

PROJECT TITLE:

Unlocking Insights into the Global air transportation network with Tableau

1. INTRODUCTION :

The air transport system generally includes airports, ATC (air traffic control) system, and airlines. The airports represent the ground part of the system's infrastructure handling the aircraft operated by different airlines transporting passengers and freight/cargo shipments.

1.1 Overview

Air transport is one of the fastest modes of public transport which connects international boundaries. Air transport allows people from different countries to cross international boundaries and travel other countries for personal, business, medical, and tourism purposes. Although, air transport provides the fastest means by saving the time of journey, another aspect of air transport is the facilities and comfort level of the passengers.

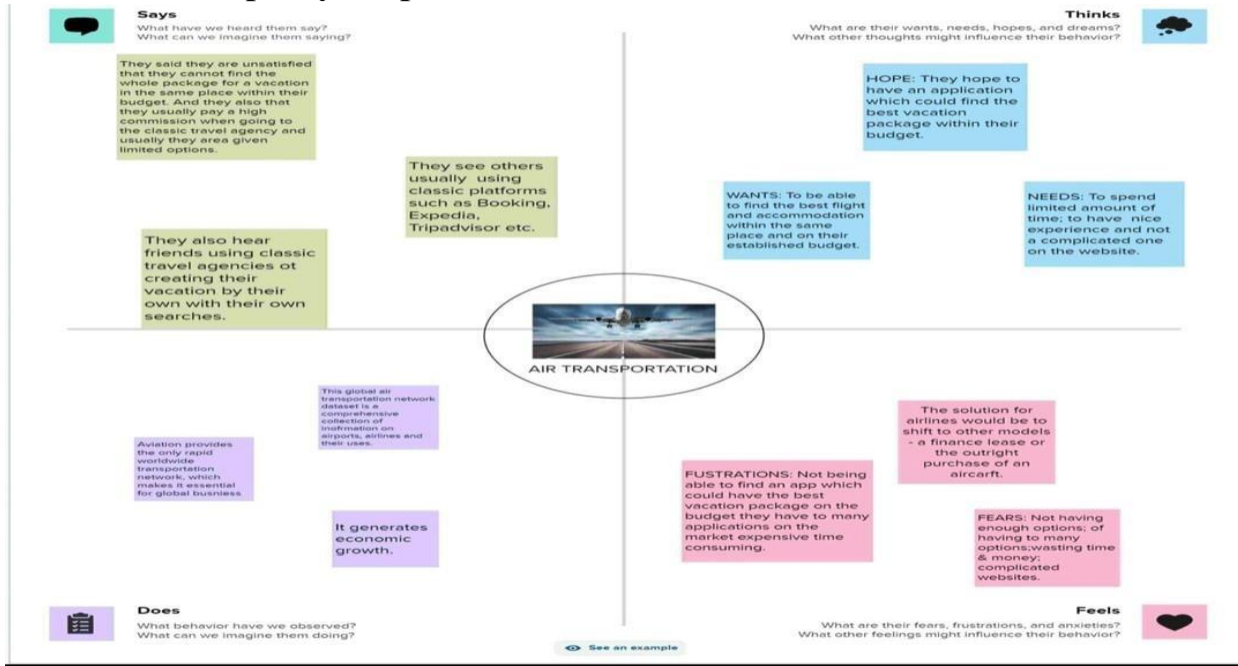
1.1 Purpose

The air transport mode is defined by four basic elements: airlines, commercial transport aircraft, the air space used for their flights, and the infrastructure required to supporting their operations, like airports and ATM (Air Traffic Management) facilities.

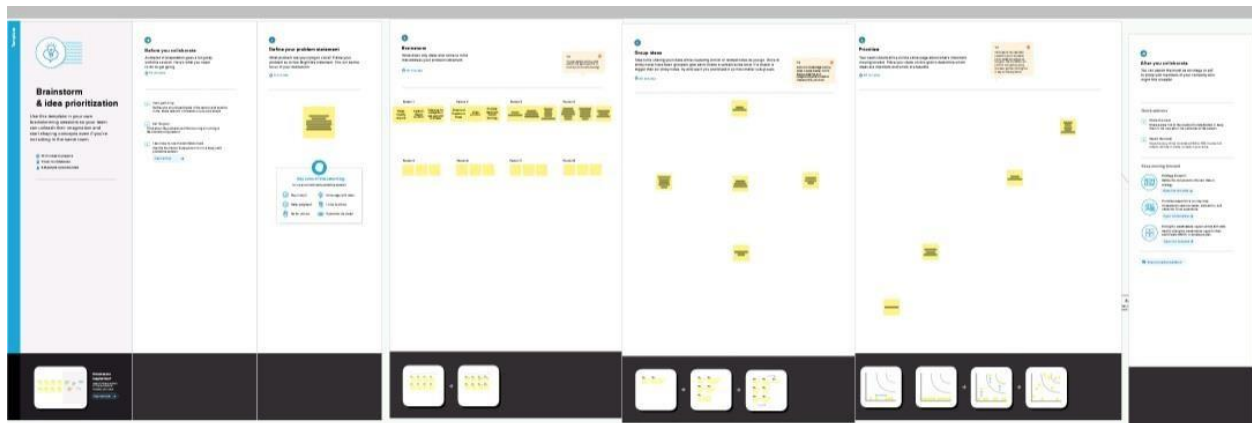
Aircraft performance has a decisive influence on the fuel consumption of a certain flight, but obviously, there are aspects in the flight depending on how they are operated by airlines and especially on the infrastructure management that may largely affect the overall flight energy efficiency. Airports, in particular, have a different energy balance and offer more chances to use alternative energy

2. PROBLEM DEFINITION & DESIGN THINKING :

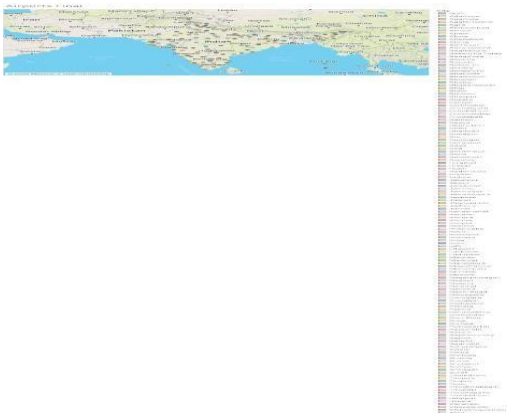
2.1 Empathy Map



2.1 Ideation & Brainstorming Map



3. RESULTS



Num-
ber
of
air-
ports

148

airports at higher altitude within a country

Index (Rout..	Name (airp..	City	ICAO (airpo..	
0	Goroka Airp..	Goroka	AYGA	5,282
1	Madang Air..	Madang	AYMD	20
2	Mount Hag..	Mount Hag..	AYMH	5,388
3	Nadzab Air..	Nadzab	AYNZ	239
4	Port Mores..	Port Mores..	APPY	146
5	Wewak Inte..	Wewak	AYWK	19
6	Narsarsuaq..	Narssarssu..	BGBW	112
7	Godthaab / ..	Godthaab	BGGH	283
8	Kangerluss..	Sondrestrom	BGSF	165
9	Thule Air B..	Thule	BGTL	251
10	Akureyri Ai..	Akureyri	BIAR	6
11	Egilsstaðir ..	Egilsstaðir	BIEG	76
12	Hornafjörð..	Hofn	BIHN	24
13	Húsavík Air..	Husavik	BIHU	48
14	Ísafjörður A..	Isafjordur	BIIS	8
15	Keflavik Int..	Keflavik	BIKF	171
16	Patreksfjör..	Patreksfjor..	BIPA	11
17	Reykjavik A..	Reykjavik	BIRK	48
18	Siglufjörðu..	Siglufjordur	BISI	10
19	Vestmanna..	Vestmanna..	BIVM	326
20	Sault Ste M..	Sault Saint..	CYAM	630
21	Winnipeg / ..	Winnipeg	CYAV	760
22	Halifax / CF..	Halifax	CYAW	144
23	St. Anthony..	St. Anthony	CYAY	108
24	Tofino / Lon..	Tofino	CYAZ	80
25	Kugaaruk A..	Pelly Bay	CYBB	56
26	Baie Comea..	Baie Comeau	CYBC	71
27	CFB Bagotv..	Bagotville	CYBG	522
28	Baker Lake ..	Baker Lake	CYBK	59
29	Campbell Ri..	Campbell Ri..	CYBL	346
30	Brandon M..	Brandon	CYBR	1,343

airports at higher altitude in the world

Name (airports.csv)	City	ICAO (airports.csv)	
Daocheng Yading Airport	Daocheng	ZUDC	14,472
Qamdo Bangda Airport	Bangda	ZUBD	14,219
Kangding Airport	Kangding	ZUKD	14,042
Ngari Gunsai Airport	Shiquanhe	ZUAL	14,022
El Alto International Airport	La Paz	SLLP	13,355
Capitan Nicolas Rojas Airport	Potosi	SLPO	12,913
Yushu Batang Airport	Yushu	ZYLS	12,816
Copacabana Airport	Copacabana	SLCC	12,591
Inca Manco Capac International Airport	Juliaca	SPJL	12,552
Golog Maqin Airport	Golog	ZLGL	12,426

Airlines within a country

Airline ID	Name	Icao
320	Air Sofia	SFB
544	Aviodetach..	BGF
647	Air Scorpio	SCU
695	Air VIA	VIM
727	AVB-2004 L..	VBC
738	Aviostart AS	VSR
991	Air Concorde	KGD
1054	Air Ban	LZP
1055	Air Lazur	LZR
1095	Air Sport	MSK
1212	Air Max	RMX
1342	Balkan Agr..	BAA
1389	BH Air	BGH
1480	Bright Avia..	BRW
1501	Bulgarian A..	BUC
1506	Bulgarian A..	BVC
1548	Bulgaria Air	LZB
2258	Eurosense	EBG
2701	Heli Air Ser..	HLR
2751	Hemus Air	HMS
2871	Inter Air	ITW
2915	Intersky	IKY
4155	Rebus	REB
4818	Skorpion Air	SPN
5327	Vega Airlines	VEA
5358	Viaggio Air	VOA
5379	Vointeh	VTV
5462	Wizz Air Hu..	WVL

Country

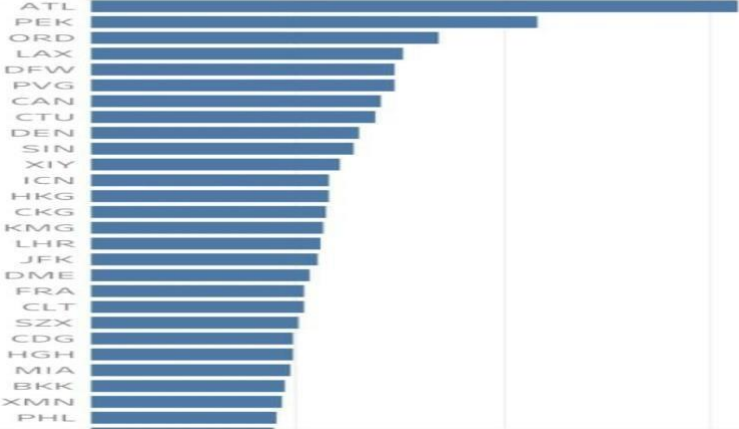
Bulgaria

Active

- N
- Y

number of flights from airport

Source airp..



Country (airports.csv)
India

Airports Final



City

Null	Agatti Island	Aizwal
Adampur	Agra	Ajmer
Aqartala	Ahmedabad	Akola

Country (airports.csv)
India

Number of airports

Country
Bulgaria

Airlines within a country

Airline ID	Name	Icao	Callsign
AA	American Airlines	AA	AMERICAN
DL	Delta Air Lines	DL	DELTA
UA	United Airlines	UA	UNITED
WN	Southwest Airlines	WN	SOUTHWEST
B6	JetBlue Airways	B6	JETBLUE
NK	Norwegian Air Shuttle	NK	NORWEGIAN
AS	Alaska Airlines	AS	ALASKA
HA	Hawaiian Airlines	HA	HAWAIIAN
AL	Allegiant Air	AL	ALLEGANT
44	Allegiant Air	44	ALLEGANT
...

Active

☒ N

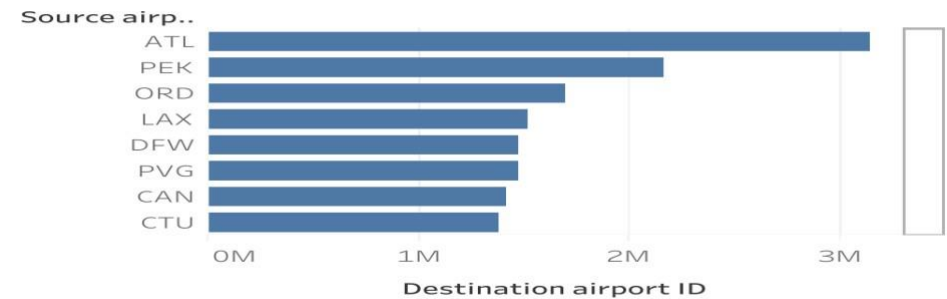
☐ Y

Name (airports.csv)	City
Daocheng Yading Airport	Daocheng
Qamdo Bangda Airport	Bangda
Kangding Airport	Kangding
Ngari Gunsa Airport	Shiquanhe
El Alto International Airport	La Paz
Capitan Nicolas Rojas Airport	Potosi
Yushu Batang Airport	Yushu
Copacabana Airport	Copacabana
Inca Manco Capac Internation..	Juliaca
Golog Maqin Airport	Golog

Airlines within a country

Airline ID	Name	Icao	Callsign
CC	China	CCA	CA
3U	United	CCC	UNITED
9M	Malaysia	MDM	MALAYSIAN
QZ	Qatar	QTR	QATAR
6E	Emirates	ETB	EMIRATES
AE	Etihad	ETD	ETIHAD
AG	Agustine	AGT	AGUSTINE
AF	Afghanistan	AFI	AFGHAN
AI	Algeria	AIJ	ALGERIA
AK	Azerbaijan	AKH	AZERBAIJAN
AL	Albania	ALB	ALBANIA
AM	Armenia	AMM	ARMENIA
AN	Andorra	AND	ANDORRA
AO	Angola	AOA	ANGOLA
AP	Armenia	APM	ARMENIA
AQ	Antigua	AQA	ANTIGUA
AR	Argentina	ARL	ARGENTINA
AS	Alaska	ASA	ALASKA
AT	Austria	ATD	AUSTRIA
AV	Australia	AVI	AUSTRALIA
AX	Azerbaijan	AXI	AZERBAIJAN
AY	Armenia	AYM	ARMENIA
AZ	Azerbaijan	AZI	AZERBAIJAN
BA	Bahrain	BAL	BAHRAIN
BB	Bahamas	BBM	BAHAMAS
BC	Belize	BCB	BERLIZ
BD	Bangladesh	BDB	BANGLADESH
BE	Belgium	BEA	BELGIUM
BF	Burkina Faso	BFB	BURKINA FASO
BG	Bulgaria	BGA	BULGARIA
BH	Bahrain	BHL	BAHRAIN
BI	Benin	BIB	BENIN
BJ	Benin	BJB	BENIN
BK	Belize	BKB	BERLIZ
BL	Bolivia	BLI	BOLIVIA
BM	Bermuda	BMB	BERMUDA
BN	Brunei	BNB	BRUNEI
BO	Bolivia	BOA	BOLIVIA
BP	Bahamas	BPA	BAHAMAS
BQ	Bonaire	BQA	BONAIRE
BR	Brazil	BRJ	BRAZIL
BS	Bahamas	BSA	BAHAMAS
BT	Botswana	BTB	BOTSWANA
BV	Bahamas	BVA	BAHAMAS
BW	Botswana	BWB	BOTSWANA
BX	Bahamas	BXA	BAHAMAS
BY	Belarus	BYB	BYELORUSSIA
BZ	Belize	BZB	BERLIZ
CA	Canada	CAJ	CANADA
CB	Cambodia	CBM	CAMBODIA
CC	Cape Verde	CCV	CAPE VERDE
CD	Congo	CDI	CONGO
CE	Czech Republic	CEJ	CZECH REPUBLIC
CF	Cuba	CFM	CUBA
CG	Congo	CGI	CONGO
CH	Chad	CHD	CHAD
CI	Cote d'Ivoire	CIC	COTE D'IVOIRE
CJ	Canada	CJA	CANADA
CK	Cape Verde	CKV	CAPE VERDE
CL	Chile	CLA	CHILE
CM	Cameroon	CMR	CAMEROON
CN	China	CNA	CHINA
CO	Colombia	COB	COLOMBIA
CP	Costa Rica	CPM	COSTA RICA
CQ	Czech Republic	CQJ	CZECH REPUBLIC
CR	Costa Rica	CRM	COSTA RICA
CS	Croatia	CSJ	CROATIA
CT	Cuba	CTM	CUBA
CU	Cuba	CUJ	CUBA
CV	Cape Verde	CVV	CAPE VERDE
CW	Cyprus	CWJ	CYPRUS
CX	China	CXA	CHINA
CY	Cyprus	CYJ	CYPRUS
CZ	China	CZA	CHINA
DA	Dominican Republic	DAJ	DOMINICAN REPUBLIC
DB	Dominican Republic	DBM	DOMINICAN REPUBLIC
DC	Dominican Republic	DCJ	DOMINICAN REPUBLIC
DD	Dominican Republic	DDM	DOMINICAN REPUBLIC
DE	Germany	DEJ	GERMANY
DF	Dominican Republic	DFM	DOMINICAN REPUBLIC
DG	Dominican Republic	DGJ	DOMINICAN REPUBLIC
DH	Dominican Republic	DHM	DOMINICAN REPUBLIC
DI	Dominican Republic	DIJ	DOMINICAN REPUBLIC
DJ	Dominican Republic	DJM	DOMINICAN REPUBLIC
DK	Denmark	DKJ	DENMARK
DL	Delta	DLA	DELTA
DM	Dominican Republic	DMJ	DOMINICAN REPUBLIC
DN	Dominican Republic	DNM	DOMINICAN REPUBLIC
DO	Dominican Republic	DOJ	DOMINICAN REPUBLIC
DP	Dominican Republic	DPM	DOMINICAN REPUBLIC
DQ	Dominican Republic	DQJ	DOMINICAN REPUBLIC
DR	Dominican Republic	DRM	DOMINICAN REPUBLIC
DS	Dominican Republic	DSJ	DOMINICAN REPUBLIC
DT	Dominican Republic	DTM	DOMINICAN REPUBLIC
DU	Dominican Republic	DUJ	DOMINICAN REPUBLIC
DV	Dominican Republic	DVM	DOMINICAN REPUBLIC
DW	Dominican Republic	DWJ	DOMINICAN REPUBLIC
DX	Dominican Republic	DXM	DOMINICAN REPUBLIC
DY	Dominican Republic	DYJ	DOMINICAN REPUBLIC
DZ	Dominican Republic	DZM	DOMINICAN REPUBLIC
EA	Egypt	EAJ	EGYPT
EB	Egypt	EBJ	EGYPT
EC	Ecuador	ECJ	ECUADOR
ED	Ecuador	EDM	ECUADOR
EE	Ecuador	EEJ	ECUADOR
EF	Ecuador	EFM	ECUADOR
EG	Egypt	EGJ	EGYPT
EH	Egypt	EHJ	EGYPT
EI	Irish	EIJ	IRISH
EJ	Egypt	EJG	EGYPT
EK	Emirates	EKA	EMIRATES
EL	Egypt	ELJ	EGYPT
EN	Egypt	ENJ	EGYPT
EO	Egypt	EOJ	EGYPT
EP	Egypt	EPJ	EGYPT
EQ	Egypt	EQJ	EGYPT
ER	Egypt	ERJ	EGYPT
ES	Egypt	ESJ	EGYPT
ET	Emirates	ETB	EMIRATES
EU	Egypt	EUJ	EGYPT
EV	Egypt	EVJ	EGYPT
EW	Emirates	EWB	EMIRATES
EX	Egypt	EXJ	EGYPT
EY	Emirates	EYA	EMIRATES
EZ	Egypt	EZJ	EGYPT
FA	Fiji	FAJ	FIJI
FB	Fiji	FBJ	FIJI
FC	Fiji	FCJ	FIJI
FD	Fiji	FDJ	FIJI
FE	Fiji	FEJ	FIJI
FF	Fiji	FFJ	FIJI
FG	Fiji	FGJ	FIJI
FH	Fiji	FHJ	FIJI
FI	Fiji	FIJ	FIJI
FJ	Fiji	FJJ	FIJI
FK	Fiji	FKJ	FIJI
FL	Fiji	FLJ	FIJI
FM	Fiji	FMJ	FIJI
FN	Fiji	FNJ	FIJI
FO	Fiji	FOJ	FIJI
FP	Fiji	FPJ	FIJI
FQ	Fiji	FQJ	FIJI
FR	Fiji	FRJ	FIJI
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FW	Fiji	FWJ	FIJI
FX	Fiji	FXJ	FIJI
FY	Fiji	FYJ	FIJI
FZ	Fiji	FZJ	FIJI
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GI	Ghana	GIJ	GHANA
GJ	Ghana	GJJ	GHANA
GK	Ghana	GKJ	GHANA
GL	Ghana	GLJ	GHANA
GM	Ghana	GMJ	GHANA
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GO	Ghana	GOJ	GHANA
GP	Ghana	GPJ	GHANA
GQ	Ghana	GQJ	GHANA
GR	Ghana	GRJ	GHANA
GS	Ghana	GSJ	GHANA
GT	Ghana	GTJ	GHANA
GU	Ghana	GUJ	GHANA
GV	Ghana	GVJ	GHANA
GW	Ghana	GWJ	GHANA
GX	Ghana	GXJ	GHANA
GY	Ghana	GYJ	GHANA
GZ	Ghana	GZJ	GHANA
HA	Haiti	HAJ	HAITI
HB	Haiti	HBJ	HAITI
HC	Haiti	HCJ	HAITI
HD	Haiti	HDJ	HAITI
HE	Haiti	HEJ	HAITI
HF	Haiti	HFJ	HAITI
HG	Haiti	HGJ	HAITI
HH	Haiti	HHJ	HAITI
HI	Haiti	HIJ	HAITI
HJ	Haiti	HJJ	HAITI
HK	Haiti	HKJ	HAITI
HL	Haiti	HLJ	HAITI
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JR	Japan	JRJ	JAPAN
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JZ	Japan	JZJ	JAPAN
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KZ	Korea	KZJ	KOREA
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LB	Laos	LBJ	LAOS
LC	Laos	LCJ	LAOS
LD	Laos	LDJ	LAOS
LE	Laos	LEJ	LAOS
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LZ	Laos	LZJ	LAOS
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ME	Malaysia	MEJ	MALAYSIAN
MF	Malaysia	MFJ	MALAYSIAN
MG	Malaysia	MGJ	MALAYSIAN
MH	Malaysia	MHJ	MALAYSIAN
MI	Malaysia	MIJ	MALAYSIAN
MJ	Malaysia	MJJ	MALAYSIAN
MK	Malaysia	MKJ	MALAYSIAN
ML	Malaysia	MLJ	MALAYSIAN
MM	Malaysia	MMJ	MALAYSIAN
MN	Malaysia	MNJ	MALAYSIAN
MO	Malaysia	MOJ	MALAYSIAN
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MQ	Malaysia	MQJ	MALAYSIAN
MR	Malaysia	MRJ	MALAYSIAN
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MT	Malaysia	MTJ	MALAYSIAN
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MW	Malaysia	MWJ	MALAYSIAN
MX	Malaysia	MXJ	MALAYSIAN
MY	Malaysia	MYJ	MALAYSIAN
MZ	Malaysia	MZJ	MALAYSIAN
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NJ	Nicaragua	NJJ	NICARAGUA
NK	Nicaragua	NKJ	NICARAGUA
NL	Nicaragua	NLJ	NICARAGUA
NM	Nicaragua	NMJ	NICARAGUA
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NQ	Nicaragua	NQJ	NICARAGUA
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NS	Nicaragua	NSJ	NICARAGUA
NT	Nicaragua	NTJ	NICARAGUA
NU	Nicaragua	NUJ	NICARAGUA
NV	Nicaragua	NVJ	NICARAGUA
NW	Nicaragua	NWJ	NICARAGUA
NX	Nicaragua	NXJ	NICARAGUA
NY	Nicaragua	NYJ	NICARAGUA
NZ	Nicaragua	NZJ	NICARAGUA
OA	Oman	OAJ	OMAN
OB	Oman	OBJ	OMAN
OC	Oman	OCJ	OMAN
OD	Oman	ODJ	OMAN
OE	Oman	OEJ	OMAN
OF	Oman	OFJ	OMAN
OG	Oman	OGJ	OMAN
OH	Oman	OHJ	OMAN
OI	Oman	OIJ	OMAN
OJ	Oman	OJJ	OMAN
OK	Oman	OKJ	OMAN
OL	Oman	OLJ	OMAN
OM	Oman	OMJ	OMAN
ON	Oman	ONJ	OMAN
OO	Oman	OOJ	OMAN
OP	Oman	OPJ	OMAN
OQ	Oman	OQJ	OMAN
OR	Oman	ORJ	OMAN
OS	Oman	OSJ	OMAN
OT	Oman	OTJ	OMAN
OU	Oman	OUJ	OMAN
OV	Oman	OVJ	OMAN
OW	Oman	OWJ	OMAN
OX	Oman	OXJ	OMAN
OY	Oman	OYJ	OMAN
OZ	Oman	OZJ	OMAN
PA	Pakistan	PAJ	PAKISTAN
PB	Pakistan	PBJ	PAKISTAN
PC	Pakistan	PCJ	PAKISTAN
PD	Pakistan	PDJ	PAKISTAN
PE	Pakistan	PEJ	PAKISTAN
PF	Pakistan	PFJ	PAKISTAN
PG	Pakistan	PGJ	PAKISTAN
PH	Pakistan	PHJ	PAKISTAN
PI	Pakistan	PIJ	PAKISTAN
PJ	Pakistan	PJJ	PAKISTAN
PK	Pakistan	PKJ	PAKISTAN
PL	Pakistan	PLJ	

number of flights from airport



Number of airports

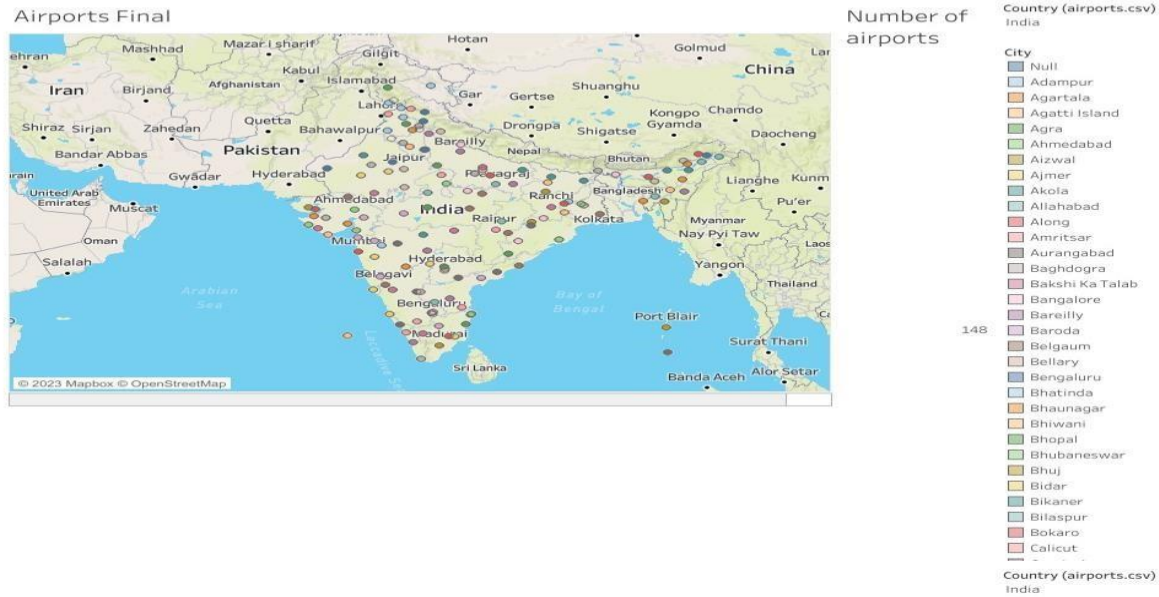
Global Air Transportation Network

World Map Showing Countries with details of Airports

Table Showing Airports which are at Higher Altitude in the world and within the Country

Table Showing List of All Airlines within the Country

Bar Graph Showing Countries with No. of Airports & No. of Flights from Airports



Global Air Transportation Network

World Map Showing Countries with details of Airports

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Bar Graph Showing Countries with No. of Airports & No. of Flights from Airports

airports at higher altitude in the world

Name (airports.csv)	City	ICAO (airp
Daocheng Yading Airport	Daocheng	ZUDC
Qamdo Bangda Airport	Bangda	ZUBD
Kangding Airport	Kangding	ZUKD
Ngari Gunsa Airport	Shiquanhe	ZUAL
El Alto International Airport	La Paz	SLLP
Capitan Nicolas Rojas Airport	Potosi	SLPO
Yushu Batang Airport	Yushu	ZYLS
Copacabana Airport	Copacabana	SLCC
Inca Manco Capac International Airport	Juliaca	SPJL
Golog Maqin Airport	Golog	ZLGL

Airlines within a country

Airline ID	Name	Icao	Callsign
320	Air Sofia	SFB	AIS SOFIA
544	Aviodeltech	BGR	BULGARIAN
647	Air Scorpia	SCU	SCORPIO U..
695	Air VIA	VIM	NULL
727	AVB-2004 L.	VBC	AIR VICTOR
738	Aviostart AS	VSR	AVIOSTART
991	Air Concorde	KGD	CONCORDE
1054	Air Ban	LZP	DOCAIR
1055	Air Lazur	LZR	LAZUR BEE
1095	Air Sport	MSK	AIR SPORT
1212	Air Max	RMX	ABROMAX
1342	Balkan Agr.	BAA	BALKAN AG.
1389	BH Air	BGH	BALKAN HO.
1480	Bright Avia.	BRW	BRIGHT SE.
1501	Bulgarian A.	BUC	BULGARIAN
1506	Bulgarian A.	BVC	BULGARIAN
1548	Bulgaria Air	LZB	FLYING BUL
2258	Eurosense	EBG	EUROSENSE
2701	Heli Air Ser.	HLR	HELI BULGA
2751	Hemus Air	HMS	HEMUS AIR
2871	Inter Air	ITW	INTER WIN
2915	Intersky	IKY	GENERALS
4155	Rebus	REB	REBUS
4818	Skorpion Air	SPN	AIR SKORPIO
5327	Vega Airlines	VEA	VEGA AIRLI
5358	Viaggio Air	VOA	VIAGGIO
5379	Vointeh	VTV	VOINTEH
5462	Wizz Air Hu.	WVL	WIZZBUL

Country
Bulgaria

Active

N

Y

Global Air Transportation Network

World Map Showing Countries with details of Airports

Table Showing Airports which are at Higher Altitude in the world and within the Country

Table Showing List of All Airlines within the Country

Bar Graph Showing Countries with No. of Airports & No. of Flights from Airports

Airlines within a country

Airline ID	Name	Icao	Callsign	
320	Air Sofia	SFB	AIR SOFIA	
544	Aviodetachment-28	BGF	BULGARIAN	
647	Air Scorpio	SCU	SCORPIO UNIVERS	
695	Air VIA	VIM	Null	
727	AVB-2004 Ltd	VBC	AIR VICTOR	
738	Aviostart AS	VSR	AVIOSTART	
991	Air Concorde	KGD	CONCORDE AIR	
1054	Air Ban	LZP	DOCAIR	
1055	Air Lazur	LZR	LAZUR BEE-GEE	
1095	Air Sport	MSK	AIR SPORT	
1212	Air Max	RMX	AEROMAX	
1342	Balkan Agro Aviation	BAA	BALKAN AGRO	
1389	BH Air	BGH	BALKAN HOLIDAYS	
1480	Bright Aviation Services	BRW	BRIGHT SERVICES	
1501	Bulgarian Air Charter	BUC	BULGARIAN CHARTER	
1506	Bulgarian Aeronautical Co.	BVC	BULGARIAN WINGS	
1548	Bulgaria Air	LZB	FLYING BULGARIA	
2258	Eurosense	EBG	EUROSENSE	
2701	Heli Air Services	HLR	HELI BULGARIA	
2751	Hemus Air	HMS	HEMUS AIR	
2871	Inter Air	ITW	INTER WINGS	
2915	Intersky	IKY	GENERAL SKY	
4155	Rebus	REB	REBUS	
4818	Skorpion Air	SPN	AIR SKORPIO	
5327	Vega Airlines	VEA	VEGA AIRLINES	
5358	Viaggio Air	VOA	VIAGGIO	
5379	Vointeh	VTV	VOINTEH	
5462	Wizz Air Hungary	WVL	WIZZBUL	

Country
Bulgaria

Active
N
Y

Global Air Transportation Network

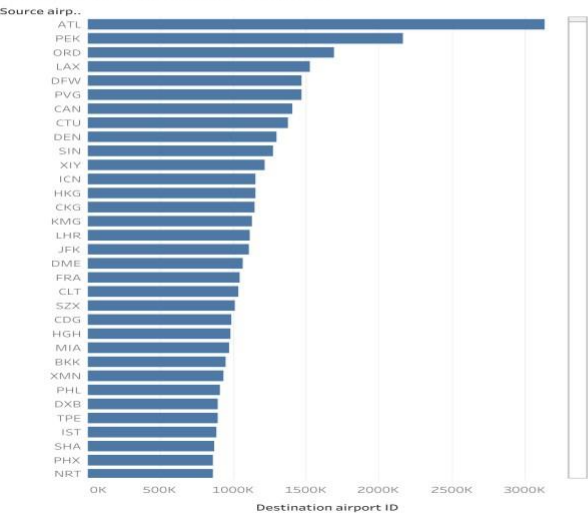
World Map Showing Countries with details of Airports

Table Showing Airports which are at Higher Altitude in the world and within the Country

Table Showing List of All Airlines within the Country

Bar Graph Showing Countries with No. of Airports & No. of Flights from Airports

number of flights from airport



Number of airports

Country (airports.csv)
India

148

4. ADVANTAGES & DISADVANTAGES

Advantages

Fast delivery times

Undoubtedly, one of the most advantageous features offered by air transport is its **speedy delivery times**.

There is no faster transport service than air transport. In addition, the frequency of flights makes delivery times very frequent and fast.

No physical limits

Air transport is the only means of transportation that **does not support physical limits**. Road transport, for example, must undergo different physical constraints that slow down delivery times.

It is one of the means of transportation that offers practically no interruption in its services, which is very attractive for companies.

Very reliable transportation

One of the great advantages of air transport for both passengers and goods is its great **reliability**.

Delays in delivery dates or loss of goods are options that can be very difficult to achieve with this means of transport.

Long Distances

No other means of transport in the logistics sector can **cover such long distances** as air transport. This is a **great advantage for international trade**, being able to cover long distances, impossible for road or sea transport.

Disadvantages

Higher Cost

There is no doubt that air transport is the least economical means of transportation compared to other types of transport.

The cost of infrastructure, fuel... makes air transport economically superior to other alternatives.

It is important to know how to analyze and calculate the economic and logistical performance to know if it is the ideal option to be used.

Less storage capacity

Storage capacity is lower than land and sea transport. This is a clear disadvantage, air transport is ideal for medium or low loads, but is not so attractive for large volumes

Restrictions on goods

Air transport, due to its specific characteristics, cannot carry certain products or goods. It suffers from certain restrictions, especially in liquid products such as petroleum, oils, etc...

5. APPLICATIONS:

The significance of airways multiplies during war time situation and disaster management, natural calamities.

The cargo (freight) services are based mainly on aviation sector.

Airway is the index of modernity of a region.

Air ways are free gift of nature and no capital is spent in their construction or maintenance

Aviation sector provides employment to 7 million people directly and indirectly.

6. CONCLUSION

The air transport industry is not only a vital engine of global socio-economic growth but is also of vital importance as a catalyst for economic development in most countries and for many regions within each country. Its importance arises not only from its ability to facilitate the movement of people but also its ability to expedite the movement of goods. Currently, rising operating costs, stoked by the high price of aviation fuel combined with slowing or even negative demand growth, will lead to dramatic restructuring of the airline industry and the collapse of many airlines especially smaller ones. Reduced access to air services for both passengers and freight may put many communities at a disadvantage.

7. FUTURE SCOPE :

Engines and aircraft become lighter, quieter and more efficient. Emerging technologies are reshaping with robotics, artificial intelligence, the internet of things, unmanned aircraft systems and the push for hybrid and electric airplanes – just to name a few.

Alternative fuels can significantly change the current scenario of aviation in support of the environmental protection. The vast investment in Artificial Intelligence (AI) and Big Data could be seen as a promising way of increasing safety, efficiency and sustainability. These technologies can help improve aviation infrastructure and airspace utilization.