

Development of the Modern Radiocommunication Ecosystem

Aviation Communication

Aviation Communications

- **Mediator** **John Mettrop**
UK Civil Aviation Authority
Chairman Working Party 5B

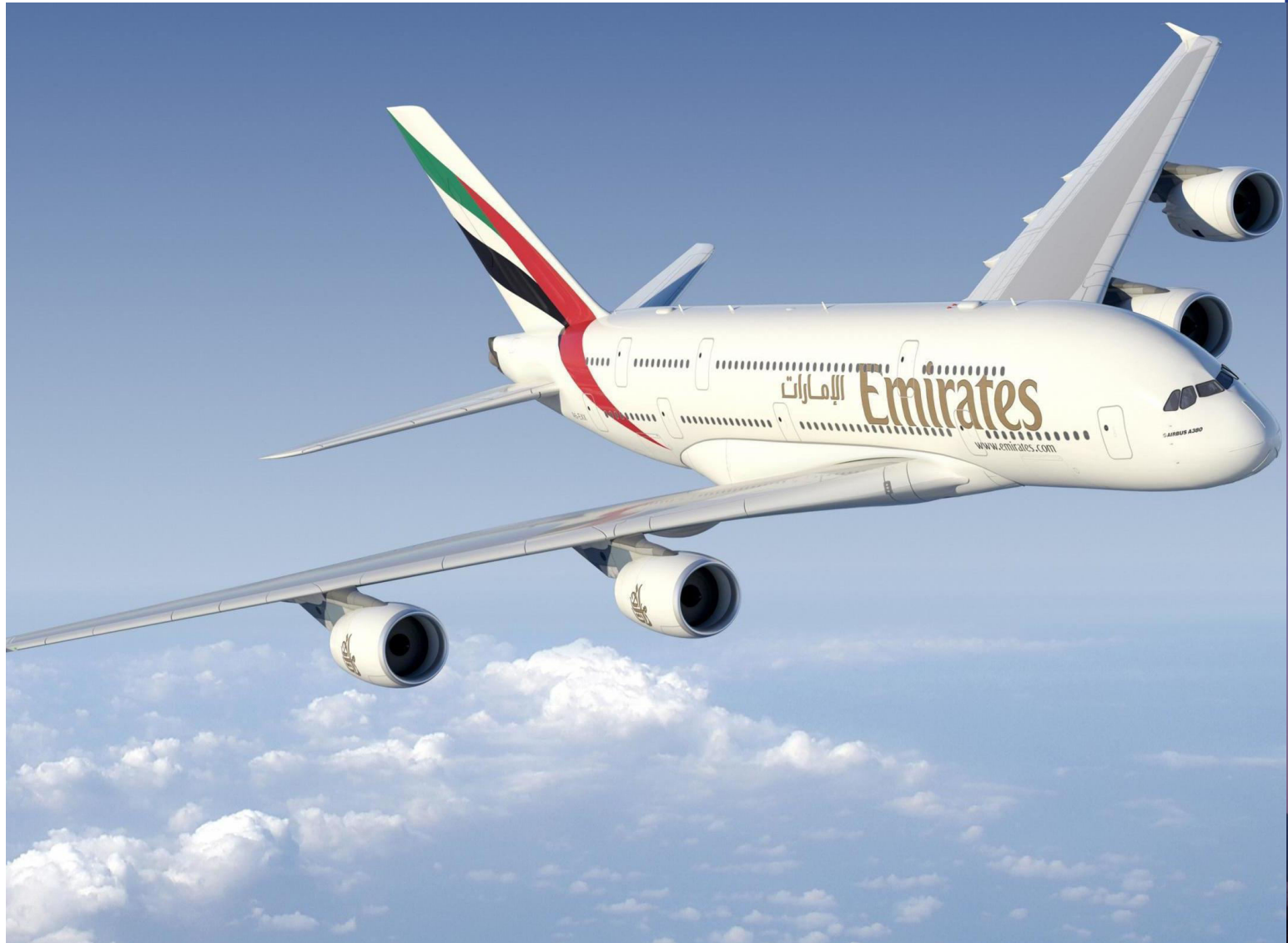
- **Speakers** **Claude Pichavant**
Airbus

- Joseph Cramer**
Boeing

- Raffi Khatcherian**
Eurocontrol

- Thomas Weber**
European Communication Office

Evolution of Aviation



ICAO Standardised Systems

	NAV	COM	SUR
1950	ILS VOR		
1951		HF	
1952	NDB DME Marker	VHF	
1955			SSR
1968	Loran		
1983	MLS		
1995		Satellite	ACAS (TCAS)
1996	GNSS	VDL 2	Mode S
1999		HF Datalink	
2001	GBAS	VDL 3 VDL 4	
2002			ADS-B

1995

Satellite

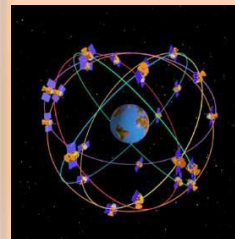


ACAS (TCAS)



1996

GNSS



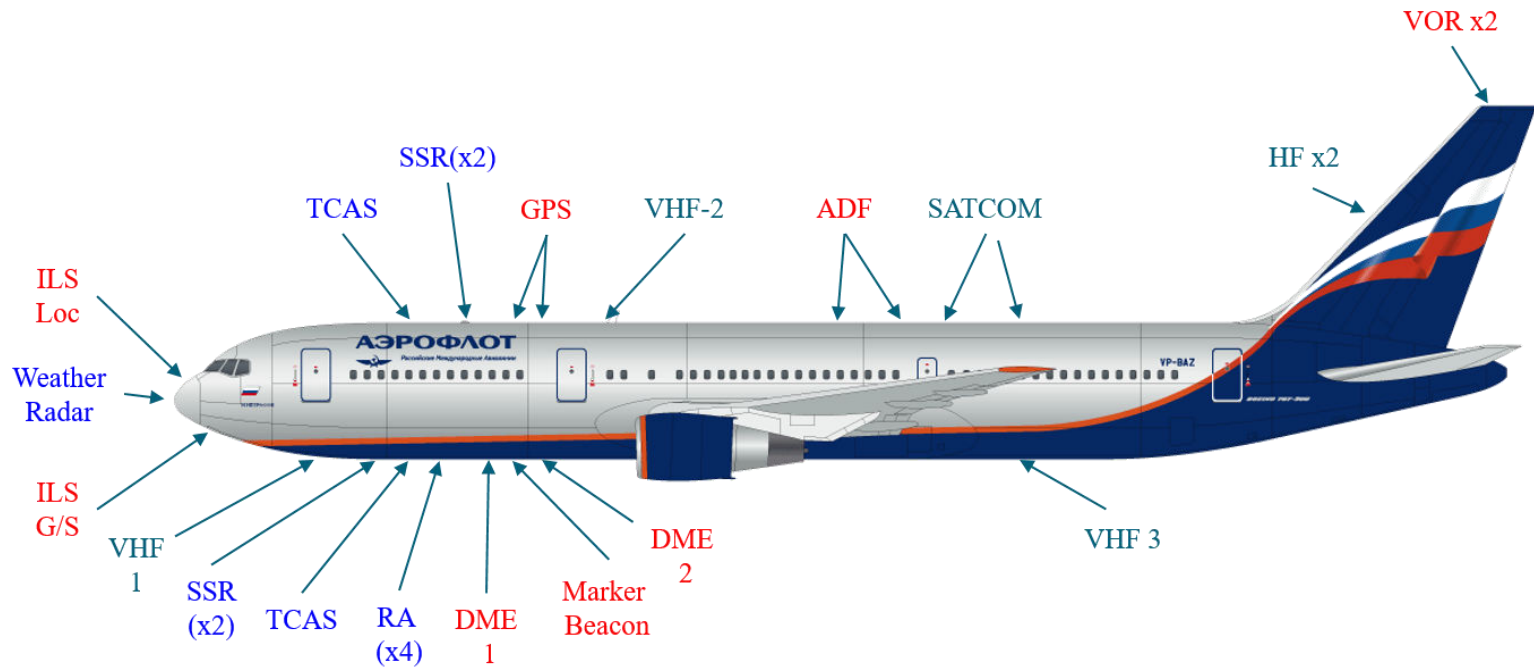
VDL 2



Mode S



Resultant Aircraft Fit



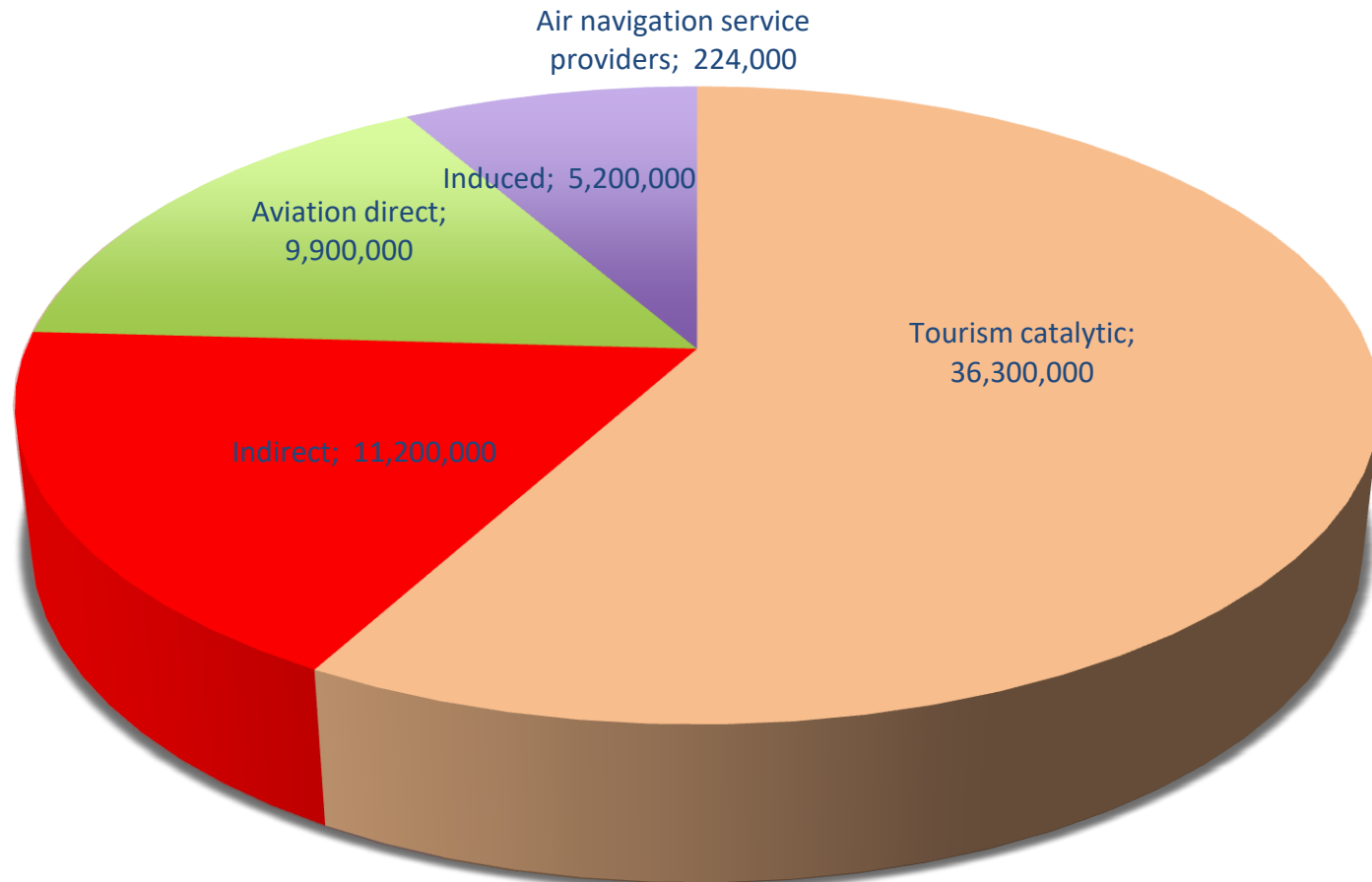
29 Antenna covering 3 basic Functions Communication/Navigation/Surveillance

Commercial Aviation by the Numbers



Figures given are for 2014

Commercial Aviation - Jobs

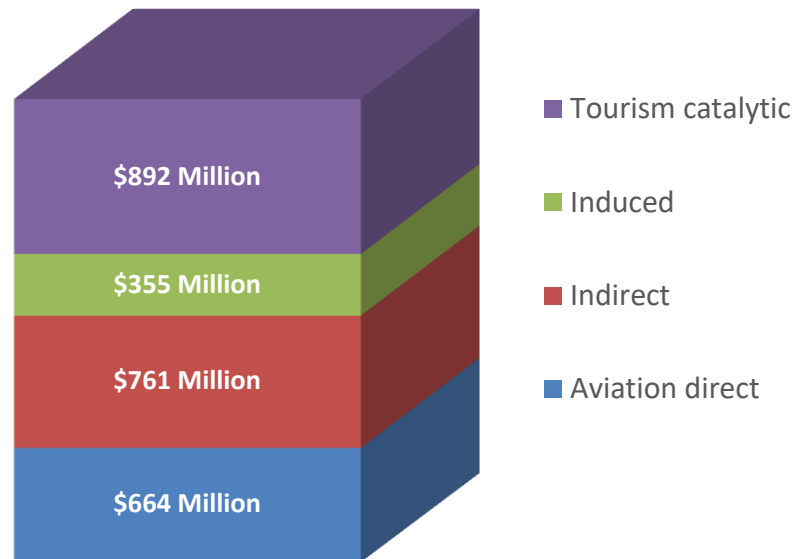


Total: 9.9 Million

Figures given are for 2014

Commercial Aviation - Finances

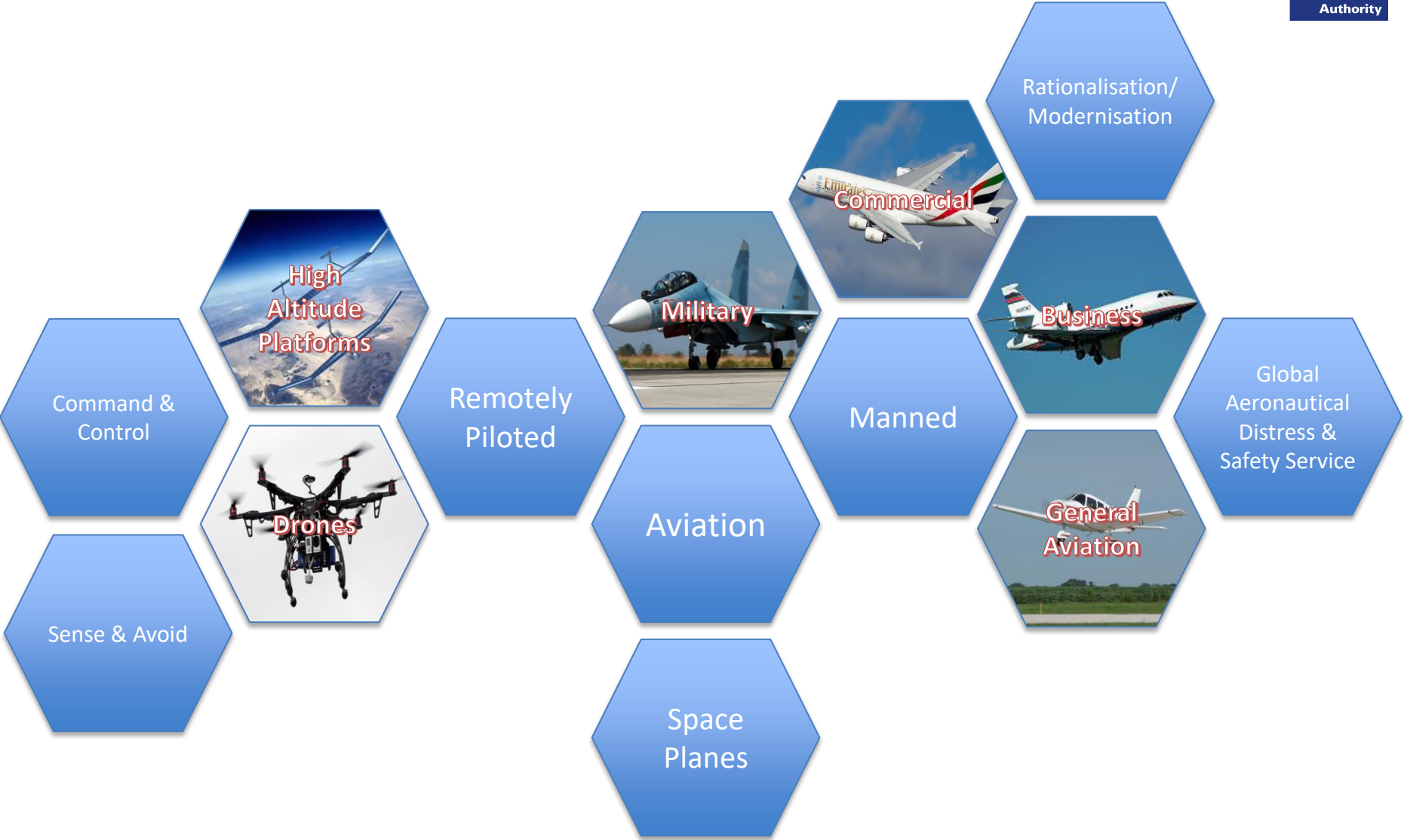
GLOBAL IMPACT



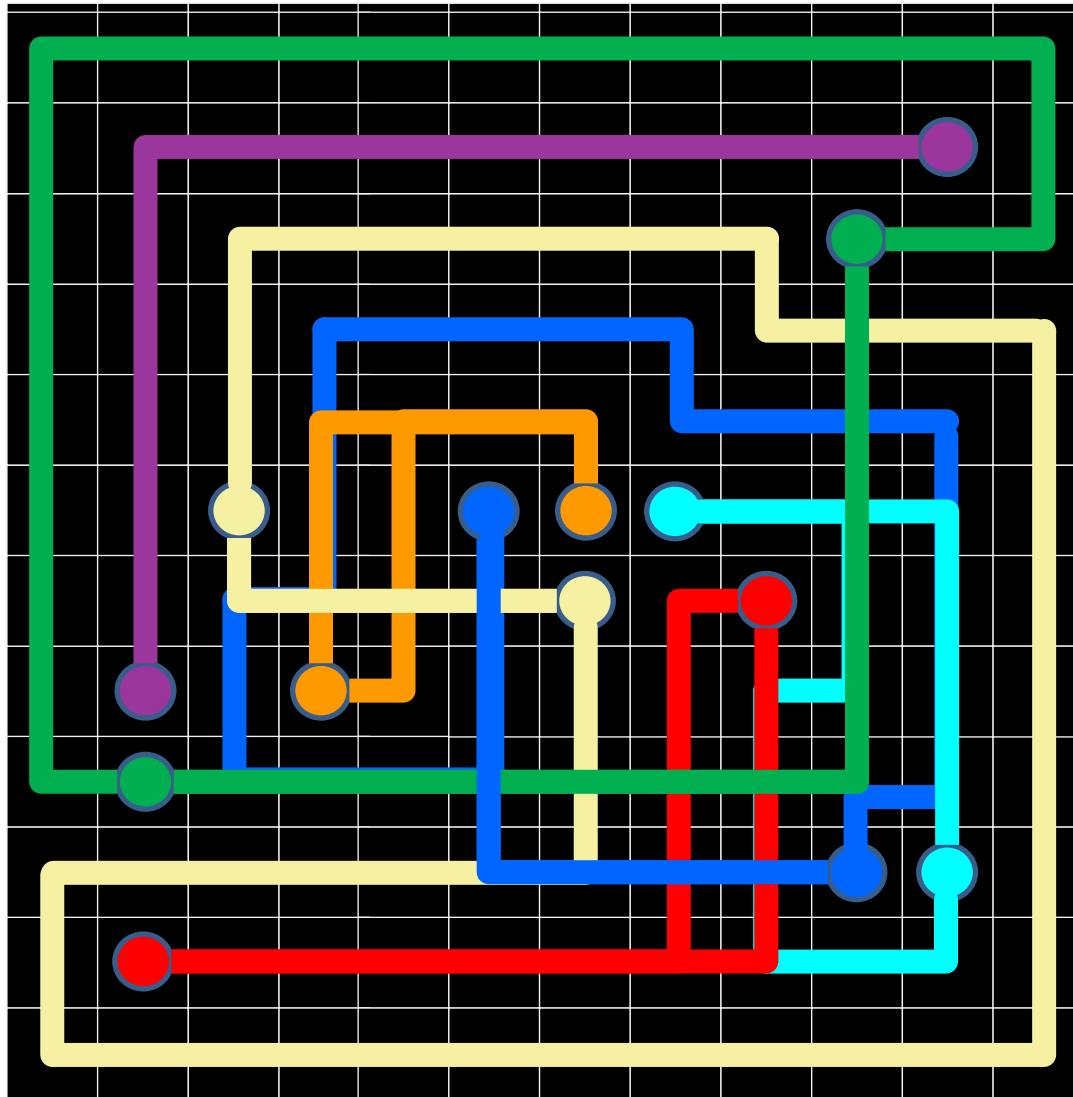
- \$2.7 Trillion
- 3.5% of Global GDP
- As a State Ranked 21st based on GDP

Figures given are for 2014

The Future



Approach



Glossary

ACAS:	Automatic collision avoidance system	NDB:	Non-directional beacon
ADF:	Automatic direction finding	RA:	Radio altimeter
ADS-B:	Automatic dependent surveillance- broadcast	SSR:	Secondary surveillance radar
DME:	Distance measuring equipment	TCAS:	Tactical collision avoidance system
GBAS:	Ground based augmentation system	VDL:	VHF data link
GDP:	Gross domestic product	VHF:	Very high frequency
GNSS:	Global navigation satellite system	VOR:	VHF omni-ranging
GPS:	Global positioning system		
HF:	High frequency		
ILS:	Instrument landing system (Loc: localiser, G/S glide slope)		
MLS:	Microwave landing system		