

# Middle East-(GCC)-JHSAT Safety Team Overview Briefing

**Roy D. Barnett**  
Middle East Senior  
FAA Rep.  
MID-JHSAT  
Program Facilitator



# Overview

- Origin
- Team structure/Regional demographics
- Regional challenges
- Survey description
- Work process/Five Risks identified
- Work done so far-comparison of results
- Way Forward

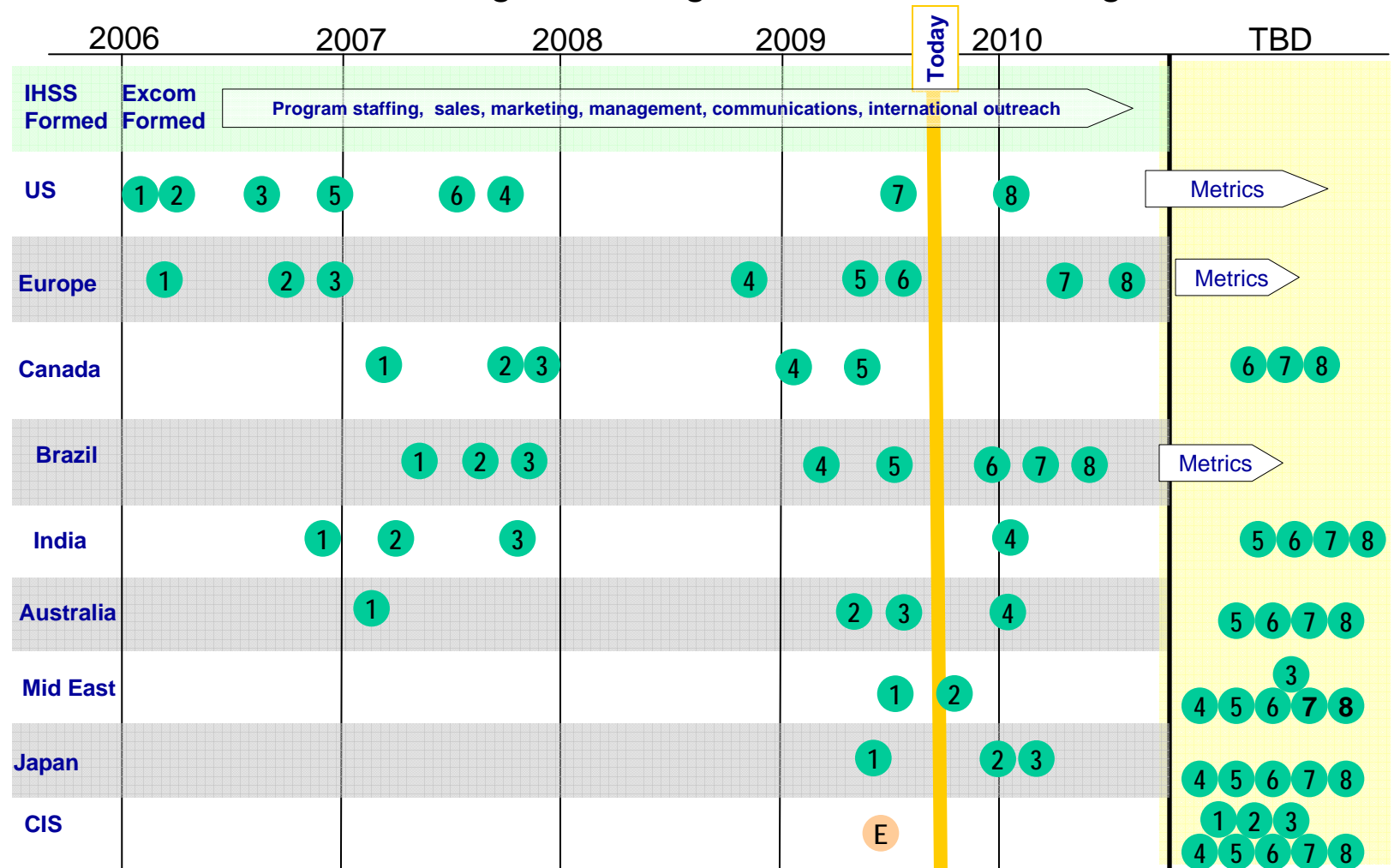
## Middle East-(GCC)-JHSAT Safety Team Origin

- IHST workshop held in conjunction with Dubai Helishow in November 2008
  - Shared results and action plans from other regions
  - Challenged participants to join IHST in a way that makes sense to the region
    - Own analysis or
    - Adapt analysis by other regions?

## IHST is a volunteer effort: MID-GCC JHSAT Team:

- Chairman: Capt. Mohammed Al Khateri-UAE-GCAA
- Vice Chairman: Capt. Michel Theriault-Abu Dhabi Aviation
- Program Director: Capt. Tony Griggs-Falcon Aviation Svcs.
- Chief Faciliator: Roy Barnett, FAA Senior Rep.
- Member: Robert Denehy, Aerogulf Services
- Member: Ms. Linda Nicol, Goodharbor LCC
- Member: Mr. Ian Crowe, Regional Insurer
- Member: Capt. Don Williams, Aramco
- Member: Capt. John Doran, Gulf Helicopters
- Member: Capt. John Scott-Laws, Aerogulf Services
- Gulf Flight Safety Committee- Capt. Jo Gillespie-Emirates Airlines.

# IHST Program - Regional Process Tracking



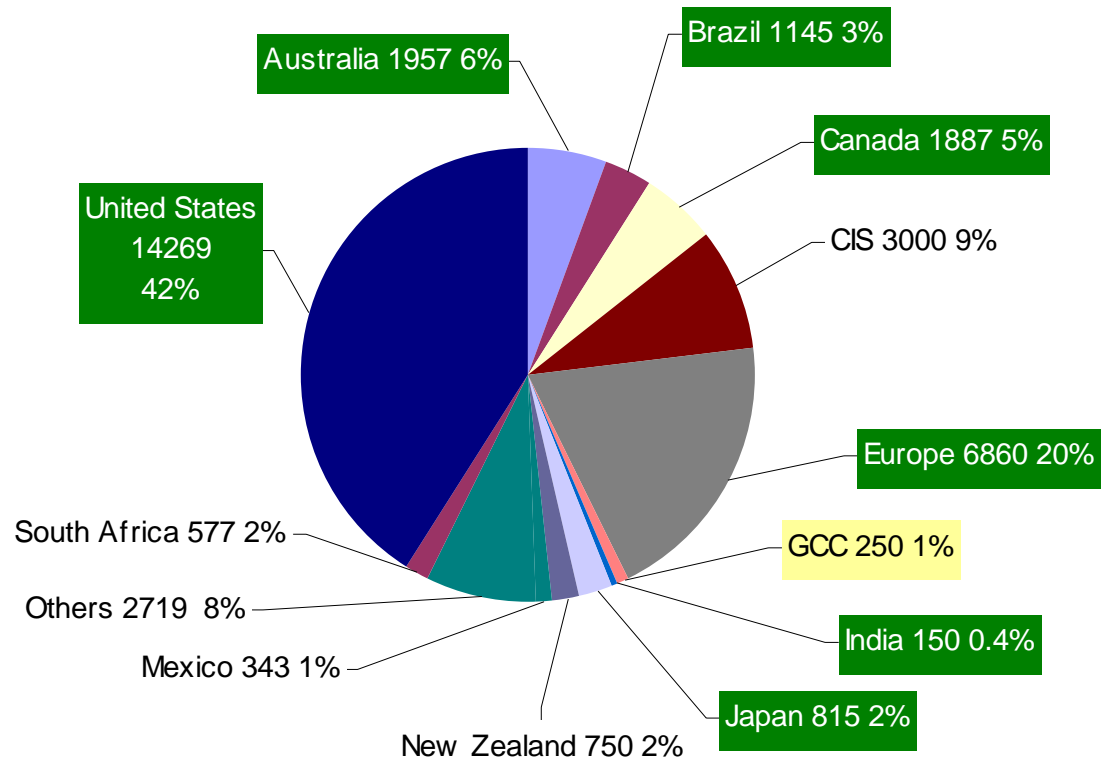
- Key:**
- 1 Regional Kickoff Meeting
  - 2 JHSAT Team Formed
  - 3 Accident Dataset Established
  - 4 JHSAT Report Complete
  - 5 JHSIT Formed
  - 6 JHSIT Process Refined
  - 7 JHSIT SEs complete
  - 8 JHSIT DIPs complete
  - E Regional "exploratory" mtg



## Worldwide Civil Helicopter Fleet Distribution 34722 aircraft

IHST Partner

Kick-off cpt



updated May '09

Worldwide participation is key to success

## *Unique Regional Challenges:*

- Need for a “bottom-up” approach. Need for “Champions for Change” in the region.
- Lack of regulatory transparency, standard reporting and harmonized investigative processes.
- Failure to cooperate and work together at a regional level, data-mining & sharing, lack of mutual recognition in region.
- No regional fatigue risk management system (FRMS).
- Rapidly growing regional commercial and helicopter sectors, regulators challenged to keep pace.

## MID-GCC-JHSAT Survey Description:

- Confidential pilot survey of seven GCC operators.
- Focus is on the Gulf Cooperation Council countries: Saudi Arabia, Kuwait, Bahrain, Qatar, United Arab Emirates, Sultanate of Oman.
- Lack of regional transparency and accident/incident data.
- Used anecdotal evidence from recent GCC helicopter accidents.
- Used pilot surveys using Australian Transportation Safety Bureau (ATSB) helicopter pilot surveys, utilizing GFSC banner.
- 225 pilot surveys were distributed in May 09, 62 surveys returned in August 09, 24 percent return rate.
- Data compiled and extrapolated by GCC-JHSAT, G.T.B, five main risks identified.



## MID-GCC-JHSAT Survey Description:

### **Three part Survey:**

**Part A:** Multiple choice questions probing company culture and procedures, samples company safety culture, work demands.

**Part B:** (1) Pilot's recollection/observation of negative experiences, i.e. poor aircraft maintenance, lack of standardization training and minimum safety separation.

(2) personal involvement in a flight safety incident, explores reasons and cause for safety incident. (loss of aircraft control, low fuel, near collision with terrain, obstacles etc.

**Part C:** (1) list five (5) biggest safety hazards or problems affecting flight safety, company safety culture, non-adherence to procedures, lack of CRM etc.

(2) Explain most riskiest, serious error you made, heard of or observed.

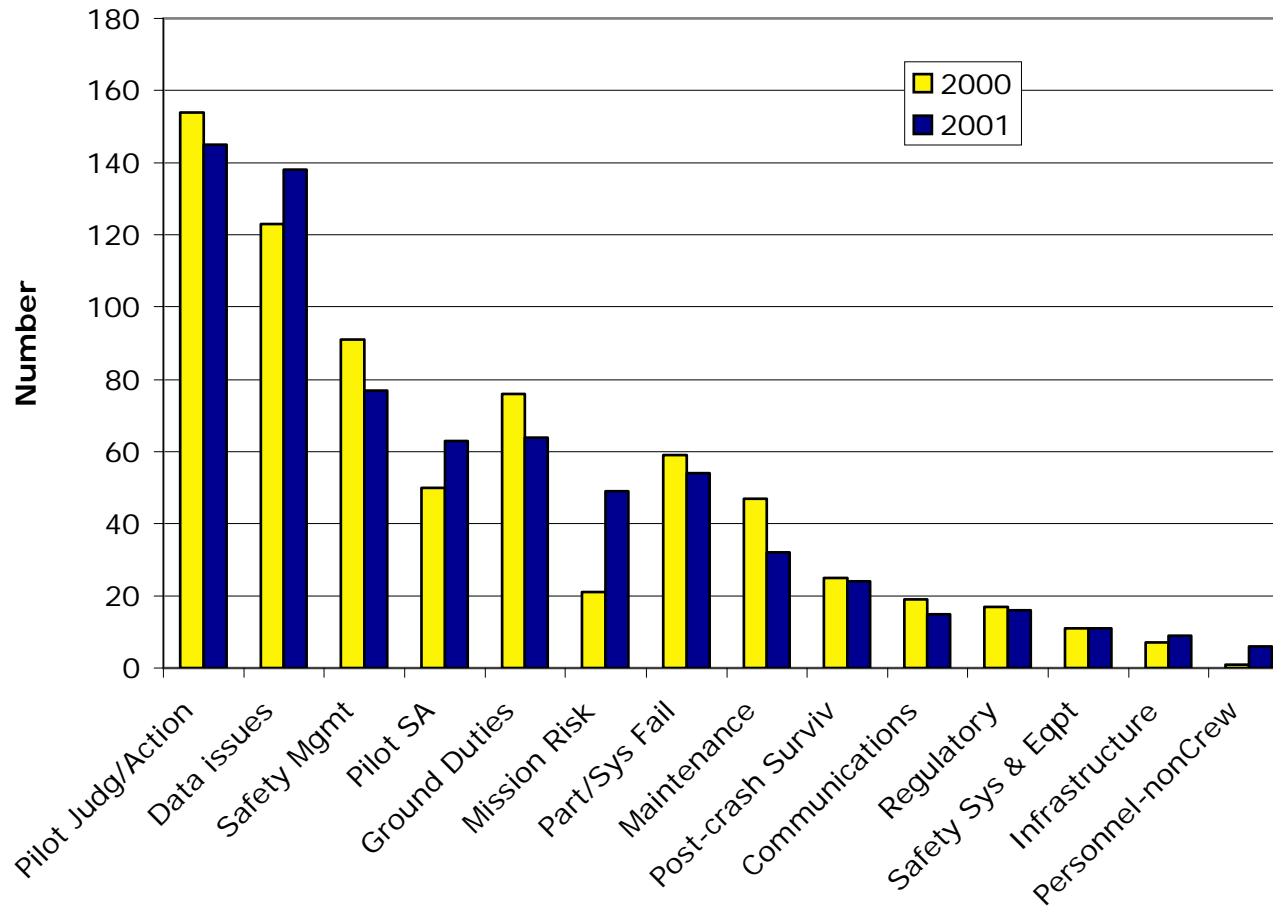
## Helicopter accidents in the GCC Region:

- 2009, Agusta Westland 139-tail boom catastrophic failure, tail strike 4 months prior, maintenance done. No info sharing.
- 2009, Agusta 109 caught fire on an oil platform, complete hull loss, no invest. No lessons learned.
- 2008, Agusta Westland 139, flying a VVIP operation at night crashed into the Arabian Gulf, pilot was Chief Pilot/G.M. Six fatalities, No transparent investigation or lessons learned.
- 2008-Bell 212 flying at night, 7 fatalities, pilot was G.M. and chief pilot-no accident report filed, no lessons learned.
- 2007-Agusta 109 (2 weeks in operation) VVIP flt. Brown out accident in the desert, (loss of visual reference-pilot fatigue) Ops mgr./Chief Pilot, no invest. No lessons learned.

\* *JHSAT required to use pilot surveys...*



## Accidents in which Problem Category was Cited at least Once



Using GCC survey to tailor US results to our region

## Regional Pilot Demographics:

Saudi Aramco	72 pilots
Gulf Helicopters	105 pilots
Aero Gulf	20 pilots
Dubai Air Wing	5 pilots
Abu Dhabi Aviation	55 pilots
Falcon Aviation Svcs	45 pilots

- Total of 225 pilot surveys distributed, 62 returned.
- Used the EHSAT paper as our guide.
- Pilot population largely ex-pat, Canadian, UK, USA Australian etc
  - highly diverse cultural, training background, high experience.
  - rest of pilot population, culturally mixed, speaking 30 languages, English Lang. Proficiency Test\*

\* One company reported 17 pilots failed ELPT at level 6

**SEVEN PEOPLE WERE KILLED WHEN A HELICOPTER CRASHED INTO AN OIL RIG OFF THE COAST OF DUBAI, OFFICIALS SAY.**

THE VICTIMS WERE A BRITON, AN AMERICAN, A FILIPINO, A VENEZUELAN, A PAKISTANI AND TWO INDIAN NATIONALS, THE COUNTRY'S CIVIL AVIATION AUTHORITY SAID.

THE HELICOPTER CRASHED INTO THE DECK OF THE RIG DURING TAKE-OFF, PETROFAC, THE OPERATOR OF DUBAI GOVERNMENT'S OFFSHORE OILFIELDS, SAID IN A STATEMENT.

AN INVESTIGATION IS UNDER WAY INTO THE CAUSE OF THE CRASH. THE INCIDENT HAPPENED ON AT 2020 (1720 GMT) ON WEDNESDAY WHEN THE AEROGULF BELL 212 HELICOPTER, CARRYING TWO CREW MEMBERS AND FIVE PASSENGERS, WAS ON A ROUTINE FLIGHT FROM THE RASHID OIL FIELD, 70 KILOMETRES (43.5 MILES) FROM DUBAI, ABERDEEN-BASED COMPANY PETROFAC SAID.

"DURING TAKE-OFF THE HELICOPTER CRASHED ONTO THE DECK OF THE RESILIENT, THE MAERSK JACK-UP DRILLING RIG," IT SAID. "THE AIRCRAFT THEN BROKE UP AND FELL INTO THE SEA.

"IMMEDIATELY FOLLOWING THE INCIDENT, A FIRE BROKE OUT ON THE MAIN DECK OF THE DRILLING RIG WHICH WAS QUICKLY CONTAINED AND EXTINGUISHED."

## **UAE president's brother killed in helicopter crash**

**Funeral prayers were held on Tuesday for UAE president's brother, who died the previous evening in a tragic helicopter accident over the Arabian Gulf.**

Sheikh Nasser bin Zayed Al Nahyan and an unspecified number of colleagues were killed when the helicopter carrying them crashed into the sea, according to state news agency Wam.

The prayers were held at the Sultan bin Zayed Mosque and attended by President Sheikh Khalifa bin Zayed Al Nahyan and Sheikh Mohammed bin Rashid Al Maktoum, vice president and prime minister of the UAE and ruler of Dubai.

**High profile accidents should help our cause**





IHSS Briefing, Montreal, Canada, October 2009





## Results of Survey: Five Risks identified

- Commercial and “VVIP” pressure
- Night operations/brown-out conditions
- Inadequate pilot training
- Poor safety culture
- Mid-Air Collision Potential

## Results of Survey: Five Risks identified

### ➤ **Commercial pressure:**

- ❖ VVIP operations
- ❖ "Change on the fly"
- ❖ Landing at night on unsurveyed sites.
- ❖ Pressure to fly aircraft with unserviceabilities in demanding environments.
- ❖ Lack of fatigue avoidance scheduling tool.

### ➤ **Night operations/brown-out conditions:**

- ❖ "Black-hole approach" to oil rigs, (single light source-no discernible visible horizon)
- ❖ unsurveyed,unprepared landing sites (no visual references)
- ❖ No standard use of NVG (climb into total blackness at night)

### ➤ **Inadequate pilot training:**

- ❖ Ineffective flight simulator training : emergency conditions.
- ❖ "fill the square" approach to training.
- ❖ Lack of recency training. (Instrument flying)

## Results of Survey: Five Risks identified

### ➤ **Poor safety culture:**

- ❖ Exacerbated by lack of proactive regulatory oversight
- ❖ Lack of formal accident/incident investigative body with transparent findings and lessons-learned.
- ❖ Lack of a systemic safety compliance culture.
- ❖ Need for a tailored operator Safety Management System (SMS).

### ➤ **Mid-Air Collision potential:**

- ❖ congested off-shore airspace with limited radar coverage and no mandated ACAS/TCAS.
- ❖ poor visibility operations, high humidity, oil field pollution, blowing dust, sand often hamper visibility in crowded conditions.

# Results of Survey: Comparisons

## MID-GCC JHSAT

- Commercial and “VVIP” pressure
- Night operations/brown-out conditions
- Inadequate pilot training
- Poor safety culture
- Mid-Air Collision Potential

## EHSAT and JHSAT

- MID/JHSAT found some correlation between EHSAT and JHSAT studies showing “pilot misjudgment and actions” as top single causal factor:  
68% Europe, 77%-U.S.A.
- Operator Safety Culture-48%-Europe, 46% U.S.A.
- Pilot situational awareness-38% Europe, 26% U.S.A.
- Ground duties-Europe, 35%, U.S.A-38%

## What is the way forward?

- GCC/JHSAT will take these 5 risks to the GFSC-JHSIT and determine appropriate risk intervention strategies.
- Continue to search for Champions for Change in the GCC and Middle East to articulate regulatory harmonization and change.
- GCC/JHSAT seeks to engage helicopter industry stakeholders in MID/GCC region. Example: manufacturers, operators, regulators and researchers. Better training for specific operating environments, requirements for flight data recording and risk assessment training.
- Goal is to encourage proper accident reporting and investigative outcomes of all helicopter accidents and build regional cooperative alliances. Need to establish a regional fatigue risk management system (FRMS).
- Ideal would be a regional body to investigate and report on all accidents inclusive of all regional regulatory bodies in order to meet the IHST goal of reducing accidents by 80%.
- Finally, the goal is to expand our current GCC JHSAT to a regional level given the proper mandate and resources to articulate the appropriate risk intervention strategies throughout the region.

## Thinking out of the box!! Future Challenges:

### *Conclusion:*

- ❑ Regional regulatory harmonization and cooperation.
- ❑ Regional data-sharing and data-mining to prevent accidents.
- ❑ “IOSA like” registry and global operator inspection standard.
- ❑ Fatigue avoidance standard for helicopter operators.

\*\*Ask for the IHSS symposium support to help build a regional regulatory body that works: one idea:

Empower the Arab Civil Aviation Commission (ACAC) to act on behalf of all Middle East regional aviation partners...

➤ Thank you for your attention!

