

# ***CRM/NTS***

## ***THE NEXT GENERATION***



### ***A fully integrated approach***



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**Are our CRM/NTS programs REALLY Mitigating  
the Human input to OPERATIONAL RISKS?**

Just one more  
drop of Aqua-  
Regia ...

And we can  
eliminate  
Human Error  
Forever !

# Current (Sixth generation) CRM

Threat and Error management (TEM) as its core element and incorporates the requirement to understand and address organisational culture as part of the program

- **BUT – Is this enough ?**



Is it time to RE-FOCUS our CRM/NTS programs?

# CRM/NTS

## WHAT DO WE NEED TO COVER ?

- Regulatory requirements/guidance
- ICAO requirements/guidance
- Organisational requirements



# CRM/NTS

## WHAT ABOUT THE HAZARDS/RISKS (THREATS) SPECIFIC TO YOUR CONTEXT OF OPERATIONS ?

- Do you know the areas of higher risk ?
- Does your CRM/NTS program appropriately target these areas and form part of the risk mitigation strategy ?
- **IF NOT – WHY NOT ?**

***Do we need to re-think the  
CRM/NTS paradigm?***

***Time for a more integrated  
approach ?***





OK  
So what's with  
this more  
integrated  
approach ?

An 'integrated approach' is where the CRM/NTS programs are fully integrated with the organisational SMS and the corresponding Operational Risk Management systems



# The development of an 'integrated' approach to CRM/NTS training

A white Toll helicopter, identified by the registration VH-TJK, is parked on a tarmac. The helicopter features the 'TOLL' logo on its side and tail. The background shows a sunset sky with orange and yellow hues, and a city skyline is visible in the distance.

WHAT ARE THE REAL **'THREATS'** IN TEM?

An example - Helicopter Emergency Medical Services (HEMS)



# A RECENT MISSION



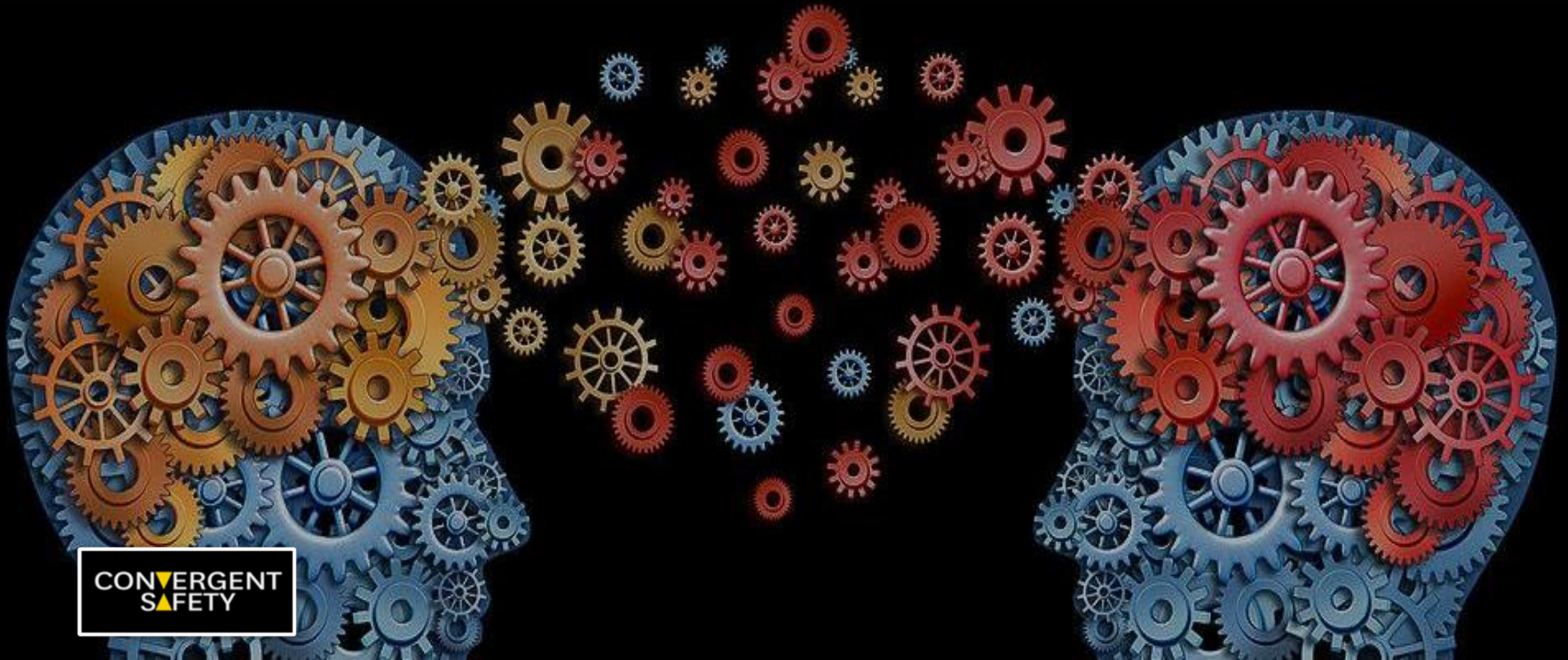




# THE CRM/NTS TRAINING CYCLE

- All crews rotate through CRM/NTS (and Technical) training program three times per year
- The training is typically scenario based, using full mission simulation, full crew - virtual reality simulation and relevant case study discussions and incident/accident reviews in the classroom environment.

# 10 Key lessons from the development and implementation of an integrated HF/NTS program.





# 10 Key points to share with you...

1. The CRM/NTS programs linked to the SMS
2. Lead an lag indicators (Info Vs data)
3. The CRM/NTS programs as risk mitigation strategies (include tools and processes - awareness training is not good enough)
4. Specific tailored programs for all appropriate personnel (common terminology/tools).

# 10 Key points to share with you...

5. Media to provide guidance on the development of CRM processes and NTS
6. Standardised and (accepted) CRM/NTS marking scales (Including training/education program for crews).
7. Specific training in the development and assessment of CRM processes and NTS for check/training staff



# 10 Key points to share with you...

8. **Appropriate assessment of 'inter-rater reliability'**
9. **Crew CRM/NTS formally assessed as part of each checking and/or /training evolution**
10. **Crew de-brief of CRM/NTS issues (post flight) as an SOP requirement (learning points).**

# An integrated approach to CRM/NTS

## More information:

- See me in the break
- Article in Nov 18 issue of 'Australian Aviation'



# An integrated approach to CRM/NTS

Questions ?

*But then again – lunch awaits!*

*Thank you*

