



BESPIN

AUG 2024

Elevating User Experience Design in the Air Force

How BESPIN's Design Center of Excellence is Building for the Future

Liz Fox, Chief Experience Officer, BESPIN

Agenda

The Overview

The Goal

The Challenge

The Plan

The Opportunity

The Overview

BESPIN Vision

Transform how the Air Force delivers and uses software to improve the effectiveness of Airmen.



BESPIN Mission

Enable exceptional mobile and web software solutions.

What is BESPIN?

We're a government software factory in AFMCLC's PEO BES. Since 2019 we've delivered digital services to joint and interagency customers via 91 Task Orders. Our Enterprise Service IDIQs have a combined \$400m ceiling.



Cloud Operations

Deploy to production using streamlined and time-saving processes.



Mission Delivery

CI/CD pipeline that enables BESPINs Continuous Authority to Operate (cATO).



Data Operations

Simplified and speedy data access with appropriate security controls.



Design Studio

Human-centered design services, design systems, and user experience monitoring.

Design Studio Vision

To design a digital Air Force that maximizes mission impact and quality of life for Airmen and Guardians.



Our Mission

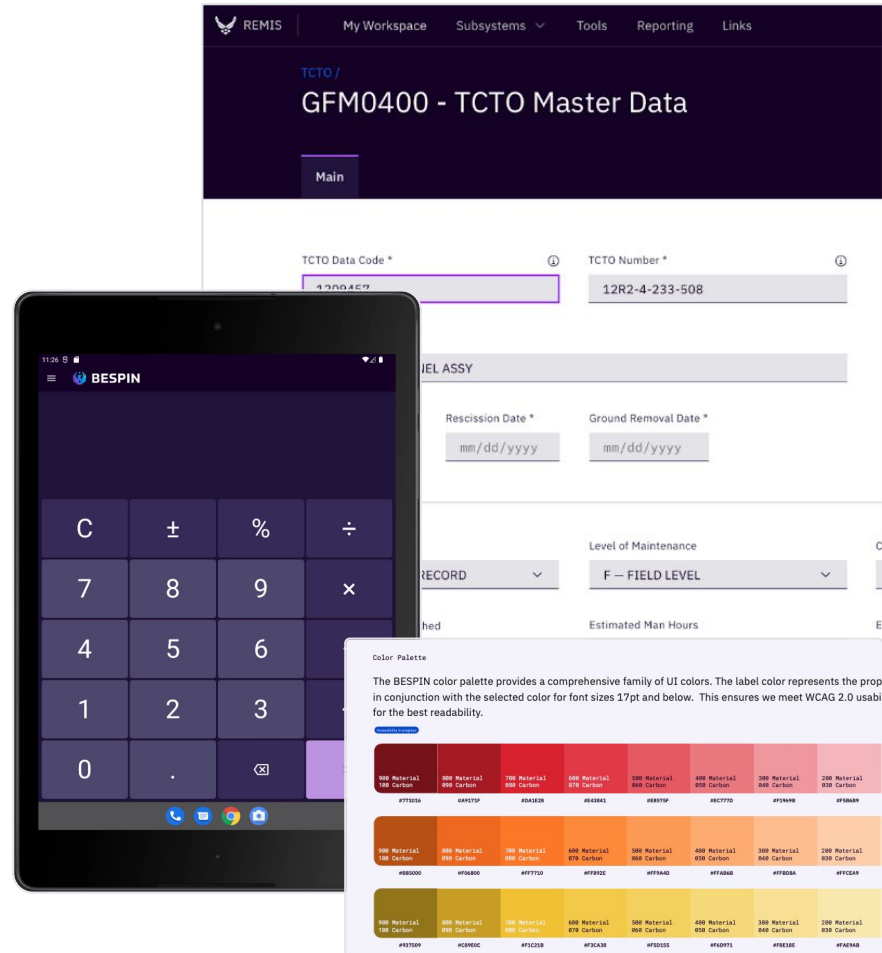
We provide the design standards, training, and operational resources to empower Airmen and Guardians to own User Experience in the Department of the Air Force.

**"User experience" encompasses
all aspects of the end-user's
interaction with the company, its
services, and its products.**

[The Definition of User Experience \(UX\), Don Norman and Jakob Nielsen, August 8, 1998](#)

Our Services

- User Experience Monitoring
 - Matomo
- Design Systems
 - React, Flutter, custom
- Human-Centered Design and Development
 - Airmen-led
 - Contractor teams



The Goal

**Treat our Airmen like customers,
measure service from their
perspective, improve iteratively and
continuously, manage service levels.**

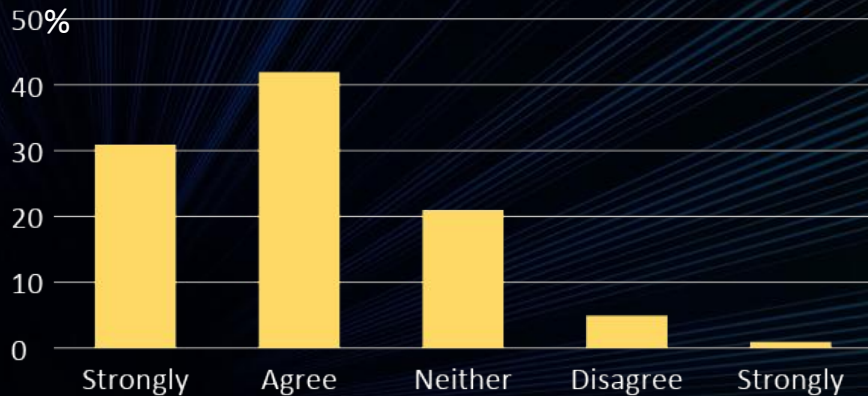
[How We are Fixing Our Computers, former DAF CXO Colt Whittall](#)

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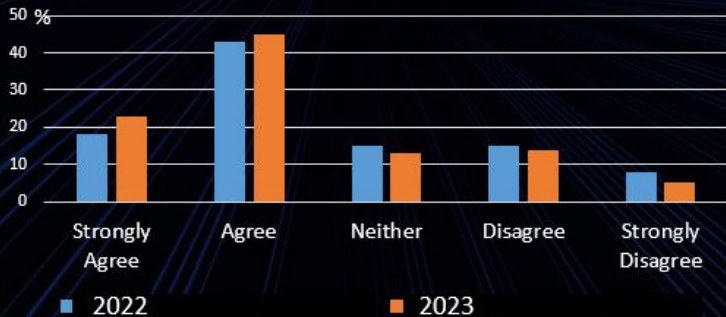
[How We are Fixing Our Computers, former DAF CXO Colt Whittall](#)

"I have the right technology and/or IT equipment needed to do my job"

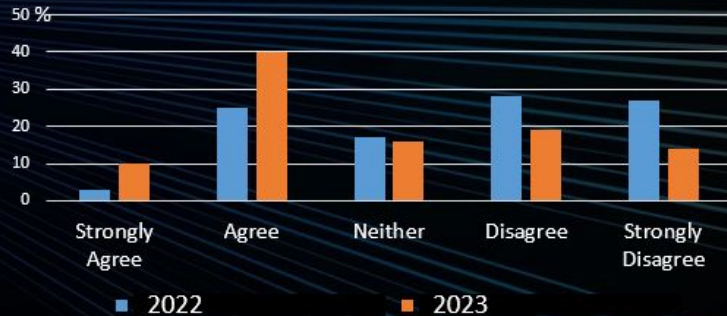
Forrester Business Technographics Study of 10,000+ Commercial IT Users, 2020



High Satisfaction Cohort



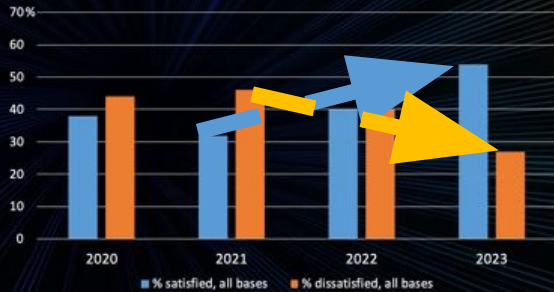
Low Satisfaction Cohort



Value Created 2020-23

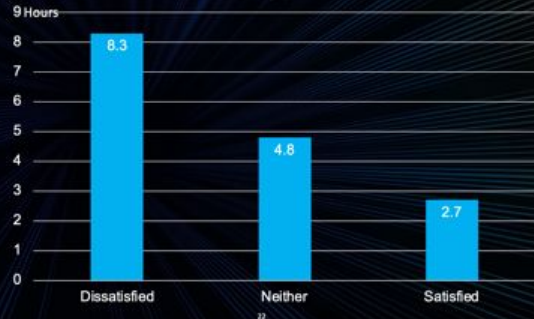
IT User Satisfaction 2020-23 (Tracked by AF IT Pulse)

All Bases, 2020-23 (Through April 2023)



Productivity Loss Due to IT Issues

Lost Productivity per Week 2023



Dissatisfied users perceive losing about 50 days of productivity per year due to IT issues.

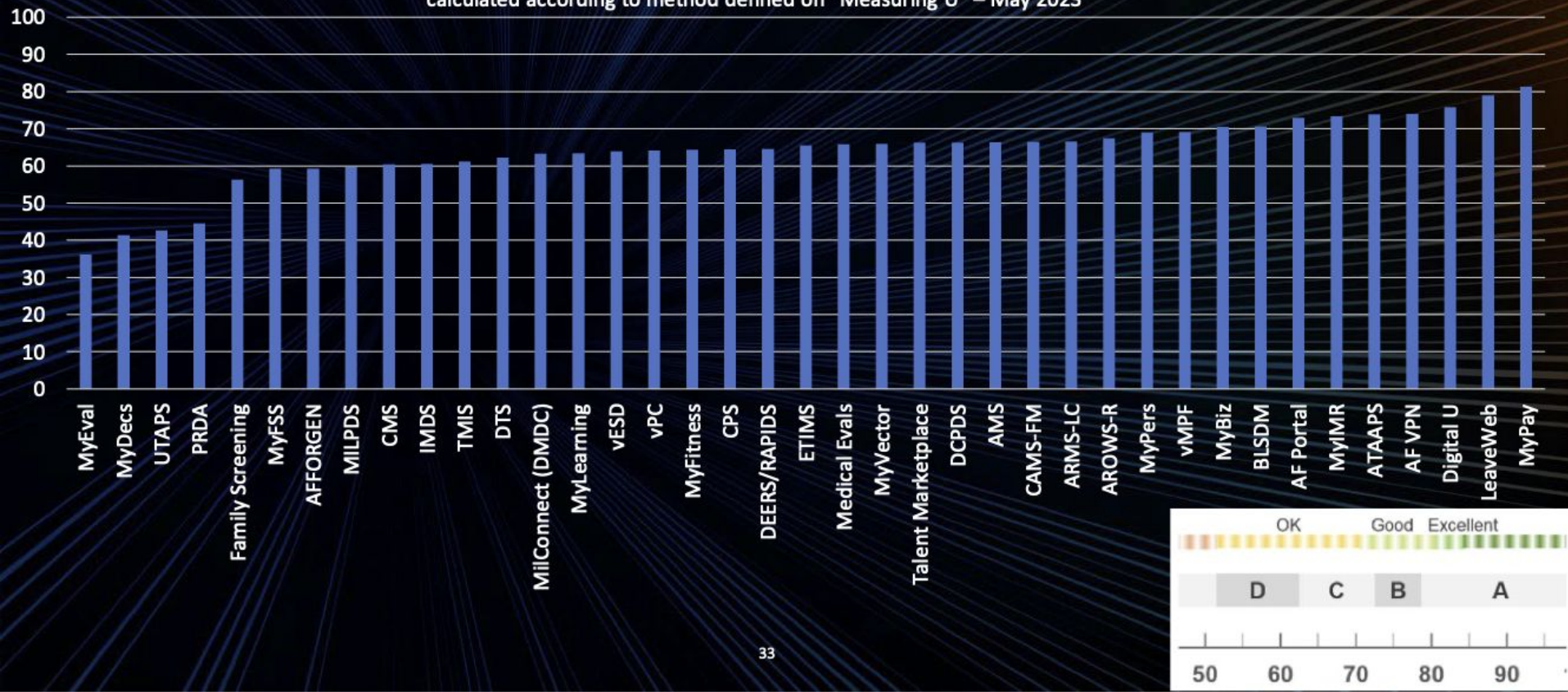
We are already making tremendous progress, but if we reach 70% user satisfaction we cut that 50 days in half.

**Treat our Airmen like customers,
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continuously, manage service levels.**

[How We are Fixing Our Computers, former DAF CXO Colt Whittall](#)

Usability/Utility of 40 NIPR Apps >50K Users

Estimate System Usability Scale (SUS) of NIPRNet Apps With >50,000 Accounts, as tracked by the AF IT Pulse Monthly Survey, calculated according to method defined on "Measuring U" – May 2023



The Challenge

Department of the Air Force

Enterprise UX Governance Charter Requirements



Web Analytics

Measure and report on usage for data-driven decision-making at the product, portfolio, and enterprise levels.



Human-Centered Design

Collect and act on feedback from users three times: before procurement, during development, and after release.



Design Systems

At the launch of a new product or next major update, adopt shared UI components and standards for your user case.

[Enterprise User Experience \(UX\) Charter \(signed May 2023\)](#)

**650K+
People**

**9 MAJCOMS
(Decentralized IT)**

**693K
Computers**

**Multiple
Networks**

**1,000s
IT Contractors**

**Defense Agency
Suppliers**

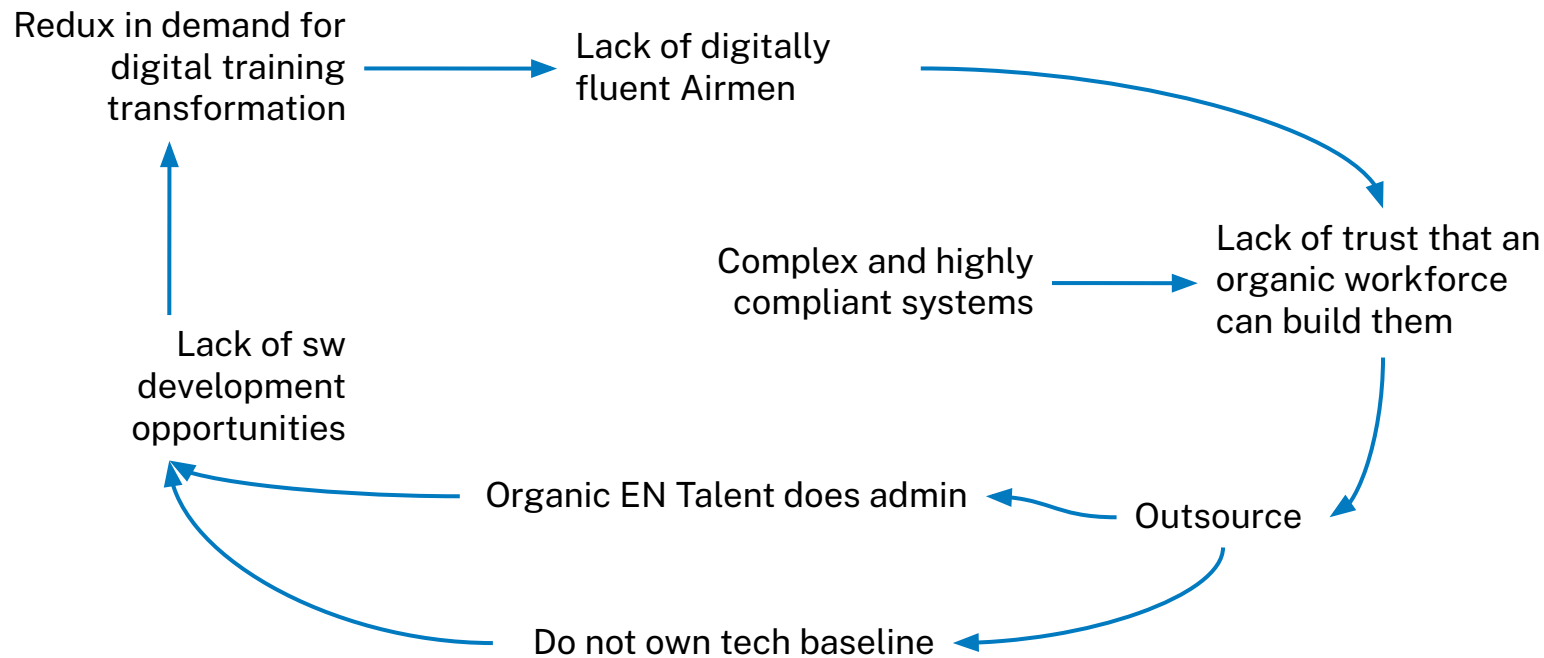
**175+
Installations**

**73% of Airmen
20-30 Yrs Old**

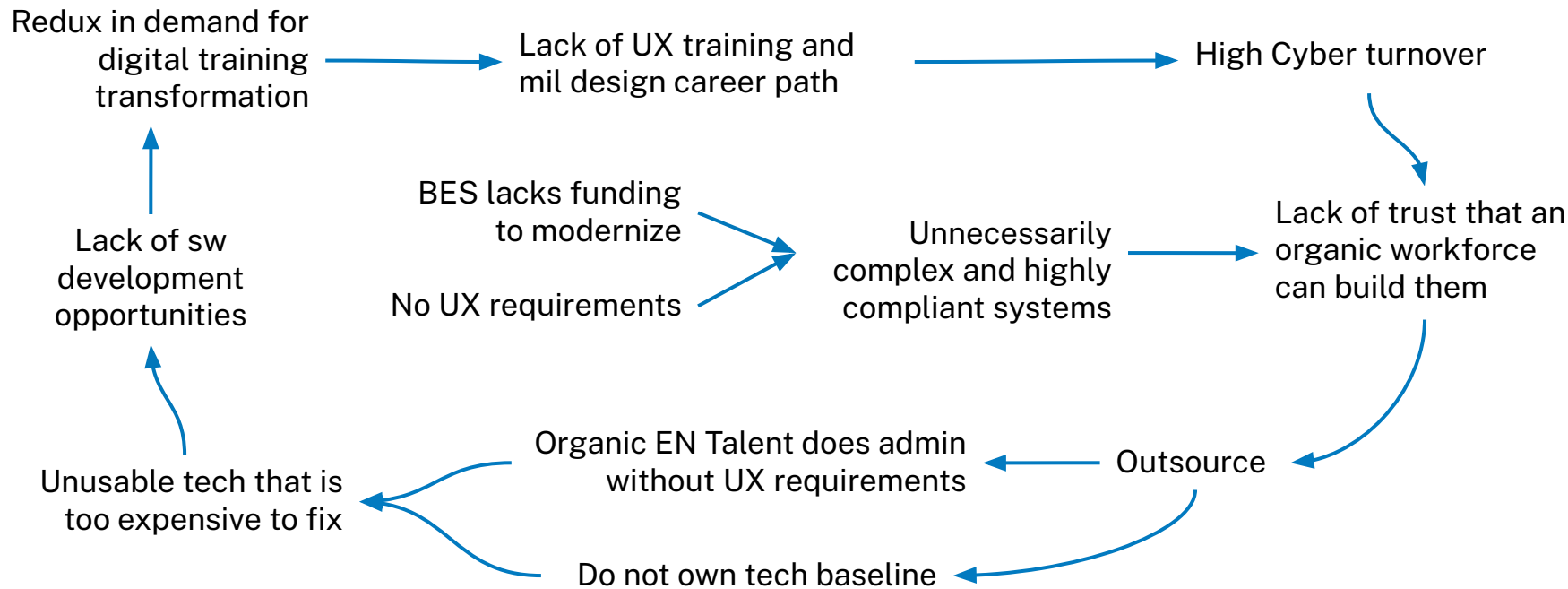
**Info Security
Imperative**

[How We are Fixing Our Computers, former DAF CXO Colt Whittall](#)

Vicious Cycle: Developer POV



Vicious Cycle: UX POV



Constraints



Finding UXers

Civilian career path in its infancy and there is no current military career path.



Training UXers

Airmen are a great talent pool but they are a perpetually junior workforce with high turnover.



Doing UX

Teams who need the most UX help have the least money to spend on UX.



Retaining UXers

Pay discrepancies, lack of operational support, and low morale create incentive to leave.

Department of the Air Force

Enterprise UX Governance Charter Requirements



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Own Our Strategy.

Leverage industry experts to discover government's own unique brand of innovation.



BESPIN



Design New Leaders.

Emphasize skills that prepare Airmen for *anywhere* their careers might take them.



BESPIN



Train in the Real World.

Design services and support processes that Airmen can execute for customers as training.



BESPIN



Build Momentum.

Promote UX Charter requirements (and our services) to development teams and PMOs.



BESPIN



Default to Collaboration.

Optimize resources by continually engaging DAF, DoD, Federal, and international partners.



BESPIN



Elevate What Works.

Build and socialize DAF UX standards off what works best in practice for mature teams.



BESPIN

The Plan

Training Path

- UX Designer (generalist)
- UX Engineer
- ~~UX Ops~~

Training Plan: Individual Name

Select courses from the [course catalog](#) to implement into your training plan based on your [self assessment](#).

Course title	Link	Pro
The Complete Front-End Web Development Course ▾	https://example.com	Dig
▾		
▾		
▾		
▾		

Top five skills to level up based on your initial self-assessment on DATE		
Subject	Skills	Starting Self-ass rating
[A] Communication & Collabor... ▾	[A1] Facilitating ... ▾	Weakness
▾	▾	
▾	▾	
▾	▾	
▾	▾	

UX Charter Health Check

Interview

TEMPLATE MAKE A COPY & REMOVE THIS BANNER

UX Charter Get Well Health Check Interview Board: CLIENT

🕒 1-2 hours (or 80 minutes with strict time blocking)

Goals

- Understand the compliance levels for UX Charter heuristics
- Identify areas the product team is doing well and areas for improvement

Ground rules:

- Everyone participates
- We're all equal
- Stay engaged
- Be open and candid; this is a safe environment
- Have fun
- If uncertain, ask

Heuristic

#1 Qualitative survey feedback

This heuristic emphasizes the importance of integrating feedback mechanisms directly into the application to gather insightful, qualitative input from users. Features such as a prominently placed feedback link on the home page or a survey prompt following a system logout are essential. Additionally, engaging users through periodic outreach, such as a quarterly email survey containing open-ended questions (e.g., "What improvements would enhance this system's support of the Air Force's mission?"), ensures a broad and deep understanding of user needs and experiences.

- Answers "why" - Based on opinions and experiences - subjective - open-ended questions

#2 Quantitative survey feedback

The product incorporates a specific feature to gather quantitative feedback, including a feedback link on the landing page and an intercept survey upon system logout. Additionally, the team distributes a quarterly email survey to collect quantitative feedback. An example of a quantitative question is, 'This system's capabilities meet my requirements.' Possible responses range from 'strongly agree' to 'disagree'.

- Based on numbers - larger sample size - statistical analysis - objective - closed ended questions

Example e



The team leverages and seeks out qualitative feedback to improve user experience.



We haven't sought out and leveraged qualitative feedback for our product.



The team leverages and seeks out quantitative feedback to improve user experience.

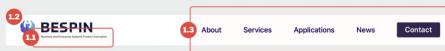


Quantitative feedback has not been leveraged for our product.

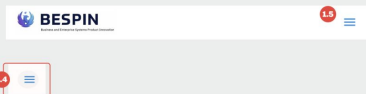
Design Audit

Navigation

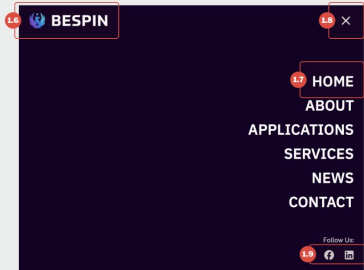
Navigation - desktop



Navigation - tablet/mobile



Navigation - navigation drawer mobile



Findings

- 1.1 Illegible text**
Goal: Tag line text should let visitors know what BESPIN stands for.
Reality: Tag line text is too small for visitors to actually see.
- 1.2 Missing title text for tool tip**
When hovering over the BESPIN logo an information tip does not appear telling the user what the image is. This is also missing for screen readers.
- 1.3 Font inconsistency in navigation items**
Navigation menu links are leveraging -apple-system-ui font while the call to action is using Public sans.
- 1.4 Menu Button hover state skewed, off center, & too lightly colored**
When hovering on XS mobile, the hover state is not a circle and isn't centered on the icon. While in the hovered state, the circle is too bright and doesn't contrast enough from the white background.
- 1.5 Hamburger icon color missing primary purple**
The icon color is displaying as blue which is inconsistent with the purple navigation color set forth on desktop.
- 1.6 Missing tag line**
BESPIN icon and Name missing tag line.
- 1.7 Nav items missing active state**
Current tab not displayed with some visual indicator
- 1.8 Missing Interactions: Hover**
Call button missing hover states.
- 1.9 Missing Interactions: Hover**
Social button icons missing hover states.

Comments/questions

Recommendations

Navigation

Score	Finding	Recommendation	Priority
S2 E2	1.1 Illegible text Goal: Tag line text should let visitors know what BESPIN stands for. Reality: Tag line text is too small for visitors to actually see.	Remove the text from the logo and add the tag line as text on the website.	HIGH PRIORITY
S3 E1	1.2 Missing title text for tool tip When hovering over the BESPIN logo an information tip does not appear telling the user what the image is. This is also missing for screen readers.	Adding a tooltip/title text/alt text to the logo stating what the image is.	HIGH PRIORITY
S1 E1	1.3 Font inconsistency in navigation items Navigation menu links are leveraging -apple-system-ui font while the call to action is using Public sans.	Change the font to be consistent across all components.	LOW PRIORITY
S1 E1	1.4 Menu Button hover state skewed, off center, & too lightly colored When hovering on XS mobile, the hover state is not a circle and isn't centered on the icon. While in the hovered state, the circle is too bright and doesn't contrast enough from the white background.	Darken the hovered color of the icon button and hover shape should be a circle instead of an oval.	LOW PRIORITY
S1 E1	1.5 Hamburger icon color missing primary purple The icon color is displaying as blue which is inconsistent with the purple navigation color set forth on desktop.	Change the call to action button to the website's purple.	LOW PRIORITY
S2 E2	1.6 Missing tag line BESPIN icon and Name missing tag line.	Change the icon to have the tagline.	HIGH PRIORITY
S2 E2	1.7 Nav Items missing active state Current tab not displayed with some visual indicator	Add a visual indicator to which tab you're on	MEDIUM PRIORITY



Singapore SME Exchange



Design Sprint



Design Studio Structure: Vision

5 Year Plan

Training

Vendor educators manage role-specific UX training paths that feed Airmen from the developer pipeline onto paid Design Studio client projects.

Enablement

Government UX team sets vision and strategy, socializes standards, manages design systems, maintains self-serve resources, and provides secure tooling.

Delivery

Scalable set of vendor product teams offer UX Charter services to teams for large engagements.

FY25 Structure

FY25 Roadmap

Building for a Human-Centered Future



User Research

Design usability testing and survey services that Airmen can deliver.



Standards Site

Collect real best practices from product teams to create a DAF UX resource repository.



Secure Tools

FedRAMP Figma and/or die trying. Develop a secure tooling strategy and roadmap.

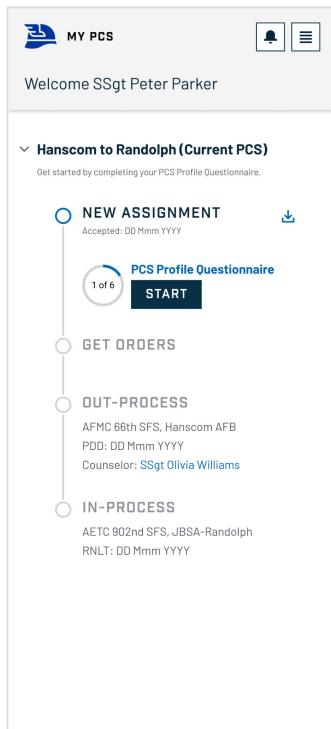


Training Path

Bring training path MVP to maturity. Plan split into 3 teams in FY26.

The Opportunity

Accelerate Change or Lose



MY PCS

Welcome SSgt Peter Parker

▼ **Hanscom to Randolph (Current PCS)**
Get started by completing your PCS Profile Questionnaire.

NEW ASSIGNMENT
Accepted: DD Mmm YYYY

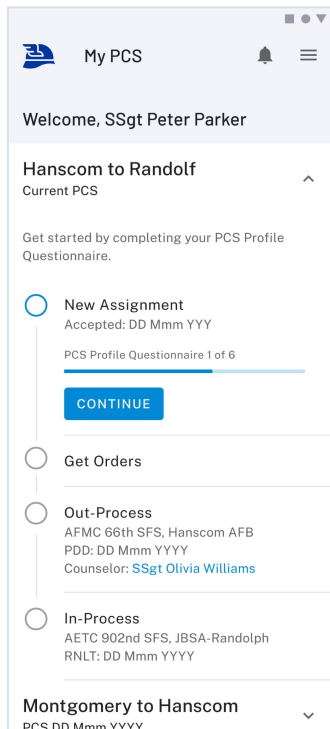
1 of 6 **PCS Profile Questionnaire**
START

GET ORDERS

OUT-PROCESS
AFMC 66th SFS, Hanscom AFB
PDD: DD Mmm YYYY
Counselor: [SSgt Olivia Williams](#)

IN-PROCESS
AETC 902nd SFS, JBSA-Randolph
RNLT: DD Mmm YYYY

MyFSS



My PCS

Welcome, SSgt Peter Parker

Hanscom to Randolph
Current PCS

Get started by completing your PCS Profile Questionnaire.

New Assignment
Accepted: DD Mmm YYYY

PCS Profile Questionnaire 1 of 6

CONTINUE

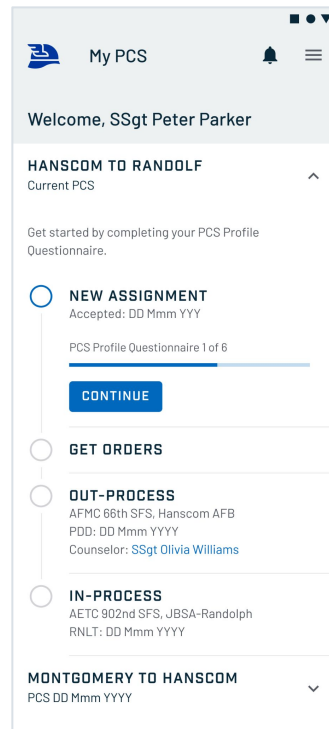
Get Orders

Out-Process
AFMC 66th SFS, Hanscom AFB
PDD: DD Mmm YYYY
Counselor: [SSgt Olivia Williams](#)

In-Process
AETC 902nd SFS, JBSA-Randolph
RNLT: DD Mmm YYYY

Montgomery to Hanscom
PCS DD Mmm YYYY

Neutral Material Atlas



My PCS

Welcome, SSgt Peter Parker

HANSCOM TO RANDOLF
Current PCS

Get started by completing your PCS Profile Questionnaire.

NEW ASSIGNMENT
Accepted: DD Mmm YYYY

PCS Profile Questionnaire 1 of 6

CONTINUE

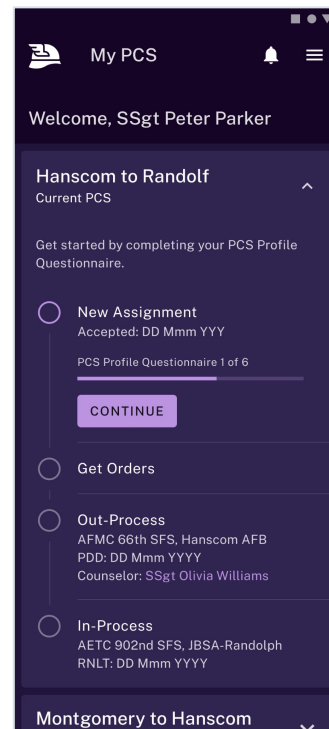
GET ORDERS

OUT-PROCESS
AFMC 66th SFS, Hanscom AFB
PDD: DD Mmm YYYY
Counselor: [SSgt Olivia Williams](#)

IN-PROCESS
AETC 902nd SFS, JBSA-Randolph
RNLT: DD Mmm YYYY

MONTGOMERY TO HANSCOM
PCS DD Mmm YYYY

Material Atlas x My FSS



My PCS

Welcome, SSgt Peter Parker

Hanscom to Randolph
Current PCS

Get started by completing your PCS Profile Questionnaire.

New Assignment
Accepted: DD Mmm YYYY

PCS Profile Questionnaire 1 of 6

CONTINUE

Get Orders

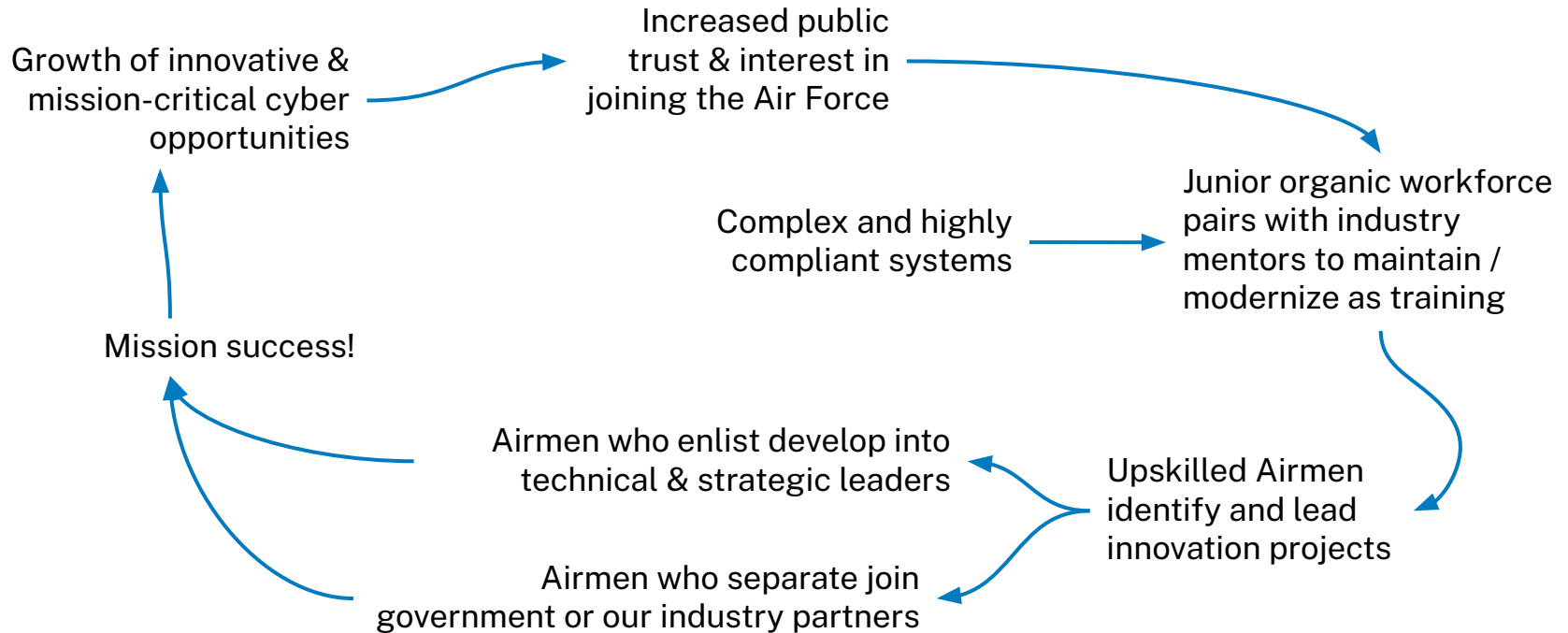
Out-Process
AFMC 66th SFS, Hanscom AFB
PDD: DD Mmm YYYY
Counselor: [SSgt Olivia Williams](#)

In-Process
AETC 902nd SFS, JBSA-Randolph
RNLT: DD Mmm YYYY

Montgomery to Hanscom

Dark Material Atlas

Excellence in All We Do

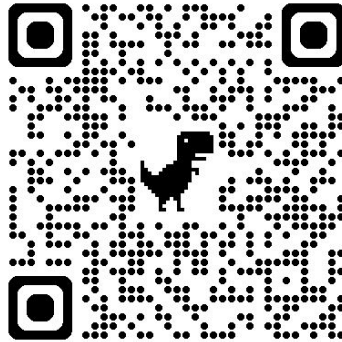


Work With Us

DAFITC UX
Scavenger Hunt



Interest Form



Liz's Info





Thank you.



BESPIN

* Recommended Reading

BESPIN

Policies, Standards, & Procedures

- [Culture code](#)
- [Core values](#)
- [BESPIN Psychological Safety](#)
- [BESPIN Working Agreement](#)

BESPIN Org Structure

Playbooks

- [Engineering](#)
- [Agile](#)

User Experience

DAF Enterprise UX Charter

Design Studio readme

Design Studio Google Drive

1. [State of User Experience \(UX\) in the Air Force](#), Cyberworx, 2021
2. [How We are Fixing Our Computers](#), Colt Whittall, 1st DAF CXO, 2023
3. [Expressive Design Systems](#)
4. [Your Guide to Blueprinting the Practical Way](#)
5. [Microsoft Inclusive Toolkit](#)

Jargon Check

Why User Experience vs Product Design?

- **Our focus is on solving human problems. Digital products are only one option in our toolbox.**
- The DoD Cyber Workforce Framework's "Service / UX Designer" role describes a broad skillset inclusive of Product Design.
 - Service / UX Designer: "Manages the user experience of a product focused on human factors by making products intuitive and maximizing usability, accessibility, and simplicity."
 - Product / UI Designer: "Manages the user interface design portion of the design process of a product."

User Experience Monitoring (UEM)

We build better technology when we understand how Airmen use applications. UEM is suite of tools that track and report application and user data.



Matomo

Web analytics tool (user behavior + app monitoring)



User feedback

Real User Sentiment collection and analysis tool, TBA

What's Included

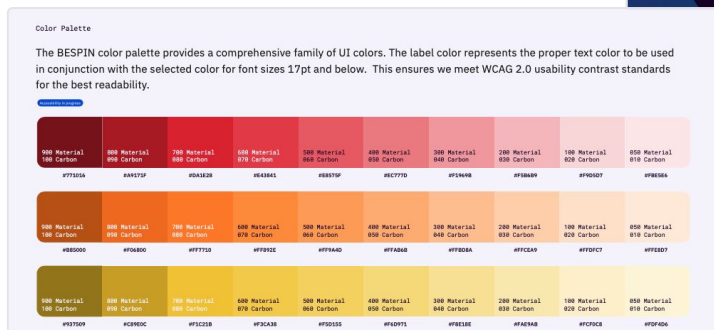
- 2 Code Tracking Snippets (Test and Prod)
- 5 Users
- 1 Project level dashboard
- 1 Portfolio level dashboard (multiple apps only)
- Basic metric tracking
- Up to 5 custom tracked goals



Design Systems

Designer's Code to guide design decisions and design system implementation.

Accessible color palette & type guidelines available as standalone Figma library.





The Designer's Code



This is not boring. This is **Modern** and **Enjoyable**.



This is not complicated. This is **Simple** and **Efficient**.



This is not cumbersome. This is **User Centered** and **Accessible**.



This is not aimless. This is **Mission Driven**.

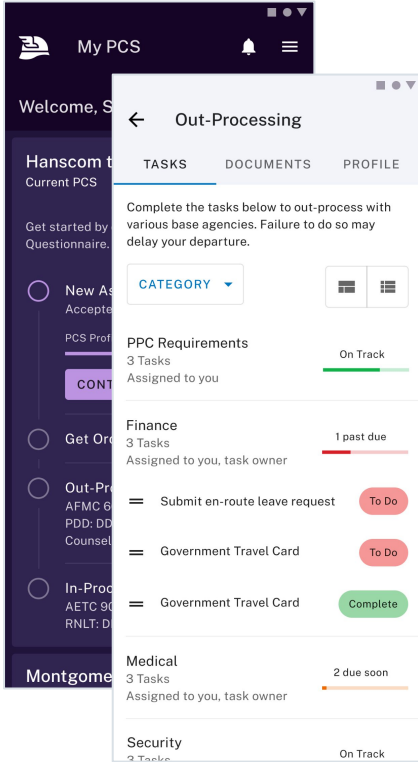


This is not chaotic. This is **Consistent** and **Intuitive**.

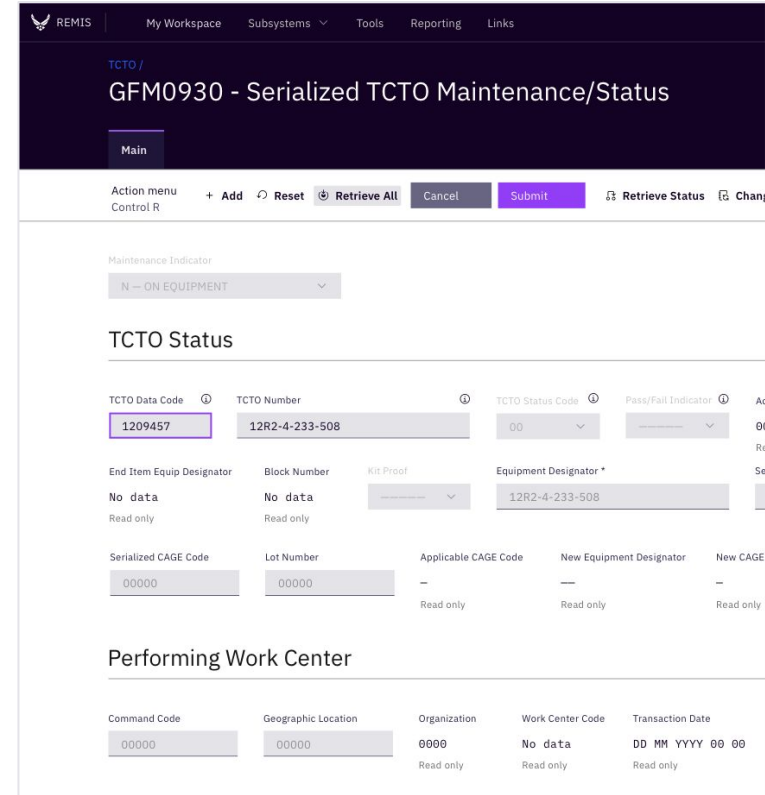
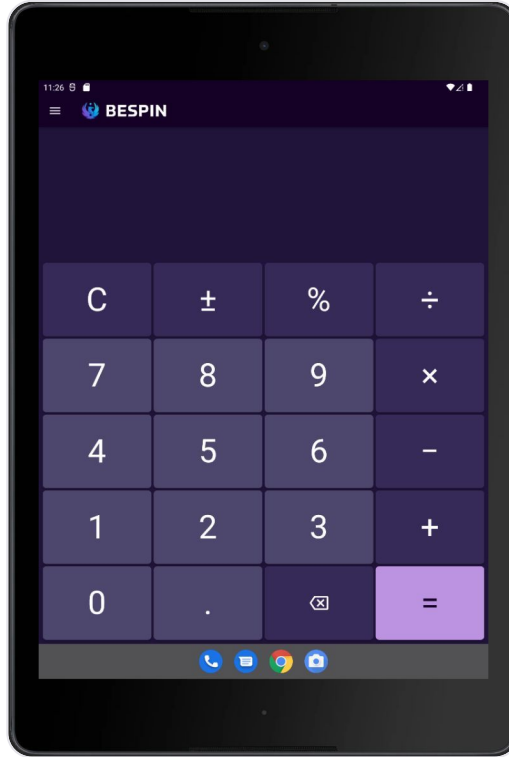


This is not hindering. This is **Enabling**.

Pixel-perfect, user-centered, & accessible, this is the way.



PCS Express & EFB Calculator,
Material Atlas



Reliability and Maintainability Information Systems (REMIS),
Carbon Forge

REMIS Redesign: Record

FOR OFFICIAL USE ONLY

REMIS
REliability & Maintainability Information System

005 Oct 2021 2311Z
Screen Help

Skip to Main Content
My Favorites
CORE Main Menu
EIMSURS Main Menu
GCSAS Main Menu
PPS Main Menu
Suspense File Error Correction
REMIS Utilities Main Menu
Tables Maintenance (TM) Menu(1)
Tables Maintenance (TM) Menu(2)
Workspace Reporting
Master Validation Request
File Viewer
File Upload
User Profile
Manage Scheduled Reports
My Reports
Report Workspace Ad Hoc
Help
Logout
Home

REMIS PMO
Screen ID: [Transfer](#)

GFM0400
Messages:

TCTO Data Code:
TCTO Title: UPGRADE
Pending Push Date: DD MM
Initial Push Date: 19 MAR
Last Push Date: 27 APR

TCTO Type:
Kit Indicator: ☒
Level Of Maintenance:
Estimated Man Hours: 360
Weight Balance Affected:
Modification Number

Code:
Revision Letter:
Action:

REMIS My Workspace Subsystems Tools Reporting Links
CUI 23 May 2022 (159) 1850Z

TCTO /
GFM0400 - TCTO Master Data
Main

TCTO Data Code *
TCTO Number *
Pending Push Date
Initial Push Date
Read only
Last Push Date
Read only

Publication Date *
Rescission Date *
Ground Removal Date *

TCTO Type
Level of Maintenance
Compliance Period ☐ Forced

Master Units Accomplished
Estimated Man Hours
Estimated Units

Retrieve
Reset
Change
Delete
Hold in Abeyance
Cancel TCTO
More

Retrieve successful
Roius abnta mod tempor
adsfiso incidfid idunt.
00:00:00 AM