CVN-74 HAZMAT Availability

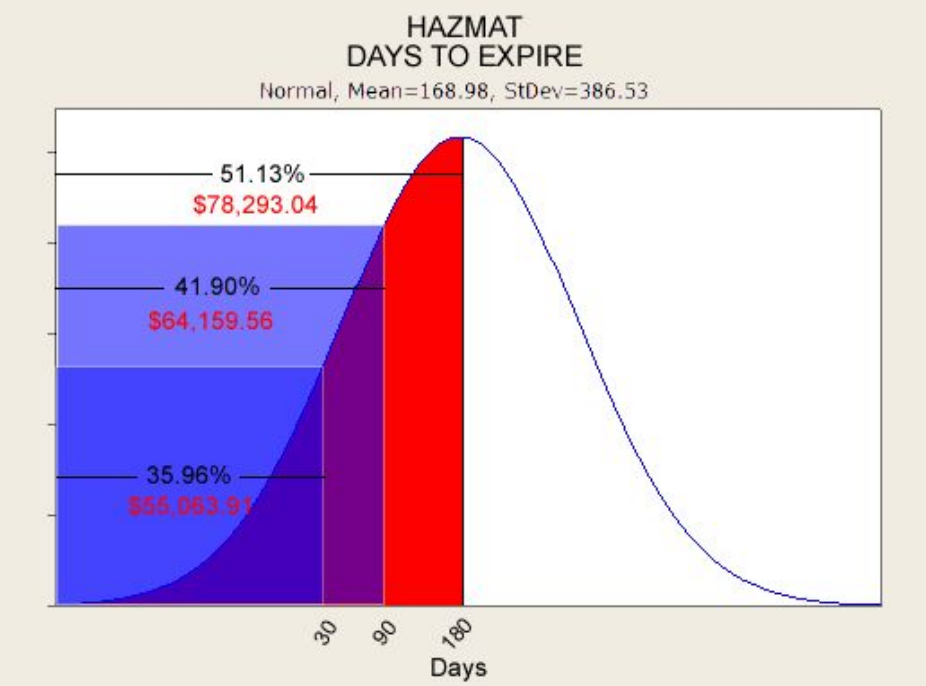
- **Executive Summary:**

  This project focused on improving HAZMAT reliability on-board the USS John C. Stennis.

  In order to best facilitate demand patterns and repair times, the customer has indicated that all HAZMAT should have at least 1 month remaining on it's expiration date. Although some HAZMAT can be extended beyond expiration, many items become unusable and remain in storerooms taking up valuable space and posing a hazard to the ship.

  Sampling estimates indicate that 35.9% of HAZMAT on-board will expire in less than 30 days. Annual calculations indicate that $158,760 was spent on unused HAZMAT. Further impacting this problem, items not available can down an aircraft for tasking

- Graph below indicates the percentage of unused HAZMAT that will expire over time.
- In only 180 days, 51.13% will be expired at a cost of $78,293



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- Problem Statement:
  Carrier Air Wing Nine Squadrons are seeing several items on their "Never Out List" not carried aboard or aboard but expired or nearly expired. Items arriving with nearly expired shelf-lives, on average, have less than 1 month remaining. Material in this category are being found ineffective or useless at time of issue i.e. RAM Coating.

Sponsors	Team Members
▪Champion: CDR Brian Anderson	▪Black Belt: LT Harris
▪Process Owner: LT Elbert Pama	▪SKC Lester Wright
▪Process Sponsor: LCDR Jerome Dixon	▪SKC Slocum
	▪SK2 Tanael
	▪SK2 Nava
	▪ AM1 Heck

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- It was identified that expired HAZMAT was caused by not selecting the oldest items first from the supply shelf resulting in older items reaching their expiration.

- Many potential causes for not selecting the oldest item first were tested, such as differences in SK's vs. TAD's, by conducting an experiment on the HAZMAT delivery system.
  - The experiment consisted of 1 SK and 1 TAD not associated with the project
  - They were given a list of 10 HAZMAT items
  - They were given a scenario which required them to expedite their search thus mimicking reality

- The results showed there was not difference between SK's and TAD's ability to select the oldest item first and showed that training was not a cause.
  - The root cause identified from this experiment is that the current FIFO system does facilitate the oldest HAZMAT item being selected first.

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- Solution: Based on the outcome of the storeroom experiment, it was found that the FIFO system needed to be redesigned in order to mistake proof the oldest HAZMAT item being selected first.

- This was accomplished by:
  - Implementing a Color Tagging System by Month of MFG each container
  - Marking shelves by NIIN with location marked "1st" "2nd" "3rd"
  - Making the database visible to HICS as to what is located within FF
  - Requiring End User Inspection on all Type II material prior to extending
  - Verify shelf life upon arrival of new material

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Business Case:

The impact of items not being available can down an aircraft for tasking i.e. RAM Coating on the F/A 18E/F. Squadrons are spending nearly an entire shift in Awaiting Parts status for items requiring HAZMAT. An excess of $158,760.89 is spent on unused expired HAZMAT annually.

Type I: (Annual Projections)

- Expired HAZMAT: $158,760.89

Type III:

- Increase inventory visibility and accuracy by 40%
- Mistake proof and standardize storage areas to reduce hunting time and expiration of HAZMAT containers.
- Reduce expired NOL items by approximately 2,400 containers

Control Plan:

- Customer will submit a feedback form if any one of the criteria are not met:
  - quantity, quality, correct NIIN, sufficient shelf life/valid extension
- Continual review of usage at the squadron and supply level
- Shelves will be monitored within FF, 21, and HICS assuring oldest/good are available in HICS
- 9595 NEC personnel will be the only authorized personnel to extend material
- CVW will conduct training on how to validate/analyze material for extension candidacy