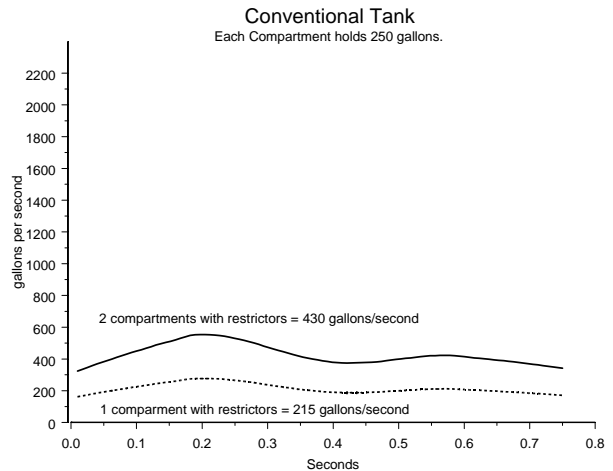
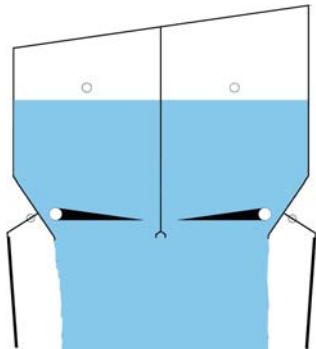




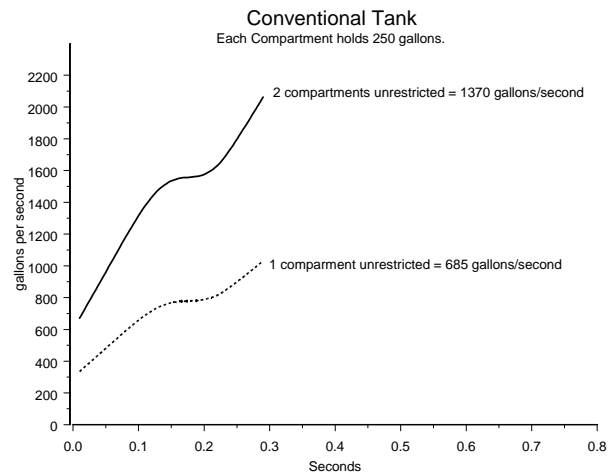
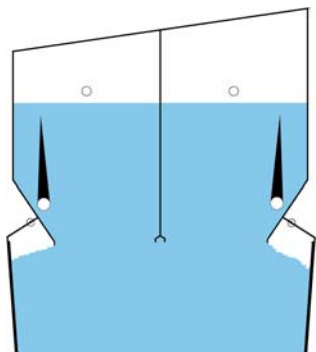
Conventional Aerial Delivery Systems

Ann Suter, Wildland Fire Chemical Systems - MTDC

Conventional tanks divide the retardant load into several compartments. The compartments can be released individually or multiple compartments can be released simultaneously to increase both the volume and the flow rate and hence the coverage level. Multiple compartments can also be released sequentially at the appropriate release interval to increase the volume while maintaining the coverage level of a single compartment release. Conventional tanks often use deployable flow restrictors to help control the flow rate. Restrictors are physical barriers that lower the flow rate as liquid is released from the tank. There are a variety of conventional tanks with different shapes, compartments and capacities. Having the option of restricting the flow doubles the number of flow rates available to the system



The figure to the left above shows two compartments released simultaneously with restrictors down. Each compartment flows at about an average of 215 gallons per second. The dotted line shows the flow rate for one compartment while the solid line shows the flow rate for two.



The figures above illustrate the same thing but without the restrictors deployed. Each compartment flows about an average of 685 gallons per second.

Conventional Systems

NO.	Owner/Operator	Aircraft Type	"N" No.	Aircraft Serial No.	Doors	Max Vol.
05	Neptune, Inc.	P2V-5	96278	131459	6-doors	2,450
06	Neptune, Inc.	P2V-5	9855f	131445	6-doors	2,450
07	Neptune, Inc.	P2V-5	1386k	131424	6-doors	2,450
09	Neptune, Inc.	P2V-7	4235T	150282	6-doors	2,450
10	Neptune, Inc.	P2V-7		144681	6-doors	2,450
11	Neptune, Inc.	P2V-7	14447	8010	6-doors	2,450
12	Neptune, Inc.	P2V-7	96264	128346	6-doors	2,450
33	Int'l Air Response	DC-7B	4887C	45351	8-doors	3,000
48	Minden Air Corp	P2V-7			6-doors	2,450
55	Minden Air Corp	P2V-7	355MA	148344	6-doors	2,450
60	TBM, Inc.	DC-7B	838D	45347	8-doors	3,000
62	TBM, Inc.	DC-7	401US	45145	8-doors	3,000
65	TBM, Inc.	C-54E	8502R	44-9141	8-doors	2,000
66	TBM, Inc.	DC-7	6353C	45486	8-doors	3,000
68	TBM, Inc.	DC-6	90739	43044	8-doors	2,450
72	CDF	S2A	443DF	195	4-doors	800
73	CDF	S2A	406DF	293	4-doors	800
74	CDF	S2A	411DF	476	4-doors	800
75	CDF	S2A	420DF	388	4-doors	800
76	CDF	S2A	417DF	61	4-doors	800
77	CDF	S2A	423DF	246	4-doors	800
78	CDF	S2A	412DF	222	4-doors	800
80	CDF	S2A	404DF	455	4-doors	800
81	CDF	S2A	447DF	417	4-doors	800
86	CDF	S2A	453DF	572	4-doors	800
87	CDF	S2A	450DF	421	4-doors	800
88	CDF	S2T	426DF	0341-028	4-doors	1,200
89	CDF	S2T	425DF	0341-029	4-doors	1,200
90	CDF	S2T	427DF	0382-011	4-doors	1,200
91	CDF	S2T	432DF	787-41	4-doors	1,200
92	CDF	S2A	442DF	255	4-doors	800
94	CDF	S2A	446DF	175	4-doors	800
95	CDF	S2A	448DF	684	4-doors	800
97	Hawkins & Powers	KC-97	1365n	52-2698	16-doors	4,000
99	Minden Air Corp	P2V-7	299MA	147961	6-doors	2,450
102	Central Air Service	C-54E	816D	44-9150	4-doors	2,000
105	Central Air Service	C-54D	96454	42-72759	4-doors	2,000
109	Central Air Service	C-54D	6816D	44-9142	4-doors	2,000
111	Central Air Service	C-54E	96541	56489	4-doors	2,000
117	Central Air Service	DC-4	31356	42914	4-doors	2,000
119	ARDCO	C-54G	406WA	35944	8-doors	2,200
139	Hawkins & Powers	P2V-7	139HP	145906	6-doors	2,450
140	Hawkins & Powers	P2V-7	140HP	140443	6-doors	2,450
151	ARDCO	C-54E	460WA	44-9133	8-doors	2,000
152	ARDCO	C-54D	9015Q	43-17228	8-doors	2,000
154	Marsh Aviation	S2-A	736MA	136736	4-doors	800
160	Aero Flite	C-54E	96358	44-9058	8-doors	2,000
161	Aero Flite	C-54G	82FA	35960	8-doors	2,000
162	Aero Flite	DC-4	3054V	10547	8-doors	2,000
215	North Carolina State FS	CL-215			2-doors	1,400
263	Minnesota State	CL-215	263NR	1082	2-doors	1,400
266	Minnesota State	CL-215	266NR	1102	2-doors	1,400
715	Helicopter Transport Ser	S-64	N470KG		4-doors	2,000
716	Helicopter Transport Ser	S-64	N484KG		4-doors	2,000
794	Heavylift Inc. Helicopters	S-64	44094		4-doors	2,000