

“Mixed-Mode” ATFM Phases

Now
(2018 - ?)

- “Independent” operations (**with shared ADP**)
- Exempt “out-of-zone” flights
- MINIT/MIT conversion

Future 1
(? - ?)

- Mixed CTOT/CTO operations
- Information exchange via **conventional protocol**

Future 2
(? - ?)

- Mixed CTOT/CTO operations
- Information exchange **on SWIM**

“Mixed-Mode” ATFM Work Plan

“Backbone” Readiness

- Information Flow
- Operating Procedure
- ATFM System

Concept and System Validation

- Simulation
- Planned Trial
- System Test

Implement

- Procedure Publication
- Progressive Implementation

“Backbone” Readiness

- Information Flow

- What are we exchanging?

- Define** data to be exchanged

- Write** data dictionary

- How are we exchanging them – future 1

- Agree** on interim communication protocol

- *Idea: AFTN? Web Portal?*

- Define** message format

- *(Variation on) ADEXP?*

- How are we exchanging them – future 2

- Follow** SWIM-based development process

“Backbone” Readiness

- Operating Procedure

- Who play the game? How do they play it?

- Write operational scenario(s)**

- ATFM System

- Are the systems ready to support the game?

- Assess ATFM system status**

- Define additional capability requirement**

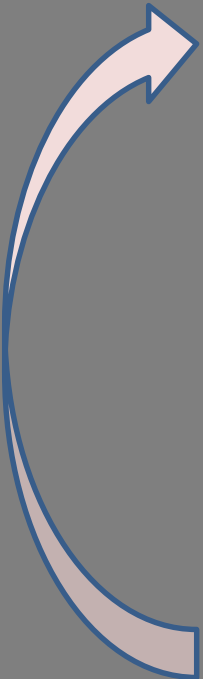
- Develop ATFM system capability**

- Demonstrate ATFM system capability**

Concept Validation

- Simulation

- “Dry” validate the concept

- 
- Prepare** “ATFMU-ATFMU” simulation plan
 - Simulate** procedure between ATFMUs
 - Prepare** “ATFMUs – stakeholders” simulation plan
 - Simulate** procedure with (select?) stakeholders
 - Assess** simulation result
 - Amend** procedure if needed

Concept Validation

- Planned Trial
 - “Wet” validate the concept
 - Prepare** “live” demonstration activities
 - Demonstrate** procedure in “live” environment
 - Assess** demonstration result
 - Amend** procedure if needed
 - Outreach & educate** stakeholders

Concept Validation

- System Tests (*focused scope: Future 1*)
 - Connection Tests (1)
 - ❑ **Ensure** functional connection per agreement
 - Message Tests (2)
 - ❑ **Plan** message tests
 - ❑ **Test** information exchange with agreed message format
 - System-to-System Tests
 - ❑ **Plan** system-system tests
 - ❑ **Test** information exchange with scenarios (1+2)

Implementation

- Procedure Publication
 - Common Operating Procedure
 - ☐ **Write / Revise** Common Operating Procedures
 - Regional ATFM Framework
 - ☐ **Revise** APAC Regional Framework for ATFM
 - Local Procedure
 - ☐ **Publish / Amend** local procedure to support the implementation

Implementation

- Progressive Implementation

- Planned Programs

- ☐ **Implement** procedure in planned disruptions

- Semi-Ad-Hoc Programs

- ☐ **Implement** procedure in “semi ad-hoc” basis

- Ad-Hoc Programs (“Live Implementation”)

- ☐ **Implement** procedure in the live environment
(full integration into existing ATFM programs)

Work Plan Table

Task ID	Task	Task Lead	Target Finish
“Backbone” Readiness			
	Define data to be exchanged		
	Write data dictionary		Now-Feb 2019 Phase1-Aug 2019 Phase2-2020
	Agree on interim com protocol		
	Define message format		
	Write ops scenario		Now-Dec 2018 Phase1-Jun 2019 Phase2-2020
	Assess ATFM system status		
	Define additional capability		
	Develop additional capability		
	Demonstrate capability		

Work Plan Table

Task ID	Task	Task Lead	Target Finish
Concept Validation - Operational			
	Prepare ATFMU simulation plan		
	Simulate ATFMU-ATFMU		
	Prepare stakeholder sim plan		
	Simulate ATFMU-stakeholders		
	Assess simulation result		
	Amend procedure (if needed)		
	Prepare “live” demonstration		
	Demonstrate procedure		
	Assess demonstration result		
	Amend procedure (if needed)		
	Outreach and education		

Work Plan Table

Task ID	Task	Task Lead	Target Finish
Concept Validation - Technical			
	Ensure functional connection		
	Plan message tests		
	Test information exchange		
	Plan system-system tests		
	Test exchange with scenarios		

Work Plan Table

Task ID	Task	Task Lead	Target Finish
Procedure Publication			
	Write/revise ops procedure		
	Revise APAC ATFM framework		
	Publish/amend local procedure		
	Implement – planned programs		
	Implement – semi ad-hoc		
	Implement – full integration		