

ASSESSING PILOT PERFORMANCE

Mike Ford – Air Nelson

Ian Munro – Mount Cook Airline

OUTLINE

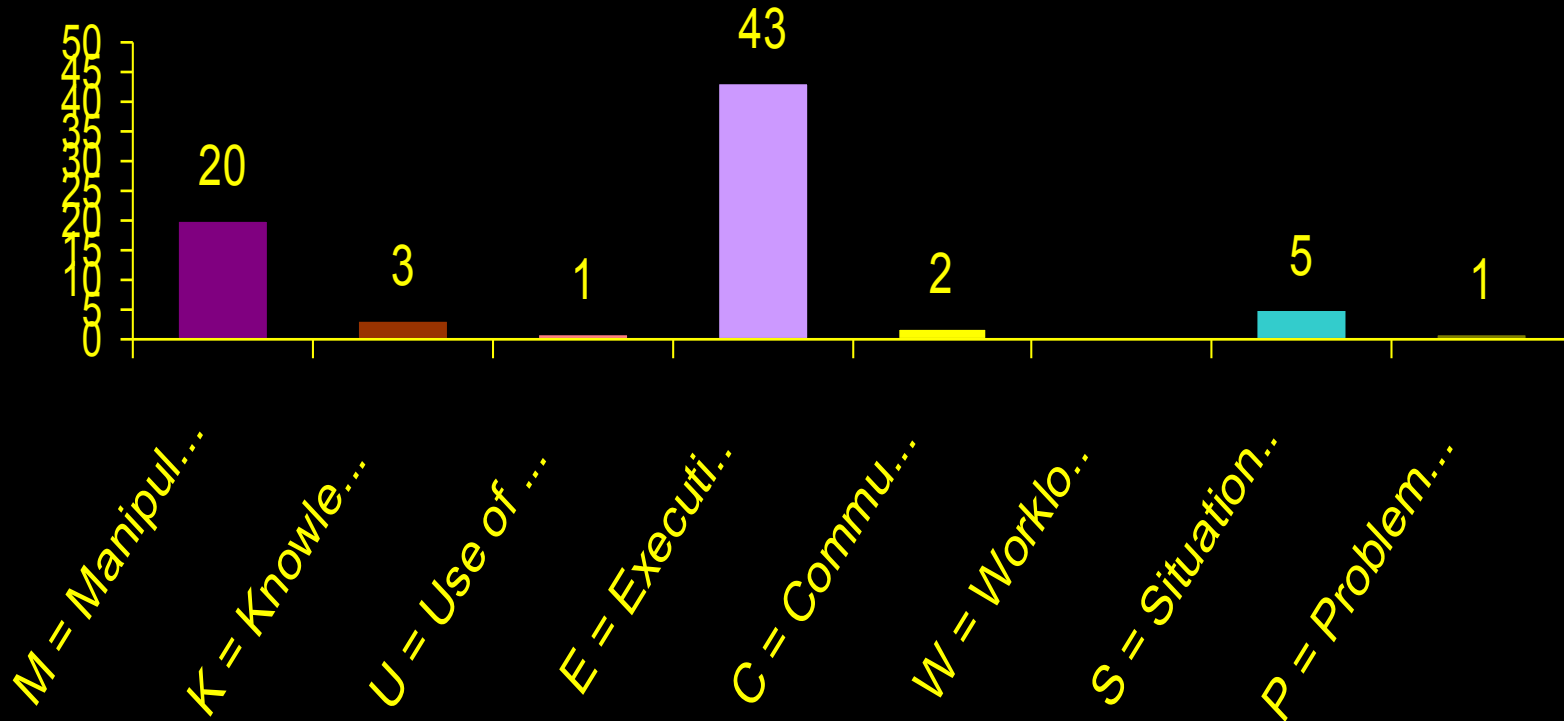
- Where we are at
- Where we are going
- Why we are going there
- How we are going there

Background

- We currently assess
 - Manipulative Skills
 - Knowledge
 - Execution of Procedures
 - Use of aircraft systems
 - Situational awareness
 - Problem solving / Decision making
 - Communication skills
 - Appropriate Assertiveness
 - Workload Management

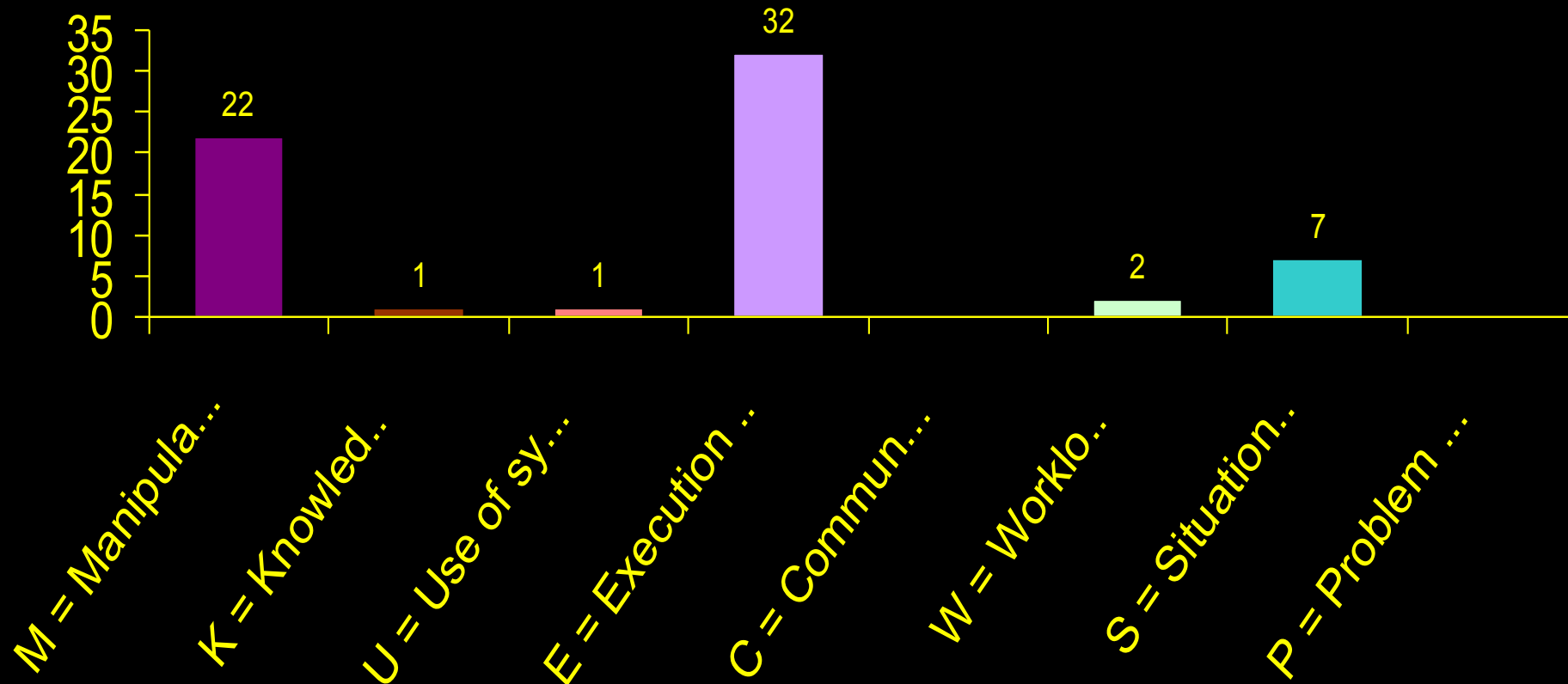
Operational Competency Assessment - SAAB 340

Ratio Reason Codes - 2002



OPERATIONAL COMPETENCY ASSESSMENT - Q300

Reason Codes - Check 5 (2010/2011)



Problem

Its not working!

Flight Examiners are still focused on Technical Skills and Procedures

In our Attempts to objectivise assessments, we have over overcomplicated things.

Pilots often go away from sim checks being none the wiser

The FALLBACK Pilot Assessment Model

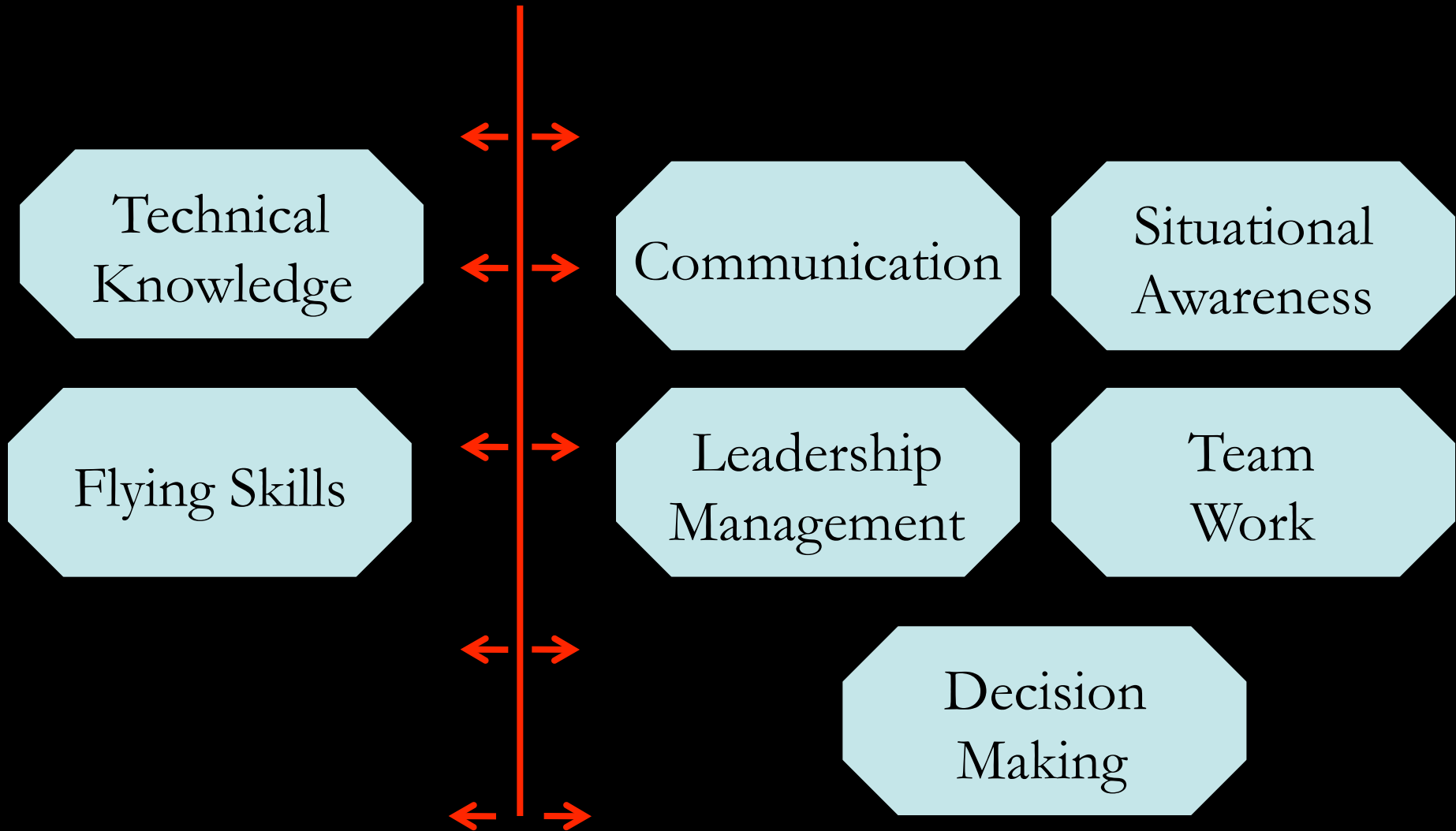
Would you let this fellow fly with your family down the back?

– If Yes, **Pass**

– If No, **Fail!**

Another Problem!

Viewed as separate?



Human Factors

Human Factors training is not just about
classroom learning

Human Factors are a part of everything we
do!

Company culture must support good CRM

- PHILOSOPHIES
 - POLICIES
 - PROCEDURES
 - PRACTICES
-
- Training and Assessments must support the
above

The Vision

HF fully integrated into company culture

Teaching and Assessment of Non
Technical Skills and Technical Skills fully
integrated.

All Training staff equally skilled in
Technical and non Technical skill training
and examining techniques

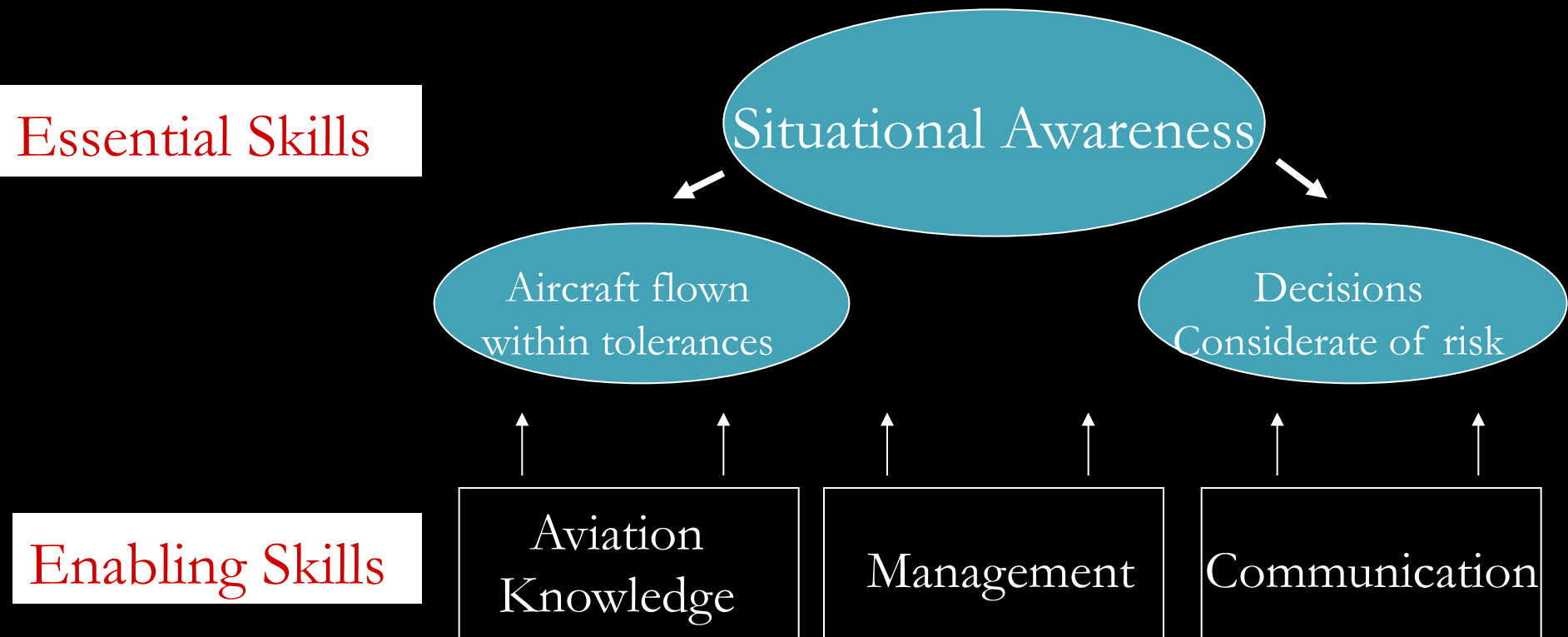
Alternative Assessment Systems

- NOTECHs
 - Categories, elements and behaviours
 - Complex
- University of Texas
 - Behavioural markers
 - Threat and error countermeasures
- No hierarchy of skills

Then along came Tim Mavin's MAPP

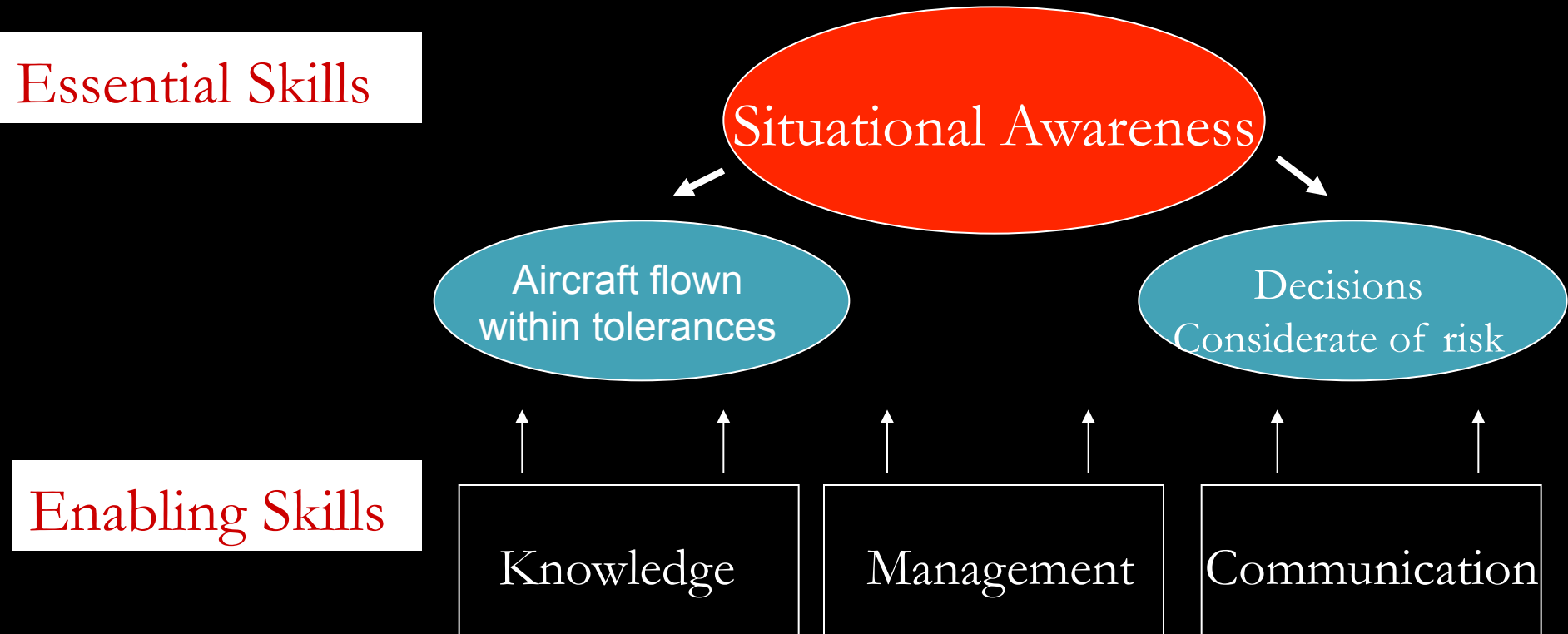
- Many hundreds of hours of research
- What is the essence of a good performance? What does it look like?
- PhD Thesis

Model for Assessing a Pilots' Performance (MAPP)

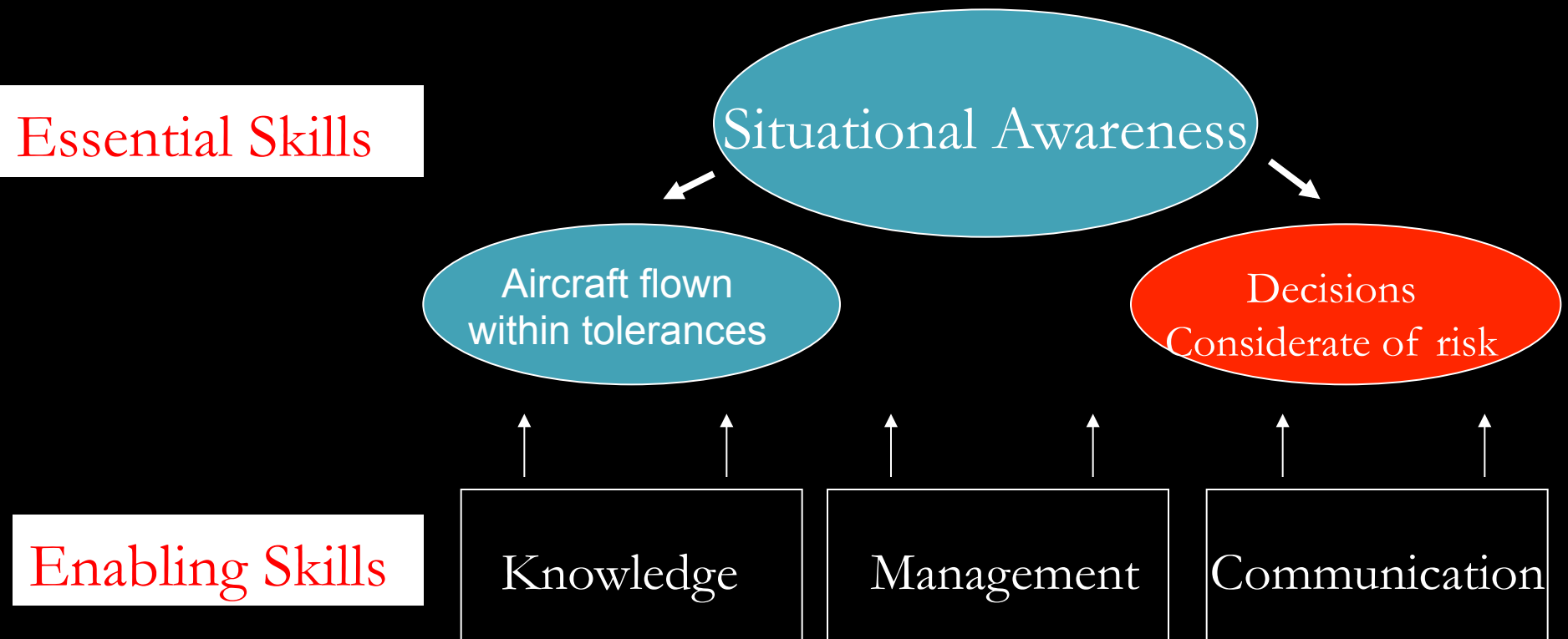


Courtesy Professor Tim Mavin

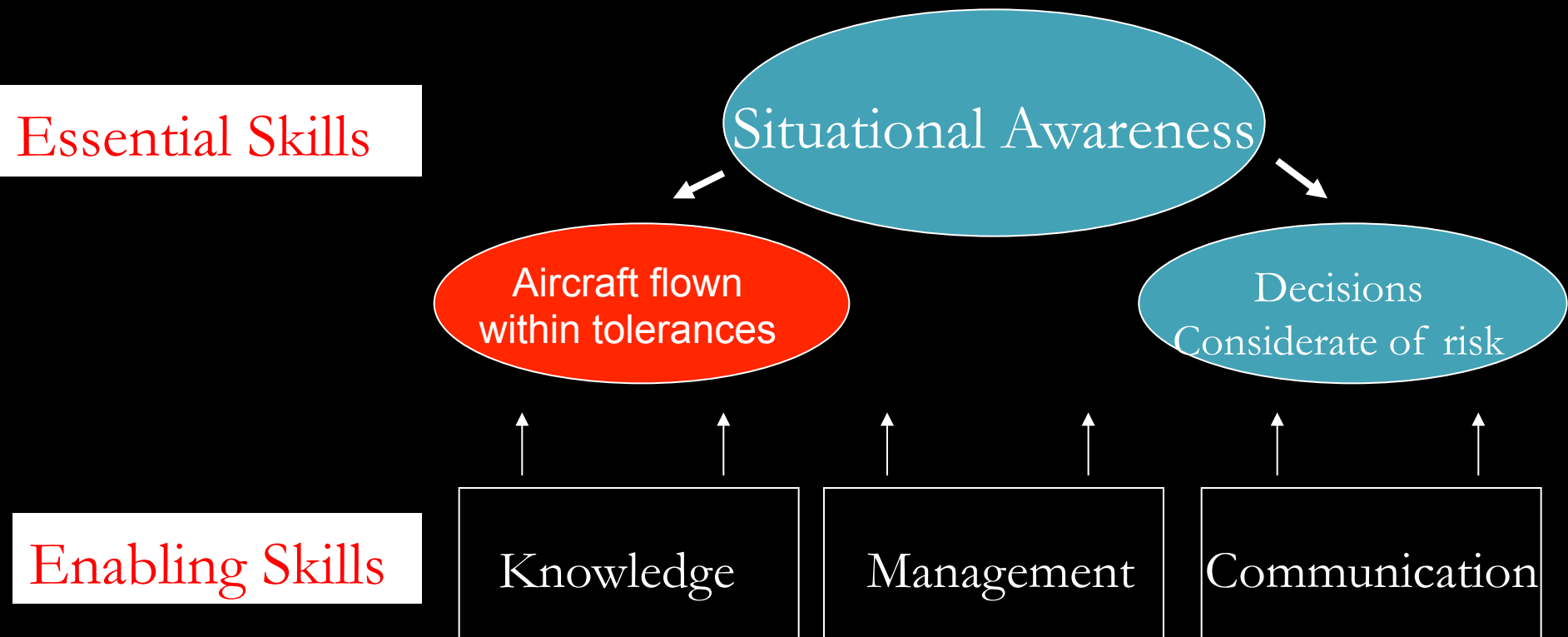
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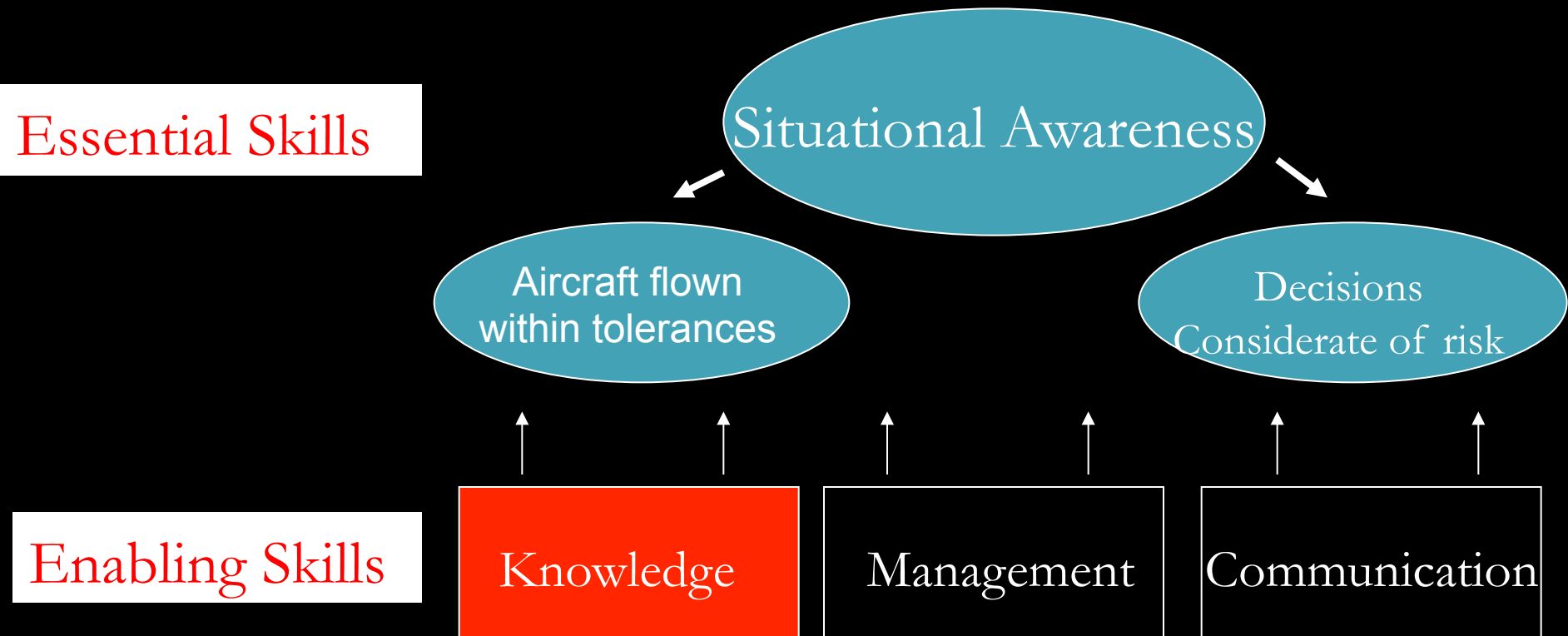
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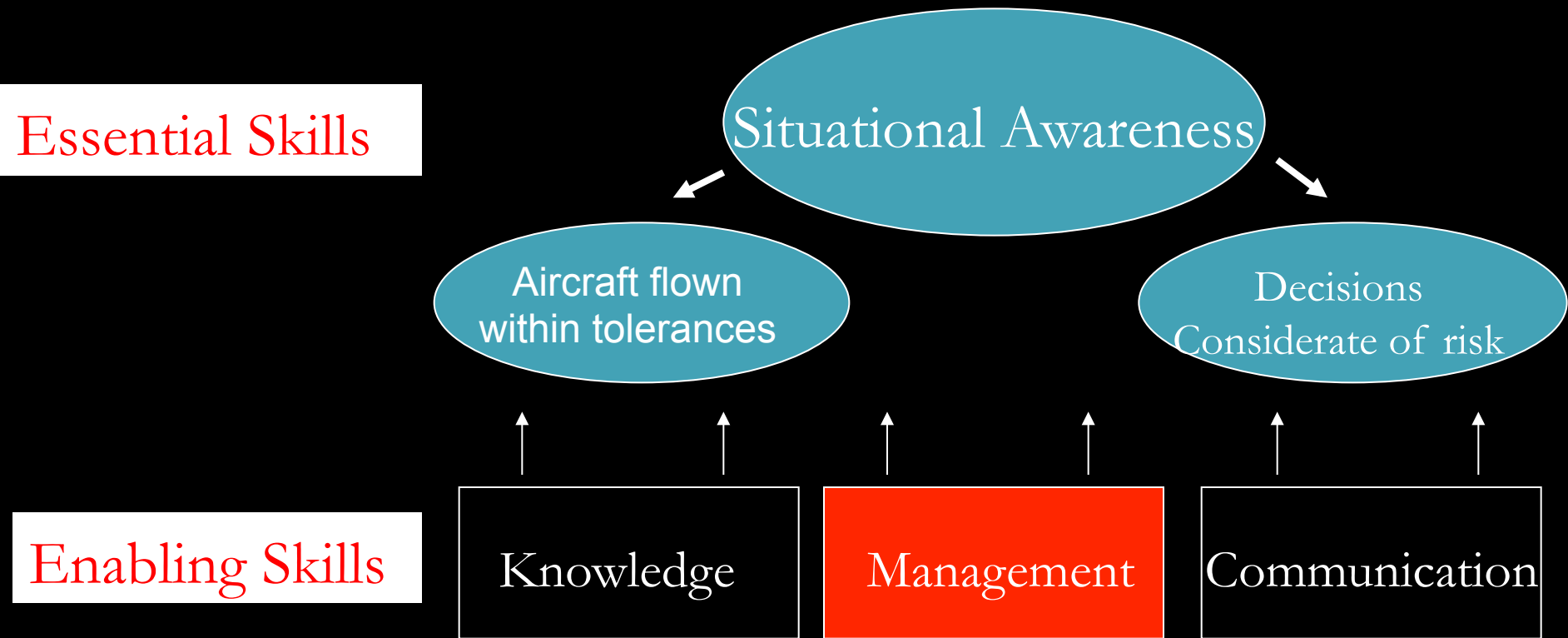
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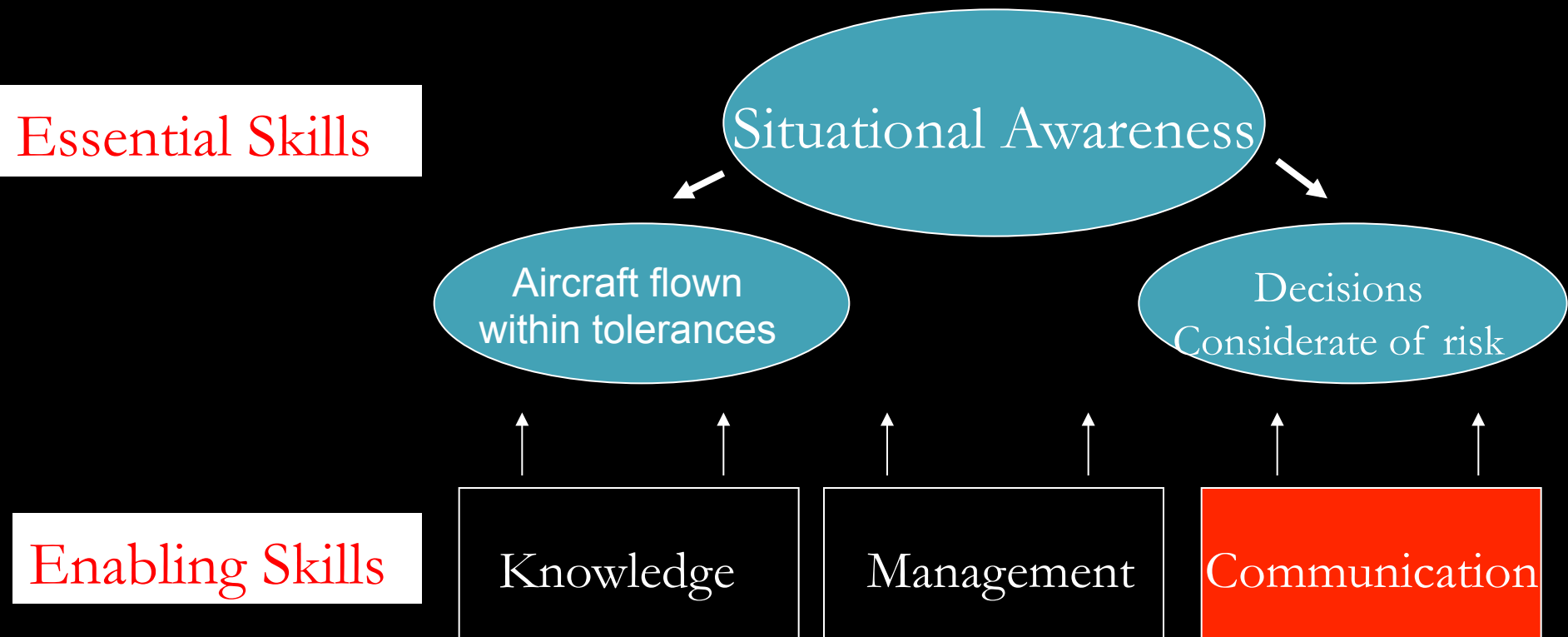
Model for Assessing a Pilots' Performance (MAPP)



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Model for Assessing a Pilots' Performance (MAPP)



Advantages of the MAPP

- Simple
- Pilots can understand and self assess
- Based on solid research
- Tells it like it is – old school examiners will relate to it
- Recognises that there is a hierarchy of skills
- Allows integration of technical and non technical skills training

The Project

- Assessment tool designed by Tim
- Instructor / Examiner training manual
- New forms for OCA and Line Assessments
- Development of 40 minute modules
 - SA
 - Decision making
 - Communication
 - Management (encompassing workload management, “control” and TEM)
- *Standard Text: “Safety at the Sharp End” by Flin, O’Connor and Crichton*
- **Video footage for Examiner and Instructor training**

Implementation Training

- All Pilots (One day course)
 - New Modules
 - Assessment tool
- Flight Examiners (Two day course)
 - Practise assessments
 - Simulator trials

Surveys and Interviews

Pre Implementation

Gather baseline data

Post Implementation

Surveys and interviews done again to measure effectiveness.

Standard University survey techniques will be used

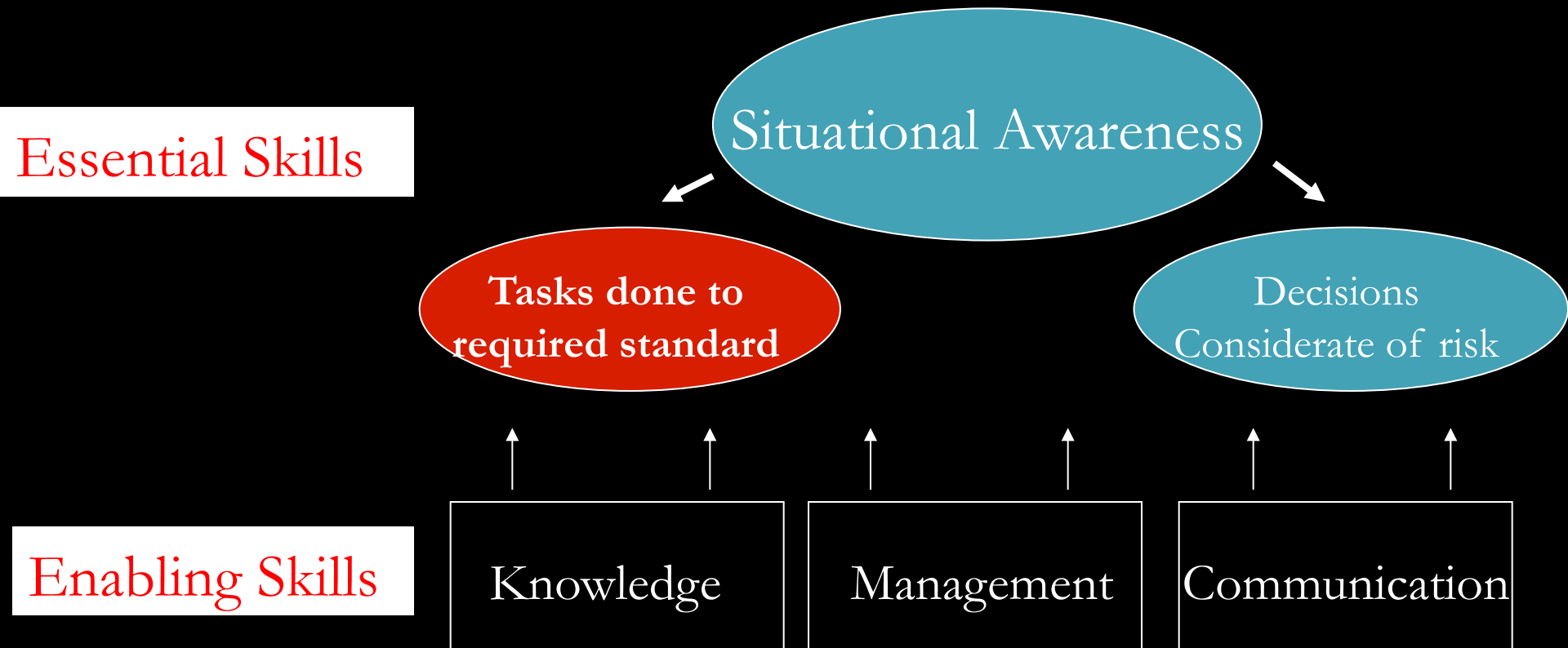
Training videos

- Tim brought Ryan over from the film school
- 8 hours in the ATR
- 7 hours in the Q300
- Videos being edited into short segments for examiner / instructor training

For Example:

- 3 circling approaches flown. One demonstrates a loss of SA by the PF with the PM prompting to save the day
- One demonstrates good SA / decision making / Flight path management as a bench mark
- One demonstrates poor flight path management by the “green” FO with appropriate corrections by PF

The MAPP's utility in other professions?



We'll report back in 12 months to
let you know how it works!

QUESTIONS?

