Royal Navy – Additive Manufacture

- Role of AM in RN?
  - Surface fleet trials have all reported limitation due to stability. Not trialled in SM fleet due lack understanding of toxicity. Greater utility in FAA and RM (similar 71(I&R) Sqn and Land CoE)
    - Nb. pace of technical change means this may be resolved in next few years.
  - Would investing in printing resolve spare issues? Few issues low complexity spares. Issues primarily complex equipment's with multiple materials etc.

- Potential
  - Reducing reliance on Joint Supply Chain
  - Resolve defects quickly (67% of operational defects are reliant on spares – could AM resolve any on these?)
  - Develop innovative mindset and provide a positive impact on culture and behaviour

- Area Development
  - Exploit AM facilities worldwide. Print ashore, use afloat.
  - Address obsolescent spares issue.
  - Develop innovation opportunities – printers afloat to test opportunities (DARE programme)

- Practical challenges:
  - What facilities can be used worldwide?
  - Generation of the CAD File, Scanners onboard Ships? Documentation, considered in acquisition?
  - Data tx from maintainer to AdM machine (bandwidth limitations, security)
  - Payment authority. Embed in process rather than circumvent processes to achieve. Part of expedite process.

- Standards
  - Safety (toxicity e.g. following a fire)?
  - Fit, form & function – authority to fit?