

Item No.	6a_supp
Date of Meeting	January 17, 2017

SSAT HVAC Upgrade

Commission Meeting
January 17, 2017

SSAT HVAC Upgrade



Single Aircraft at South Satellite in 1971 – HVAC System Installed

SSAT HVAC Upgrade



12 aircraft at South Satellite – 45 year old HVAC System

SSAT HVAC Upgrade

Risks with 45 yr. old System	Upgrades Alleviate Risks by Providing:
Unreliability and prone to breakdowns	Reliability – new equipment
Obsolete parts	Modern equipment with available spare parts
Under-capacity for summer cooling	Increased capacity
Lack of capacity for ADR improvements and expansion	Capacity for ADR improvements and expansion

Risks/Solutions

SSAT HVAC Upgrades

Scope and Impacts:

- Replace existing penthouse equipment
 - Fans, coils, motors, drives and controls
- Reconfigure dual duct system to single duct system
- Replace terminal distribution boxes
- Some potential impacts to operations
 - Will mitigate by night shift work.
 - Construction planned Dec-2017 through July-2018
 - Public space activity. Will provide physical/visual separation

Project scope and impacts

SSAT HVAC Upgrade

- Alternatives Considered

- Status Quo \$0
- Complete Building HVAC Upgrade \$40M
- Upgrade Penthouse HVAC system \$11M

Alternatives

SSAT HVAC Upgrade

- Recommended alternative costs \$11M
 - Construction \$9.7M
 - Total Design & Port Staff costs \$1.3M

(Current request to prepare 100% design documents -- \$1.3M)

Recommended Alternative Costs

Any Questions?

Any Questions

SSAT HVAC Upgrade – Alternate 1

- Status Quo -- \$0
 - Pros
 - No capital investment
 - Cons
 - Does not fix reliability issue
 - Does not address existing capacity issue
 - Degraded quality of passenger experience
 - Potential complaints from airlines and tenants
 - Does not provide capacity for ADR improvements

This is not the recommended alternative.

Status Quo

SSAT HVAC Upgrade – Alternate 2

- Complete Building HVAC Upgrade \$40M
 - Pros
 - Solve capacity issues
 - Provide efficient, high quality HVAC, lighting, signage
 - Cons
 - Expensive—will trigger need for seismic work (+\$25-30M)
 - May not be supportive of SSAT future
 - Would not be completed in time to meet new ADR needs.

This is not the recommended alternative

Upgrade All SSAT HVAC Systems

SSAT HVAC Upgrade – Alternate 3

- Upgrade Penthouse HVAC System \$11M
- Pros
 - Approved system reliability and capacity for concourse
 - Provides adequate system for until the SSAT renovation project
 - Provides capacity for tenant spaces
 - Most energy efficient solution.
- Cons
 - Only partially addresses capacity issue
 - Moderate operational impacts

This is the recommended alternative

Upgrade Penthouse HVAC System