

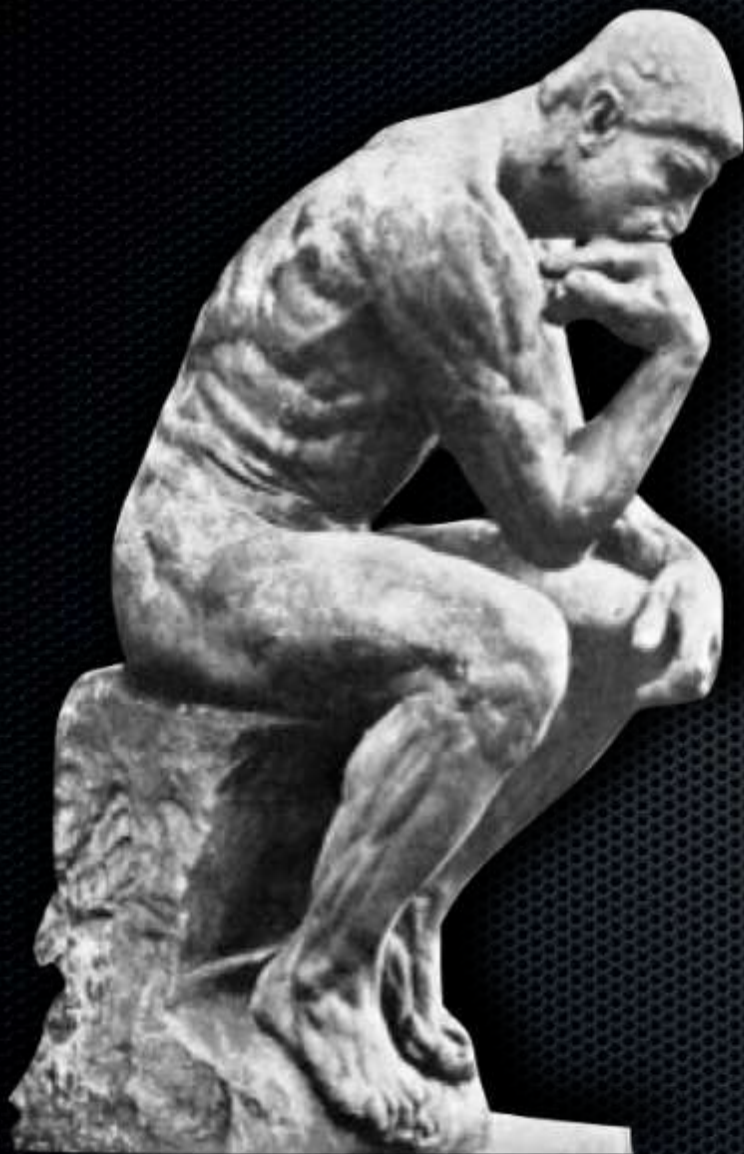


AN EVOLUTION OF THE  
**‘SAFETY MODEL’**





...it's about asking the  
right **questions**...  
...not just about the  
...but an **EVOLUTION**...  
**answers**...







# AVIATION SECTOR

**FINANCIAL CRISIS**

**9-11 ATTACK**

**S.A.R.S**

**COVID PANDEMIC**





# RESILIENCE

How well we get back to the  
At times we are displaced from  
previous state  
this state by forces  
safely, efficiently & effectively  
external or internal  
is what resilience is about





# RESILIENCE

- **EQUILIBRIUM (SAFE STATE)**
- **DISPLACED (EXT/INT)**
- **RETURN TO PREVIOUS STATE**
  - **SAFELY**
  - **EFFICIENTLY**
  - **EFFECTIVELY**





**TAXI  
TAKE-OFF  
FINALS  
PARKING**









**AAPA**

ASSOCIATION OF ASIA PACIFIC AIRLINES



**AIRBUS**

**CAAS**

Civil Aviation Authority of Singapore

**SINGAPORE  
AIRLINES**

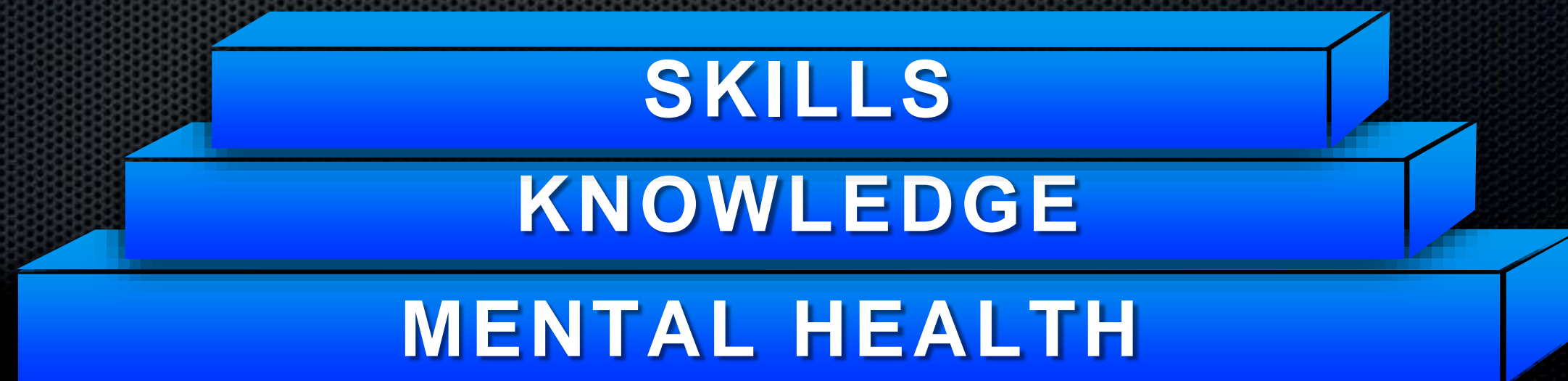


*other Training & Safety gurus*





**Conscious Competence** ← **Sub-Conscious Competence**







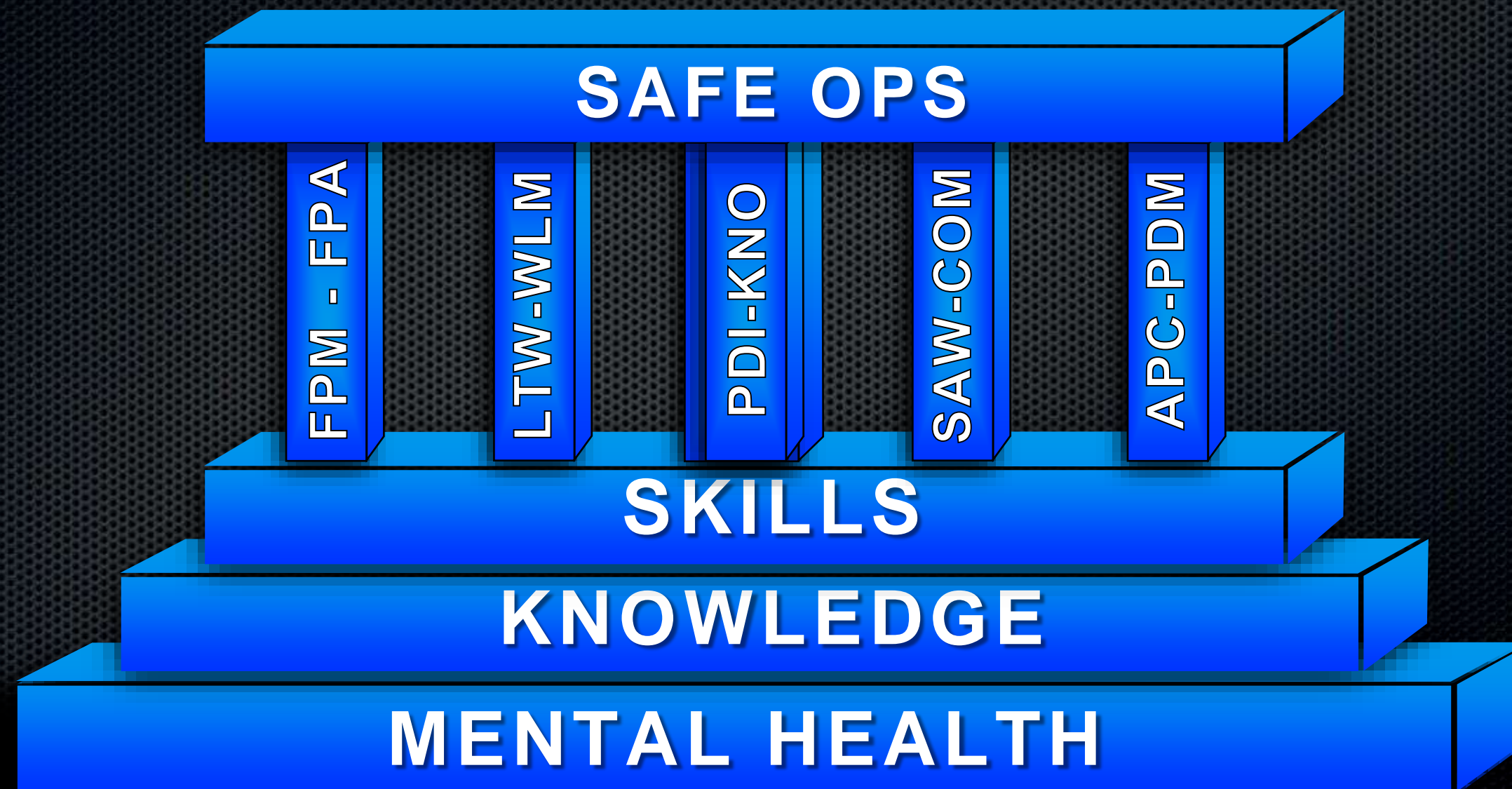
<u>Pre-Pandemic</u>		<u>Reduced-Ops</u>
2.35deg/sec	<i>Rotation rate</i>	2.42deg/sec
2508ft	<i>F15 Selection</i>	2423ft
1948ft	<i>F30 Selection</i>	1930ft
151kts	<i>CAS @ 5nm</i>	151kts
1.42G	<i>Vert Acc "G"</i>	1.41G



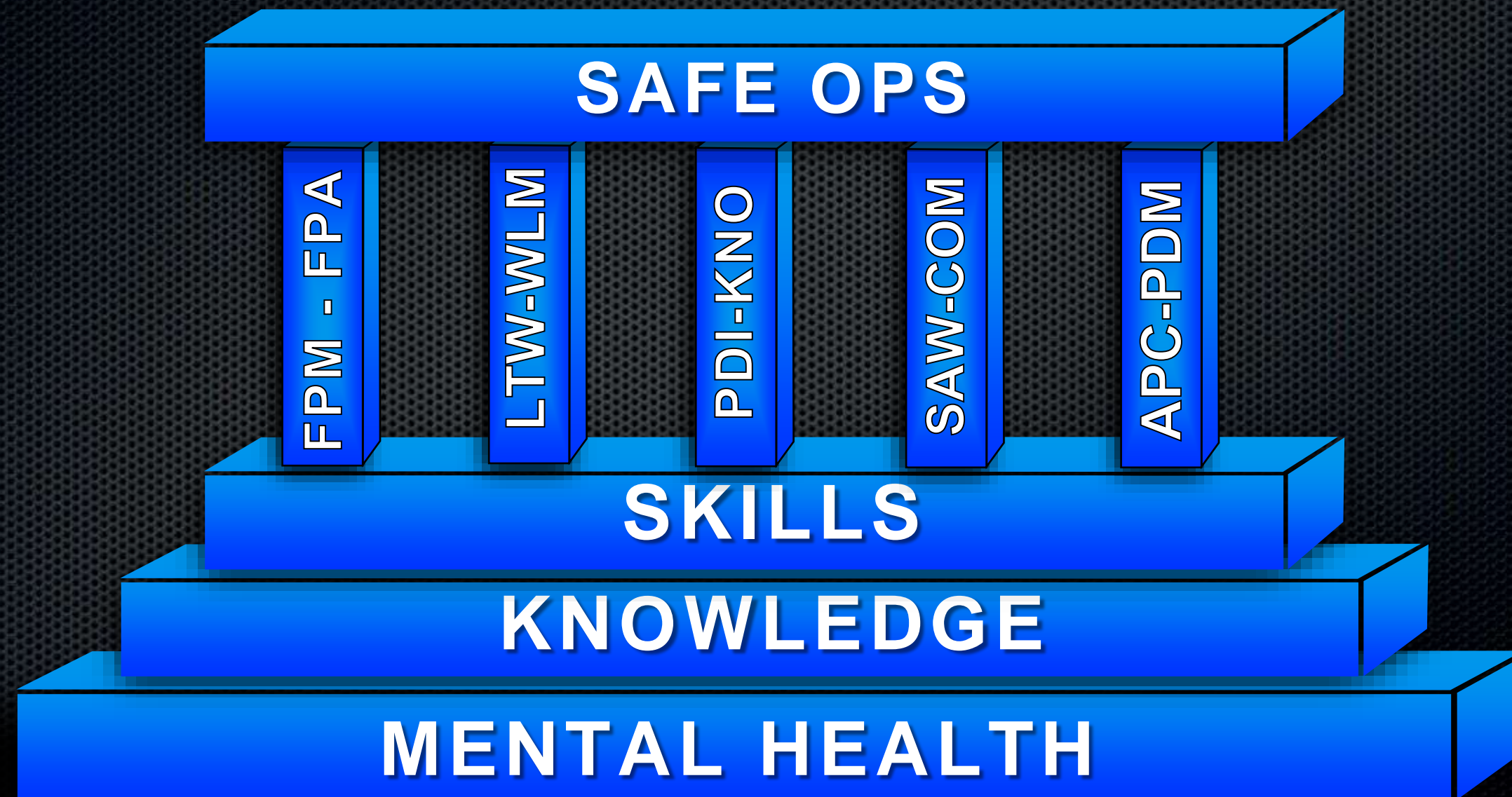


## C.R.M. :

...FLY SAFELY & EFFICIENTLY USING ALL AVAILABLE RESOURCES...

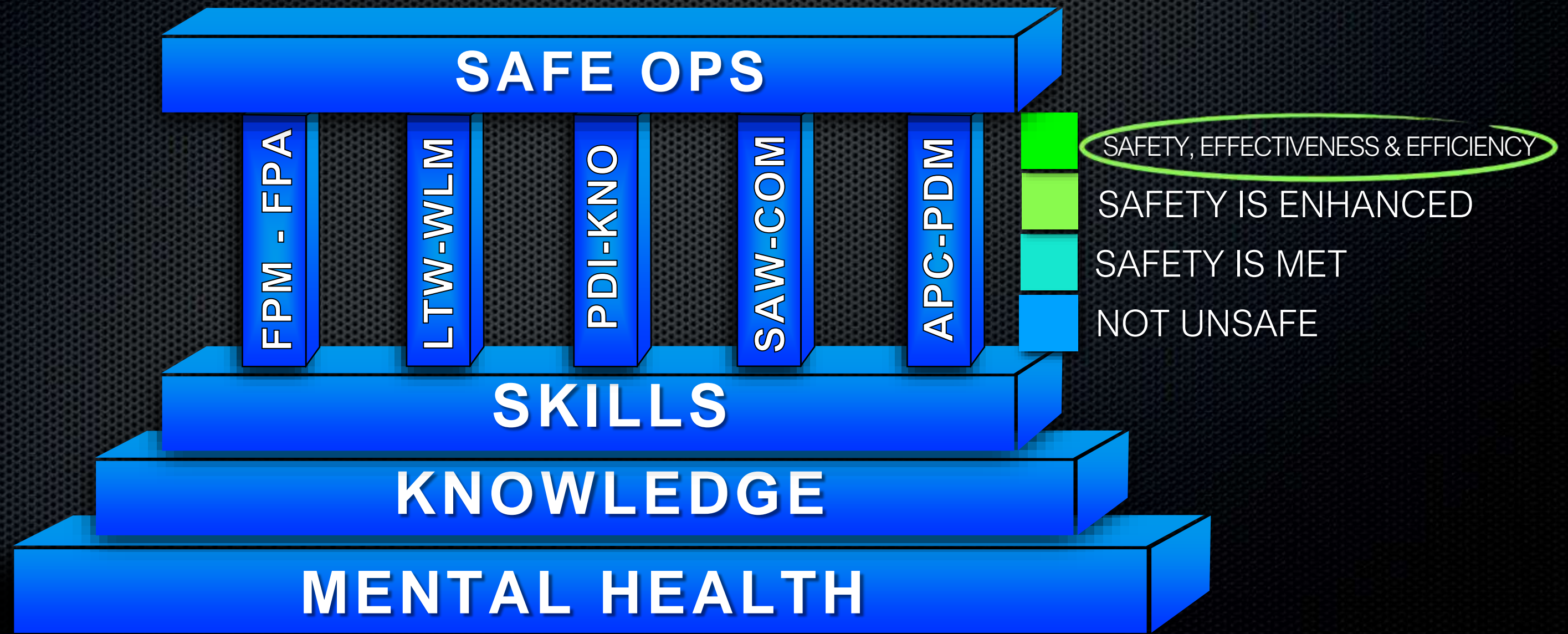








# The Safe Ops Model

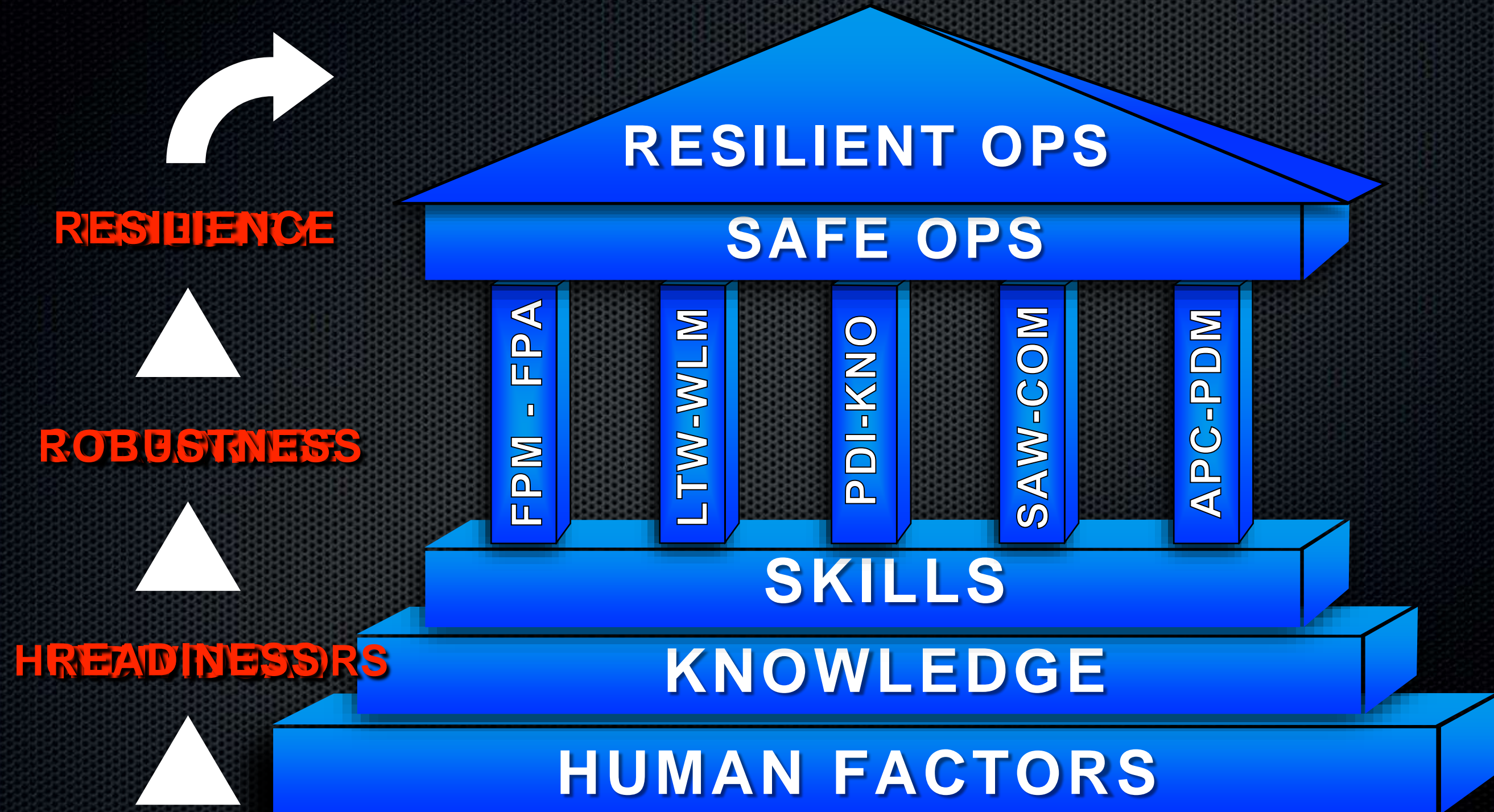




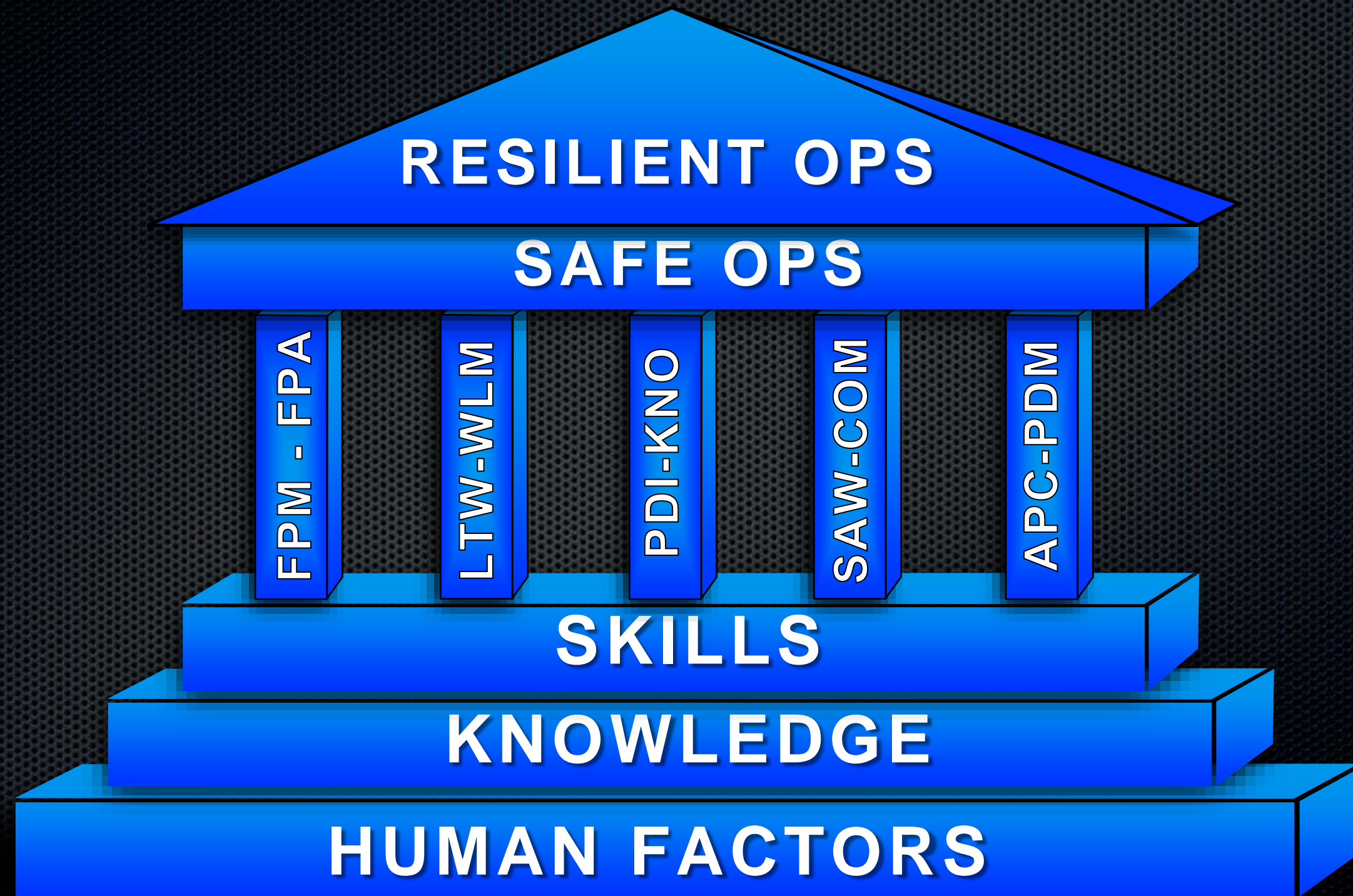


by *CAPT HARI SHANKAR (SIA) @ AAPA*









by *CAPT HARI SHANKAR (SIA) @ AAPA*



# An Operational Example







## COMPTON



1100ft

1000ft

900ft

## RESILIENCE





# SAFETY RESILIENCE





...“when we have a  
‘safe operation’,  
it does not mean that  
we are resilient”...





...“when we have a  
**‘RESILIENT OPERATION’**,  
it means we are trending  
towards **SAFETY**”...

*- Hari Shankar*





# RESILIENCE :

**“Back to the Centre-Line”**  
**OF SAFETY**



Let's evolve...



apats

**A VERY BIG HEARTFELT  
THANK YOU !**

**HARISHANKAR\_S@SINGAPOREAIR.COM.SG**





“...let us fly and soar into the  
skies again!”

- Ong Ye Kung

*Minister of Transport 2020*