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Fundamentals of System Effectiveness



Turns on



Lasts



What trade-offs
do you consider?



Three elements

Background

Handbook Reliability Engineering
1964

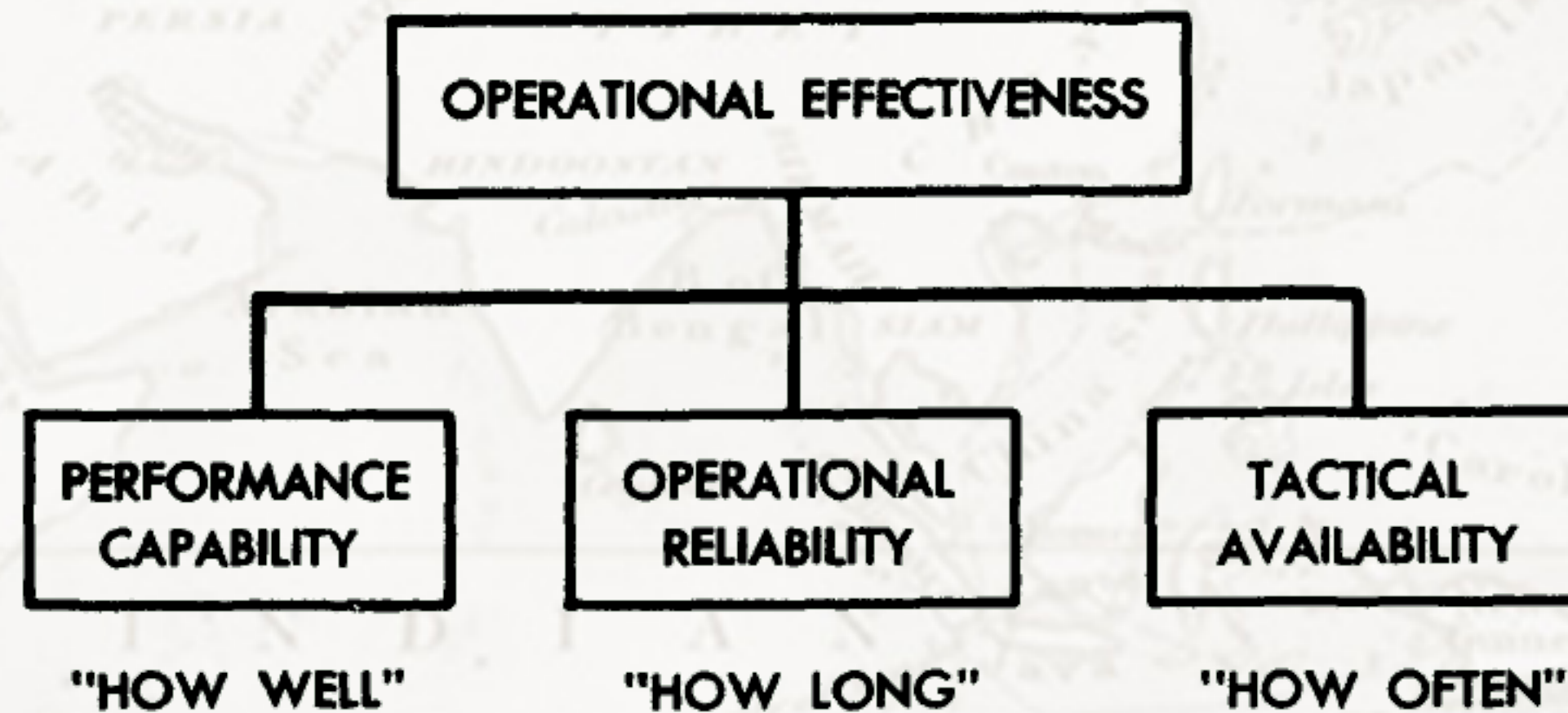
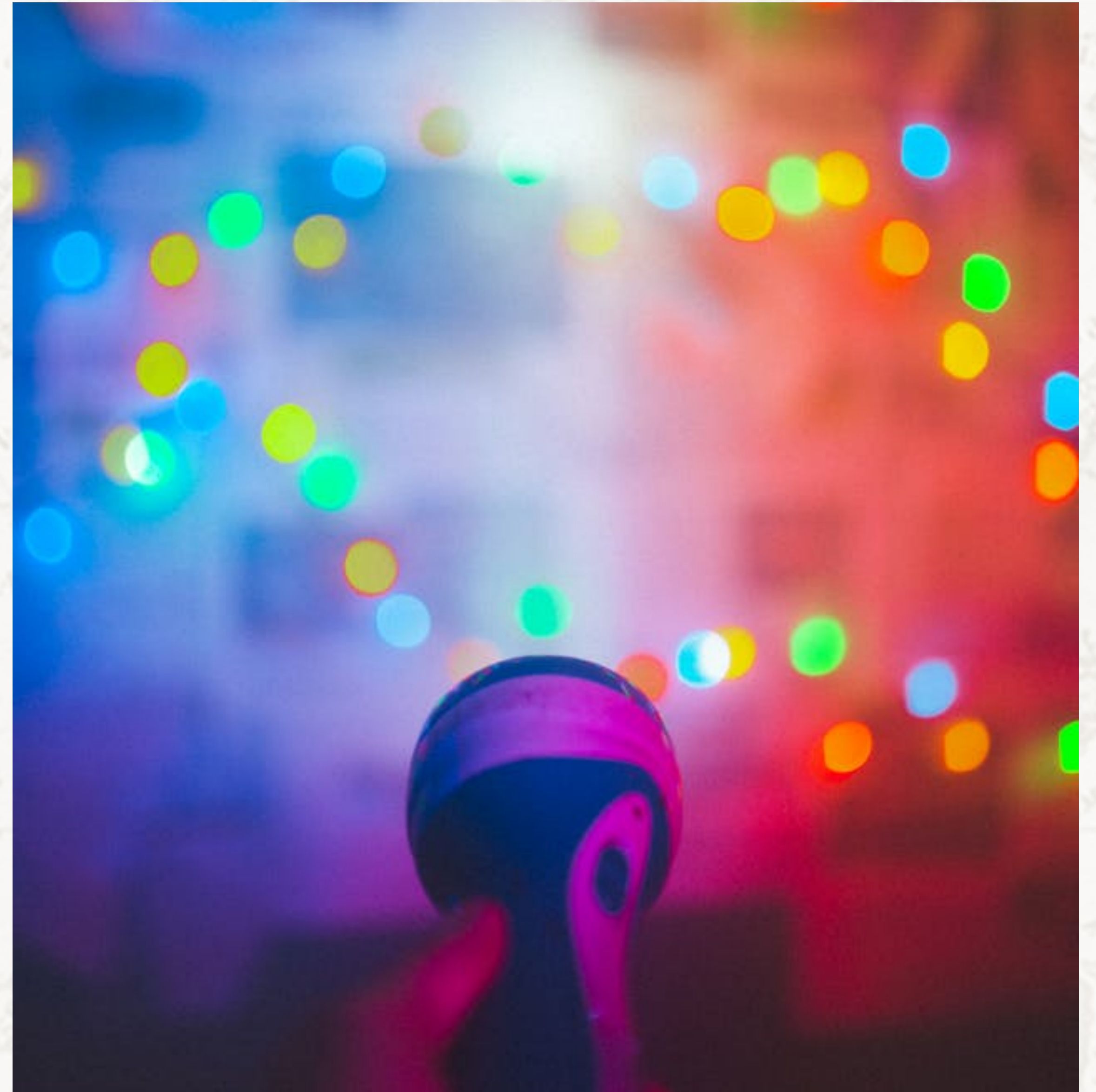


Figure 1-5. Definition of Operational Effectiveness



Lifecycle Costing

Background

Favored by DoD circa 1984

Consider a flashlight

purchase

batteries

etc.



Overall Equipment Effectiveness

Background

Availability – ratio of up vs down

Efficiency – ratio of produced vs capability

Acceptable – ratio of good products vs all produced



What drives

the decisions?

Definitions



Performance Capability

Definitions

How well?

A measure of “how well” it does its job when working properly.



Operational Reliability

Definitions

How long

A measure of “how long” it is capable of working without failure.



Tactical Availability

Definitions

How often

A measure of “how often” the system is ready when needed.



What is the focus of

system effectiveness?

Use/Tradeoffs



Capability focus

Use/Tradeoffs

Tech or feature forward

How does reliability or availability
get impacted?

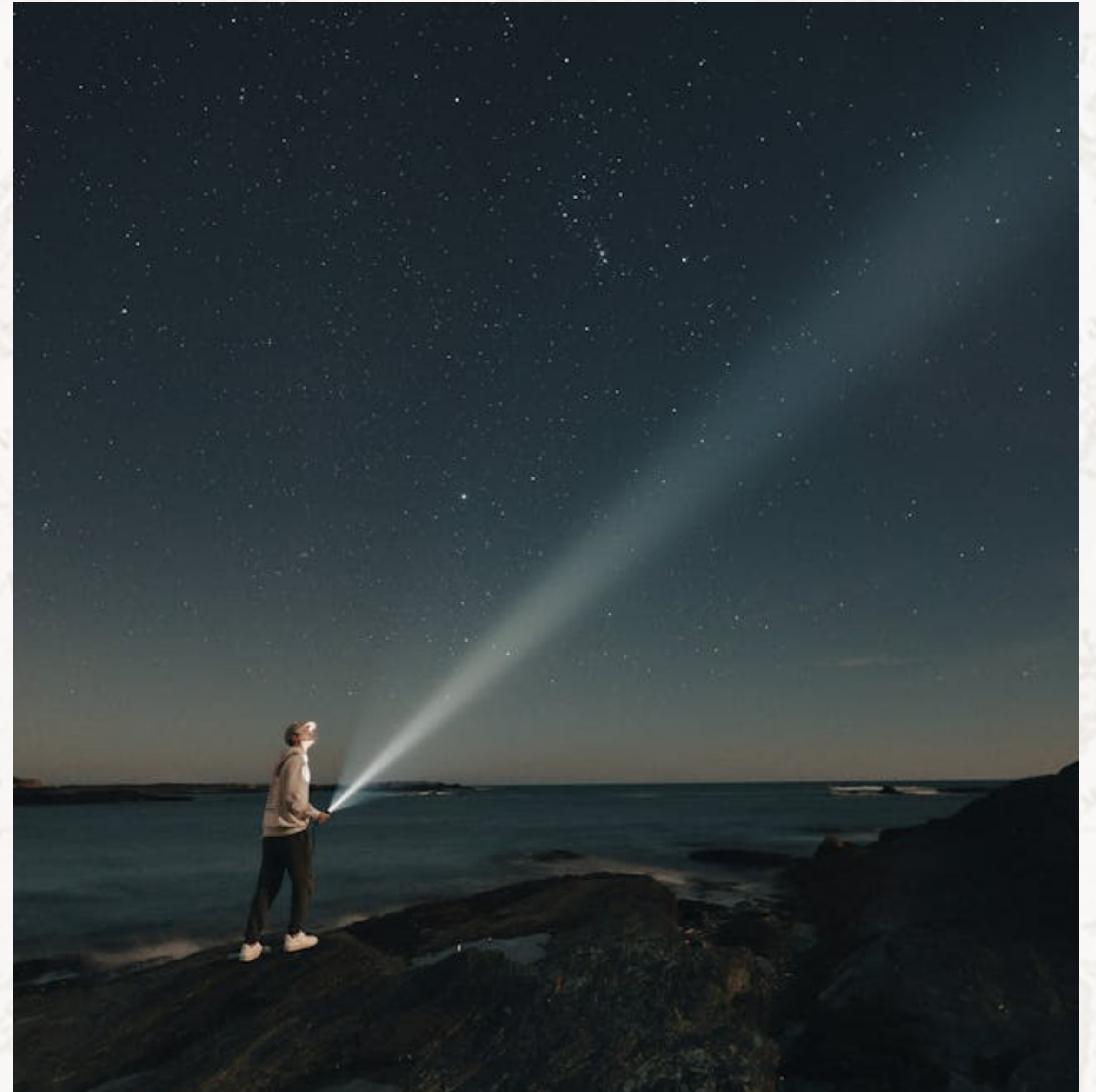


Reliability focus

Use/Tradeoffs

Robust, durable, long lasting...

How does availability and capability get impacted?



Availability focus

Use/Tradeoffs

Always ready to go into service

How does reliability and capability get impacted?



Does your team

consider the tradeoffs?

Additional Comments and Questions

Thanks

see more at AccendoReliability.com