



Earned Value Challenges in An Agile Acquisition Paradigm

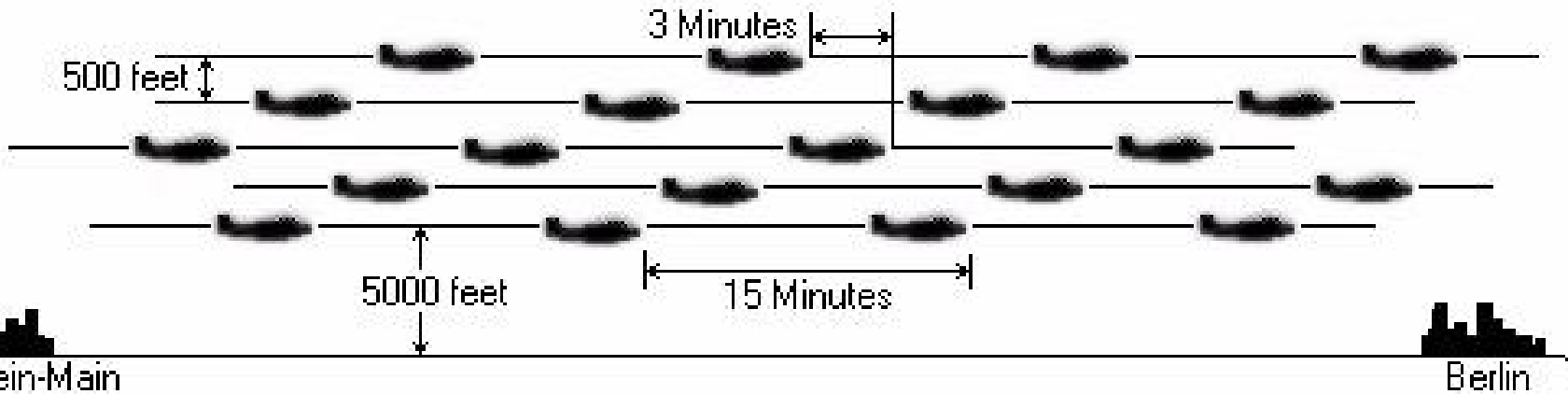
2015 EVM World

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The Berlin Airlift

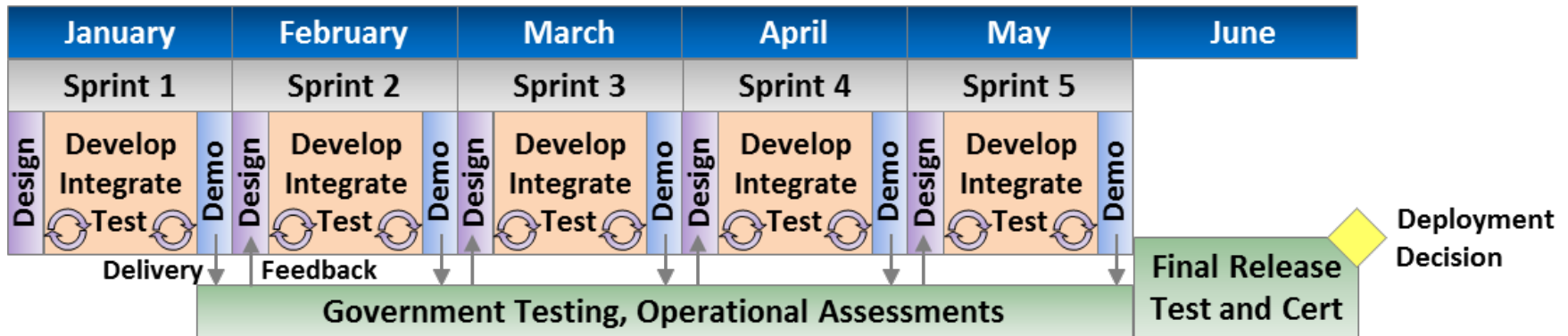


Cross-sectional view of flight into Berlin as of Sep. 1948. This arrangement allowed for landing at the rate of one plane every 3 minutes. Later, two levels were used with spacing that allowed for landing at the same rate.



Structuring an Agile Program

▶ Time Boxed Release



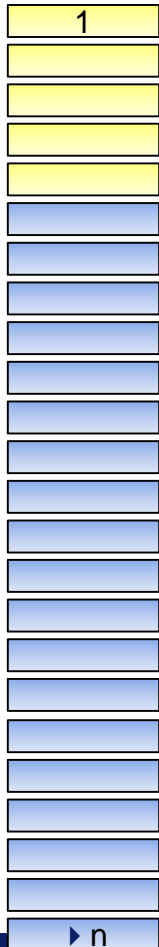
- ▶ Notional: 6 Month Release with 4-Week Sprints
 - Continual development, integration, and testing
 - Monthly demonstration of capabilities to users
- ▶ Gov't testers, certifiers, and users involved early and often
 - Minimizes work and surprises at the end of the release

▶ Release Length Based on Program, Ops, and Technical Risk



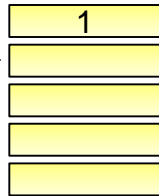
Agile Requirements Backlog

▶ Program Backlog

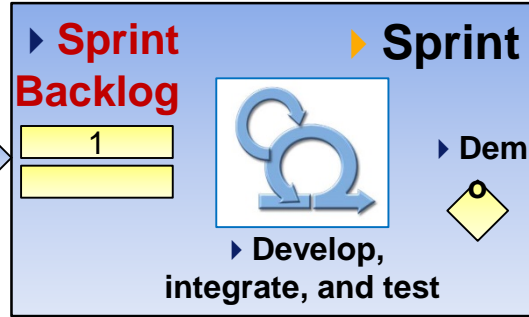


▶ Highest Priority Requirements

▶ Release Backlog



▶ Highest Priority Requirements



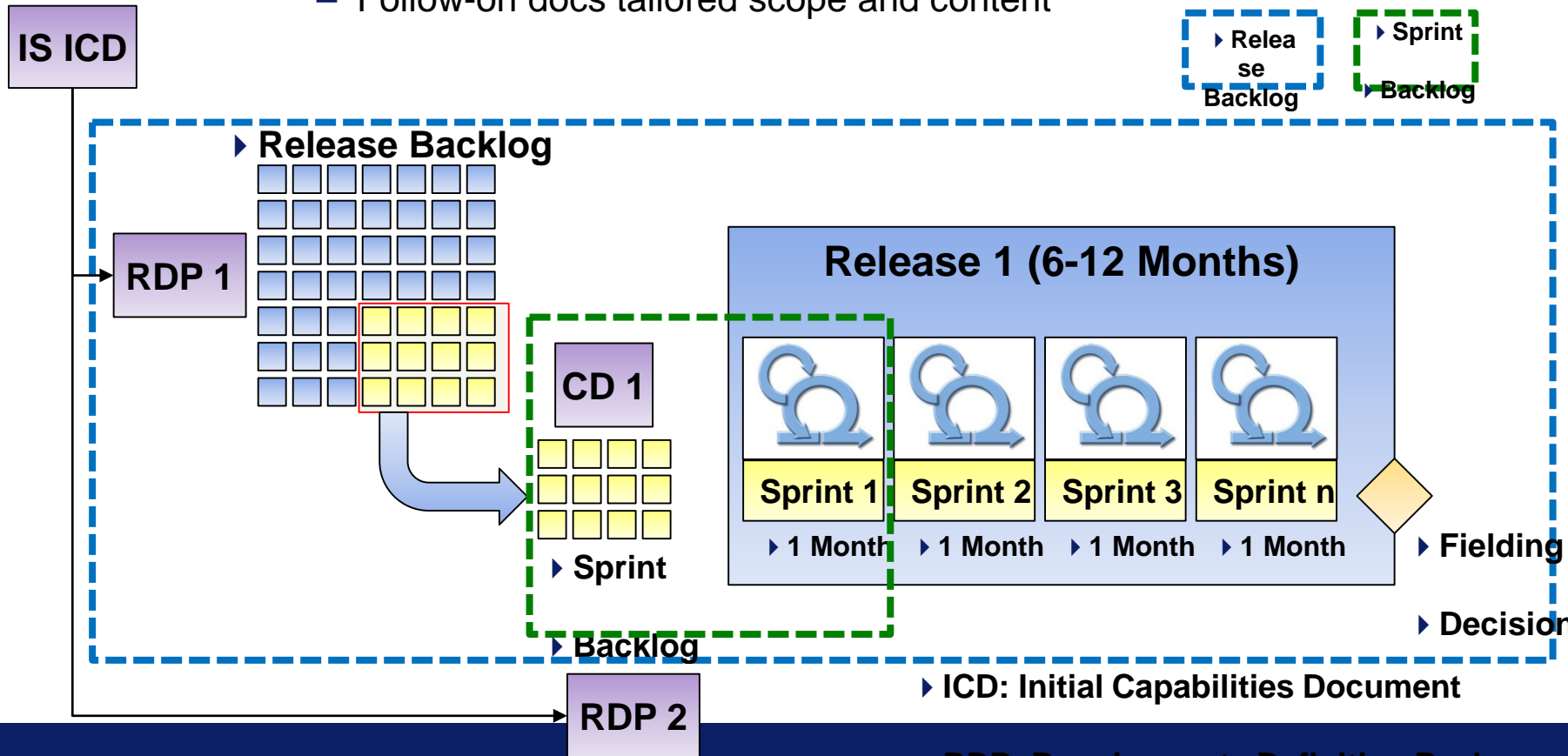
▶ User Feedback, Defects, and New Features

- ▶ An evolving, prioritized queue of requirements
- ▶ Integrates operational and technical requirements
- ▶ Actively managed with user inputs and reviews
- ▶ Development team commits to scope of work for a sprint
- ▶ Sprint scope is locked, while release scope may change
- ▶ Sprint demos may identify new features or defects which would be added to the release or program backlogs



JCIDS IT Box Model

- ▶ Streamlined requirements process for software >\$15M
- ▶ JROC approves IS-ICD – delegates approvals of follow-on docs
 - Follow-on docs tailored scope and content





Central Question for EV in Agile: How to correctly *VALUE* content shifted?

- ▶ This is not a “new” problem; it has always been faced when addressing changes in target price when partially completed CLINs are cancelled
 - That does not mean that there have not been problems . . .

- ▶ PARCA’s position is clear:
 - ““(iv) Analysis of Proposals that include termination of any contract scope should use earned value budget values and should not use earned value estimated values as part of their estimation/proposal process. In no instance should a credit (reduction) in contract value exceed the amount of value that was originally placed on contract. (reference FAR Table 15-2 (III)(B) Change Orders, Modifications, and Claims).”

- ▶ The same principles would apply to an Agile project



Conclusion: What are the implications for EV practice on Agile-managed projects?

- ▶ Agile projects require, if anything, *more* attention to baseline establishment
 - Project must anticipate *what* are the elements of content that are likely to be in the pool to be shifted; this is often easier than it seems
 - These elements should be baselined separately, with budget
- ▶ In execution, the Sprints are not what are EV tracked, but their content
 - We expect content elements to shift; as they do their respective ACWP and BCWP are transferred in and out of the “Release Backlog”
 - Program metrics will then reflect the content in the current program
- ▶ There will, inevitably, be content shifts proposed that are not anticipated; a best effort must be made to create a “fair” division of ACWP and BCWP.