Non Technical Skills in the Command Upgrade Process

Captain Gerard Dorge
Leader NTS Flight Crew- Short Haul
DISCLAIMER

*FOR THE LEGAL EAGLE OR THOSE WITH REALLY GOOD EYE SIGHT

Capt Gerard Dorge- PACCDEF 2011
THE CHALLENGES…

- IMPORTANCE
- PERCEPTION
- IMPLEMENTATION
- BUY IN
THE COLD, HARD FACTS:

‘Flight crew coordination was less than effective. The PIC did not manage the task sharing; crew resource management practices were not followed.’

NATIONAL TRANSPORTATION SAFETY COMMITTEE MINISTRY OF TRANSPORTATION REPUBLIC OF INDONESIA, 2008.

Adam Air, Boeing 737-4Q8.

102 POB MISSING. THE ACCIDENT DEEMED NOT SURVIVABLE

Capt Gerard Dorge- PACCDEF 2011
THE COLD HARD FACTS-
‘the captain’s failure to effectively manage the flight’. NATIONAL TRANSPORT SAFETY BOARD 2009

Colgan Air, Bombardier DHC-8-400, N200WQ.

50 PEOPLE KILLED.

Capt Gerard Dorge- PACCDEF 2011
THE COLD HARD FACTS-

‘The crew interaction and the PIC’s CRM were unsatisfactory’

INTERSTATE AVIATION COMMITTEE
AIR ACCIDENT INVESTIGATION COMMISSION 2010

Tupolev Tu-154M, tail number 101, at Smolensk "Severny".

96 KILLED

Capt Gerard Dorge- PACCDEF 2011
THE COLD HARD FACTS-

‘This implies that pilots.... cannot readily assimilate, comprehend, and react to the hazards created by the rapidly changing nature of a thunderstorm.’

Capt Gerard Dorge- PACCDEF 2011
THE COLD HARD FACTS-

‘the pilot in command’s attention became channelized and was fixated on landing the aircraft.’

Garuda Indonesia, Boeing 737–497, PK–GZC, YOGYAKARTA

21 KILLED

Capt Gerard Dorge- PACCDEF 2011
MORE THAN ONE CAUSAL FACTOR, BUT A COMMON RE-OCCURRING THEME…
NTS & Skill Base

Flight Crew

Technical Skills

Non Technical Skills
IS NTS/HF THE 'POOR COUSIN' IN THE SCHEME OF PILOT TRAINING…???

“oh yeah we need to do that too…”

Relatively, how much time is spend on the Technical training compared to NTS training?
SO WE RAISE THE RHETORICAL QUESTIONS…..?

WHAT IS THE ROLE OF A CAPTAIN?

WHAT ATTRIBUTES MAKES A “GOOD” CAPTAIN? (WORK SHOP)
Overview of the CMD Upgrade process at Virgin Australia:

- Possible candidates identified. Command Development flight rostered with Check or Senior Training Captain-non-jeopardy.


- Command upgrade Ground school. 5 Days total.
  - 2 days of Command NTS (with senior NTS facilitator whom holds the rank of Captain)
  - 3 days of Command technical discussion (with a Check and Training Captain).
Overview of the CMD Upgrade process at Virgin Australia:

- 3 x standardised Training Simulator sessions
- Line Training- minimum of 30 sectors & not less than 50 hours
- 4 x Simulator sessions.
  - final Simulator check including a Line Oriented Evaluation (LOE) exercise and Operator Proficiency Check (OPC) with two Check Captains
- Brief period of further Line Training
- Line Check (Two Days)
  - Day 1 Check operating in RHS as First Officer
  - Day 2 Line F.O. with Check Capt. as Observer.
NTS syllabus in the CMD
Course Ground School

- Introduction and a few questions
- The role of a Captain
- Feeling a bit Stressed?
- Communication / Conflict Resolution
- Cultural Factors
- Leadership and Managerial Skills
- Workload Management
- Decision Making
- Managing Threats and Errors
- Darwin Overrun.

Capt Gerard Dorge- PACCDEF 2011
WE PROVIDE FEW DIRECT ANSWERS, OFTEN JUST MORE QUESTIONS.

CONVERTING AWARENESS AND KNOWLEDGE INTO SKILLS.

BASIC CONCEPTS AND THEORIES WITH PRACTICAL EXAMPLES THAT CAN BE FURTHER EXPANDED WITH PRACTICE AND TECHNICAL SKILLS ON DAY THREE TO FIVE OF THE COMMAND UPGRADE COURSE
Do you feel stressed at the moment?
EXAMPLE: PRACTICAL DISCUSSION and EXERCISES

WHOM IS MOST LIKELY TO MAKE A SAFE DECISION?

NTS CORE ELEMENTS OF STRESS, DECISION MAKING, INFORMATION PROCESSING AND WORKLOAD MANAGEMENT.
Decision Making Framework

CARRY OUT ACTION (Basic R.P.D.)

DESIGNATE THE PILOT FLYING

Q.R.H. ACTIONS (to contain the initial problem)

DEFINE THE NEW PROBLEM

INTUITIVE D.M.

ASSESS TIME AVAILABLE

STRUCTURED (G.R.A.D.E.)
IMPLEMENTATION

EXAMPLE: PRACTICAL DISCUSSION and EXERCISES

DECISION MAKING MODELS
RISK MANAGEMENT

BUT IN PRACTICE

FURTHER DISCUSSIONS ON USING THIS NON-NORMAL MANAGEMENT MODEL ON DAYS 3 to 5 WITH PRACTICAL TECHNICAL COMPONENT
IMPLEMENTATION

To delegate or not to delegate?

- Monitor refuelling at a non-engineering port – delegate to refueller
- Whether to accept an aircraft with a MEL delegate to engineer or maintenance watch
- Calculate the fuel load – delegate to F/O
- Talking to the CS or pax during an emergency – delegate to F/O
- Decision to offload a pax - delegating to CS
- Leaving the aircraft with pax on board – delegating to CS
IMPLEMENTATION

RE-ITERATING THE AIM:

CONVERT NTS KNOWLEDGE INTO SKILL

DEVELOP PRACTICAL TOOLS FOR THE CANDIDATE.

REMEMBER THAT THEY ARE OFTEN KNOWLEDGE AND RULE FOCUSED.
Latent Condition generation more prominent than active failures
BUY IN

REGULATOR
EXECUTIVE MANAGEMENT
FLIGHT OPERATIONS
STANDARDS DEPARTMENTS
NTS DEPARTMENTS

Capt Gerard Dorge- PACCDEF 2011
TO RE-INTERATE-
THE IMPORTANCE OF NTS IN AN ACCIDENT
TIME LINE

Non-Technical Skills Failures  
Technical Skills Failure

Accident Timeline ➔

Accident
WARNING: GRAPHIC PICTURE FOLLOWING. PLEASE FEEL FREE TO TURN AWAY OR LEAVE FOR LUNCH
QUESTIONS?