

N43RF

Ozone 2006

LTI sample and exhaust ports:
 1/2" SS Swage bulkhead
 KF 50 flange
 (B1 cab. fwd, FS 371)

LTI sample port:
 1/2" SS Swage bulkhead
 (B3 cab. aft, FS 426)

Sta. 2 and 3 exhaust ports:
 1/2" PFA bulkhead
 1/2" PFA bulkhead
 (sidewall, FS 510)

Sta. 4 exhaust port:
 3/8" PFA bulkhead
 (sidewall, FS 586)

Dual Pass. exhaust port:
 1/2" PFA bulkhead
 (sidewall, FS 787)

Sta. 8. exhaust port:
 3/8" PFA bulkhead
 (sidewall, FS 880)

LTI
 2.4" Si

LTI
 1/2" SS

LTI
 1/2" SS

Sta.2
 1/2"

Sta.3
 1/2"

Sta.4
 3/8"

Dual
 Pass.
 1/2"

Sta.8
 3/8"



Black: stainless steel
Blue: PFA Teflon
Red: Silicone

NO cal lines:
 1/16" x 0.030" SS tubing
 (overhead, FS 430)

C3X ground and exhaust ports:
 1/8" SS Swage bulkhead (O2)
 1/4" SS Swage bulkhead (ZA)
 3/8" SS Swage bulkhead
 3/8" SS Swage bulkhead
 (MELC. fwd, FS 514)

NO cal lines:
 1/16" x 0.030" SS tubing
 (overhead, FS 725)

C3X ground ports:
 1/8" SS Swage bulkhead (O2)
 1/4" PFA bulkhead (ZA)
 (sidewall, FS 775)

Sta.5
 3/8"

Sta.7
 3/8"

Sta.6
 3/8"

1"

Sta. 5, 6, and 7 exhaust ports:
 3/8" PFA bulkhead
 3/8" PFA bulkhead
 3/8" PFA bulkhead
 1" PFA bulkhead
 1" PFA bulkhead
 (sidewall, FS 828-834)

N43RF - exhaust plumbing - 2006

Plumbing termination summary

N43 exhaust termination	Ozone service locations	N43 FS	Manufacturer	Installed p/n	Plug p/n	Nut p/n	Ferrule p/n	Vendor	Contact
1/16" stainless union	C3X, Sta. 5 (overhead)	430, 725	Swagelok	SS-100-61	SS-100-P	SS-102-1	SS-100-SET	Denver Valve	(303) 232-8844
1/8" stainless bulkhead union	C3X, freefall chute	514, 775	Swagelok	SS-200-61	SS-200-P	SS-202-1	SS-200-SET	Denver Valve	(303) 232-8844
1/4" stainless bulkhead union	C3X	514	Swagelok	SS-400-61	SS-400-P	SS-402-1	SS-400-SET	Denver Valve	(303) 232-8844
3/8" stainless bulkhead union	C3X, LIPF dump plate	514, LIPF	Swagelok	SS-600-61	SS-600-P	SS-602-2	SS-600-SET	Denver Valve	(303) 232-8845
1/2" stainless bulkhead union	FD, Sta. 2, LIPF dump plate	371, 426, LIPF	Swagelok	SS-810-61	SS-810-P	SS-812-1	SS-810-SET	Denver Valve	(303) 232-8844
1/4" PFA panel mount elbow union	freefall chute	775	St. Gobain Chemfluor	D1077016	(rod stock)	D1077032	D1077036	Berghof	website
3/8" PFA panel mount elbow union	Sta. 4, 5, 6, 7, 8	586, 834, 880	St. Gobain Chemfluor	D1077017	(rod stock)	D1077034	D1077038	Berghof	website
1/2" PFA panel mount elbow union	Sta. 2, 3	510, 787	St. Gobain Chemfluor	D1077018	(rod stock)	D1077031	D1077035	Berghof	website
1" PFA elbow union	Sta. 7	834	St. Gobain Grab-seal	0165-1010	0177-010	0172-0-010	0176-010 & 0178-010	Ryan Herco	website
1" PFA bulkhead union	CIMS pumps	LIPF	St. Gobain Grab-seal	0160-1010	0177-010	0172-0-010	0176-010 & 0178-010	Ryan Herco	website
KF 50 flange	LTI exhaust/BF venturi	371, LIPF	custom part	custom part	NW50-200-AB	n/a	n/a	LDS Vacuum	website

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(red arrow points forward)

B1 cabinet forward bulkhead (two ports, behind FD station)

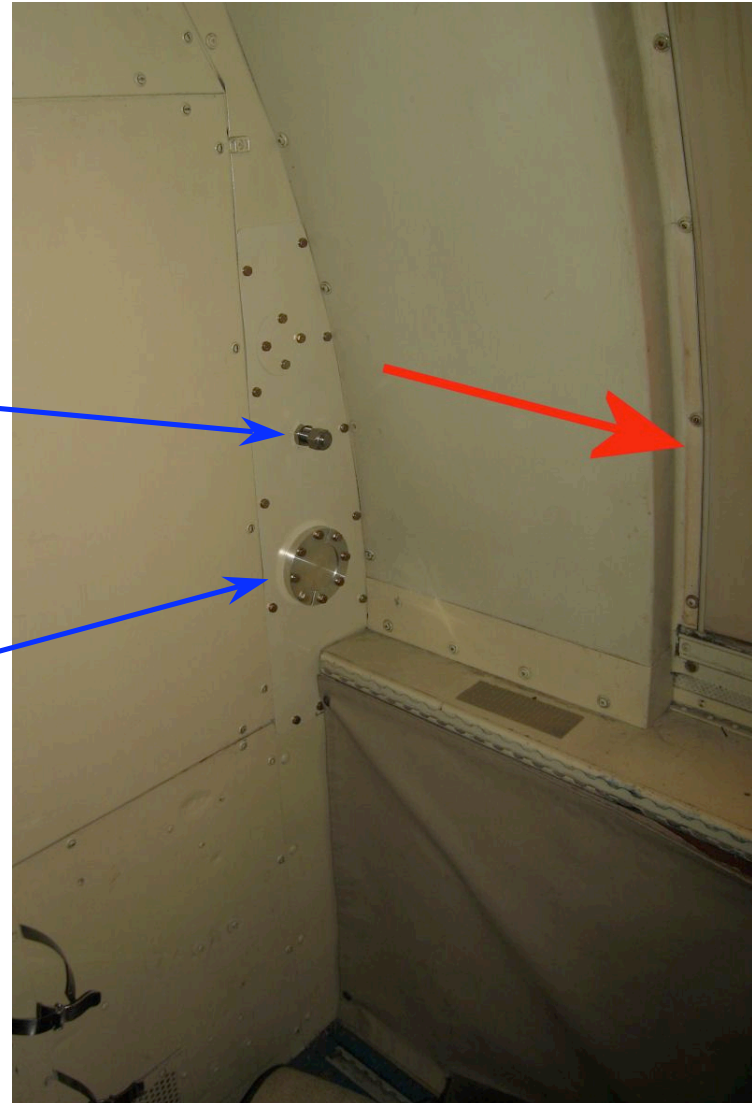
Location: FS 371

- LTI sample line - 1/2" SS Swagelok panel mount union, 35" from floor

*(1/2" SS tubing to FS 426,
B3 cabinet aft bulkhead)*

- LTI exhaust line - KF 50 flange, 28.5" from floor

(2.4" OD Si tubing to LIPF)



N43RF - exhaust plumbing - 2006

(red arrow points forward)

B1 cabinet forward bulkhead (two ports, behind FD station)

Location: FS 371

- LTI sample line - 1/2" SS Swagelok panel mount union, 35" from floor

*(1/2" SS tubing to FS 426,
B3 cabinet aft bulkhead)*

- LTI exhaust line - KF 50 flange, 28.5" from floor

(2.4" OD Si tubing to LIPF)



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(red arrow points forward)

B3 cabinet aft bulkhead

Location: FS 426

- LTI sample line - 1/2" SS Swagelok panel mount union, 26.5" from floor

*(1/2" SS tubing to FS 371,
B1 cabinet forward bulkhead)*



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(red arrow points forward)

B3 cabinet aft bulkhead

Location: FS 426

- LTI sample line - 1/2" SS Swagelok panel mount union, 26.5" from floor

*(1/2" SS tubing to FS 371,
B1 cabinet forward bulkhead)*



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(red arrow points forward)

Station C3X

(4 ports, on MELC forward bulkhead)

Location: FS 514

- NO_y exhaust line - 3/8" SS Swagelok panel mount union, 24" from floor
- CO₂ exhaust line - 3/8" SS Swagelok panel mount union, 24" from floor
(both: 3/8" PFA tubing to LIPF)
- Ground zero air line - 1/4" SS Swagelok panel mount union, 21.5" from floor
(1/4" PFA tubing to FS 775)
- Ground oxygen line - 1/8" SS Swagelok panel mount union, 21.5" from floor
(1/8" PFA tubing to FS 775)



N43RF - exhaust plumbing - 2006

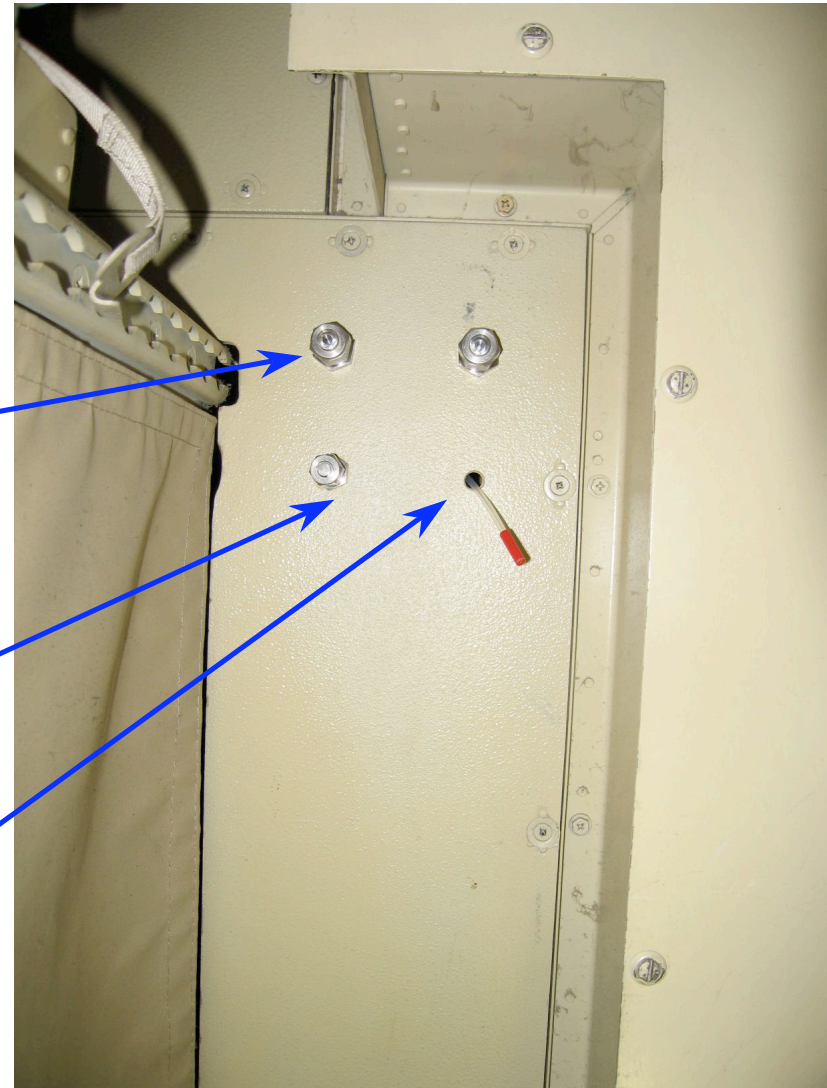
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Station C3X

(4 ports, on MELC forward bulkhead)

Location: FS 514

- **NO_y exhaust line** - 3/8" SS Swagelok panel mount union, 24" from floor
- **CO₂ exhaust line** - 3/8" SS Swagelok panel mount union, 24" from floor
(both: 3/8" PFA tubing to LIPF)
- **Ground zero air line** - 1/4" SS Swagelok panel mount union, 21.5" from floor
(1/4" PFA tubing to FS 775)
- **Ground oxygen line** - 1/8" SS Swagelok panel mount union, 21.5" from floor
(1/8" PFA tubing to FS 775)



N43RF - exhaust plumbing - 2006

(red arrow points forward)

Station C3X (overhead)

Location: FS 430

- NO cal line - 1/16" SS Swagelok union, 72" from floor

*(1/16" SS tubing, 0.030" ID,
to Sta. 5 overhead at FS 725)*



N43RF - exhaust plumbing - 2006

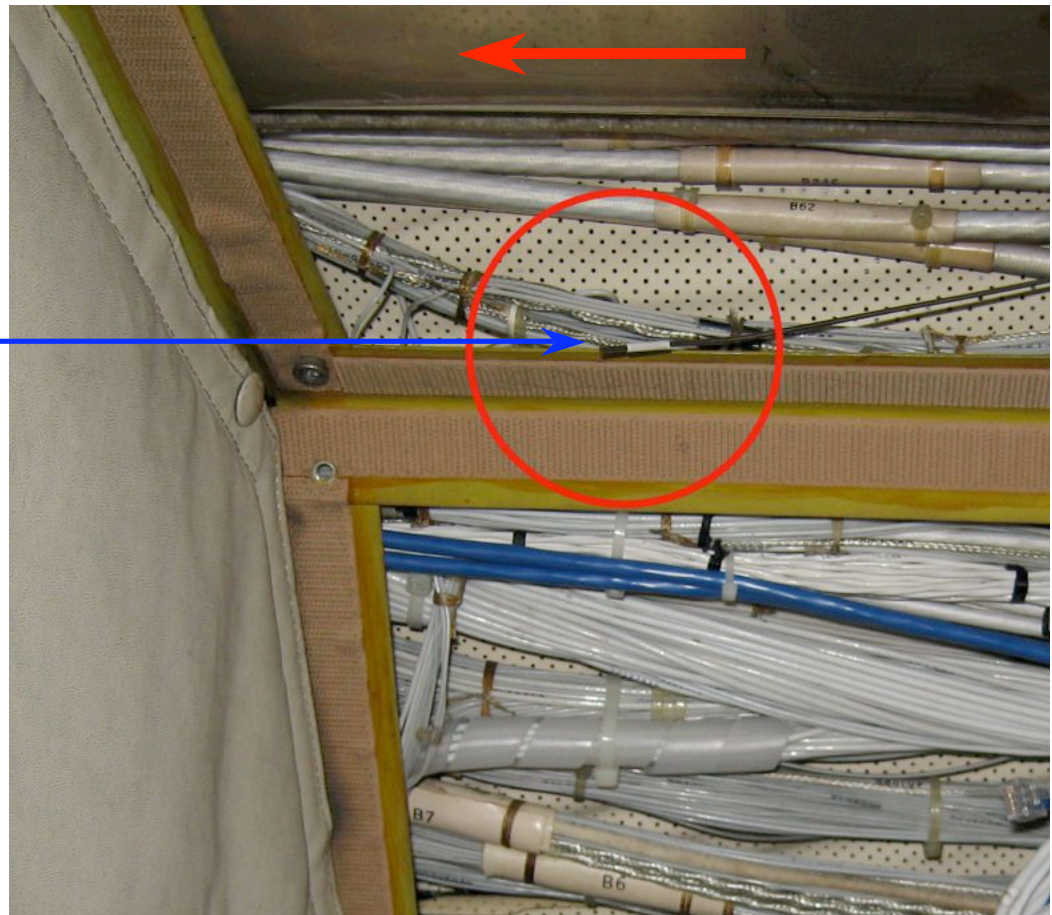
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Station C3X (overhead)

Location: FS 430

- NO cal line - 1/16" SS Swagelok union, 72" from floor

*(1/16" SS tubing, 0.030" ID,
to Sta. 5 overhead at FS 725)*



N43RF - exhaust plumbing - 2006

(red arrow points forward)

Stations 2 and 3

(two ports, forward of Sta. 3)

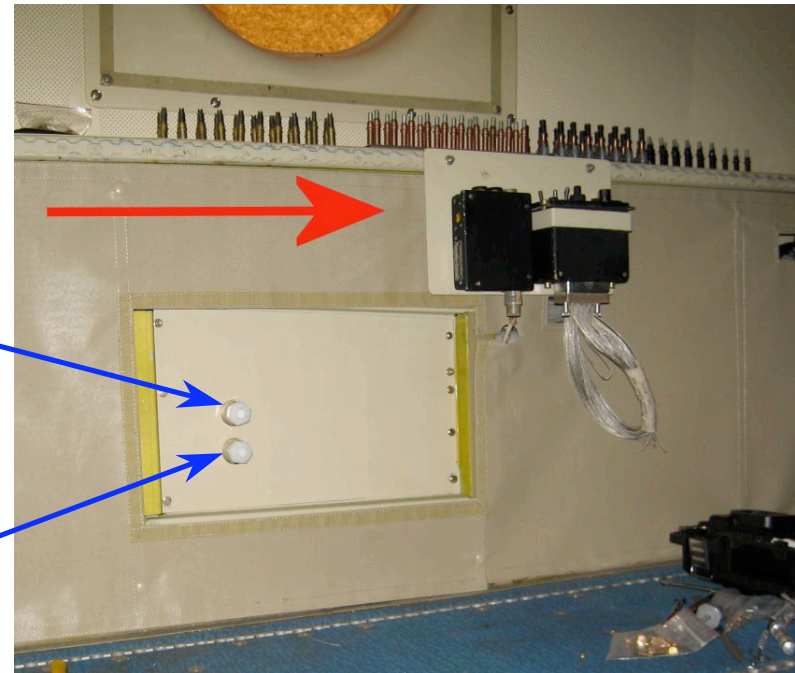
Location: FS 510

- **Sta. 2 exhaust** - 1/2" PFA Chemfluor panel mount elbow union, 10.5" from floor

(1/2" PFA tubing to LIPF)

- **Sta. 3 exhaust** - 1/2" PFA Chemfluor panel mount elbow union, 8.5" from floor

(1/2" PFA tubing to LIPF)



N43RF - exhaust plumbing - 2006

(red arrow points forward)

Stations 2 and 3

(two ports, forward of Sta. 3)

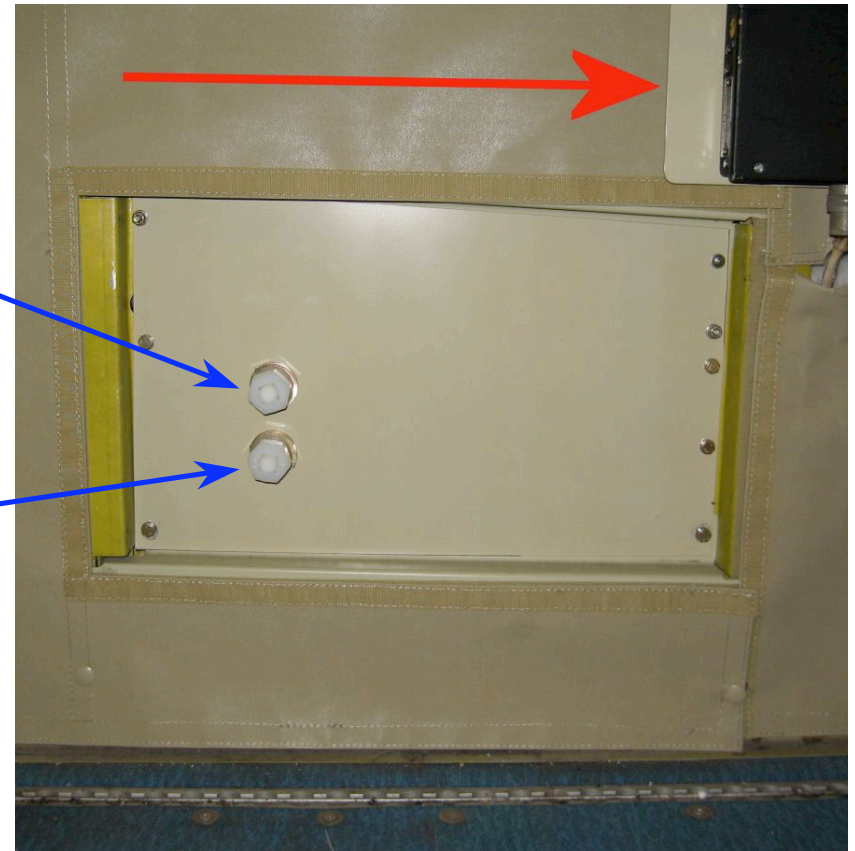
Location: FS 510

- **Sta. 2 exhaust** - 1/2" PFA Chemfluor panel mount elbow union, 10.5" from floor

(1/2" PFA tubing to LIPF)

- **Sta. 3 exhaust** - 1/2" PFA Chemfluor panel mount elbow union, 8.5" from floor

(1/2" PFA tubing to LIPF)



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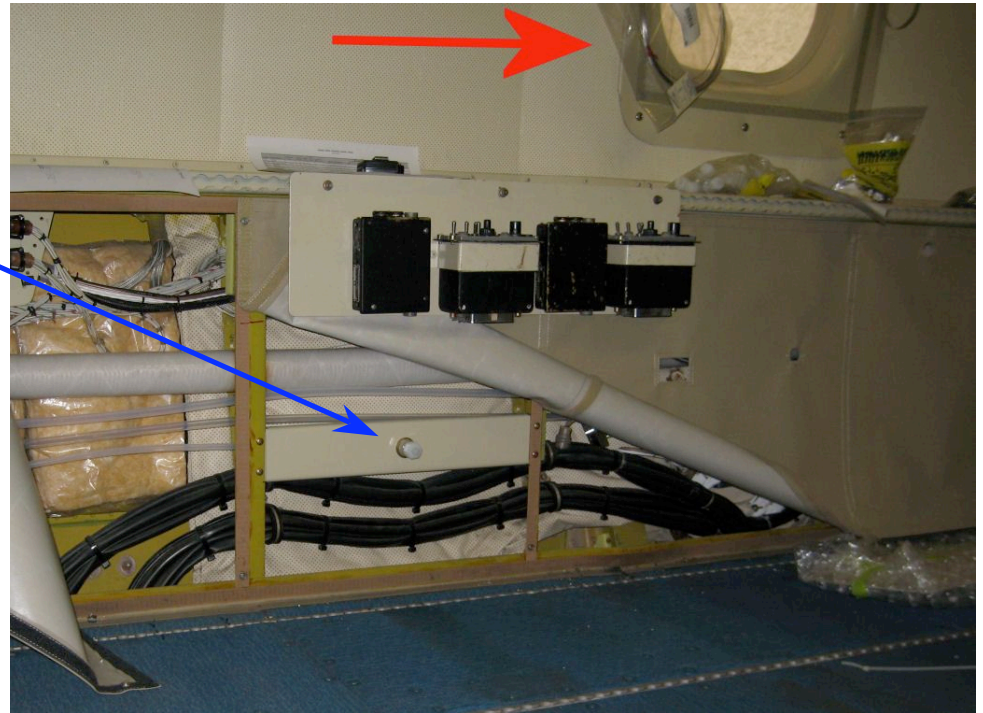
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Station 4 (forward of Sta. 4)

Location: FS 586

- Sta. 4 exhaust - 3/8" PFA Chemfluor panel mount elbow union, 8.5" from floor

(3/8" PFA tubing, to LIPF)



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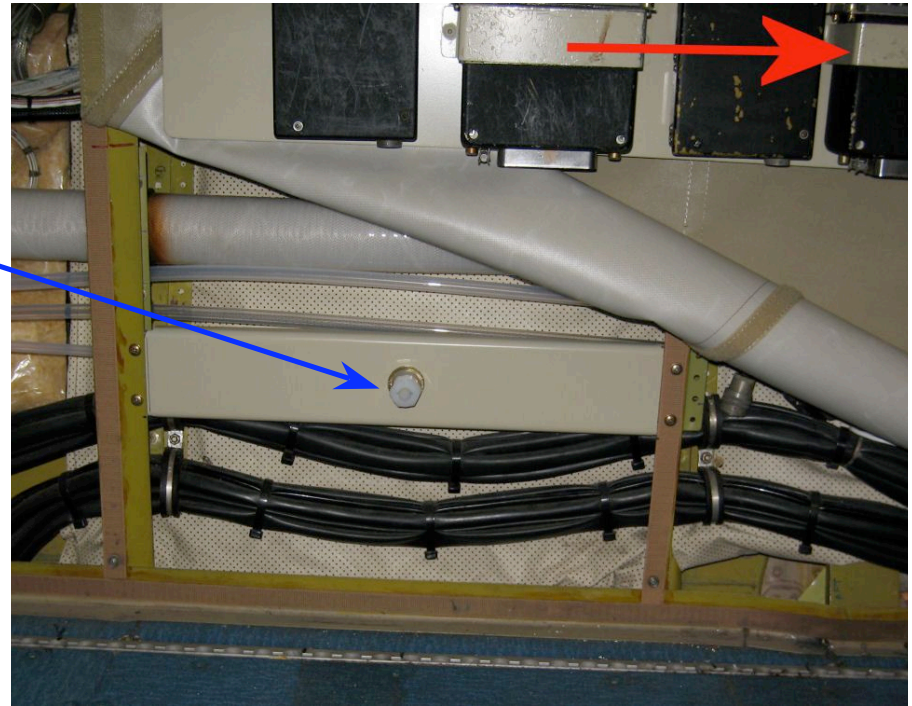
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Station 4 (forward of Sta. 4)

Location: FS 586

- **Sta. 4 exhaust** - 3/8" PFA Chemfluor panel mount elbow union, 8.5" from floor

(3/8" PFA tubing, to LIPF)



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(red arrow points forward)

Station 5 (overhead)

Location: FS 725

- NO cal line - 1/16" SS Swagelok union, 72" from floor

*(1/16" SS tubing, 0.030" ID,
to C3X overhead at FS 430)*



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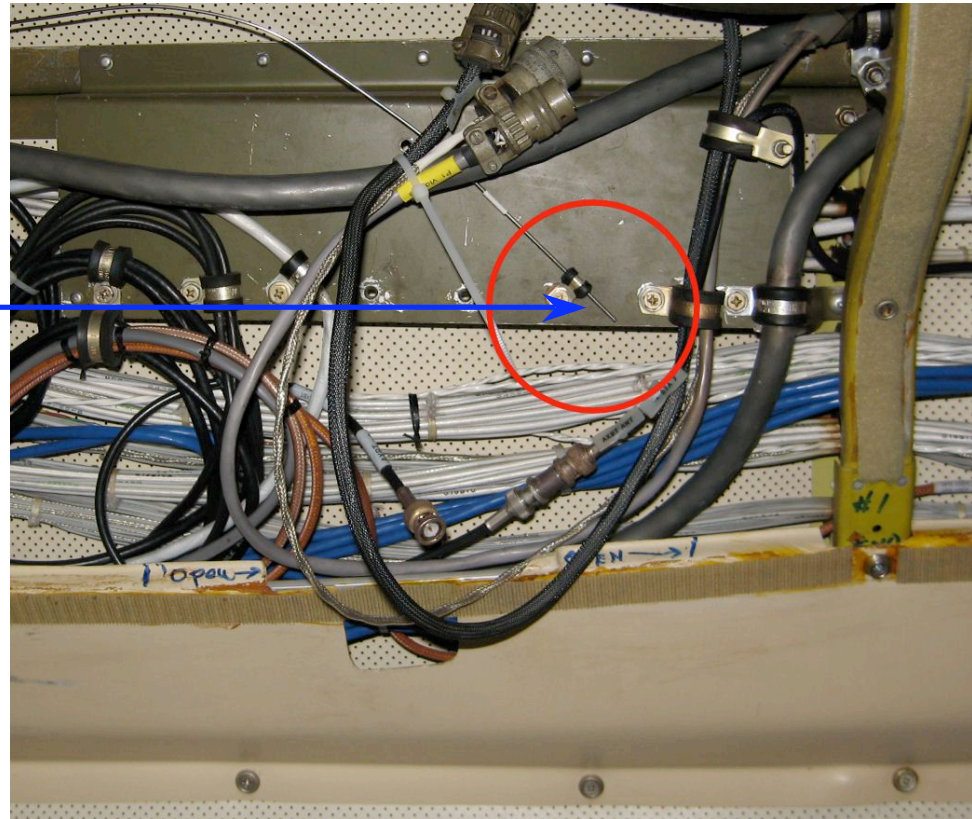
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Station 5 (overhead)

Location: FS 725

- NO cal line - 1/16" SS Swagelok union, 72" from floor

*(1/16" SS tubing, 0.030" ID,
to C3X overhead at FS 430)*



N43RF - exhaust plumbing - 2006

(red arrow points forward)

Station 6

(two ports, forward of Sta. 6)

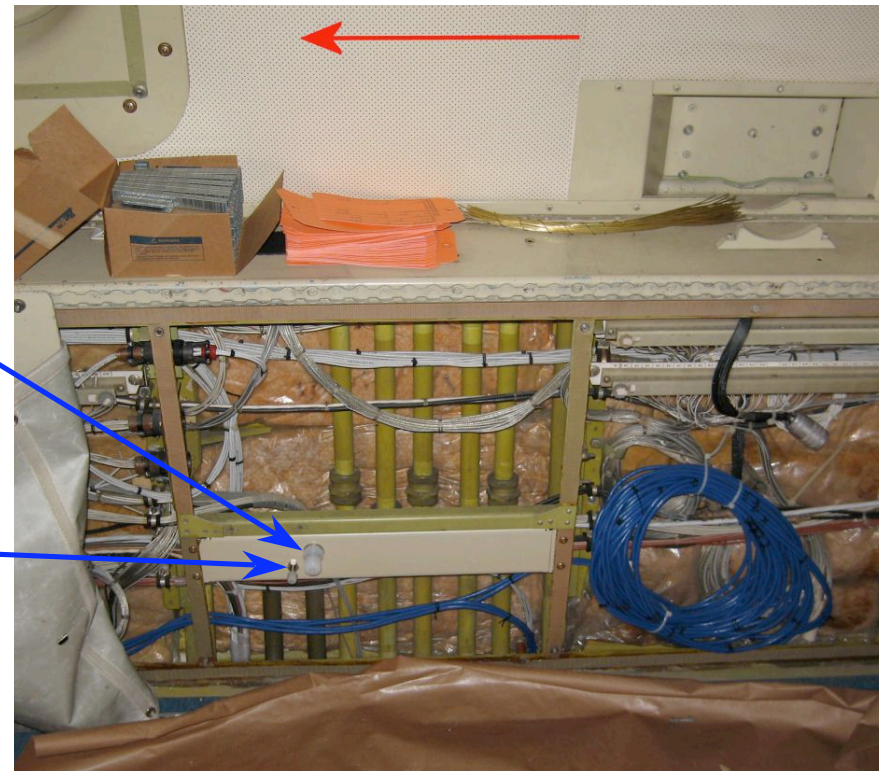
Location: FS 775

- Ground zero air line - 1/4" PFA Chemflour panel mount elbow union, 9" from floor

(1/4" PFA tubing to C3X at FS 514)

- Ground oxygen line - 1/8" SS Swagelok panel mount union, 8" from floor

(1/8" PFA tubing to C3X at FS 514)



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(red arrow points forward)

Station 6

(two ports, forward of Sta. 6)

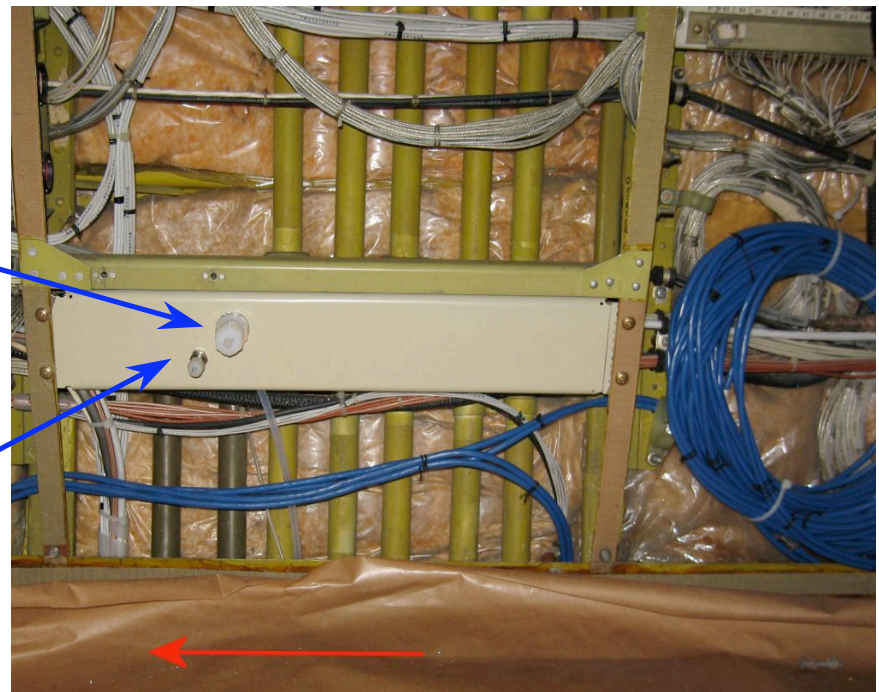
Location: FS 775

- Ground zero air line - 1/4" PFA
Chemflour panel mount elbow union,
9" from floor

(1/4" PFA tubing to C3X at FS 514)

- Ground oxygen line - 1/8" SS Swagelok
panel mount union, 8" from floor

(1/8" PFA tubing to C3X at FS 514)



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(red arrow points forward)

Stations 5, 6, 7

(five ports, forward of Sta. 7)

Location: FS 828 to 834

- HNO₃ flow tube vacuum - 1" PFA
Grab-seal elbow union, FS 828, 6" from floor
- NH₃ flow tube vacuum - 1" PFA
Grab-seal elbow union, FS 830, 8" from floor

(both 1" PFA tubing to LIPF)

- Sta. 5 exhaust - 3/8" PFA Chemfluor
Panel mt. elbow, FS 831, 6.5" from floor
- Sta. 6 exhaust - 3/8" PFA Chemfluor
panel mt. elbow, FS 832, 7.5" from floor
- Sta. 7 exhaust - 3/8" PFA Chemfluor
panel mt. elbow, FS 834, 8.5" from floor

(all 3/8" PFA tubing to LIPF)



N43RF - exhaust plumbing - 2006

(red arrow points forward)

Stations 5, 6, 7

(five ports, forward of Sta. 7)

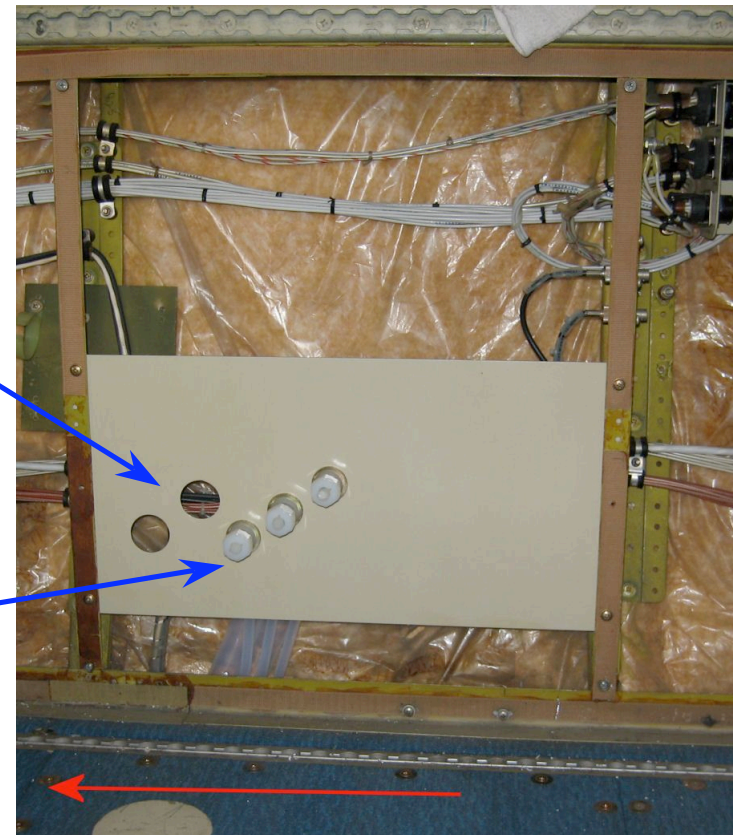
Location: FS 828 to 834

- HNO₃ flow tube vacuum - 1" PFA
Grab-seal elbow union, FS 828, 6" from floor
- NH₃ flow tube vacuum - 1" PFA
Grab-seal elbow union, FS 830, 8" from floor

(both 1" PFA tubing to LIPF)

- Sta. 5 exhaust - 3/8" PFA Chemfluor
Panel mt. elbow, FS 831, 6.5" from floor
- Sta. 6 exhaust - 3/8" PFA Chemfluor
panel mt. elbow, FS 832, 7.5" from floor
- Sta. 7 exhaust - 3/8" PFA Chemfluor
panel mt. elbow, FS 834, 8.5" from floor

(all 3/8" PFA tubing to LIPF)



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(red arrow points forward)

Dual Passenger

Location: FS 787

- NO₃/N₂O₅ exhaust - 1/2" PFA Chemfluor panel mount elbow union, 27" from floor

(1/2" PFA tubing to LIPF)



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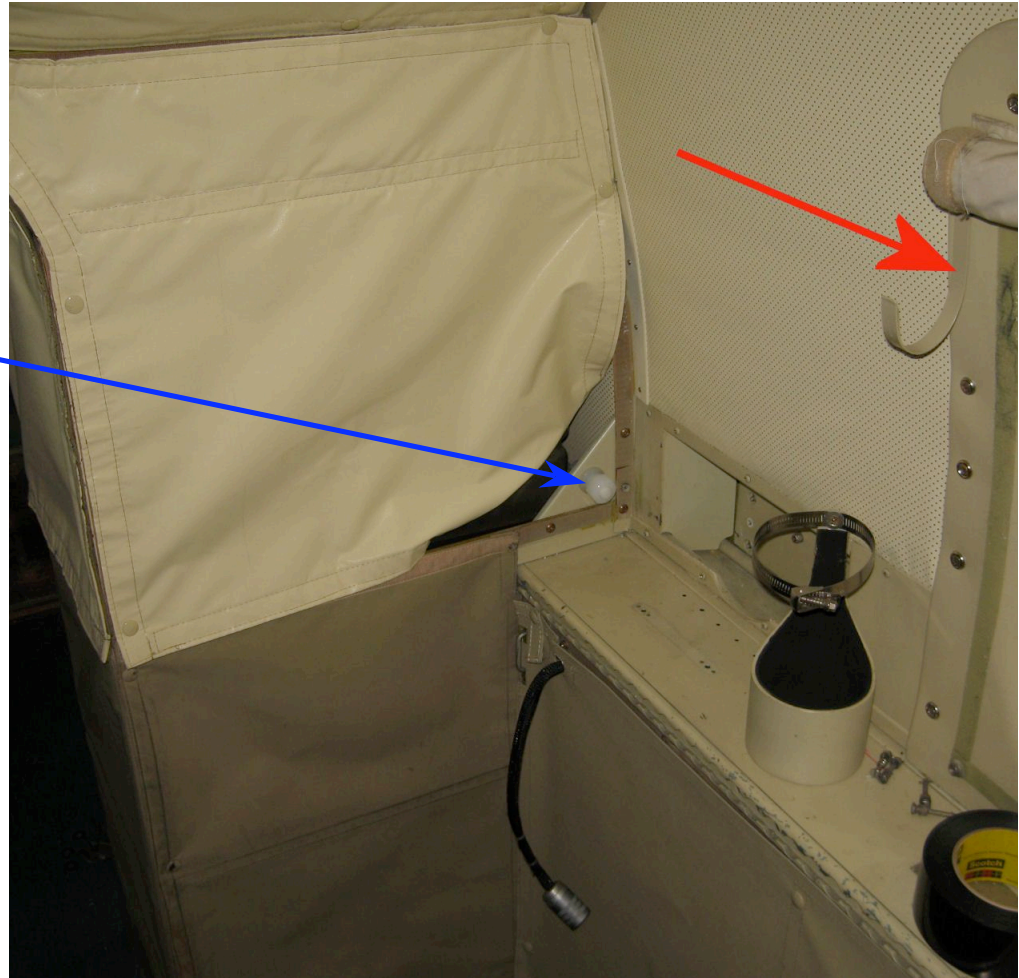
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Dual Passenger

Location: FS 787

- $\text{NO}_3/\text{N}_2\text{O}_5$ exhaust - 1/2" PFA Chemfluor panel mount elbow union, 27" from floor

(1/2" PFA tubing to LIPF)



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(red arrow points forward)

Station 8

Location: FS 880

- PTRMS exhaust - 3/8" PFA
Chemfluor panel mount elbow union,
20" from floor

(3/8" PFA tubing to LIPF)



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(red arrow points forward)

Station 8

Location: FS 880

- **PTRMS exhaust** - 3/8" PFA
Chemfluor panel mount elbow union,
20" from floor

(3/8" PFA tubing to LIPF)

