



Captain Hesham El-Hamahmy

**OUR GOAL IS YOUR SAFETY**

# Why??

- Hazards must be identified as part of any successful SMS Programme
- Accidents still occur
- Need for more efficient operations
- Combined effort to improve Helicopter and Passenger Safety



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# Petroleum Air Services - Background

- Established 1982
  - Egyptian Joint Stock Company
    - EGPC (75%) & Bristow Group (25%)
  - Started with 8 Aircraft
  - Now 48 Aircraft
  - 1300 Employees
  - > 30 Client Companies
- 
- ~ 35,000 Flying Hours
  - ~ 70,000 Flights
  - ~ 400,000 Passenger Transfers



**PAS is Egypt's leading provider of Helicopter Offshore Services**

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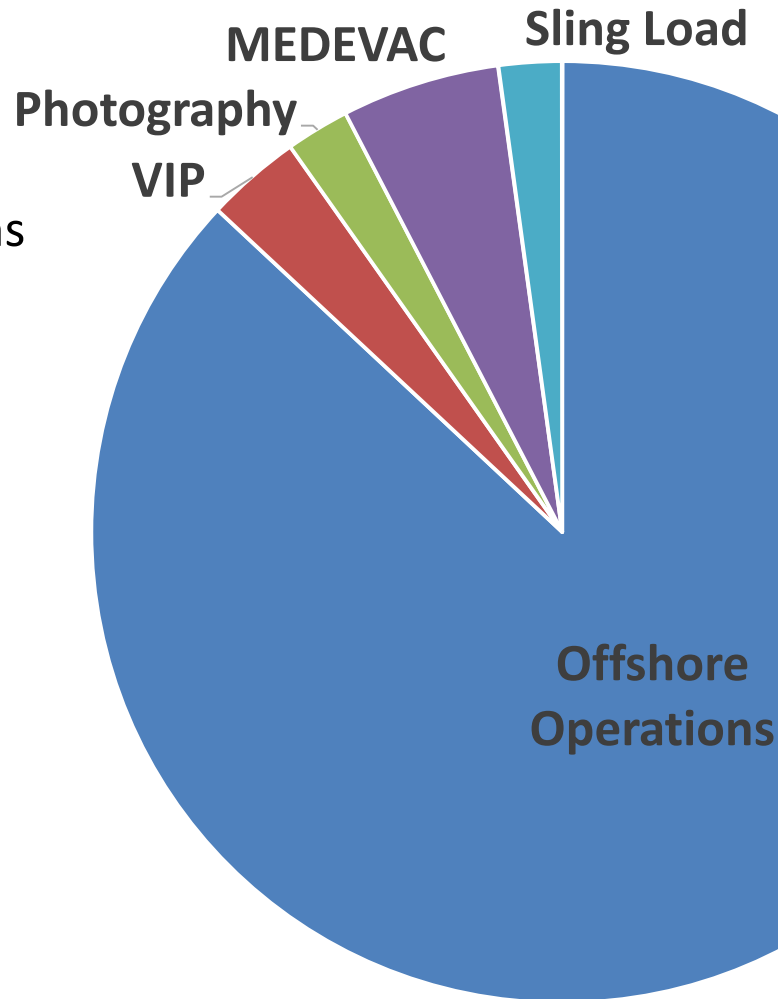
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# Our Exposure

## Statistics

- 85% Helicopter Operations
- > 150 Fixed Platforms
- > 30 Rigs / Vessels
- 15 Operating Heliports
- ~ 70 Helideck Inspections annually
- ~ 350 Findings
- ~ 25 Closed Helidecks



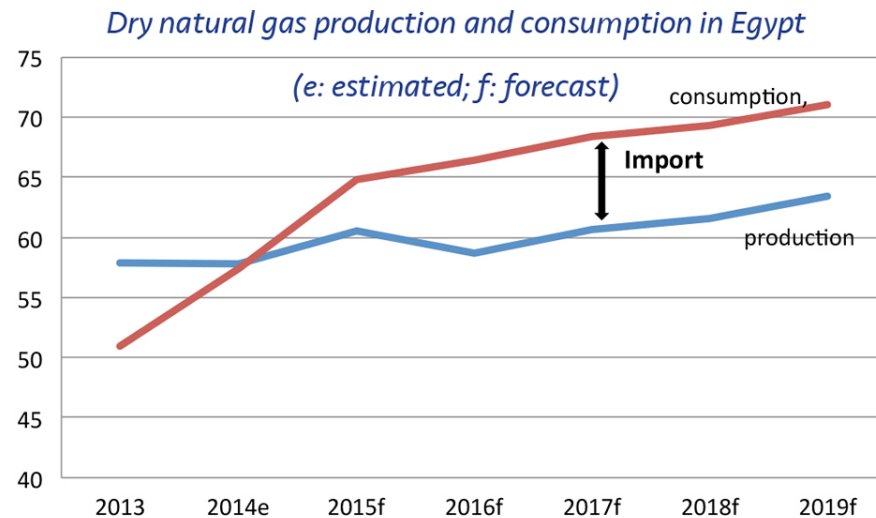
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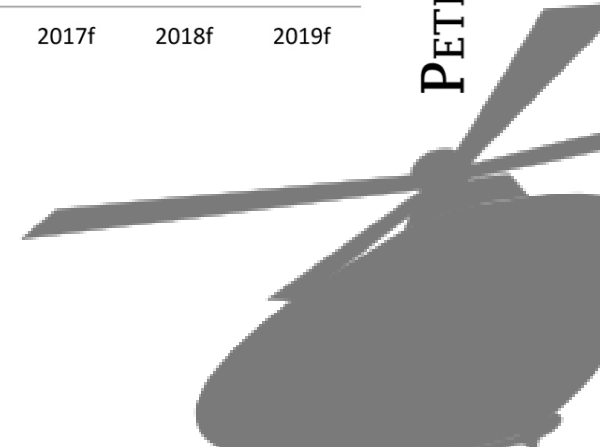
# Oil and Gas in Egypt

- Booming industry which attracts much foreign investment
  - Western Desert
  - Deep water Exploration
- “Discovery of the Decade” (MED Sea - 80% of total GAS in Egypt)
- Continued Exploration in MED Sea and Red Sea



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# PAS Commitment

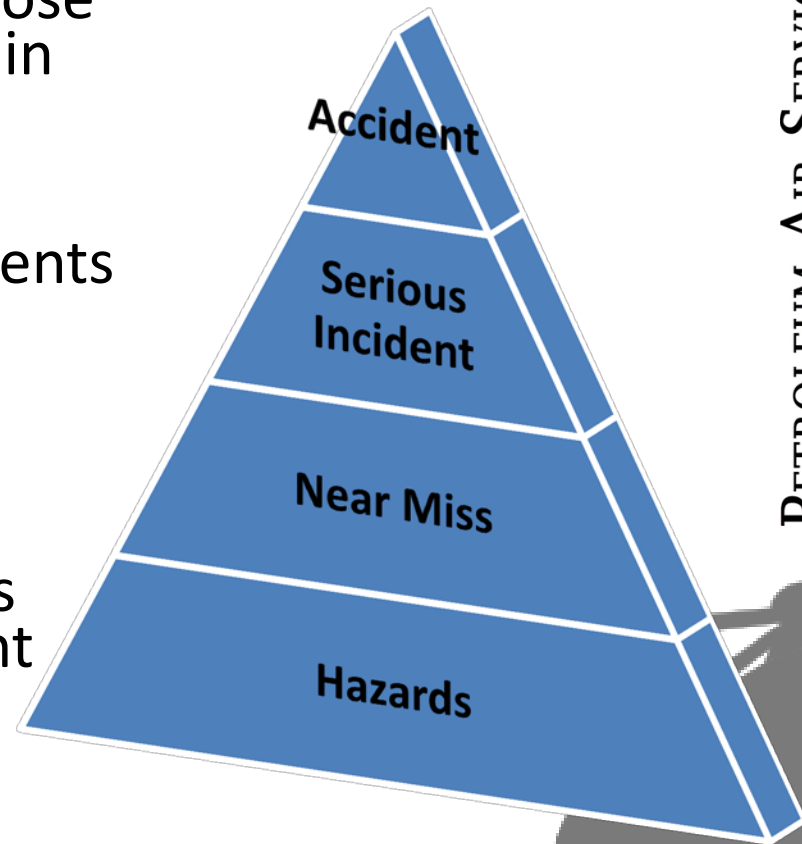
## Our Vision

- Identify any possible hazards to the safety of our personnel or clients in order to prevent those hazards from appearing within the future our operations.

## Our Goal

- To prevent any aviation incidents / accidents by eliminating or mitigating future hazards.
- Essential Element of SMS
- Mitigating hazards - Reduces incidents – Reducing Accident

## Safety Pyramid



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# Hazards in Oil and Gas

- Undesired Events
  - Unstable Approaches / Loss of control
  - Operations outside aircraft limits
  - Hard landings
  - Overshooting the landing area
  - Injury or Health hazards



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# Approvals and Certification

- Lack of compliance by heliport/ helideck owners
- Expired approvals
- Equipment not compliant
- Limitations not documented
- **Remedy**
  - Conduct Periodic Inspections
  - Ensure approvals are gained
  - Restrict operations
  - Regulatory Oversight
  - Limitations to be communicated



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# Physical Characteristics

- Helideck size / D-Values
- Elevation
- Obstructions
  - OFS (Flare booms, cranes, foam monitors, lights)
  - FATO (Cranes, buildings, wires)
- Remedy
  - Operational Limitations
    - Payload
    - Wind limits
  - Aircraft type change



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# Environmental Issues

- High Winds
  - Loose items
- Turbulence
  - Air Gap
  - Existing Buildings (Hangar/ Terminal/ Structures)
- Hot/Cold emissions
- Sudden Gas release
- Lack /Incorrect Weather Reporting
- Remedy
  - Operational Limitations
    - Payload
    - Wind limits
  - Housekeeping
  - Functioning Status Lights
  - AWOS



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# Surface

- Surface Deterioration
- Bird Guano
  - Health effects
  - Engine congestion
- Water pooling
- Poor Friction / Glossy surface
- Objects above surface level
- Safety nets



- **Remedy**

- Bird Control
- Sloped surfaces
- Paint properties (Silica)
- Operational Limitations



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# Visual Aids

- Lack /Unclear marking
- Non-standard marking
- Non-standard lights
- Flood Lights
  - Glare effect

- **Remedy**

- Standard marking
- Correct lighting specs



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# Heliport Location

- Restricted Approach / Departure profile
  - Obstructions / Obstacles
  - Lack of Security
  - Inadequate fencing
- **Remedy**
    - Operational Limitations
    - Stringent security procedures
    - Passenger control



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# Recovery Measures

- Inadequate Fire fighting equipment
- Lack of rescue equipment
- No Emergency plan or practised drills

- **Remedy**

- Regular inspections
- Emergency response drills
- Personnel training and awareness
- Improved design specifications
- Crashworthy and Survivability Issues



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# Heliport/Helideck Owners

- Joint Helideck / Heliport Inspections
- Highlighting operational restrictions
- Promote greater awareness
- Quarterly meetings
  - Address deficiencies
  - Action plans
- Relay regulatory requirements



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# PAS Enhanced Oversight

- Trained Inspectors
- Continuous Oversight and Monitoring
- Assessment and authorisation system for accepting and operating to helidecks
- Tracking discrepancies
- Imposing operational limitations
- Operational Risk Assessments



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# Conclusion

- High Risk Industry
- Effective Mitigation Controls:
  - Improved design standards
  - Improved operating procedures
  - Ongoing regulatory oversight
  - Oil Companies commitment



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# Thank you



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