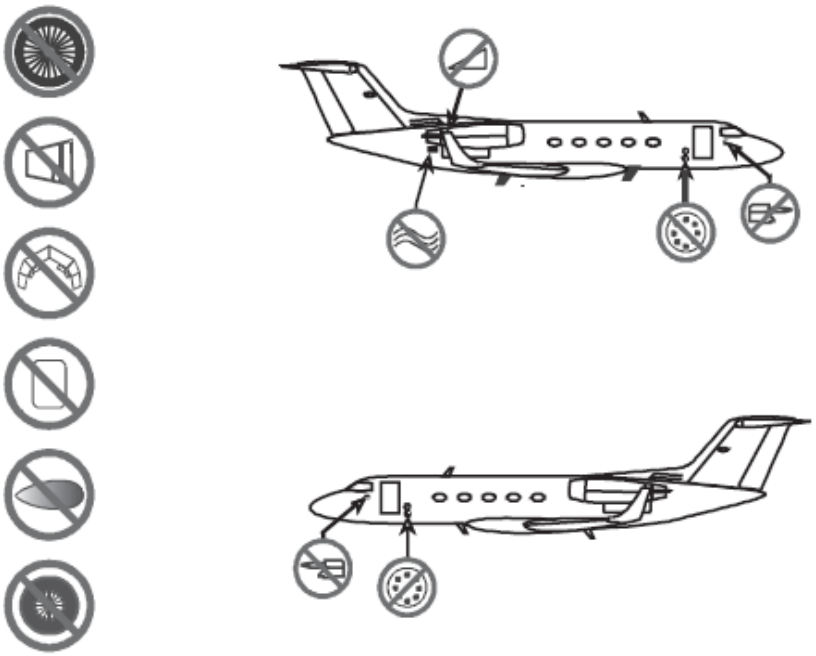
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.28 Fokker 100



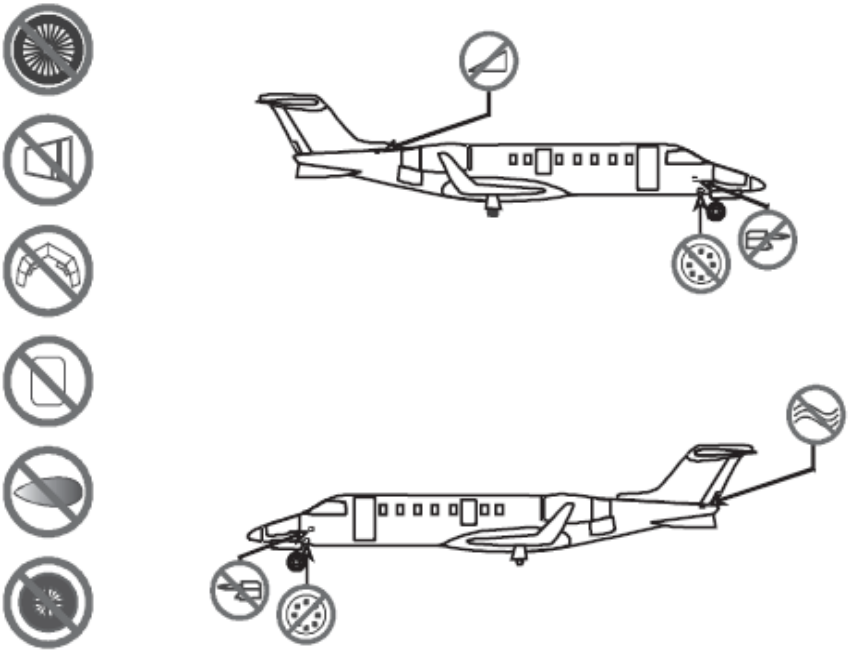
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.29 Gulfstream



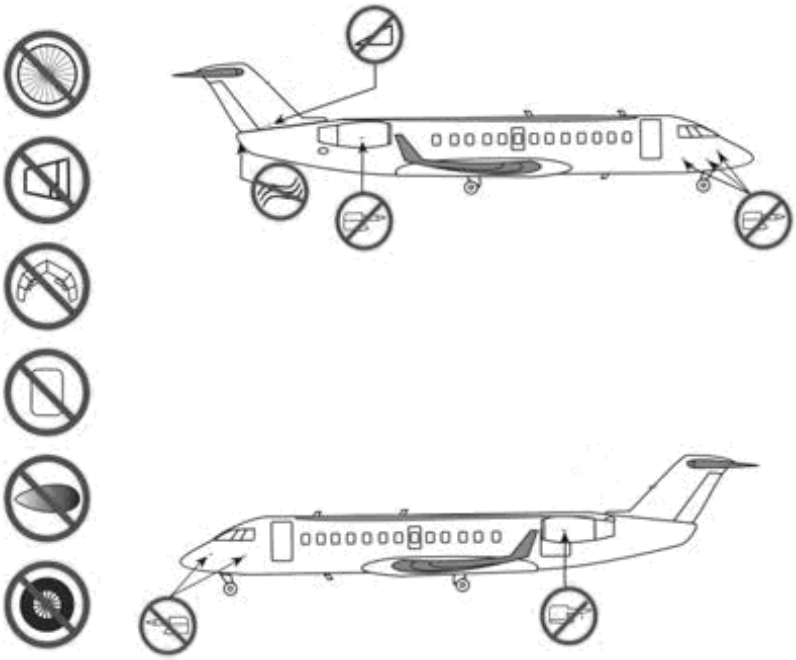
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.30 Learjet



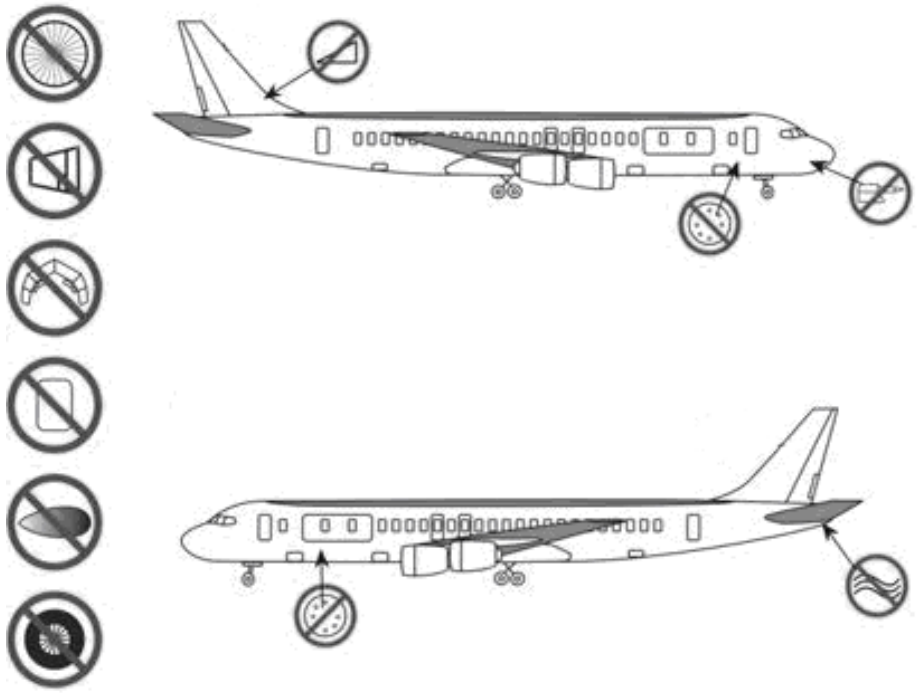
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.31 Global Express



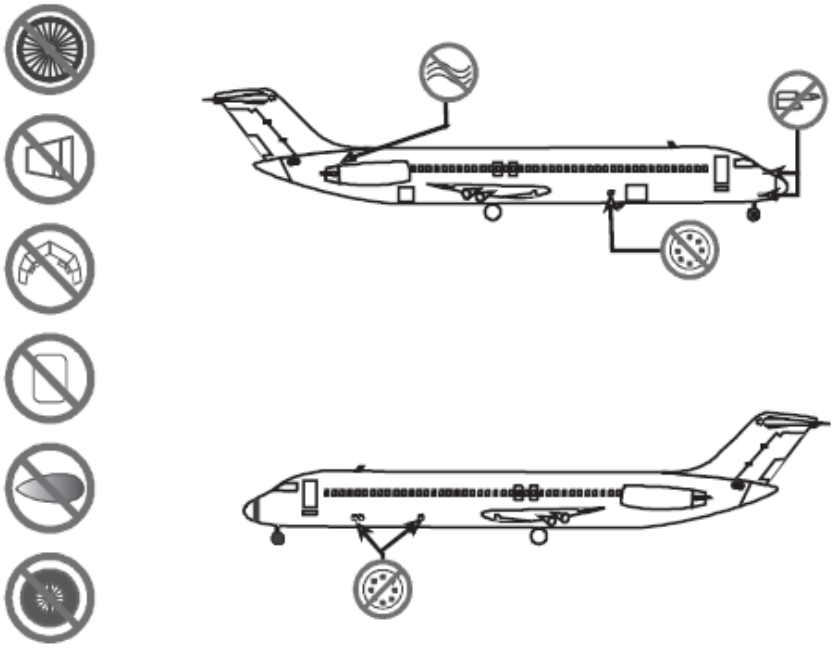
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.32 DC-8



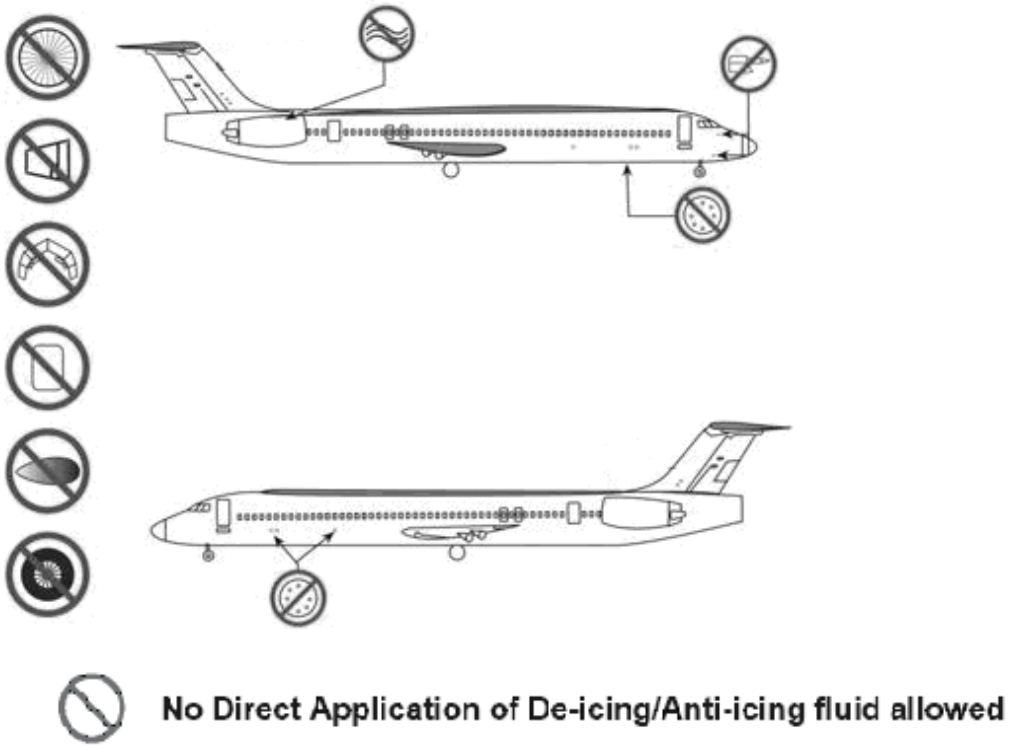
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.33 DC-9-30/40



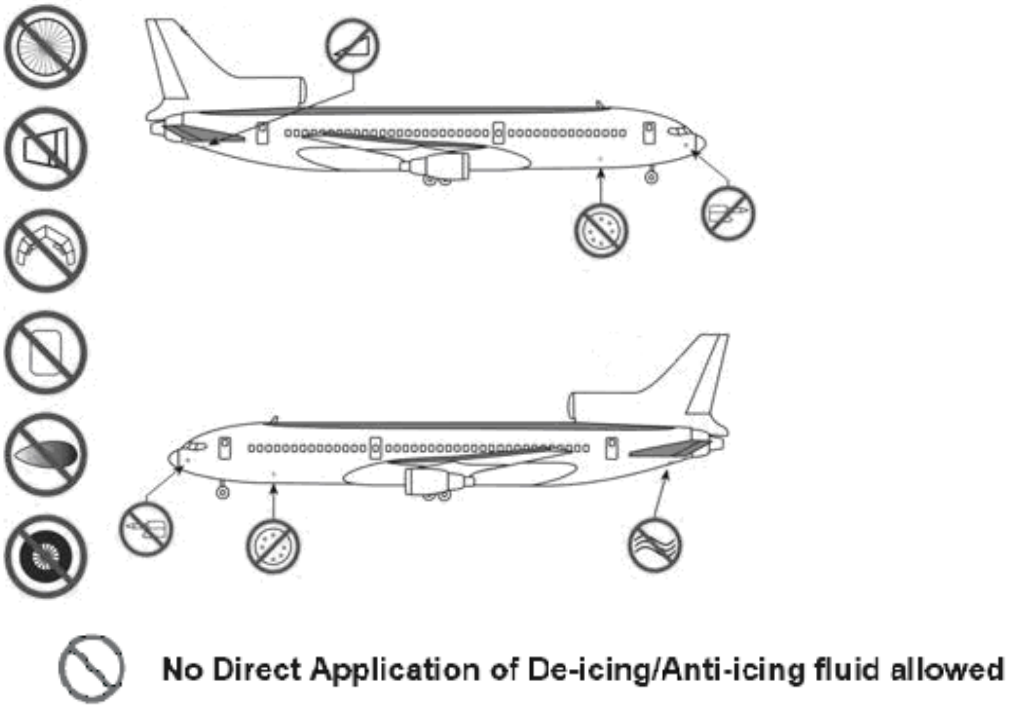
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.34 MD 80



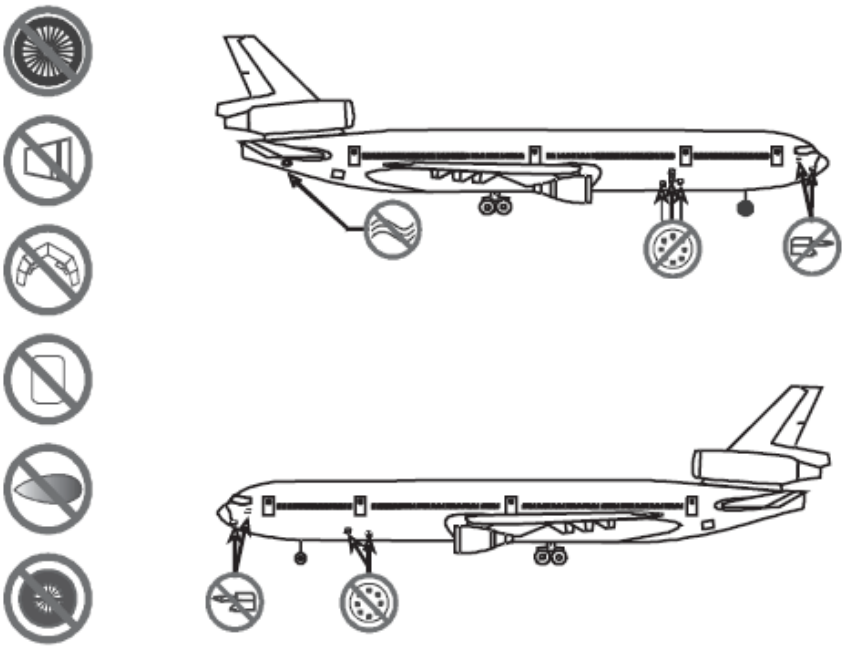
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.35 L-1011



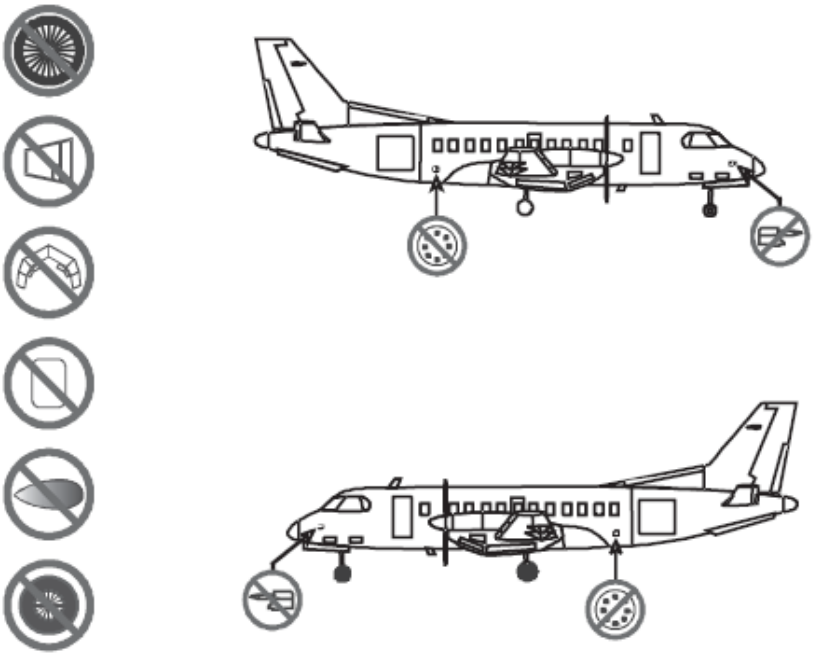
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.36 DC-10-30/40



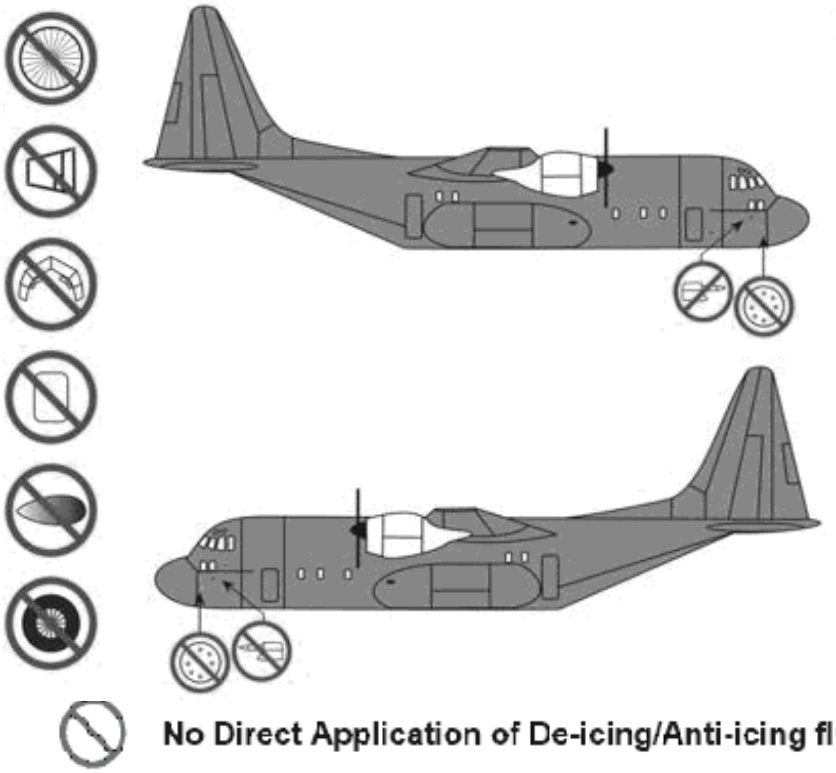
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.37 Saab SF-340



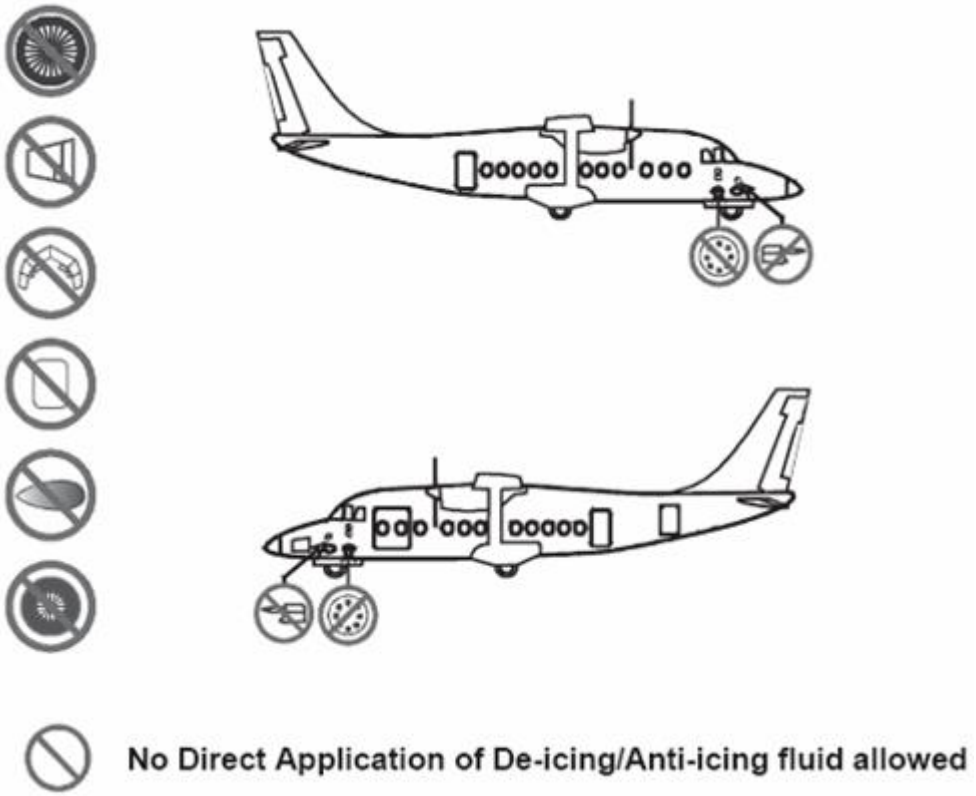
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.38 C-130 Hercules



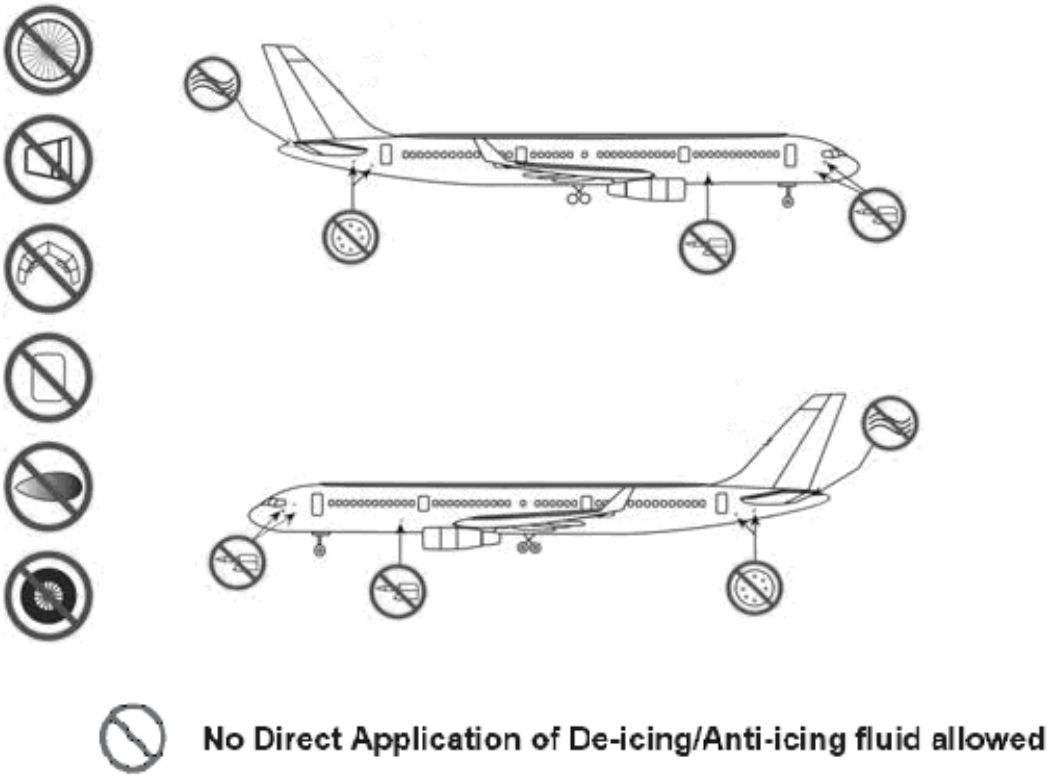
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.39 Shorts 360



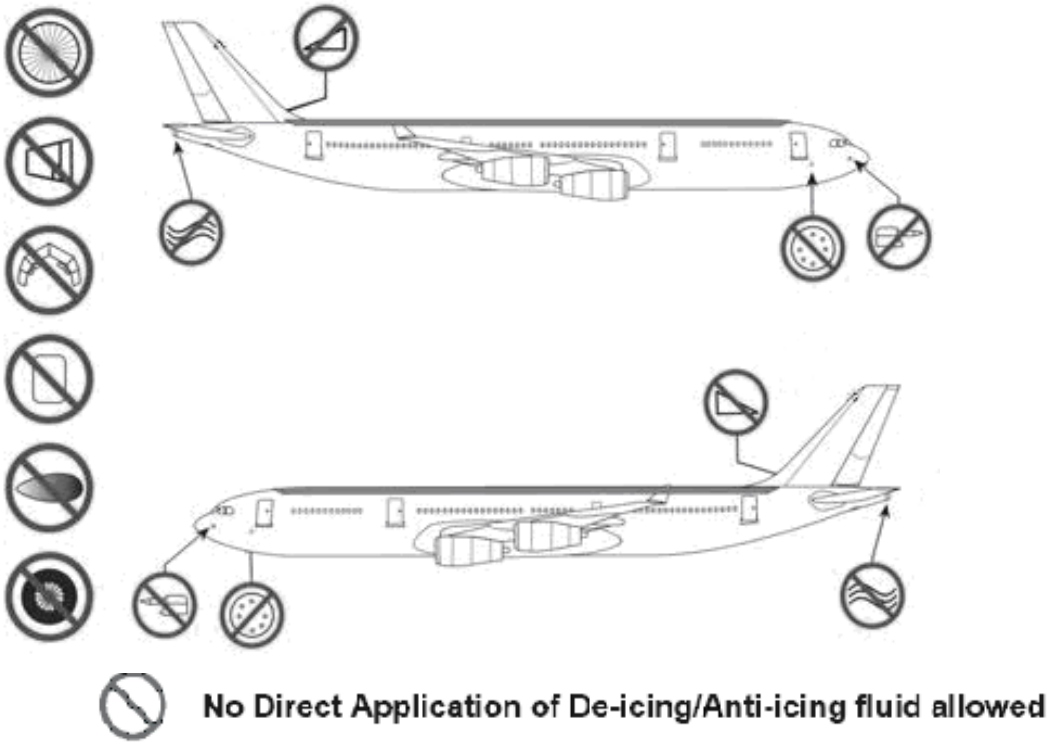
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.40 Tupolev 204



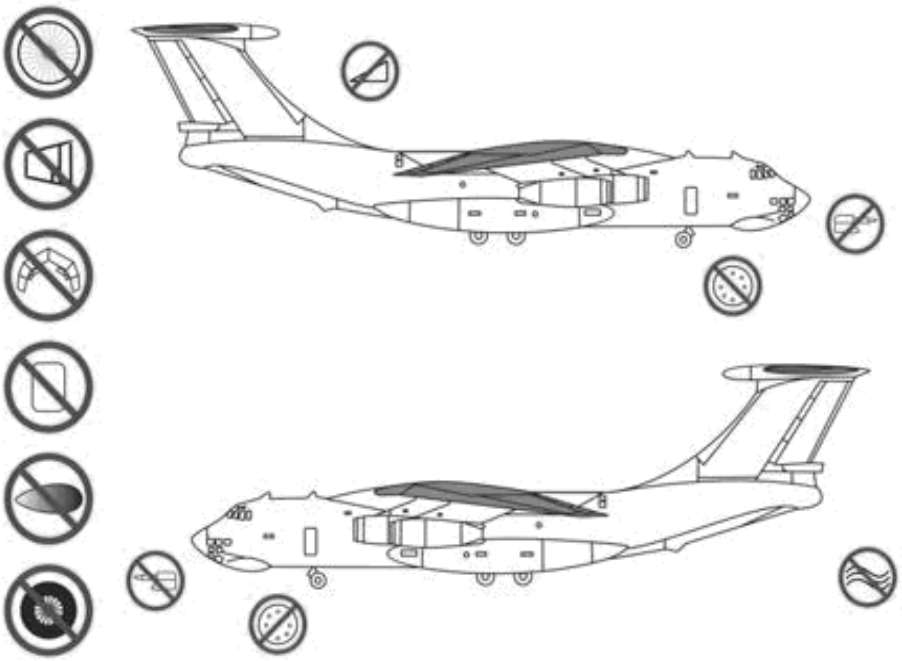
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.41 Ilyushin 96



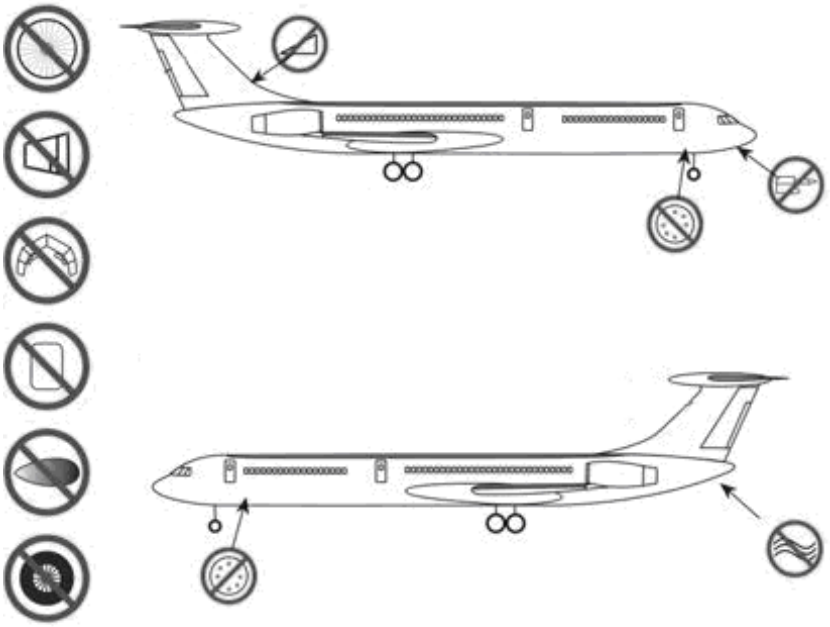
No Direct Application of De-icing/Anti-icing fluid allowed

1.2.42 Ilyushin 76



No Direct Application of De-icing/Anti-icing fluid allowed

1.2.43 Ilyushin 62



No Direct Application of De-icing/Anti-icing fluid allowed