RELIABILITY HISTORY

Reliability, as defined today, is a measure of the probability that a system will perform without failure over a specific time interval, under specified conditions. The most common reliability metric is mean time between failure (MTBF).[18] The concept embodies the principle

1990s and blossomed with the development and expansion of the internet. The military became interested in COTS applications of hardware but was still tied to standardized military computer systems that could not take advantage of the COTS revolution. In the late 1990s, the U.S. submarine force made a radical de

ability principles when the system or environment is changing. More complex physics-of-failure and Markov models are required.

- Software reliability remains a challenge. New requirements to address unknown and ever-changing cyber threats greatly complicate this problem.
- Reliability is not a good predictor of near-term mission success. It is designed to estimate average probabilities of failure over time, .

system changes to improve overall performance while maintaining the resilient monitoring and restoration mitigations developed.

CONCLUSION

The application of reliability has morphed over the

[45]Moroney, J., "CNO Visits the John C. Stennis Carrier Strike Group at Sea," U.S. Navy press release, story number NNS190120-01, 20 Jan 2019, https://www.navy.mil/submit/display.asp?story_id=108359.
[46]Leonard, J., "Stennis Engineers Use 3D Printer to Make Repairs to Critical Systems," *Military News*, 7 Jan 2019, https://www.