Advanced Development for Security
Applications (ADSA) Workshop 16:
Addressing the Requirements for Different Stakeholders in Transportation Security

Aviation Security in Israel Compared to the United States

Avi Cagan

Is the Aviation security of USA and Israel comparable?
Yes and **No**

Comparison

- Size
- Threat
- Human Factor
- Hazard materials detection
- Cargo

Arrival to Israel

Border Patrol

Through The Connector

Collection Of Baggage

Passport Control

Customs

Departure from Israel

Short Interview w/Armed Guards , LPR

100% Vehicles entering the airport _stopped

Camera Monitoring Airport perimeter

Parking is in a distance from the terminal

Unseen checking and following suspects

Walking to Terminal

Interview before check-in Profiling

Security in checkpoint lir

Sticky note on passport

100% Luggage X-rayed before check-in

Check in

Proceed to Passport Control*

Passport Control

Security Checks

Carry On X-ray
Metal Detector
Body Scanner

No need to take off shoes

Aviation Security 2017

USA

"What has not changed is that <mark>terrorists still consider airlines and airports high-value targets</mark>…The U.S. air transportation system, especially passenger airplanes, remain a primary target of every global terrorist network. That has not changed since before 9/11 and <u>will define the threat environment for years, maybe decades, to come</u>."

Former TSA administrator Peter V. Neffenger

https://www.washingtonpost.com/local/trafficandcommuting/trump-budget-eliminates-three-post-911-airport-security-programs/2017/03/16/8c56841a-09aa-11e7-93dc-00f9bdd74ed1_story.html?utm_term=.6f0e615e0c1c

"<u>A lot of what the Israelis are doing has informed what we're doing</u>"…Peter Neffenger

"to adopt most or all of Ben Gurion's security measures at a facility like Los Angeles International Airport likely would mean <u>higher ticket prices to pay for extra screening measures and longer wait times for more intense questioning by security agents</u>, aviation experts say.

http://www.latimes.com/business/la-fi-lax-israeli-airport-security-20160718-snap-story.html

Israel

"<mark><u>Airports are always a target for terror</u></mark>

Any event is drawing global attention….   Fear effect of millions of people

When the <u>airport is closed for long hours </u>, it is **c**onsidered to be a <u>success to the terrorist</u>".

Background

Law

USA	Aviation and Transportation Security	2001
Israel	Aeroports Authority Law	1977

Airports Security

USA US Gov.-Trnasportation Security Agency (TSA) under Department of Homeland Security(DHS)

Israel Public Cop.- Israel Airport Authority(IAA) in corporation with Police

Security Personnel

USA 60000   TSA officers do not have police authority and must summon local officers when issues arise.

Israel 1500 out of 3000

Waiting time in Airport

|	Average Waiting Time Minutes	Longest Waiting Time Minutes
Chicago - Midway	8	108
Philadelphia International	14	151
Newark Liberty	15	168
Washington - Dulles	15	90
Dallas - Ft. Worth	20	108
John F. Kennedy International	21	232
Miami International	24	216
Chicago - O'Hare	25	119
LaGuardia	35	142
Los Angeles International	40	141
Tel Aviv	20	360

Depends on number of flights

Depends on the interviews and number of flights

https://www.thrillist.com/travel/nation/the-busiest-airports-in-america-ranked-by-security-wait-time   2015

https://travel.stackexchange.com/questions/64314/how-long-are-lines-in-tel-aviv-airport

Size (Absolute numbers) Huge Difference

	Airports	International Airports				
		>17	17M> n>3.5M	3.5M-3.5K	10K-350K	<10K
		Large	Medium	Small	Non-Hub	Reliever
USA	376	29	28	24	7	3
Israel	7	1		3		

Increasing number of passengers every year
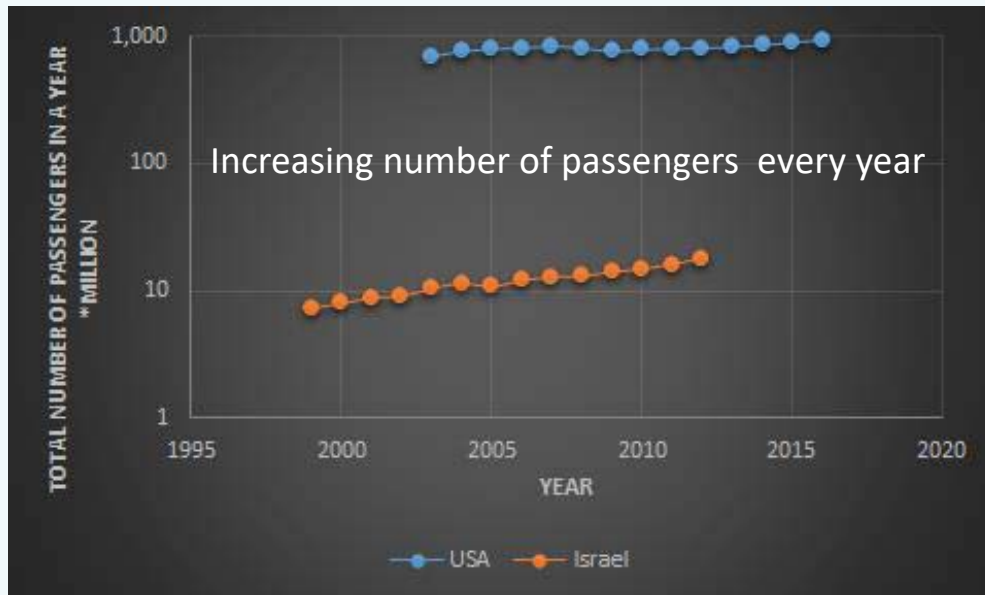
Passengers

2016	Domestic	International
USA	700	200
Israel	0.6	17

Population

2016	USA	Israel
Population (M)	323	8.2

Airports
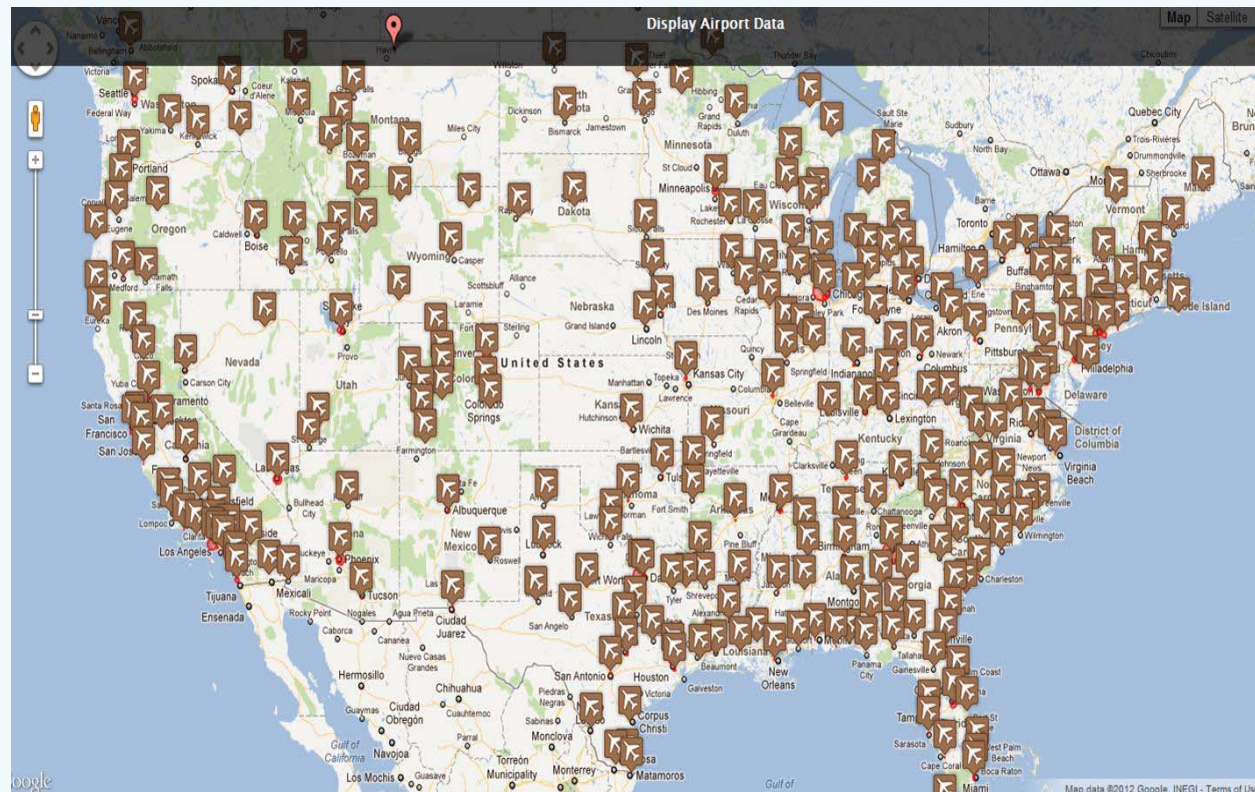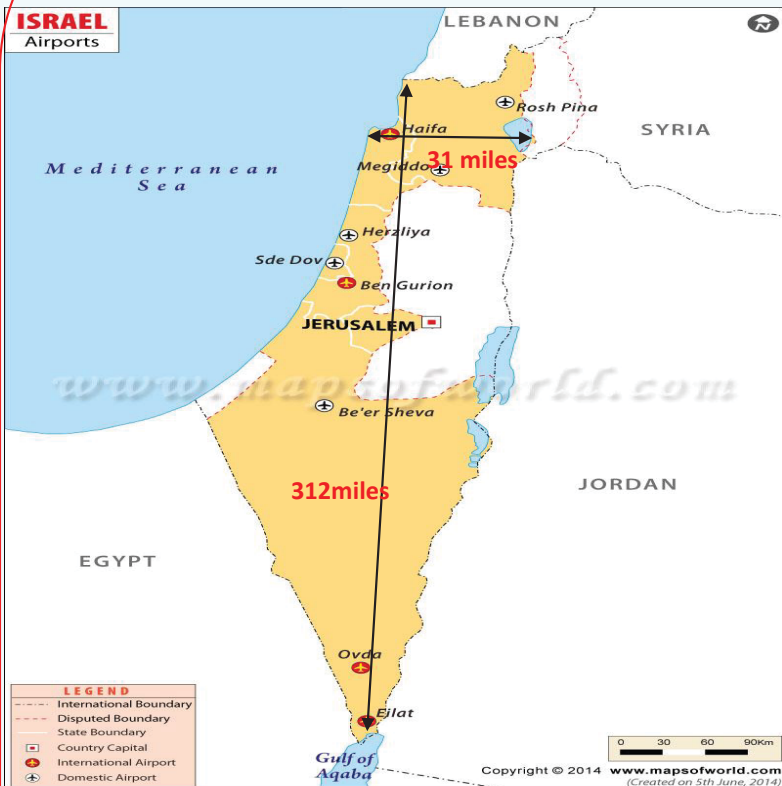
USA: Long distances → Mostly Domestic flights
Israel: Short distances → Mostly International flights

Size (Relative numbers) Getting close ...

	USA	Israel
Population(M) /Large International Airports	11.1	8.2
Population(M) /Domestic Passengers (M)	0.46	13.67
Population(M) /International Passengers (M)	1.62	0.48
International Passengers(M) /Large International Airports	7	17
Passengers / Security Personnel	15000	11733
International Passengers/ Security personnel	3333	11333
Domestic Passengers/ Security Personnel	11667	400

Threat handling in airport
Israel

CT Carry-On

Check again all passengers Carry-On

Interview all passengers

Check all passengers Check-in baggage

Drugs

3 hours delay

M16 magazine

Human Factor > Any machine at present

USA

Screening conducted by federal officials
Model: Max number of passenger per line/time
Interview time : 2 min plus fingerprint
TSA officers may ask you questions about your travel to include identity, travel itinerary and property. TSA may use a variety of screening processes, including random screening, regardless of whether an alarm is triggered. In addition, TSA uses random and unpredictable security measures throughout the airport and no individual is guaranteed expedited screening.

Israel

Profiling

Interview* for 15 min selected persons.
Others pass after a 30 seconds and 2-3 very basic questions.
screener :spot when someone does not belong to the group.
Screener : Must pass all tests

Q: When did you decide to come to Israel?
Q: Who bought the ticket ?
Q: What hotel are you going to ?
Q:What if you gave someone your e-mail or phone number?
Q:A copy of invitation to a conference
Q:Did anyone want to stay in contact with you

A bag which went through X-ray where detonating cord and explosive were not detected was found by the ELAL Selector

- Some people call it interrogation
** started to make feeling guilty.

Detection technologies in Airport

USA

Israel

Profiling
1) Entry: : vehicles entering the airport (short interview),LPR
2) Unseen checking and following suspects entering
3) No need to take off shoes
4) Pressure chamber to trigger any possible explosive devices in checked baggage.
5) Monitoring the fence (Airport perimeter) with cameras.

- 100 percent checked baggage screening
- Expansion of the Federal Air Marshal Service
- Reinforced cockpit doors.

- Explosives Detection Systems

1) ThruVis – Hidden . A sensitive camera which can identify hidden items .
2) Voxpopme- Identify feelings (Video analysis)
3) Affectiva – Identify feelings (face analysis)
4) AVATAR- Lie Detector , Check-in (face, voice and way of standing analysis)
5) AnBot –Robot with digital cameras , deterring by sound and light and can disarm suspects.
6) HBS- a large net of conveyers below the ground , where each bag is checked by few technologies and sent to the plane .

Security Guards

USA
Airport Security Guard

- Perform security patrols of designated areas on foot or in vehicle
- Watch for irregular or unusual conditions that may create security concerns or safety hazards
- Sound alarms or call police or fire department in case of fire or presence of unauthorized persons
- Warn violators of rule infractions, such as loitering, smoking or carrying forbidden articles
- Permit authorized persons to enter property and monitors entrances and exits
- Observe departing personnel to protect against theft of company property and ensure that authorized removal of property is conducted within appropriate client requirements
- Investigate and prepare reports on accidents, incidents, and suspicious activities
- Provide assistance to customers, employees and visitors in a courteous and professional manner
- ❖ High School, State required Training , driver's license.
- ❖ Must be US citizen or foreign authorized to work in USA

Armed Guard must have a law enforcement service

Israel
Guards

IAA does not sub-contract its security to private companies
- After military service
- Well trained to interact with a suspect in crowd
- High motivation
- Not recognized as a guard by passengers (No uniform)

Every hour there is an guards' awareness test

Build an unseen concentric circles of security with increased scrutiny as individuals arrive closer to plan

- Challenge: If the event is categorized as " criminal" guard will not attack the suspect unlike if it is " Hostile terrorist action"

Summary

One-size-fits-all security screening →A risk-based, intelligence-driven strategy to improve security and passenger experience

- Entering vehicles prescreening
- Use entry footprint for passengers pre-screening
- Not all officers in uniform
- Passengers Intelligence database (Local data bases?)
- Automatization of all technologies
- Search for workable solution for cargo screening

A picture taken off CCTV purporting to show suspects in the Brussels airport attack on March 22, 2016. (Twitter)

file:///C:/Users/Avi/Documents/ADSA2016/After%20Bruss...
20attack,%20...looks%20to%20Israel%20as%20mo...%...
20for%20airport%20...%20...%20The%20Times%20...%20I
srael.htm

file:///C:/Users/Avi/Documents/ADSA2016/After%20B...
20attack,%20world%20looks%20to%20Israel%20as%2...
20for%20airport%20security%20...%20...The%20Times%...
srael.htm

Thank you

A short list of References

https://www.tsa.gov/

https://en.wikipedia.org/wiki/List_of_busiest_airports_by_passenger_traffic

https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/

http://www.jpost.com/Business-and-Innovation/2016-record-year-for-Israeli-air-traffic-477180

https://www.rita.dot.gov/bts/press_releases/bts018_16_fig1

http://blog.tsa.gov/2016/01/tsa-2015-year-in-review.html

After%20Brussels%20attack,%20world%20looks%20to%20Israel%20as%20model%20for%20airport%20security%20_%20The%20Times%20of%20Israel.htm

Airport%20Security%20%20Israel%20vs.%20the%20United%20States%20-%20Schneier%20on%20Security.htm

http://www.themarker.com/technation/1.412113

http://www.israeldefense.co.il/he/content/%D7%A1%D7%95%D7%93%D7%95%D7%AA-%D7%94%D7%90%D7%91%D7%98%D7%97%D7%94-%D7%A9%D7%9C-%D7%A0%D7%AA%D7%91%D7%92

http://www.jpost.com/Business-and-Innovation/2016-record-year-for-Israeli-air-traffic-477180

https://www.quora.com/What-is-it-like-to-go-through-airport-security-in-Israel

https://en.wikipedia.org/wiki/Metrojet_Flight_9268