



# SPOKANE INTERNATIONAL AIRPORT PASSENGER BOARDING BRIDGE CONDITION ASSESSMENT

PREPARED FOR:

SPOKANE INTERNATIONAL AIRPORT

PREPARED BY:

AERO SYSTEMS ENGINEERING, INC.

ASE PROJECT NO.: 118716GEGGEG

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GEG PBB ANALYSIS
ASE PROJECT NO. 118716GEGGEG

March 20, 2019

#### **EXECUTIVE SUMMARY**

#### **BACKGROUND:**

The airport is seeking an independent opinion on the overall operational integrity and estimated life expectancy of all airport PBBs. This independent evaluation will be used to help inform the airport as to the current condition and potential life expectancy of the passenger boarding bridges.

#### **PURPOSE:**

AERO Systems Engineering, Inc (ASE) was contracted by the Spokane International Airport in February of 2019 to:

- Visually survey and assess the condition of the passenger boarding bridges and related equipment.
- Selected Gates: 1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 30, 31, and 32

#### **ANALYSES:**

The first step in the survey was to visually inspect each piece of equipment and observe their operation by others to determine their conditions. A total of fourteen (14) PBBs were inspected.

While all bridges had unique issues associated with them, there were common items seen across many of the bridges. The following items were present on nearly every bridge:

- Tunnel Rollers were out of adjustment with some roller failures
- Wall panels were damaged primarily from water infiltration
- Carpeting was very dirty and worn
- Ribbed Rubber floor coverings were very worn
- Exterior paint was chalking with minor oxidation
- Carpet squares have been utilized vs. broadloom carpet
- Condensate/potable water lines are cut in festoon system
- Canopies are worn
- 400 Hz equipment is no longer supported by the manufacturer

Each PBB was exercised during the inspection by airport staff, with ASE staff observing the operation. All bridges were able to achieve full design operations and meet NFPA 415 standard. While we were able to observe the operation of these PBBs, they were not evaluated to determine if they can service every aircraft parked at each gate.

As can be seen in the individual Passenger Boarding Bridge Reports, the following PBB disposition categories were used to categorize each bridge. The different categories identified below provide a general cost range associated any refurbishment activities recommended:

N-M Normal maintenance

R-L Refurbishment – Light (Costs \$0 - \$100,000)

R-M Refurbishment – Medium (Costs \$100,001 - \$150,000)

R-H Refurbishment – Heavy (Costs \$200,001 +)

S Scrap (ASE Recommends Scrapping these PBBs)

S-D Scrap – Discretionary (ASE Recommends scrapping these PBBs at the Owners Discretion)

Virtually all the units inspected fell into the categories of R-M and R-H. Three (3) bridges were assigned R-M and eleven (11) were shown as R-H.

# **INVENTORY OF EQUIPMENT:**

Asset Number	Asset Name	Manufacturer	Model	Serial Number	Tunnels	Controls	MFR Date
JWY001	JETWAY 1	JBT	A353/104125R	37821	3	Old	1995
JWY004	JETWAY 4	JBT	A265/99125R	38384	2	Old	1998
JWY005	JETWAY 5	JBT	A353/104125R	37822	3	Old	1995
JWY006	JETWAY 6	JBT	A353/104125R	38378	3	Old	1998
JWY007	JETWAY 7	JBT	A353-104125R	38379	3	Old	1998
JWY008	JETWAY 8	JBT	A353/104125R	38380	3	Old	1998
JWY011	JETWAY 11	JBT	A265/99125R	38383	2	New	1998
JWY012	JETWAY 12	JBT	A265/99125R	38385	2	Old	1998
JWY013	JETWAY 13	JBT	A265/99125R	38386	2	New	1998
JWY014	JETWAY 14	JBT	A360/119125R	38382	3	New	1998
JWY015	JETWAY 15	JBT	A353/104125R	38381	3	New	1998
JWY030	JETWAY 30	JBT	A358/110125R	39025	3	Old	2000
JWY031	JETWAY 31	JBT	A358/110125R	39026	3	Old	2000
JWY032	JETWAY 32	JBT	A358/110125R	39027	3	Old	2000

**Passenger Loading Bridges** 

Asset Number	Asset Name	Manufacturer	Model	Serial Number	MFR Date
400Hz001	400Hz 01	JBT	J-090-115-B1-001	MX-6512	*
400Hz004	400Hz 04	JBT	J-090-115-B1-001	PC-6934	*
400Hz005	400Hz 05	JBT	J-090-115-B1-001	MW-6502	*
400Hz006	400Hz 06	JBT	J-090-115-B1-001	PD-6937	*
400Hz007	400Hz 07	JBT	J-090-115-B1-001	PD-6939	*
400Hz008	400Hz 08	JBT	J-090-115-B1-001	OG-4157	*
400Hz011	400Hz 11	JBT	J-090-115-B1-001	PD-6938	*
400Hz012	400Hz12	JBT	J-090-115-B1-001	PE-6954	*
400Hz013	400Hz 13	JBT	J-090-115-B1-001	PD-6944	*
400Hz014	400Hz 14	JBT	J-090-115-B1-001	PE-69553	*
400Hz015	400Hz 15	JBT	J-090-115-B1-001	PD-6949	*
400Hz030	400Hz 30	JBT	J-090-115	OG-42176	*
400Hz031	400Hz 31	JBT	J-090-115	OG-42178	*
400Hz032	400Hz 32	JBT	J-090-115	OG-42177	*

400 Hz Equipment

#### **CONCLUSIONS:**

The airport has done a fairly good job of maintaining these bridges. For the most part, they are mechanically sound with very few structural concerns. Four of the bridges have had the electrical controls upgraded to PLCs.

These bridges are all within 10 to 15 years of the end of their useful life. To utilize them to that point, ASE would suggest that all be refurbished. Upgrading the controls to PLC on the 10 bridges that are not already upgraded is discretionary. We have included the upgrade in the refurbishment budgets. Parts support will progressively get weaker as the units age. It is recommended to replace the 400 Hz equipment on each bridge.

<sup>\*</sup>Data pending receipt of information from manufacturer.

If all the bridges were to be refurbished based on our assessments and recommendations, the following table would represent an initial PBB budget:

PBB Budget Estimate			
Refurbishment	R-H	11	\$ 1,627,910.00
Refurbishment	R-M	3	\$ 311,650.00
Refurbishment	R-L	0	\$ -
Normal Maintenance	N-M	0	\$ -
		Subtotal	\$ 1,939,560.00
		General Conditions (5%)	\$ 96,978.00
		Bonds (1%)	\$ 20,365.00
		Design Fees (6%)	\$ 123,415.00
		CA Fees (6%)	\$ 123,415.00
		Contingency (10%)	\$ 230,373.00
		GRAND TOTAL	\$ 2,534,106.00

The budgets indicated above are provided for reference only and use an average assumed cost for each level of PBB refurbishment. More thorough and detailed refurbishment estimates specific to each PBB would be required to further define and refine the estimates.

#### 400Hz UNITS:

All of the 400 Hz units observed are Jetpower II frequency converters manufactured by Jetway Systems. The Jetpower II unit has been out of production for at least 10 years. The technology utilized in the Jetpower II was replaced with a Pulse Width Modulated (PWM) style. This new style offered cleaner output power and reduced the input power requirements by 35 amps. While the Jetpower II was a very solid unit, it is not currently supported by the manufacturer and has not been for some time. Parts procurement is very difficult and will get worse as time passes.

It is the recommendation of ASE that all of the existing 400 Hz units be replaced with the newer PWM style units.

# **400 Hz Replacement Estimate:**

Replace 400 Hz units	14 ea x \$57,000 ea.	\$	798,000 *
Neplace 400 Hz units	14 Ca x 757,000 Ca.	۲	736,000

<sup>\*</sup>Includes installation and assumes re-use of existing electrical feeders; excludes markup, taxes, freight.

# Gate 1 Spokane International Airport

Owner: Airport
Manufacturer: Jetway
Model: A3-53/104
Serial: OG-37821
Manufacture Date: 1995

Ancillary Equipment: INET PDX-15 PCA

Jetpower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – Nova slide (uncovered) Potable Water cabinet on landing

Service Bulletins Performed: Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

#### Structural

No structural issues noted during this inspection.

#### Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. B tunnel wall

panels exhibit signs of water infiltration and are beginning to swell on the bottom. The carpet needs to be replaced due to staining.

#### Electrical

The light diffuser in the rotunda fixture is broken. The console faceplate has numerous cracks.

# Mechanical

Tunnel rollers are out of alignment with a few potentially bad bearings. The vertical lift columns appear to be slightly out of rack. The equalizer cable is rusting. There are small holes in the canopy.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. Most major lubrication points are being addressed.

# **Evaluation**:

This passenger boarding bridge is 24 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.













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# Gate 4 Spokane International Airport

Owner: Airport
Manufacturer: Jetway
Model: A3-65/99
Serial: OG-38384
Manufacture Date: 1998

Ancillary Equipment: 12' walkway

**INET PDX-15 PCA** 

Jetpower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – None

Potable water cabinet on Landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

# Structural

There may be minor stress cracks in the vertical column to baseplate welds.

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. There is minor cab rust under the bubble flooring. The left A tunnel wall panels have water damage. Service door flashing is bent.

# Electrical

The console faceplate has numerous cracks.

#### Mechanical

The A tunnel transition ramp hinge is broken. One transition ramp handrail on the right side A tunnel is missing. A right side A tunnel end block is loose. Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. The right side service stair handrail is bent. There appears to be some binding in the ACF actuator.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

#### Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

















# Gate 5 Spokane International Airport

Owner: Airport
Manufacturer: Jetway
Model: A3-53/104
Serial: OG-37822
Manufacture Date: 1995

<u>Ancillary Equipment:</u> 12' extended corridor

INET PDX-25 PCA

Jetpower II 90kVA 400Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – Nova slide (Uncovered) Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

# Structural

No major issues observed during this inspection.

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. C tunnel wall panels have water damage. The left side canopy actuator cover is broken.

# Electrical

The 400 Hz feeder is damaged in the festoon carrier. The console faceplate has numerous cracks. The right canopy actuator brake has failed.

#### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. Both lower cab rollers should be replaced.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

# Evaluation:

This passenger boarding bridge is 24 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.













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# Gate 6 Spokane International Airport

Owner: Airport
Manufacturer: Jetway
Model: A3-53/104
Serial: OG-38378
Manufacture Date: 1998

<u>Ancillary Equipment:</u> 4' extended corridor

**INET PDX-15 PCA** 

Jetpower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – KCI

Potable water cabinet on wheel bogie – Left side

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

# Structural

No issues observed during this inspection.

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. A portion of carpet trim is broken on the Rotunda radius. There is minor cab rust. Most wall panels exhibit signs of water infiltration and are beginning to swell on the bottom.

#### Electrical

The wire trough under the cab is bent.

# Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. The equalizer cable is loose. The rotunda roof should be leveled.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced. The left rotunda curtain needs tensioning.

# Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.













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# Gate 7 Spokane International Airport

Owner: Airport
Manufacturer: Jetway
Model: A3-53/104
Serial: OG-38379
Manufacture Date: 1998

<u>Ancillary Equipment:</u> 12' extended corridor

Cavotec PDX-25 PCA Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – J&B

Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

# Structural

The rotunda baseplate is partially covered in concrete.

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. There are screw holes in 4 wall panels. Rips in the A tunnel carpet are evident.

#### Electrical

The console faceplate has numerous cracks.

#### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy.

# Maintenance

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

#### Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.













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# Gate 8 Spokane International Airport

Owner: Airport
Manufacturer: Jetway
Model: A3-53/104
Serial: OG-38380
Manufacture Date: 1998

<u>Ancillary Equipment:</u> 12' extended corridor

Inet PDX-25 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – KCI

Potable water cabinet on the wheel bogie – Left side

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

# Structural

The rotunda baseplate is covered in concrete.

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. A portion of carpet trim is broken on the Rotunda radius. There is minor cab rust. Most wall panels exhibit signs of water infiltration and are beginning to swell on the bottom. The service door window is cracked. Multiple ceiling tiles are scraped from improper roller adjustment. The right canopy actuator cover is cracked. The floor sweep on the saloon doors is ripped.

#### Electrical

The console faceplate has numerous cracks. There is a delay in the steering function.

#### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. A left side service stair handrail is bent. The cab rotate chain is too loose.

#### Maintenance

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

# Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.













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#### Gate 11

#### **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-65/99
Serial: OG-38383
Manufacture Date: 1998

Ancillary Equipment: Jetaire XPC 3010 PCA

Jetpower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Ramp snake hose management Bag Chute – Nova slide (Uncovered) Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

Structural

Minor rust under cab bubble floor.

#### Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. Wall panels are

scuffed with some water damage. Tunnel roller access covers need to be reinstalled under C tunnel.

#### Electrical

PBB has had a controls upgrade to PLC.

#### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. The auto leveler wheel has a flat edge.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

# **Evaluation**:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.













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#### Gate 12

# **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-65/99
Serial: OG-38385
Manufacture Date: 1998

Ancillary Equipment: Cavotec PDX-15 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute - None

Potable water cabinet wheel bogie – Left side

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes Cab Curtains Yes Rotunda Curtains Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

Structural

Square tubing under cab bubble is swollen/splitting. The weldment for the flange that the platform landing bolts to is bent/leaning.

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. There is minor rusting of the firepan under the cab.

# **Electrical**

The console faceplate has numerous cracks.

#### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. The cab roof molding is ripped. The rotunda ceiling should be leveled.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

#### Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.















#### Gate 13

# **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-65/99
Serial: OG-38386
Manufacture Date: 1998

Ancillary Equipment: Jetaire XPC 3010 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Ramp snake hose management Bag Chute – Nova (Uncovered) Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes Rotunda Curtains Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

# Structural

The right vertical lift column shows some stress cracks from previous racking.

# Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. Tunnel roller access covers need to be reinstalled under C tunnel. Wall panels are scuffed. One ceiling tile is damaged.

# Electrical

A controls upgrade to PLC has been performed.

### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. The cab roof molding is ripped.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

# Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

This PBB is in need of a heavy refurbishment. In the opinion of the ASE staff, with a heavy refurbishment, the life of this PBB could be extended by approximately 8 - 10 years.

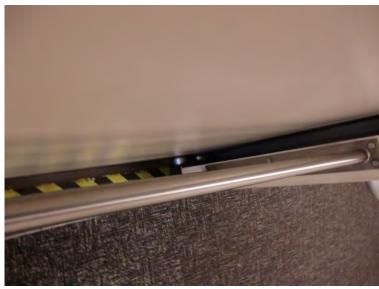












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# **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-60/119
Serial: OG-38382
Manufacture Date: 1998

Ancillary Equipment: Cavotec PDX-15 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – J&B

Potable water cabinet on wheel bogie – Left side

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes Cab Curtains Yes Rotunda Curtains Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

#### Structural

The rotunda baseplate is covered in concrete. There are possible stress cracks in the right vertical lift column baseplate.

# Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. There is minor cab rust. Most wall panels exhibit signs of water infiltration and are beginning to swell on the bottom. The interior flashing to the building is too tight/bending.

#### Electrical

PBB has had a controls upgrade to PLC.

### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. The rotunda ceiling should be leveled.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

# Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

This PBB is in need of a moderate refurbishment. In the opinion of the ASE staff, with a moderate refurbishment, the life of this PBB could be extended by approximately 8 - 10 years.













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# **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-53/104
Serial: OG-38381
Manufacture Date: 1998

Ancillary Equipment: Jetaire XPC 3010 PCA

Jetpower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Ramp snake hose management Bag Chute – Nova slide (Uncovered) Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes Cab Curtains Yes Rotunda Curtains Yes Cab Curtain Windows Yes Yes Aircraft Interface Bumper Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

#### Structural

No issues observed during this inspection.

#### Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. Tunnel roller access covers need to be reinstalled under C tunnel.

# Electrical

The cables in the pantograph are not properly secured. Controls have been upgraded to PLC.

# Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. The rotunda ceiling should be leveled.

#### Maintenance

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

#### Evaluation:

This passenger boarding bridge is 21 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

This PBB is in need of a Moderate refurbishment. In the opinion of the ASE staff, with a moderate refurbishment, the life of this PBB could be extended by approximately 8 - 10 years.













### **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-58/110
Serial: OG-39025
Manufacture Date: 2000

Ancillary Equipment: Cavotec PDX-15 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted Bag Chute – Nova (Uncovered)

Potable water cabinet on wheel bogie – Left side

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

#### Structural

Square tubing for bag slide support is rusting.

#### Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. There is minor

cab rust. Most wall panels exhibit signs of water infiltration and are beginning to swell on the bottom. The firepan under the cab bubble needs to be painted.

#### Electrical

The console faceplate has numerous cracks.

### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. B tunnel interior seals are ripped. The rotunda ceiling should be leveled.

# **Maintenance**

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

# **Evaluation**:

This passenger boarding bridge is 19 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

This PBB is in need of a heavy refurbishment. In the opinion of the ASE staff, with a heavy refurbishment, the life of this PBB could be extended by approximately 10 years.













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# **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-58/110
Serial: OG-39026
Manufacture Date: 2000

Ancillary Equipment: Cavotec PDX-15 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute - None

Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes Cab Curtains Yes Rotunda Curtains Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

#### Structural

No issues observed during this inspection.

#### Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. There is minor

cab rust. Some wall panels exhibit signs of water infiltration and are beginning to swell on the bottom.

### Electrical

The console faceplate has small cracks.

### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy. One B tunnel water block is missing on the left side. The rotunda roof should be leveled. The cab roof molding is ripped.

### Maintenance

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

#### Evaluation:

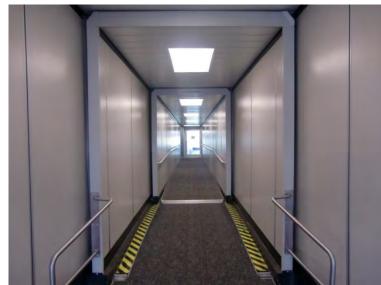
This passenger boarding bridge is 19 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

This PBB is in need of a heavy refurbishment. In the opinion of the ASE staff, with a heavy refurbishment, the life of this PBB could be extended by approximately 10 years.













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# **Spokane International Airport**

Owner: Airport
Manufacturer: Jetway
Model: A3-58/110
Serial: OG-39027
Manufacture Date: 2000

Ancillary Equipment: Cavotec PDX-15 PCA

Jeptower II 90kVA 400 Hz

Cable hoist- left side cab mounted

½ C tunnel roof handrails Roof access ladder/cage

Pantograph – Left & Right Side Hose Reel – Front Mounted

Bag Chute – J&B

Potable water cabinet on landing

<u>Service Bulletins Performed:</u> Service Bulletins have been performed.

Modifications: A300 Yes

ACF Floor Yes
Ceiling 8" Slat
Solid Rubber Tires Yes

ADA Handrails in A Tunnel Yes – Both Sides

Compliance

NFPA Wallpanels Yes
Compliance Ceiling Yes

Canopy Yes **Cab Curtains** Yes **Rotunda Curtains** Yes Cab Curtain Windows Yes Aircraft Interface Bumper Yes Service Door Yes **Tunnel Seals** Yes **Exterior Flashing** Yes

#### Structural

No issues observed during this inspection.

# Cosmetic

Chalking of the exterior paint is present throughout the exterior surfaces of the bridge. Interior paint is in fair to poor condition. The cab and bubble floor ribbed rubber is worn. The carpet is frayed at the sink ring in the rotunda.

# **Electrical**

There are small cracks in the console faceplate.

### Mechanical

Tunnel rollers are noisy indicating an out of alignment situation with a few potentially bad bearings. The rigid frame guide rollers are out of alignment. There are small holes in the canopy and the canopy is leaking where attached to the cab. A B Tunnel interior seal is ripped.

# Maintenance

Exterior paint requires a pressure wash and touch up paint at a minimum. Cosmetically, the interior paint is in fair condition. Service bulletins appear to have been performed. All major lubrication points appear to have been recently serviced.

#### Evaluation:

This passenger boarding bridge is 19 years old and is in overall "fair" condition. This PBB meets NFPA 415 standards.

This PBB is in need of a heavy refurbishment. In the opinion of the ASE staff, with a heavy refurbishment, the life of this PBB could be extended by approximately 10 years.









