

Agile Software Testing Flow in an Oversight Environment

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Background

We were helping a DoD program under test oversight build their test strategy. We could not find a guide that captured all the necessary steps to demonstrate the capability modules they planned to develop – so we proposed a methodology that focuses on the events they needed to inform acquisition decisions.

We realized the methodology was more broadly applicable.

Observations in Practice

Framing the Schedule:

- The statutory decision points are routinely identified first
- The developmental schedule is derived from the content in the request for proposal/contract award
- The testing is squeezed between the two and can suffer as a result

Problem Space

- Development often takes longer than planned
- Inadequate time is allocated for developmental and operational test planning, analyses and reporting
- Programs are also overly optimistic regarding likely success in demonstrating new capabilities during testing
 - Pilot and risk-reduction events are not scheduled
 - Rework and regression testing are routinely omitted

Agile development can provide plenty of DT – and some OT
– but not enough for major acquisition decisions

Focus on Event-Driven Decisions

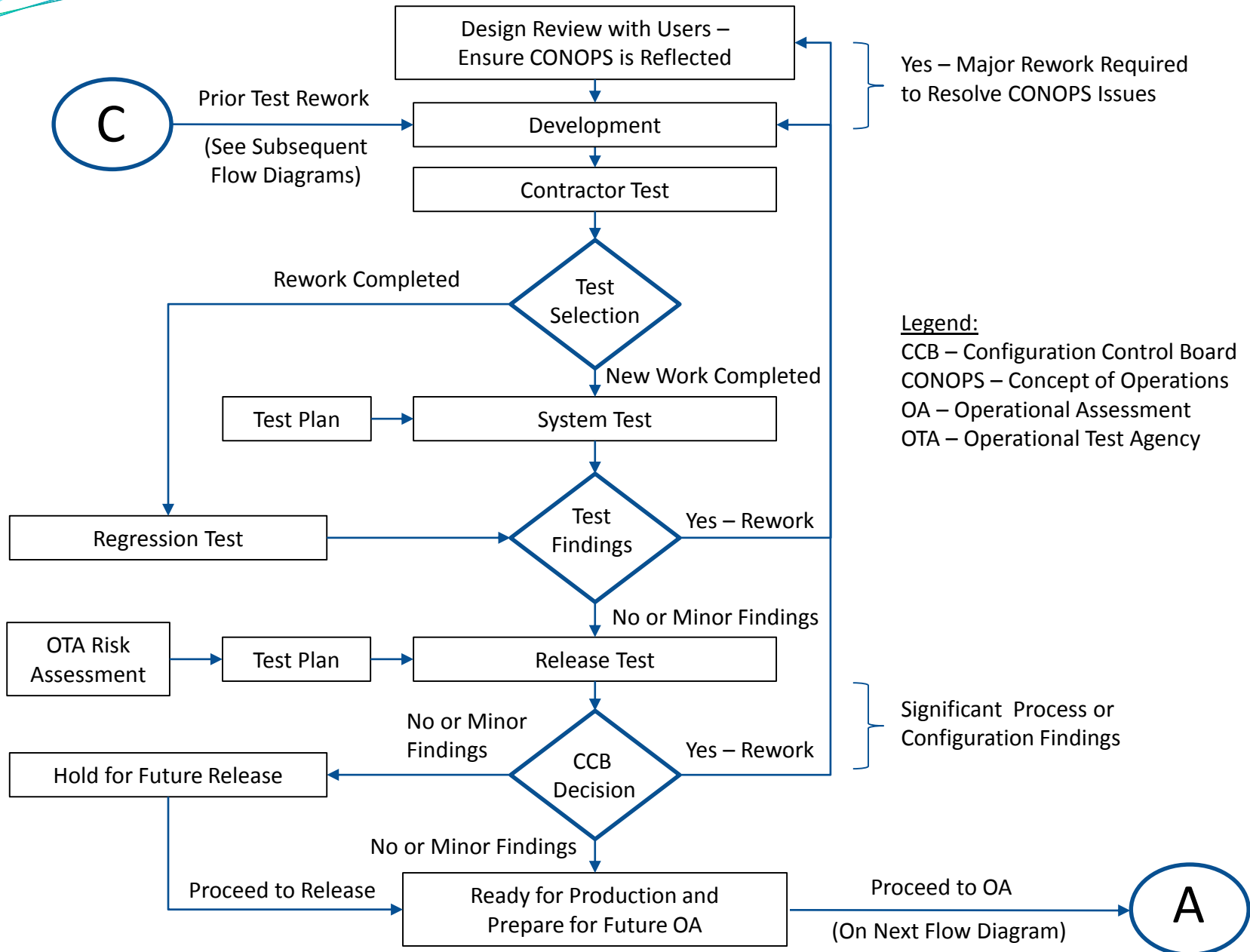
Pros

- Allows for risk management/mitigation through informed testing
- Lays out expectations early, while providing ability to flex capabilities forward or into backlog as needed

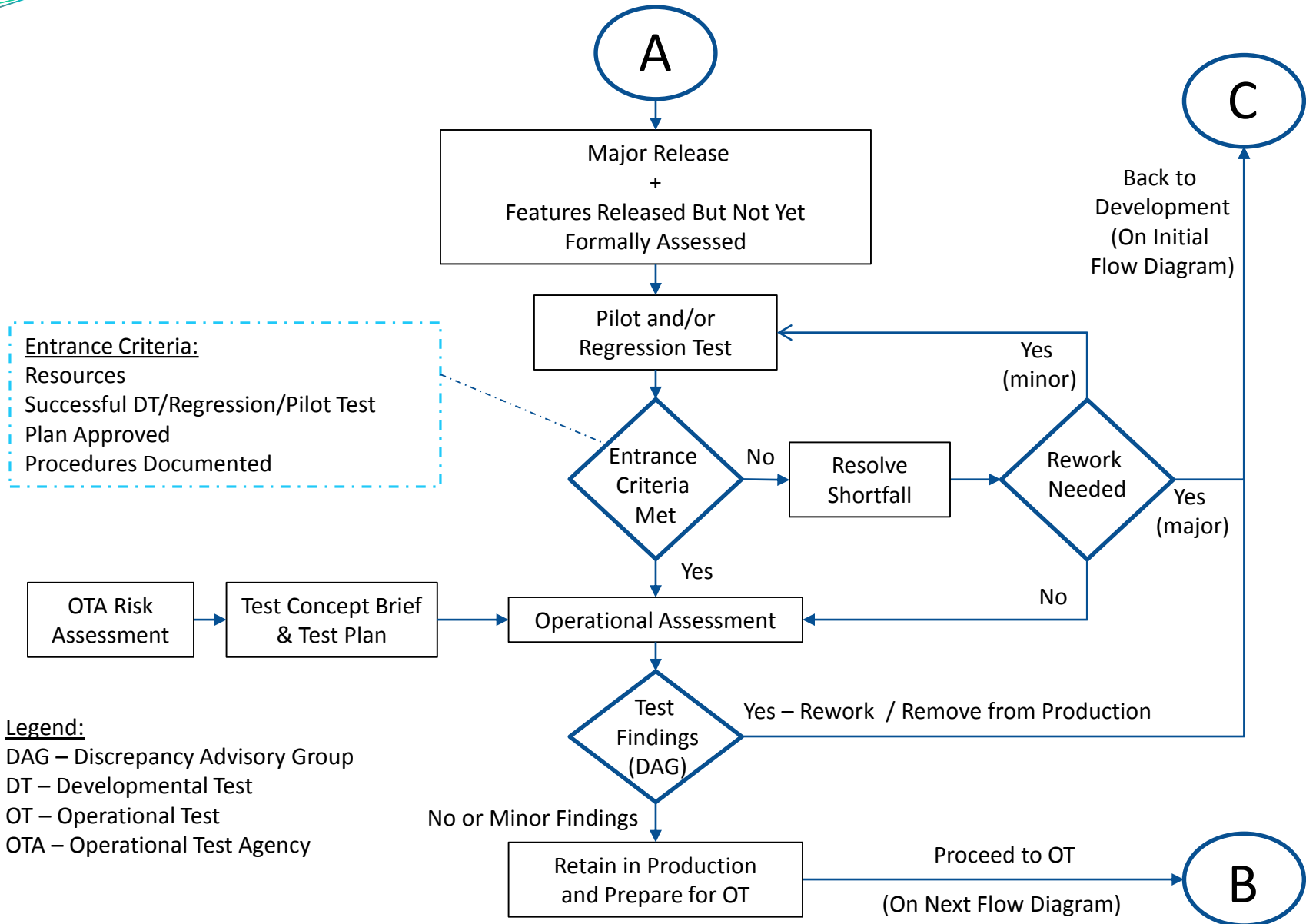
Cons

- Cannot entirely divorce major acquisition decision timelines dictated by law - that ultimately drive the schedule
- Formal test events require adequate time for planning and reporting

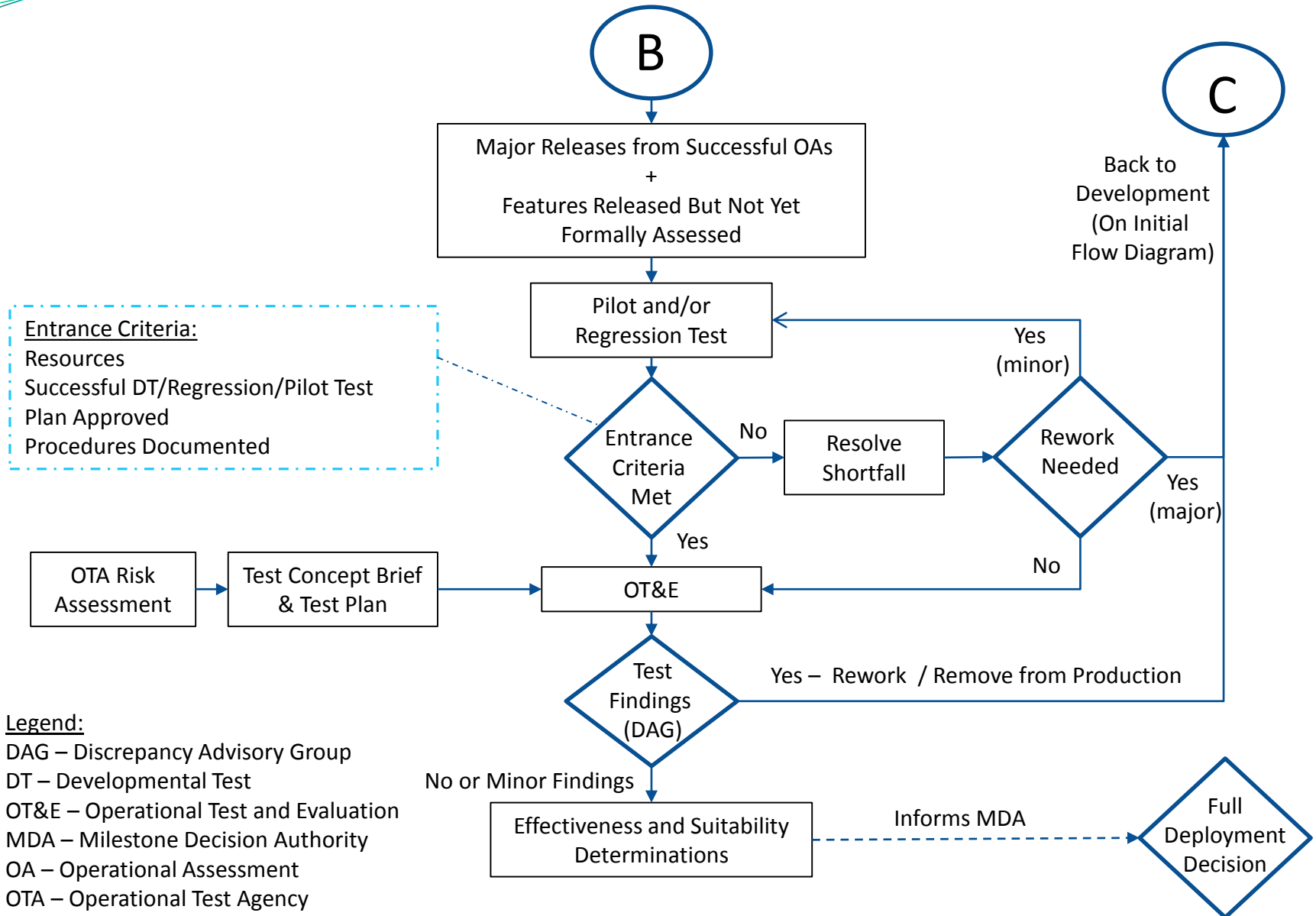
Test Flow – Path to Production and Future Test



Test Flow – Path to Operational Assessment



Test Flow – Path to Operational Test



How is this Agile?

- If the release is minor you could field the release at “A”
- There is also the potential to field at “B” in some conditions
- Previously fielded releases are included in the formal OT&E, which focuses on the system as a whole.



Questions?

New Development Convergence with Updates to the Operational Baseline

