



| ICAO

ECONOMIC DEVELOPMENT

ICAO Aviation Data and Tools

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Aviation Data and Analysis
ICAO





Aviation Data and Analysis

- Aviation Data and Statistics
 - ICAO Data/Statistics Programme
 - ICAO data tools: ICAO DATA+, eTools, etc.
 - Reference manual
- Forecasting and Planning
 - Long-term Traffic Forecasts
 - Regional Traffic Forecasting Groups
 - Reference and methodology
- Economic Analyses
 - Regional Differences in International Airline Operating Economics
 - Economic Contribution of Civil Aviation, e.g. Aviation Satellite Account
 - Big data analysis
 - Various studies



ICAO aviation data/statistics programme

- The UN recognized ICAO as the central agency responsible for the collection, analysis, publication, standardization, improvement and dissemination of statistics pertaining to civil aviation
- To provide accurate, reliable and consistent aviation data so that States, international organizations, aviation industry, tourism and other stakeholders can:
 - Make better projections
 - Control costs and risks
 - Improve business valuations, and
 - Benchmark performance



Art. 54, 55, and 67

*“Each contracting State undertakes that its **international airlines shall, in accordance with requirements laid down by the Council, file with the Council traffic reports, cost statistics and financial statements showing among other things all receipts and the sources thereof.**”*



For each State: <https://www.icao.int/sustainability/Documents/DataDescription.pdf>

Air carrier

- Traffic – Forms A, A-S, B and C
- Fleet and personnel – Form D
- Financial – Form E-F
- Fuel consumption – Form M

ANSP

- En-route Traffic – Form L
- Finance – Form K

Airport

- Traffic – Forms I and I-S
- Financial – Form J

State

All forms +

- Civil aircraft registered – Form H
- Aviation personnel – Form N



Each data collection has different level of detail, limitations on use, and produced on their own cycle

Other data providers
Traffic, Fleet, Financial data etc. ...

ICAO DATA+

Secure a Competitive Advantage in your Market

Credible, Unique, and Complete Data for Aviation Professionals and More!

- Industry Organizations
- Route Planners
- Strategic & Financial Analysts
- Governments
- Consultants
- Academics & Researchers
- Economists
- Environmental Associations

INTRODUCING ICAO'S NEW DATA PLUS WEB PLATFORM

Business analysis e-tools

Bilateral Agreement | Options | Connections

Country: Japan | Year: 2013 | World Traffic: Draw | Non-registered Zero traffic: Draw | Radius adjust: On | Animation: On

Outbounds/Inbounds: Out

Bilateral agreement for Japan

	Total	Open Skies	Traditional	Non-Registered
Agreements	208	1 (0.5%)	26 (12.5%)	181 (87.0%)
Flights	304,210	27,276 (13.24%)	1,92,063 (63.15%)	85,271 (27.61%)
Seats	43,103,029	6,540,426 (15.17%)	27,376,726 (63.51%)	9,586,877 (22.32%)

Air Transport Monthly Monitor

<http://www.icao.int/sustainability/Pages/Air-Traffic-Monitor.aspx>

ICAO ECONOMIC DEVELOPMENT
MAR 2015: Air Transport Monthly Monitor

GLOBAL KEY FIGURES | JAN 2015 | RPK ↑ +4.6% | ASK ↑ +4.7% | FTK ↓ -3.2% | LF: 77.7% | ↓ -0.4 pts | OUTLOOK* - FEB 2015 | ASKA ↓ -5.0%

PASSENGER TRAFFIC - RPK

Revenue Passenger-Kilometres - RPK

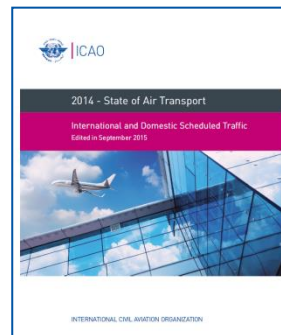
World passenger traffic grew by +4.6% in January 2015 compared to January 2014, down from the strong growth registered in December 2014 (+6.1%). This is a relative slow start comparing to the overall growth in 2014.

Capacity

Available Seat-Kilometres - ASK

Capacity worldwide increased by +4.7% in January 2015 year-on-year, 1.5 percentage points lower than the December 2014 capacity growth (+6.2%).

Annual Report of the Council



State of Air Transport

ICAO DATA+

- A tool that presents the air transport data in a interactive and graphical environment
- Enables users to quickly visualize trends, differences and similarities between air transport data and make competitive analyses and benchmarking










INTRODUCING ICAO'S NEW DATA PLUS WEB PLATFORM



Data source and coverage

- Data collected from 192 Member States
- More than 1000 airlines and 1000 airports
- Data available since 1980
- Wide coverage of aspects of air transport

Modules

- Air carrier traffic 
- Traffic by flight State 
- Air Carrier Finances 
- Airport traffic 
- On flight Origin and destination 
- Air carrier personnel 
- Air carrier fleet 

Year: 2018

Select Quarter

Select Month

Stage Type: International

Flight Type: Scheduled flight

Service: All Services

Select State

Select Territory

Select Air carrier

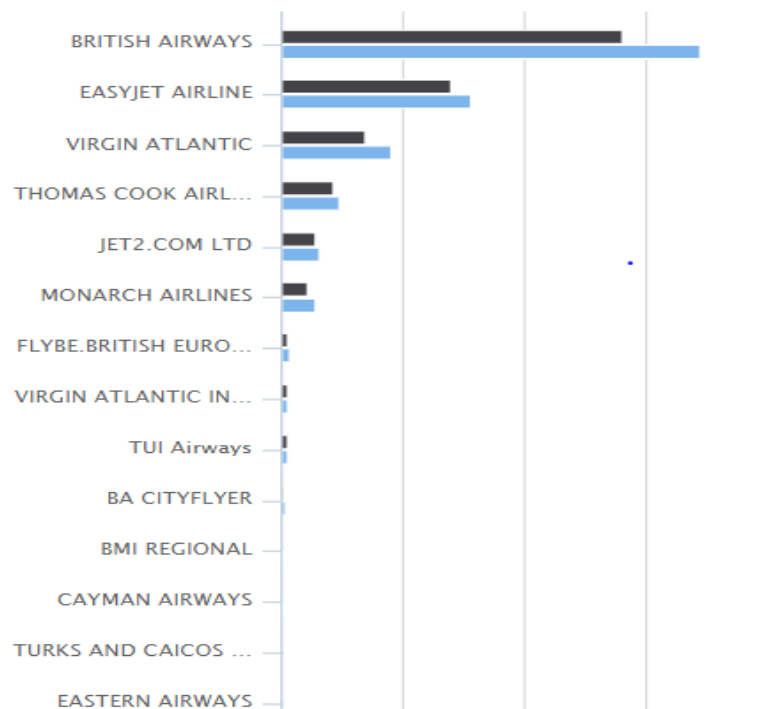
Reset

Passengers

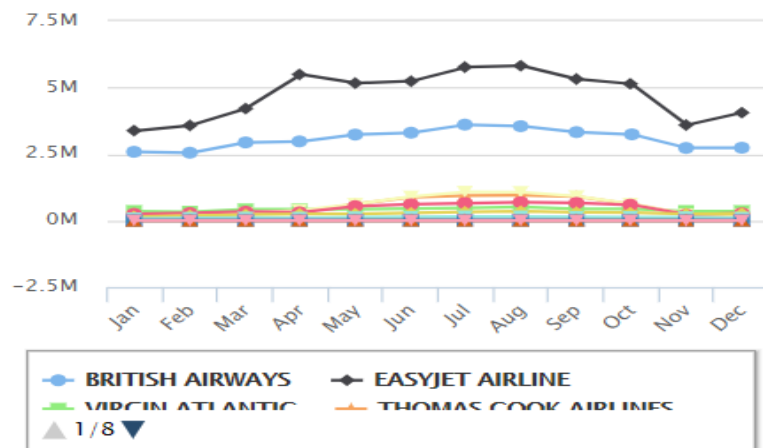
Payload

Load Factor

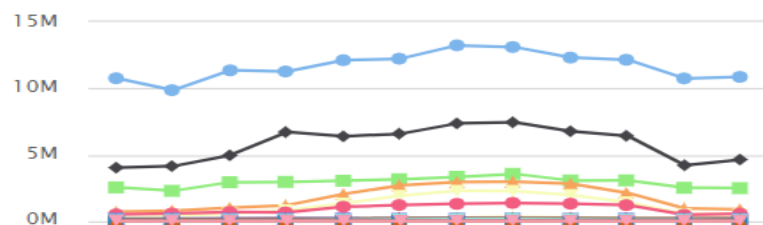
Passenger-km performed VS Seat-km available



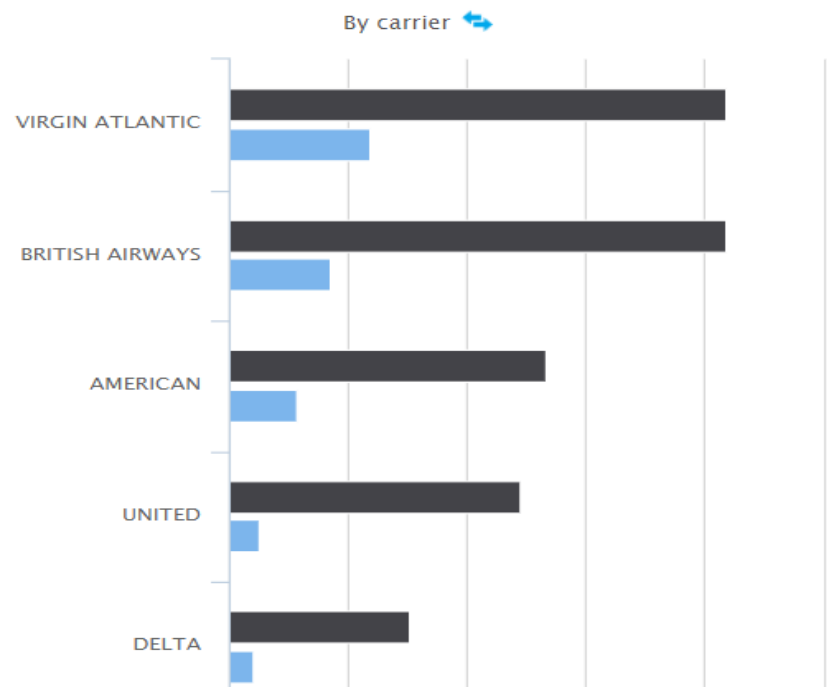
Passengers carried



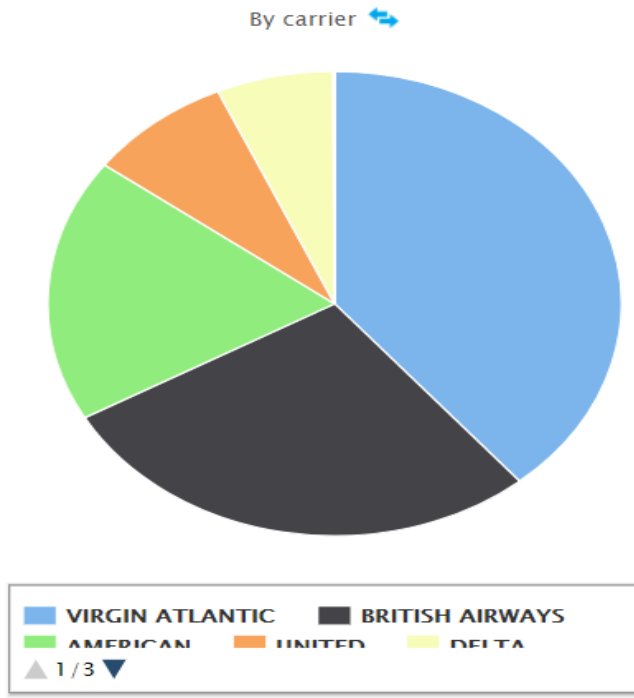
Passenger-km performed (000)



Freight revenue traffic VS Total payload capacity ☰



Freight revenue traffic ☰



MOST INSTALLED APPS



Traffic Map

Shows how air traffic routes have evolved over the time, this map offers an illustration of the connectivity brought by air transport.



WASA Map

ICAO World Air Services Agreements (WASA) database contains the original bilateral agreements and amendments registered with ICAO.

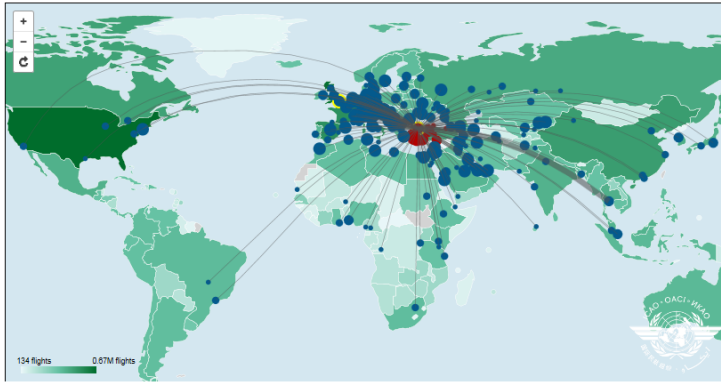


Traffic Trends

The traffic trend tool is unique and allows the user to visualize trends in air carrier traffic by state of air carrier registration. The user has the opportunity to generate various forward time series forecasts.

Year: 2014
 Minimum number of flights: 0, 100, 1000, 1500
 From: Country Turkey, City Istanbul
 To: Country All, City
 World traffic | Reset

Flights out of Istanbul, Turkey in 2014 (Routes with at least 100 flights per year)



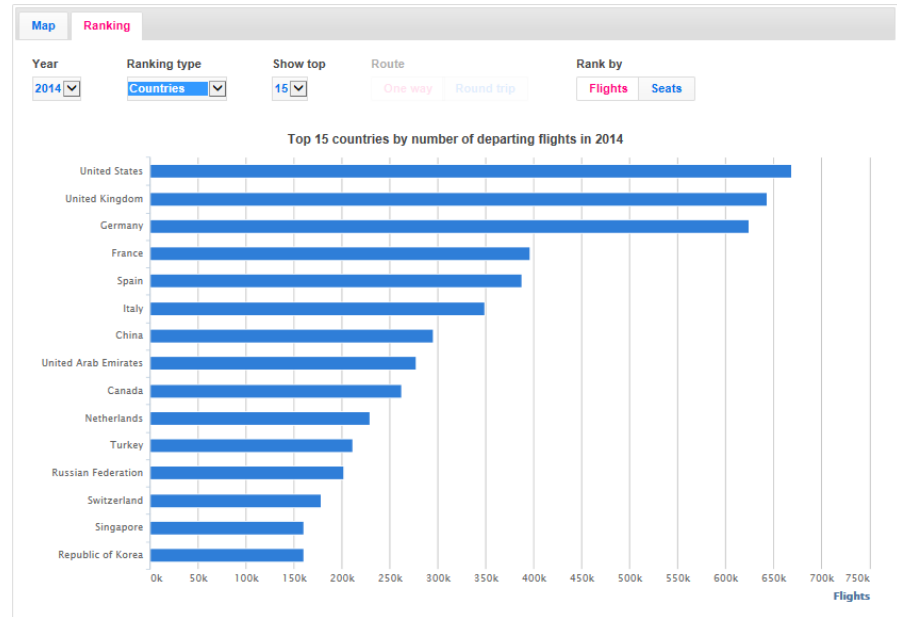
Traffic from Istanbul, Turkey to Moscow, Russian Federation

Flights: 3,465
 Seats: 556,986

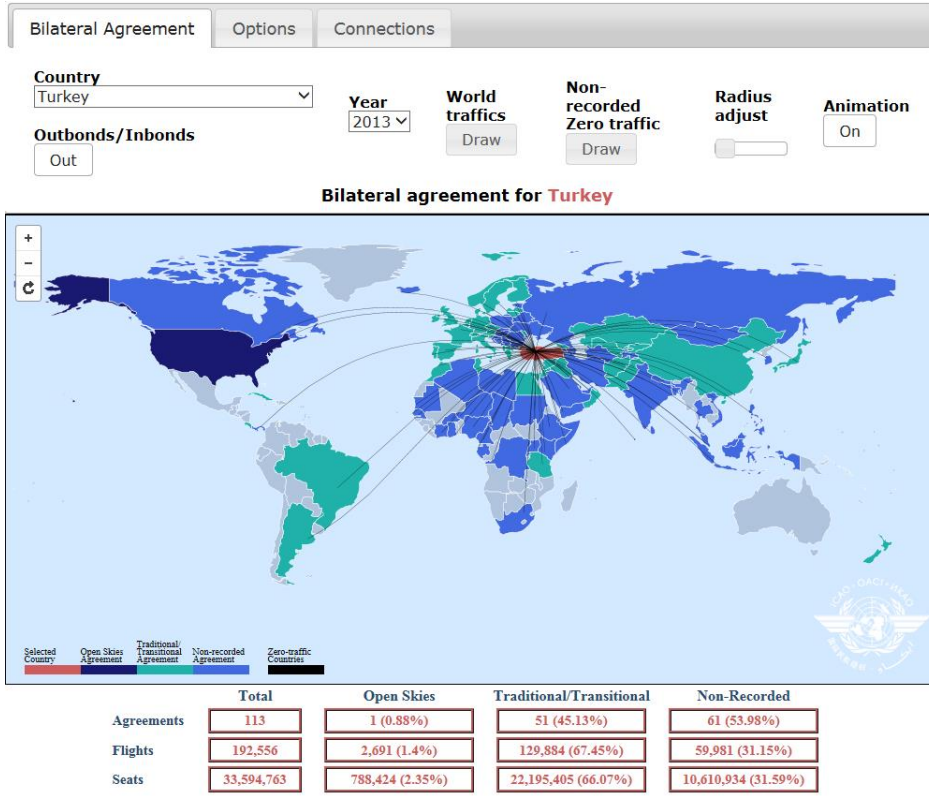
By carrier | By country of registration | By alliance

Carrier code	Carrier name	Low cost	Country	Aircraft types	Flights %	Seats %
THY	TURKISH AIRLINES INC.		Turkey	Airbus A319, Airbus A320, Airbus A321, Boeing B737, Airbus A330	42.45	44.63
AFL	AEROFLOT-RUSSIAN AIRLINES		Russian Federation	Airbus A330, Airbus A319, Airbus A320, Airbus A321, Ilyushin Il-96	41.96	40.05
TSO	TRANSAREO AIRLINES		Russian Federation	Boeing B737, Boeing B767	10.36	8.88
PGT	PEGASUS AIRLINES	✓	Turkey	Airbus A320, Boeing B737	4.62	5.40
SVR	URAL AIRLINES		Russian Federation	Airbus A321	0.61	0.83

Visualize on a map the number of flights by city-pair and market share of airlines



World Air Services Agreements and Traffic



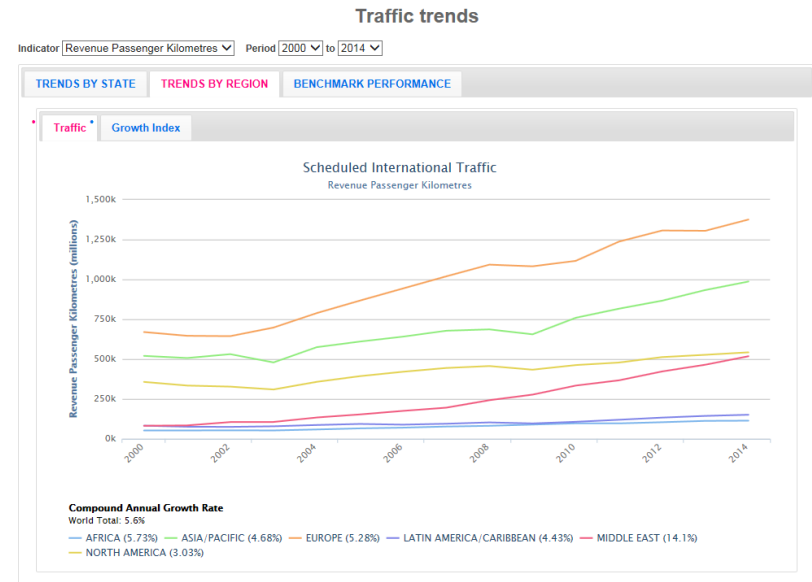
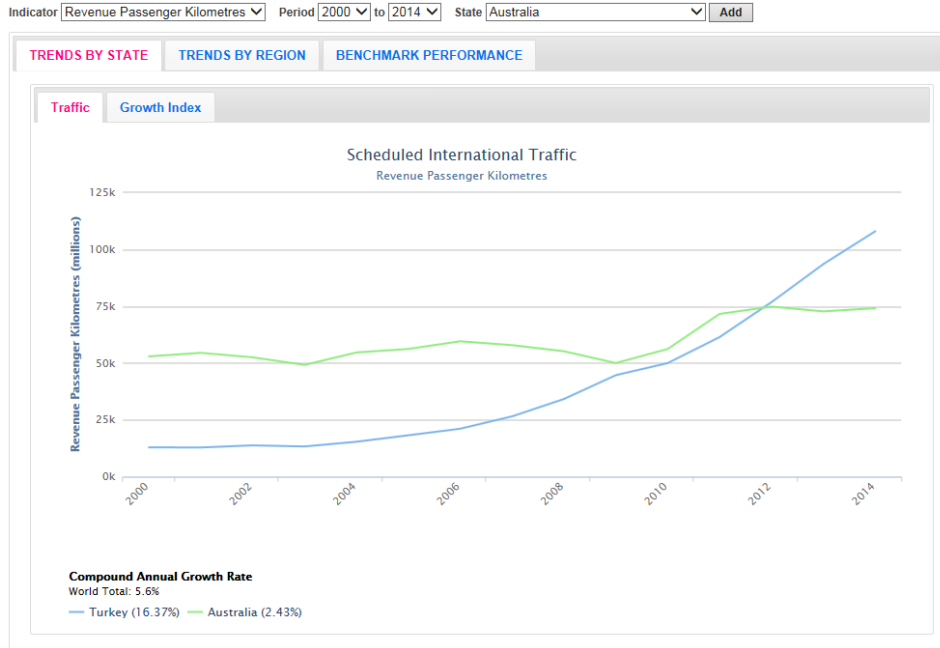
Visualize bilateral agreements between Member States and identify country pairs with traffic

Traffic from Turkey

Search: [Input]

State	Agreement Type	Flights	Seats
Afghanistan	Traditional/Transitional	520	104193
Albania	Traditional/Transitional	785	104745
Algeria	Non-recorded Agreement	897	170905
Argentina	Traditional/Transitional	288	84345
Armenia	Non-recorded Agreement	31	3860
Austria	Traditional/Transitional	4009	674139
Azerbaijan	Non-recorded Agreement	3890	609565
Bahrain	Traditional/Transitional	645	104681
Bangladesh	Non-recorded Agreement	393	88790
Belarus	Non-recorded Agreement	433	52084
Belgium	Traditional/Transitional	2961	506026
Bosnia and Herzegovina	Non-recorded Agreement	1369	198001
Brazil	Traditional/Transitional	493	121245
Bulgaria	Non-recorded Agreement	681	120297
Burkina Faso	Non-recorded Agreement	166	35390
Cameroon	Non-recorded Agreement	559	120185
Canada	Non-recorded Agreement	392	120550
Chad	Non-recorded Agreement	12	2040
China	Traditional/Transitional	1587	392368
Costa Rica	Traditional/Transitional	0	0
Cote D'Ivoire	Non-recorded Agreement	209	44935
Croatia	Non-recorded Agreement	570	83680
Cuba	Traditional/Transitional	0	0
Czech Republic	Traditional/Transitional	1169	198380
Dem. Rep. of The Congo	Non-recorded Agreement	257	55255
Denmark	Traditional/Transitional	2067	339478
Djibouti	Non-recorded Agreement	188	30861

Visualize traffic trends of airlines registered in a State





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THANK YOU!