Safe Flight
Pilot Qualifications

Each year:

• Four simulator sessions
• Two medical checkups
• One company flight check
• One full day of specialty training
• Random no-notice flight checks by MoT
Boeing 767

- Wingspan: 156 feet
- Length: 180 feet
- Maximum weight: 186,000 kg
- Maximum range: 11,700 km
- Cruising speed: Mach .80 (about 850 kmh)
- Fuel capacity: 62,000 kg (about 77,400 litres)
- Maximum altitude: 43,000 feet
- Passenger seating: 212
Flight Plan

- Destination: TLV
- Route:
- Distance: 5,206 nm
- En-route Time: 10 hr. 17 min
- Fuel Burn: 50.9
- Alternate Airport: LCLK
- Fuel required: 59,3000 kg
- Take-off weight: 177,700 kg
When engineers get it wrong
Aft C of G
Factors affecting Take Off Performance

- Elevation
- Temperature
- Wind
- Runway slope
- Runway contamination
- Flap setting
- Aircraft weight
- And…. 
Departure Obstacles
**V Speeds**

$V_1$...Decision Speed

$V_R$...Rotation Speed (Take-off speed)

$V_2$...Minimum Safe Speed (in flight)
177,000

Flap....5

$V_1$....159

$V_R$....164

$V_2$....169
Taxi troubles
1 to 40 microns: cloud droplets

>200 microns: rain

100 microns: human hair
Cruising Altitude 35,000 Feet

- Temperature –45° to –70° Centigrade
- 80% less oxygen than at sea level
- Winds up to 200 kts (370 kmh)
- Very dry
- Cabin Altitude – 6,000 ft
- Radiation?
“Please fasten your seatbelt. We’re expecting a little turbulence.”
Weather Radar

RED and/or MAGENTA indicates areas of heavy rainfall.

GREEN indicates areas of light rainfall rate.

YELLOW indicates areas of moderate rainfall rate.
Hail Damage
Wake Turbulence
Mountain Wave
Volcanic Ash
Bird Strike
Crosswind Hazards
Learn from the mistakes of others…

You’ll not live long enough to make them yourself!
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