



COPERNICUS
technology LTD

A large, vibrant, multi-colored streak of light, resembling a comet or meteor, streaks diagonally across the dark sky from the top right towards the bottom left. The colors transition from yellow and white at the top to green, blue, and purple at the bottom. In the bottom left corner, a small white commercial airplane is visible, flying towards the bottom left.

Industry Day 2012
“How to Attack Downtime”

How to Attack Downtime

Impact

Reputation

Safety

Availability &
Performance

Cost

The No Fault Found syndrome and other difficult-to-diagnose problems have a variety of negative effects on aerospace organisations.

Impact Areas were grouped in Red:

Who's Problem?

Impact

Equipment OEM
Platform
Manufacturer
Operator
MRO

Reputation

Equipment OEM
Platform Manufacturer
Operator
MRO

Safety

Equipment OEM
Platform Manufacturer
Operator
MRO

Availability &
Performance

Equipment OEM
Platform Manufacturer
Operator
MRO

Cost

How to Attack Downtime

Every organisation will be affected to some extent by these problems, but some own these impacts more than others.

It depends on the support arrangement exactly where the ownership falls in each enterprise, but a generalization to consider is in Yellow.

This generalization will focus thinking about whether YOUR organisation owns impacts that it currently does not manage.

How to Attack Downtime

Who's Problem?

Impact

Quantify

Equipment OEM
Platform Manufacturer
 Operator
 MRO

Reputation

Lost Sales (Civil)
 Exclusion from force package (Mil)

Equipment OEM
 Platform Manufacturer
Operator
 MRO

Safety

Maintaining regulatory compliance
 Crew & Technician Workload – Human Factors

Equipment OEM
 Platform Manufacturer
Operator
 MRO

Availability & Performance

Downtime Cost
 Key Assets – On Time Performance
 Planning assumption of Unreliability
 Fines & Fees

Equipment OEM
 Platform Manufacturer
 Operator
MRO

Cost

Skills and capability/capacity
 Equipment Repair
 Inventory
 Process & Overhead Burden
 Lost Opportunity

Quantifying the impact is required to understand the scale of waste & assess the priority of action.

In general, many of the attendees at Industry Day 2012 felt that these impacts were poorly quantified.

How to Attack Downtime

In order to reduce the Impact of diagnostic problems, we need to address:

Who's Problem?

Impact

Quantify

Address

Equipment OEM
Platform Manufacturer
Operator
MRO

Reputation

Lost Sales (Civil)
Exclusion from force package (Mil)

Root Causes

Equipment OEM
Platform Manufacturer
Operator
MRO

Safety

Maintaining regulatory compliance
Crew & Technician Workload – Human Factors

Root Causes
Runners & Repeaters

Equipment OEM
Platform Manufacturer
Operator
MRO

Availability & Performance

Downtime Cost
Key Assets – On Time Performance
Planning assumption of Unreliability
Fines & Fees

Root Causes
First Time Fix Rate

Equipment OEM
Platform Manufacturer
Operator
MRO

Cost

Skills and capability/capacity
Equipment Repair
Inventory
Process & Overhead Burden
Lost Opportunity

Root Causes
Maintenance Manhours
Data Capture
Knowledge Based Improvements

How to Attack Downtime

Once the problem's Impact and Ownership have been decided, the group felt that a case for taking action needed to be made *in relative priority to other activities*.

Unfortunately, because the problems remain largely unquantified, many organisations lack the impetus to take action despite an unease that the problems exist.

The solution is to gather evidence and create a basic value-equation to assess the need for action:

Who's Problem?

Equipment OEM
Platform Manufacturer
Operator
MRO

Impact

Reputation

Safety

Availability & Performance

Cost

Quantify

Lost Sales (Civil)
Exclusion from force package (Mil)

Maintaining regulatory compliance
Crew & Technician Workload – Human Factor

Downtime Cost
Key Assets – On Time Performance
Planning assumption of Unreliability
Fines & Fees

Skills and capability/capacity
Equipment Repair Inventory
Process & Overhead Burden
Lost Opportunity

Address

Root Causes

Root Causes
Runners & Repeaters

Root Causes
First Time Fix Rate

Root Causes
Maintenance Manhours
Data Capture
Knowledge Based Improvements

Action

Evidence

Basic Equation

Fixes

Improved:
Safety
Availability
Cost

Want to know more?



Copernicus Technology Ltd



Company: Copernicus Technology Ltd



Group: No Fault Found Solutions

www.CopernicusTechnology.com

+44 (0)1343 842406

info@copernicustechnology.com



About Copernicus Technology Ltd

Our Products & Services



Certificate Number 10439



Test Services

unique technology,
working for you



Data Exploitation

converting data to
knowledge



Training Services

releasing the
potential



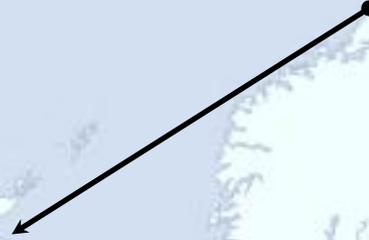
Our Locations



Lincoln Office



Head Office
Elgin



Netherlands Office
Maastricht Airport



Australia Office
Northcote



Our Industry & Academic Relationships

EPSRC Centre for Innovative Manufacturing

Through-life Engineering Services



American Institute of
Aeronautics and Astronautics



University of the
Highlands and Islands
Oilthigh na Gàidhealtachd
agus nan Eilean



UNIVERSITY OF
LINCOLN



COPERNICUS
technology LTD

A large, vibrant, multi-colored streak of light, resembling a comet or meteor, streaks diagonally across the dark sky from the top right towards the bottom left. The colors transition from yellow and white at the top to green, blue, and purple at the bottom. In the bottom left corner, a small white commercial airplane is visible, flying towards the right.

Industry Day 2012
“How to Attack Downtime”