



Next**GEN**

# REPORT ON HUMAN FACTORS IN NEXTGEN PROGRAMS Section 507 (B)

Presenter: ANG

Date: November 2019

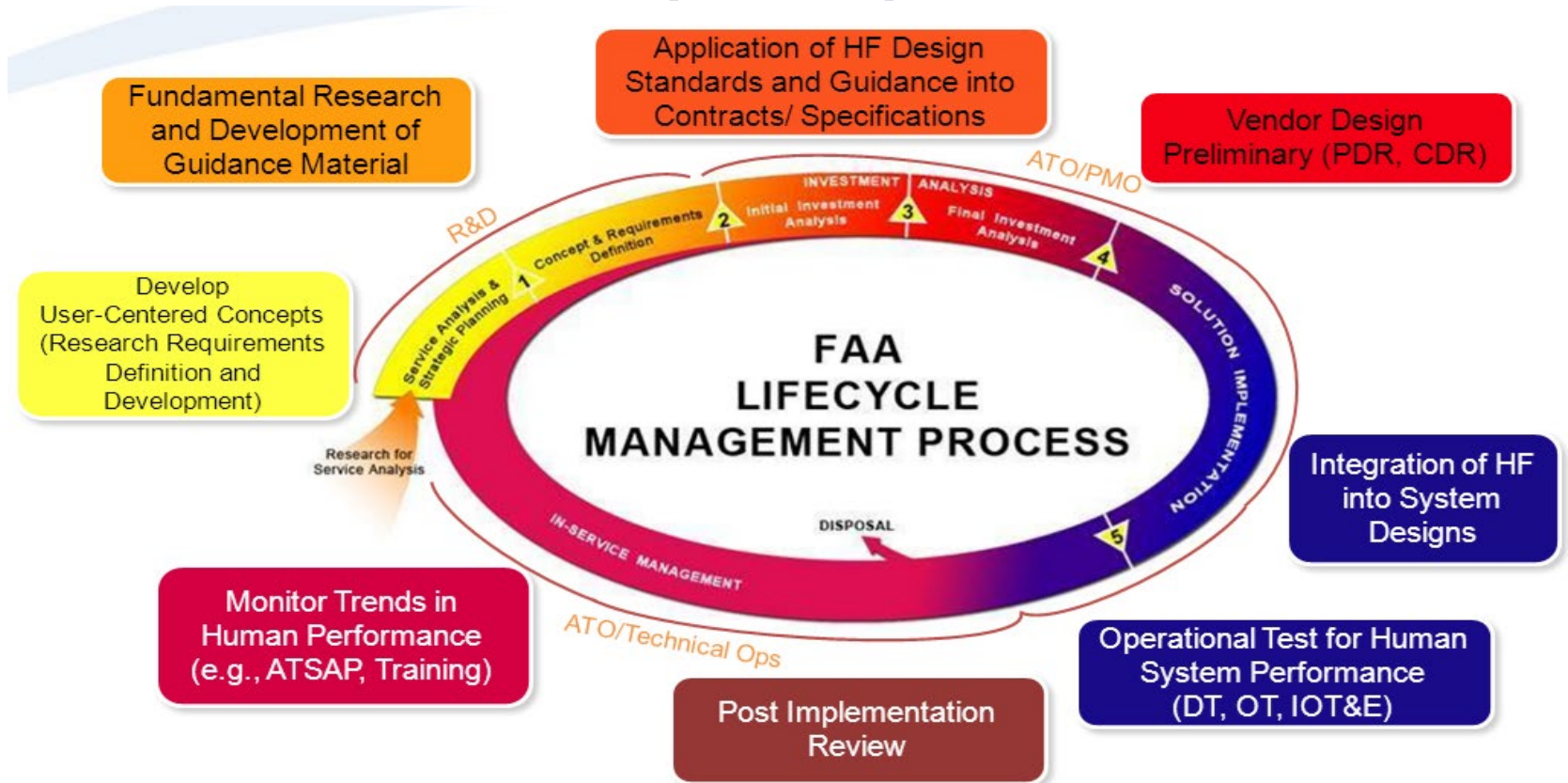


# Background

## Background

- The requirements addressing human factors in Section 507 of P.L. 115-254 align with the recent (2015) National Research Council (NRC) report that reviewed NextGen. We concurred and are proceeding with the recommendation.
- In order to avoid having to subsequently modify products and services developed as a part of NextGen, the Administrator shall—
  - (1) recognize and incorporate, in early design phases of all relevant NextGen programs, the human factors and procedural and airspace implications of stated goals and associated technical changes; and (2) ensure that a human factors specialist, separate from the research and certification groups, is directly involved with the NextGen approval process
- Applying human factors early in the design phases or in the acquisition lifecycle increases the likelihood of realizing benefits, such as increased performance, safety, and productivity, whereas changes later in the design phase are typically expensive and risky.

# Human Factors Involvement in the Acquisition Management System (AMS)



# Agency Coordination

- In addition to ensuring human factors is incorporated early in the acquisition lifecycle, human factors facilitates cross-agency collaboration forums such as the:
  - Annual human factors review
    - Annual informational exchange meeting led by ANG human factors focusing on a span of aviation research efforts
  - ATO Roundtable
    - Quarterly meetings to engage research and development stakeholders in the ATO to address complex ATC system safety and efficiency affecting ATC human performance

# Human Factors Integration Lead Position Proposed Approach

- The NextGen Human Factors Integration Lead (HFIL) position was appointed in October 2010
- Has the responsibility and authority for human factors approval of NextGen acquisition programs in the pre-implementation stage
- Works with the NextGen NAS Lifecycle Planning Division and collaborates with part of the portfolio management process; other FAA organizations including the Air Traffic Organization (ATO) operational Service Units, and the user community to understand their concerns and ensure that they are addressed in integration issues
- Aligns with the Chief Technology Officer (CTO) (per Section 545)
  - The CTO will be responsible for ensuring the proper operation, maintenance, and cybersecurity of technology systems relating to the air traffic control system across all program offices of the Administration coordinating the implementation, operation, maintenance, and cybersecurity of technology programs relating to the air traffic control system with the aerospace industry and other Federal agencies