

# HEMS in ISRAEL



**Shafir Botner, Ph.D, EMT-P, medivac paramedic**  
**Director of Paramedic education Center, Magen David Adom**  
**Senior Faculty Member, Emergency Medicine Department, Ben Gurion University**

# HEMS in ISRAEL



- ~ 22000 Km<sup>2</sup>
- ~ 10 million habitants
- 1 National EMS - MDA

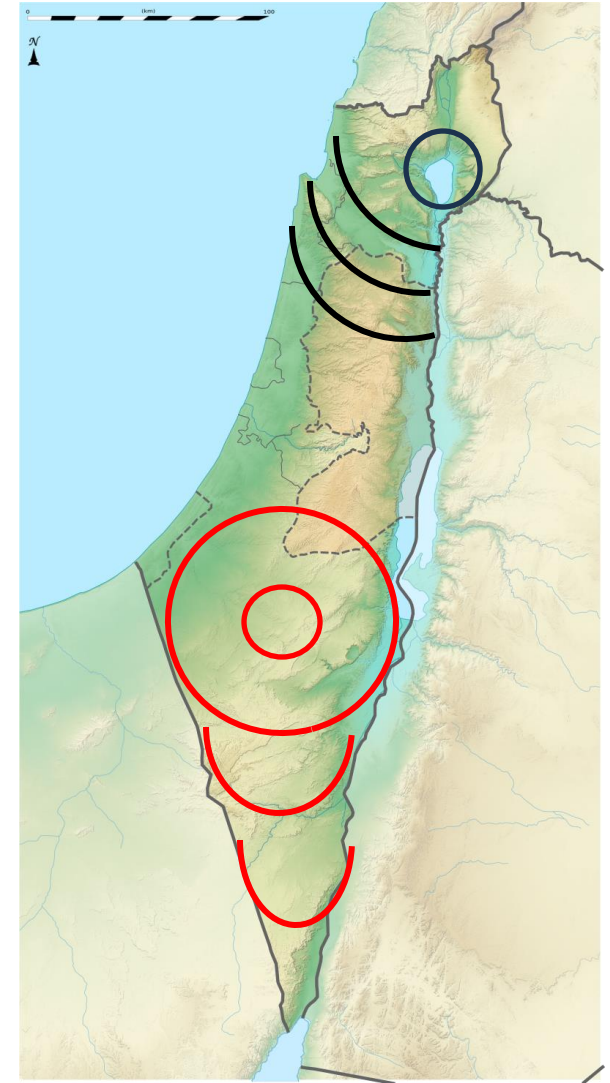
## Two HEMS Options:

- Military – mainly for rescue
- Civilian - MDA



# HEMS in MDA

- Magen David Adom (MDA) – Israel national EMS
- 1 National dispatch center
- 10 regional dispatch centers
- Service covers all the country
- HEMS Since 2008
- 2 operation bases
  - North base
  - South base
  - ❖ Center of Israel – short distance to multiple hospitals



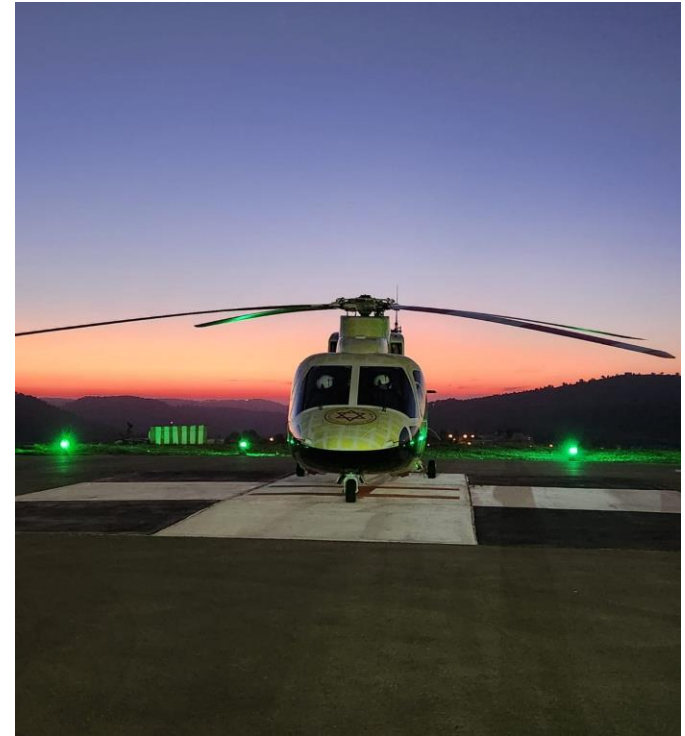
# Launce flow process



# Who Can ask ?

- ✓ Regional dispatcher according to the information at the incoming emergency call
- ✓ Medical personal on scene
- ✓ Secondary transfer between hospitals

Launce decision:  
by chief officer at the national  
dispatch center



# when?

- ✓ Majority – medical conditions when time to ED/ICU/CATLAB has a critical effect on patient outcome:
  - ✓ Stroke
  - ✓ STEMI
  - ✓ Trauma
- ✓ Secondary transfer between hospitals – mostly for unique procedures (brain cat lab, preterm department, level A Trauma Centers)



# Helicopter evolution



Bolko



BK - 117

S - 76



# Sikorsky S76





# Technical Details

- ✓ Sikorsky S76, dual engine
- ✓ Maximal flight time – 180 min (2 -3 missions)
- ✓ Cruising speed 160 knots (240 km/h)
- ✓ Loading capacity 500 kg (1100 pound)(not including fuel & staff)
- ✓ Night vision capabilities
- ✓ One or two pilots
- ✓ Two Senior Paramedics



# Medical capabilities

- ✓ Two Senior paramedics
- ✓ Dual stretcher
- ✓ Full two ICU capabilities
  - ✓ Muscle relaxants for RSI
  - ✓ FDP
  - ✓ 4 whole blood units (LTOWB)
- ✓ Soon: Ultra Sound



## *Special missions*

- ✓ Transferring Organs for transplant between hospitals
- ✓ Medical evacuation from rigs
- ✓ Transferring preterm babies with incubator



# Trends

- ✓ Everage of 1 call per day
- ✓ North helipad: mostly trauma calls
- ✓ South helipad: 50:50 trauma/non trauma
- ✓ Time saving to hospital: 30 – 90 min



# challenges

- ✓ Night time – although having NVR, landing is possible only at official helipads
- ✓ No option for rescue with cable.
- ✓ Weather



