

**Summary of stratus cases
Oregon 1995 UW KingAir flights**

	950827	950830	950831	950901	950902	950908	950909-1
Tme period of flight (Z)	1925-2015	1655-1805	1525-1550	1525-1650	1605-1755	1605-1820	1525-1555
Location (lat. / long.) (~50 km radius from point)	44.8N 124.2W	44.9N 124.8W	45.1N 124.4W	44.7N 124.6W	46.0N 124.6W	45.8N 124.1W	44.7N 124.2W
Subcloud $\Delta\theta/\Delta z$ ($^{\circ}\text{K}/100\text{m}$)	?	0	?	0	+0.1	0.04	
Cloud base (m MSL)	50	0-100	50	200-270	400 +	400-470	
Cloud depth (m)	270	350 - 480	150	130-200	500 -	230-300	
Cloud top (m MSL)		350 - 550		400	800-900	600-700	
Cld. layer $\Delta\theta_e/\Delta z$ ($^{\circ}\text{K}/100\text{m}$)	-0.3 to 100m +0.15 above	0	+0.45	0 high values at top	-0.4 bottom 200 m; 0 above	-0.2 lower half; +0.3 upper half	
Inversion magnitude ($^{\circ}\text{C}$) gradient ($^{\circ}\text{C}/100\text{m}$)	1 0.35	1 ∞	5 2.0	7 30	8 12	12 2.0	
Winds: surface ($^{\circ}\text{T} / \text{m s}^{-1}$) cld base cld top above	300 $^{\circ}$ / 2 300 $^{\circ}$ / 4 320 $^{\circ}$ / decr.	160 $^{\circ}$ / 3 160 $^{\circ}$ / 1 300 $^{\circ}$ / 1	90-100 $^{\circ}$ / 10-15 300 $^{\circ}$ / 20-25	180 $^{\circ}$ / 4 180 $^{\circ}$ / 2 100 $^{\circ}$ / 1	180 $^{\circ}$ / 4 180 $^{\circ}$ / 4 180 $^{\circ}$ / 5 100 $^{\circ}$ / 8	360 $^{\circ}$ / 10 360 $^{\circ}$ / 7 020 $^{\circ}$ / 5 020 $^{\circ}$ / 12 (??)	
FSSP conc. max. (cm^{-3})	160	220	800	600	450	350	
FDBAR, max. (μm)	16	22	12	15	18	16	
FLWC max. (g m^{-3})	0.3	0.9	0.35	0.5	1.0	0.7	
Rain rate, max. (mm h^{-1})	0.03	0.1	0.01	0.05	0.07	~ 0	
dBe0t max.	-5	0	-10	-2	0	-8	
Echo top	undulating, not sharp	large undul.	slight undul.			smooth	
Echo structure	weak, 0.3 to 0.5 km	strong cells; and bands	upward gra- dient; weak spots in hor- izntal			upward gra- dient	
Echo intensity max. (dBZ_e)			-16 max				
	950827	950830	950831	950901	950902	950908	950909-1

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	950909-2	950913		950914	950915	950916	
		part A	part B				
Time period of flight (Z)	2030-2220	2135-2335		1800-2025	1610-1820	2140 - 2325	
Location (lat. / long.) (~50 km radius from point)	44.2N 124.6W	44.9N 124.4W		44.6N 124.3W	44.3N 124.3W	45.7N 124.3W	
Subcloud $\epsilon \Delta\epsilon_z$ ($^{\circ}\text{K}/100\text{m}$)	0	0.2		1.2 in lower layer	0.4	0.5	
Cloud base (m MSL)	near 100	~ 20 - 100		300 (100 for fragments)	350 + fog to sfc	550	
Cloud depth (m)	70-200	220	280	250	380	350	
Cloud top (m MSL)	240-300	250	300	550 - 570	670 - 710	900 - 920	
Cld. layer $\epsilon \mu\Delta\epsilon_z$ ($^{\circ}\text{K}/100\text{m}$) / ϵ variable by ± 1)	0 / ϵ variable by ± 1)	0		0 in upper layer	-0.1 to 500m; 0 above	0	
Inversion magnitude ($^{\circ}\text{C}$) gradient ($^{\circ}\text{C}/100\text{m}$)	7 10	5 ~ ∞		10 4 (avg.)	6 20	5 5	
Winds: surface ($^{\circ}\text{T} / \text{m s}^{-1}$) cloud base cld top above	340 $^{\circ}$ / 9 350 $^{\circ}$ / 9 000 $^{\circ}$ / 5 020 $^{\circ}$ / 5	360 $^{\circ}$ / 8 360 $^{\circ}$ / 8 010 $^{\circ}$ / 5 decr.		160 $^{\circ}$ / 3 160 $^{\circ}$ / 3 330 $^{\circ}$ / 8 360 $^{\circ}$ /decr.	210 $^{\circ}$ / 3 300 $^{\circ}$ / 1 300 $^{\circ}$ / 2 090 $^{\circ}$ / 5	200 $^{\circ}$ / 6 190 $^{\circ}$ / 5 210 $^{\circ}$ / 5 000 $^{\circ}$ / 1	
FSSP conc. max. (cm^{-3})	600	800	600	200	300	200	
FDBAR, max. (θm)	10	10	15	20	22	20	
FLWC max. (g m^{-3})	0.4	0.4	0.6	0.6	0.6	0.6	
Rain rate, max. (mm h^{-1})	~ 0			0.08	0.2	0.1	
dBe0t max.				+ 10			
Echo top				small undul.		flat	
Echo structure				cellular, strg. sheared at 300 m		cellular, vir- ga into layer below 400 m	
Echo intensity max. (dBZ_e)				10	10	5	
	950909-2	950913		950914	950915	950916	