NOAA UAS Program

Readiness Level Advancement and Transition to Operations

Execution of NAO 216-105B

John “JC” Coffey
NOAA UAS Program

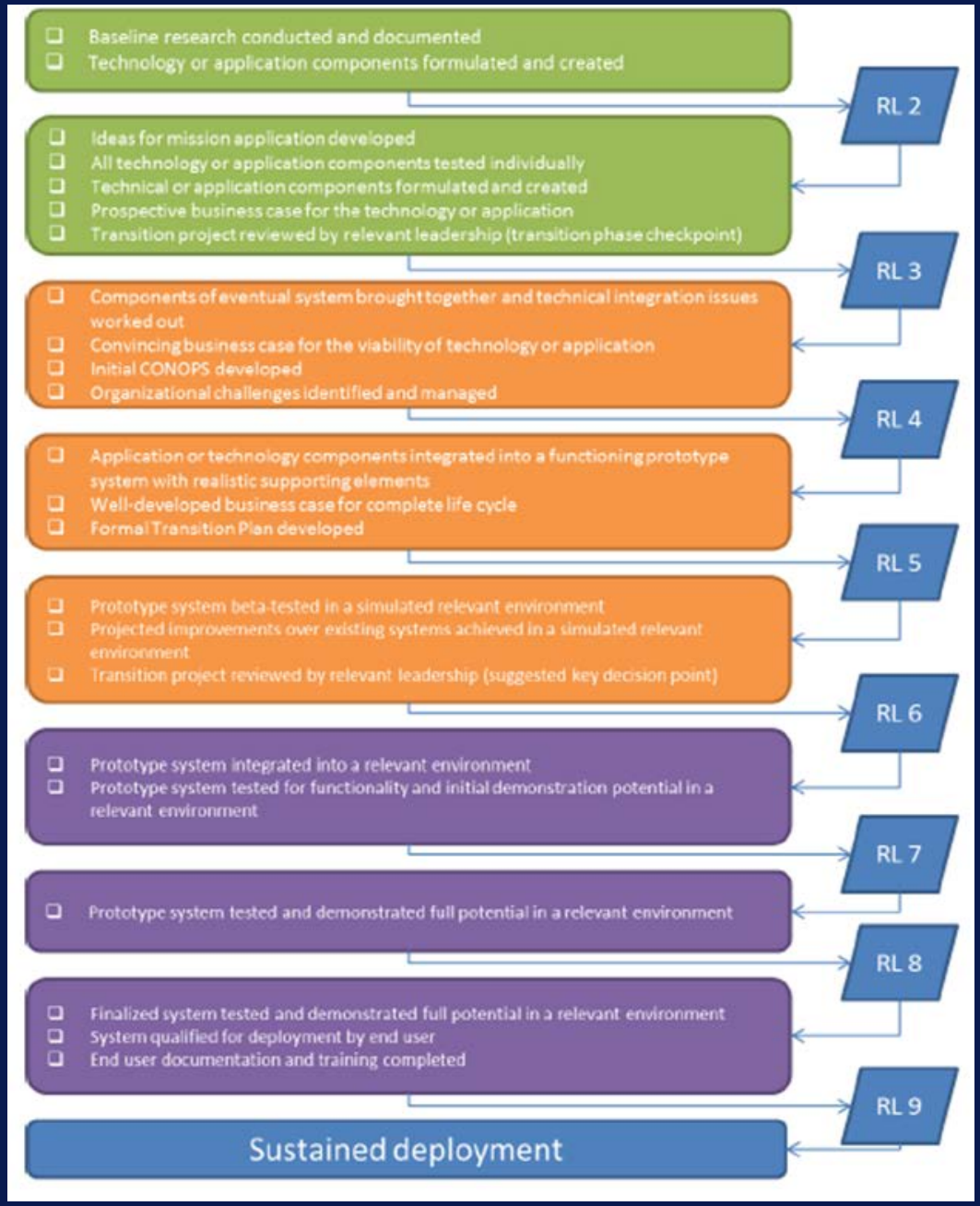
The transfer of an R&D output to a capability ready for an operation, application, commercial product or service, or other use

TRANSITION

The Transition Plan is a document that represents an agreement between clearly identified researchers and potential recipients, organizations, or other users of the product resulting from the transition of an R&D output.

NAO 216-105B Policy on Research and Development Transitions

General outline of the process

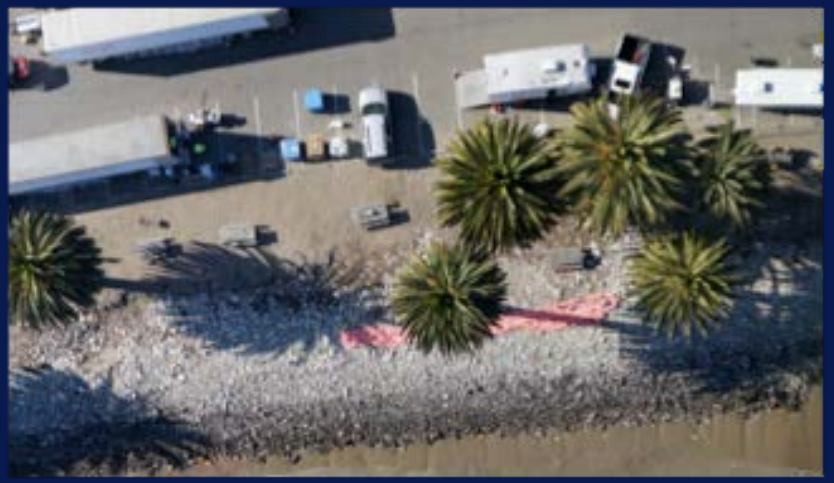


Initial Transition as a Proposal Letter of Intent

- Initial Transition Planning
  - Project Description
  - Acceptance Criteria and Timeline for Transition
  - Readiness Level Worksheet
  - Concept of Operations (CONOPS)
  - Line Office Transition Manager Approval

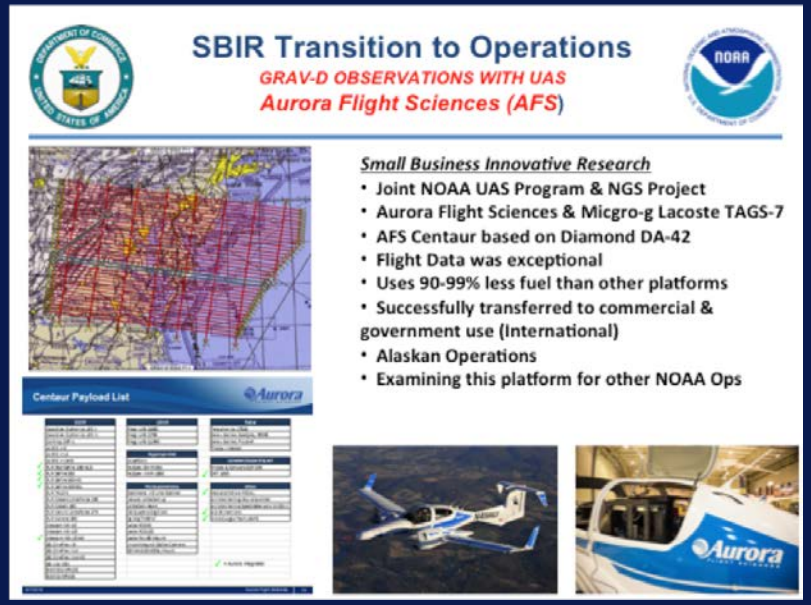
Final Transition Planning Template

- **Purpose/Objective/Goals**
- **Business Case/Capabilities and Functions**
  - *End user requirements/ Societal and economic benefits/Risks*
  - *Current (demonstration) system/intended end state*
  - *Criteria for transition*
- **Data Management**
- **Transition Activities**
  - *Readiness Level Gates to be met*
  - *Identify any testbed and proving ground that will be involved*
  - *Identify any possible new technology development*
- **Schedule and Deliverables**
  - *Implementation Plan*
  - *Milestones and anticipated Readiness Level*
  - *Training manuals*
  - *Transition Plan Refresh Mechanism*
- **Impact and Budget Overview**
  - *Cost of current system/ transition/O&M*
  - *Risks and mitigation*



FY17 Transition Plan Development

- **NOS**
  - *Grav-D*
  - *Marine Sanctuaries*
    - *MD4-1000*
    - *Puma*
  - *National Estuarine Research Reserve*
- **NMFS**
  - *APH-22*
- **NWS**
  - *Global Hawk Dropsondes*
  - *Weather Damage Assessment*
- **2016/17 Proposals**



Observation Strategy Advancements were made with Inter-Agency & Industry Partners

EXAMPLES OF OBSERVING STRATEGIES WITH POTENTIAL TO TRANSITION

Transition – High Impact Weather UAS Observing Strategy Candidates

OAR – Funded Partnership - ***Development of the Global Hawk Turbulence Sensor for Aircraft Safety – (Ru-Shan Gao, Chemical Science Divison)***

OAR - Funded Partnership - ***Observing System Simulation Experiment Analysis for Evaluating Impact of HALE Observations – (Altug Aksoy, Cooperative Institute for Marine and Atmospheric Studies)***

NWS - Partnership - ***UAS Observations for Rapid Response Post Storm Damage Assessment (Partnership) – (Michael Sporer, Weather Forecast Office)***

NESDIS - Partnership - ***UAS Observations for Satellite Calibration: GOES-R Calibration (Partnership) – (Frank Padula, Contractor for Center for Satellite Application and Research)***

Family of systems approach… observing from high to low, beginning to end.

Transition – Marine Monitoring UAS Observing Strategy Candidates

NOS – UAS FY12 RFP Project - *National Marine Sanctuaries UAS applications* – (*Todd Jacobs and Brendan Bray, National Marine Sanctuaries Program)*

NOS - SBIR Phase III - *Optionally Piloted Aircraft for the GRAV-D Gravimetry Mission – (Monica Youngman, GRAV-D Project)*

NOS - UAS Program FY16 RFP - *Coastal Mapping using small UAS* – *(Michael Aslaksen, Remote Sensing Division)*

NMFS - UAS Program FY16 RFP - *Protected Resources Research with small UAS APH-22 for Large Whale Health Assessment* - *(John Durban, Southwest Fisheries Science Center)*

NMFS - UAS Program FY16 RFP - *Protected Species Research- Advancing APH-22 VTOL applications for pinniped surveys-* *(Kimberly Murray, Northeast Fisheries Science Center)*

Multi-Platform, Multi-Mission, Multi-Line Office, Multi-Agency Observation Requirement Captured

Transition – Polar Monitoring UAS Observing Strategy Candidates

OAR - Funded Partnership - *UAS Observations for Soot Transport, Absorption, and Decomposition Study (STADS) – (Patricia Quinn, Pacific Marine Environmental Laboratory)*

Conducting testing and operational assessments in the harshest environment.