Form B: Data Set Descriptions

PI Name: Haig Keshishian **Expt #** NIH B1 (STS106)

Please duplicate this blank form and use one for each data set.

Data Set Title	Plate Fate Logsheets (Photocopy)
Data Set Description	Egg and embryo counts for sample preparation during launch cycles 1-4
Treatment	
Parameter(s) Measured	Numerical counts.
Data Type (choose from Table A as many as apply):	___Computer Spreadsheet __x_ Other: Describe Photocopy of logbook entries,
Quantity/Size/Format:	How many included in set?__22___ Units? __sheets_____ (i.e. megabytes, no. of items, etc.)
Research Subject(s):	Human: ___PS1 ___PS2 ___MS1 ___MS3___MS2 ___PLT ___CDR Rodent: #'s _____ Other: Drosophila melanogaster
Time Period of Collection (choose as many as apply):	_x_Preflight __Inflight __Postflight MSRD Session(s) #/Title _____ _____ Mission Day (if applicable, see instructions)_____
Data Collection Location (if ground-based data is included):	__x_KSC (Hanger L) ____JSC (BDCF) ___ Dryden ____ (ARC) ___ PI Laboratory ____ Other
Analysis Phase	__ Raw ___Converted ___ Analyzed ___ Summarized
Additional Comments: (see instructions) • Specify other related data sets • Specify hardware/ software/file name	If spreadsheet: Computer type _____ Software_____ Specify computer file name if known: _____

Plate Fate Logsheet Launch Attempt No. 1 1/3

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/3/00	H-2	1 h 15'	340	9/3/00	7:30p	9/6/00	11:30a	L#1 A8 blue	
9/3/00	H-2	1 h 15'	359	9/3/00	7:30p	9/6/00	11:30a	L#1 C6 blue	
9/3/00	H-5	1 h 15'	354	9/3/00	7:30p	9/6/00	11:30a	L#1 C7 blue	
9/3/00	H-2	1 h 15'	338	9/3/00	7:30p	9/6/00	11:30a	L#1 C8 blue	
9/4/00	H-5	1 h	424	9/4/00	6:45p	9/6/00	10:45a	L#1 A7 green	
9/4/00	H-4	1 h	407	9/4/00	6:45p	9/6/00	10:45a	L#1 D6 green	
9/4/00	H-4	1 h	402	9/4/00	6:45p	9/6/00	10:45a	L#1 D7 green	
9/4/00	H-4	1 h	393	9/4/00	6:45p	9/6/00	10:45a	L#1 D8 green	
9/5/00	H-5	50'	394	9/5/00	6:00p	9/6/00	4:00p	L#1 A5 yellow	
9/5/00	H-5	50'	371	9/5/00	6:00p	9/6/00	4:00p	L#1 A6 yellow	
9/5/00	H-4	50'	366	9/5/00	6:00p	9/6/00	4:00p	L#1 E1 yellow	
9/5/00	H-2	50'	377	9/5/00	6:00p	9/6/00	4:00p	L#1 E2 yellow	
9/5/00	H-3	50'	387	9/5/00	6:00p	9/6/00	4:00p	L#1 E3 yellow	
9/5/00	H-5	50'	391	9/5/00	6:00p	9/6/00	4:00p	L#1 E4 yellow	
9/5/00	H-1	50'	390	9/5/00	6:00p	9/6/00	4:00p	L#1 E5 yellow	
9/5/00	H-4	50'	364	9/5/00	6:00p	9/6/00	4:00p	L#1 E6 yellow	
9/5/00	H-3	50'	346	9/5/00	6:00p	9/6/00	4:00p	L#1 E7 yellow	
9/5/00	H-2	1 h 30'	313	9/5/00	6:00p	9/6/00	4:00p	L#1 E8 yellow	CAGE UNCERTAIN
9/6/00	H-4	1 h	386	9/6/00	3:45p	9/6/00	8:45p	L#1 A3 red	
9/6/00	H-4	1 h	382	9/6/00	3:45p	9/6/00	8:45p	L#1 A4 red	
9/6/00	H-3	1 h	321	9/6/00	3:45p	9/6/00	8:45p	L#1 B1 red	50 manually added
9/6/00	H-1	1 h	302	9/6/00	3:45p	9/6/00	8:45p	L#1 B2 red	
9/6/00	H-4	1 h	415	9/6/00	3:45p	9/6/00	8:45p	L#1 B3 red	
9/6/00	H-3	1 h	323	9/6/00	3:45p	9/6/00	8:45p	L#1 B4 red	50 manually added
9/6/00	H-4	1 h	403	9/6/00	3:45p	9/6/00	8:45p	L#1 B5 red	
9/6/00	H-7	1 h	400	9/6/00	3:45p	9/6/00	8:45p	L#1 B6 red	
9/6/00	H-3	1 h 30'	351	9/6/00	3:45p	9/6/00	8:45p	L#1 B7 red	
9/6/00	H-2	1 h 30'	342	9/6/00	3:45p	9/6/00	8:45p	L#1 B8 red	

Plate Fate Logsheet Launch Attempt No. 1 2/3

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/6/00	H-7	1 h	338	9/6/00	3:45p	9/6/00	8:45p	L#1 F1 red	
9/6/00	H-1	1 h	305	9/6/00	3:45p	9/6/00	8:45p	L#1 F2 red	30 manually added
9/6/00	H-5	1 h	306	9/6/00	3:45p	9/6/00	8:45p	L#1 F3 red	30 manually added
9/6/00	H-1	1 h	405	9/6/00	3:45p	9/6/00	8:45p	L#1 F4 red	
9/6/00	H-7	1 h	354	9/6/00	3:45p	9/6/00	8:45p	L#1 F5 red	
9/6/00	H-5	1 h	317	9/6/00	3:45p	9/6/00	8:45p	L#1 F6 red	50 manually added
9/6/00	H-7	1 h	360	9/6/00	3:45p	9/6/00	8:45p	L#1 F7 red	
9/6/00	H-1	1 h	321	9/6/00	3:45p	9/6/00	8:45p	L#1 F8 red	30 manually added
9/6/00	H-1	1 h	410	--	--	9/6/00	5:10p	L#1 A1 white	
9/6/00	H-4	1 h	407	--	--	9/6/00	5:10p	L#1 A2 white	
9/6/00	H-1	1 h	361	--	--	9/6/00	5:10p	L#1 C1 white	
9/6/00	H-5	1 h	372	--	--	9/6/00	5:10p	L#1 C2 white	
9/6/00	H-1	1 h	421	--	--	9/6/00	5:10p	L#1 C3 white	
9/6/00	H-4	1 h	412	--	--	9/6/00	5:10p	L#1 C4 white	
9/6/00	H-7	1 h	405	--	--	9/6/00	5:10p	L#1 C5 white	
9/6/00	H-4	1 h	388	--	--	9/6/00	5:10p	L#1 D1 white	
9/6/00	H-3	1 h	345	--	--	9/6/00	5:10p	L#1 D2 white	
9/6/00	H-9	1 h	328	--	--	9/6/00	5:10p	L#1 D3 white	
9/6/00	H-5	1 h	381	--	--	9/6/00	5:15p	L#1 D4 white	
9/6/00	H-5	1 h	356	--	--	9/6/00	5:15p	L#1 D5 white	
9/6/00	H-7	1 h	391	--	--	9/6/00	5:15p	L#1 G1 white	
9/6/00	H-1	1 h	405	--	--	9/6/00	5:15p	L#1 G2 white	
9/6/00	H-5	1 h	405	--	--	9/6/00	5:15p	L#1 G3 white	
9/6/00	H-7	1 h	285	--	--	9/6/00	5:15p	L#1 G4 white	
9/6/00	H-7	1 h	354	--	--	9/6/00	5:15p	L#1 G5 white	
9/6/00	H-4	1 h	376	--	--	9/6/00	5:15p	L#1 G6 white	
9/6/00	H-9	1 h 40'	418	--	--	9/6/00	5:30p	L#1 G7 white	
9/6/00	H-2	1 h 40'	397	--	--	9/6/00	5:30p	L#1 G8 white	

Experiment final Launch Attempt No. 1 3/3

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
Duration of 18C exposure in flight	**0h**	**34h**	**44h**	**96h**	**160h**	**207h**	**210h**
11.5 preflight	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**
18C shift	**0h**	**34h**	**44h**	**96h**	**160h**	**207**	**210**
11.5 postshift	**265h**	**231h**	**221h**	**169h**	**105h**	**60h**	**55h**
Equiv 25C pre	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Equiv 25C shift	**0h**	**17h**	**22h**	**48h**	**80h**	**104**	**105**
Equiv 25C post	**27**	**23**	**23**	**17**	**11**	**6**	**6**
Equiv 25C total	**31**	**44**	**49**	**69**	**95**	**114**	**115**
Purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C.	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under μg.	1) all of embryogenesis at 18 and 1st instar at 11.5 under μg 2) all of 3rd instar under ug.	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under μg 2) all of 2nd instar and part of 3rd at 18 under μg.	all of larval development (1st instar until end of 3rd instar) under ug.	start of CNS development until end of larval development at 18 under ug.	all of embryonic and larval development at 18 under ug.
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code)	0 (white)* A1	5 (red)* B1	0 (white)* C1	0 (white)* D1	20 (yellow) E1	5 (red) F1	0 (white) G1
	0 (white) A2	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2
	5 (red)* A3	5 (red)* B3	0 (white)* C3	0 (white)* D3	20 (yellow) E3	5 (red) F3	0 (white) G3
	5 (red) A4	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4
	GAP-A HOBO	GAP-B HOBO	GAP-C HOBO	GAP-E HOBO	GAP-E HOBO	GAP-F HOBO	GAP-G HOBO
	22 (yellow) A5	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5
	22 (yellow) A6	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6
	40 (green) A7	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7
	64 (blue) A8	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8
Weights (in gr)	502.91	491.92	505.04	495.17	489.53	489.09	517.29

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
* plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)

Plate Fate Logsheet Launch Attempt No. 1

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/3	H-2	1.15	340	9/3	7.30p	9/6	11.30a	L#1 A8 blue ✓	
9/3	H-2	1.15	359	9/3	7.30p	9/6	11.30a	L#1 C6 blue ✓	
9/3	H-2	1.15	354	9/3	7.30p	9/6	11.30a	L#1 C7 blue ✓	
9/3	H-2	1.15	338	9/3	7.30p	9/6	11.30a	L#1 C8 blue ✓	
9/4	H-5	1h	~~424~~	9/4	6.45p	9/6	10.45a	L#1 A7 green ✓	
9/4	H-4	1h	407	9/4	6.45p	9/6	10.45a	L#1 D6 green ✓	
9/4	H-4	1h	402	9/4	6.45p	9/6	10.45a	L#1 D7 green ✓	
9/4	H-4	1h	393	9/4	6.45p	9/6	10.45a	L#1 D8 green ✓	
9/5	H-5	50'	394	9/5	6.00p	9/6	4.00p	L#1 A5 yellow ✓	
9/5	H-5	50'	371	9/5	6.00p	9/6	4.00p	L#1 A6 yellow ✓	
9/5	H-4	50'	366	9/5	6.00p	9/6	4.00p	L#1 E1 yellow ✓	
9/5	H-2	50'	377	9/5	6.00p	9/6	4.00p	L#1 E2 yellow ✓	
9/5	H-3	50'	387	9/5	6.00p	9/6	4.00p	L#1 E3 yellow ✓	
9/5	H-5	50'	391	9/5	6.00p	9/6	4.00p	L#1 E4 yellow ✓	
9/5	H-1	50'	390	9/5	6.00p	9/6	4.00p	L#1 E5 yellow ✓	
9/5	H-4	50'	364	9/5	6.00p	9/6	4.00p	L#1 E6 yellow ✓	
9/5	H-3	50'	346	9/5	6.00p	9/6	4.00p	L#1 E7 yellow ✓	
9/5	H-2	1.30	313	9/5	6.00p	9/6	4.00p	L#1 E8 yellow ✓	Cage unclear
9/6	H-4	1h	386	9/6	3.45p	9/6	8.45p	L#1 A3 red ✓	
9/6	H-4	1h	382	9/6	3.45p	9/6	8.45p	L#1 A4 red ✓	
9/6	H-3	1h	321	9/6	3.45p	9/6	8.45p	L#1 B1 red ✓	manually ~50 ml ✓
9/6	H-1	1h	302	9/6	3.45p	9/6	8.45p	L#1 B2 red ✓	
9/6	H-4	1h	415	9/6	3.45p	9/6	8.45p	L#1 B3 red ✓	
9/6	H-3	1h	323	9/6	3.45p	9/6	8.45p	L#1 B4 red ✓	manually ~50 ml ✓
9/6	H-4	1h	403	9/6	3.45p	9/6	8.45p	L#1 B5 red ✓	
9/6	H-7	1h	400	9/6	3.45p	9/6	8.45p	L#1 B6 red ✓	
9/6	H-3	~~1h~~ 1.30	351	9/6	3.45p	9/6	8.45p	L#1 B7 red ✓	
9/6	H-2	1.30	342	9/6	3.45p	9/6	8.45p	L#1 B8 red ✓	

LAUNCH "TIEMP 1 #1

Haig Keshishian 8/24/00

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
duration of 18C exposure in flight	0h	34h	44h	96h	160h	207h	210h
11.5 preflight	36h	36h	36h	36h	36h	36h	36h
18C shift	0h	34h	44h	96h	160h	207	210
11.5 postshift	265h	231h	221h	169h	105h	60h	55h
Equiv 25C pre	4	4	4	4	4	4	4
Equiv 25C shift	0h	17h	22h	48h	80h	104	105
Equiv 25C post	27	23	23	17	11	6	6
Equiv 25C total	31	44	49	69	95	114	115
purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C. ✓	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under μg. ✓	1) all of embryogenesis at 18 and 1st instar at 11.5 under μg 2) all of 3rd instar under ug. ✓	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under μg 2) all of 2nd instar and part of 3rd at 18 under μg. ✓	all of larval development (1st instar until end of 3rd instar) under ug. ✓	start of CNS development until end of larval development at 18 under ug. ✓	all of embryonic and larval development at 18 under ug. ✓
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code) (1)	0 (white)*	5 (red)* B1	0 (white)* C1	0 (white) D1	20 (yellow) E1	5 (red) F1	0 (white) G1 (1)
(2)	0 (white)	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2 (2)
(3)	5 (red)*	5 (red)* B3	0 (white)* C3	0 (white) D3	20 (yellow) E3	5 (red) F3	0 (white) G3 (3)
(4)	5 (red)	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4 (4) HOBO
(5)	22 (yellow)	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5 (5)
(6)	22 (yellow)	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6 (6)
(7)	40 (green)	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7 (7)
(8)	64 (blue)	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8 (8)

LA#1

+HOBO

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
■ plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)

weights

A	B	C	D	E	F	G
502.91 g	491.92 g	505.04 g	495.17 g	489.53 g	489.09 g	517.29 g

Plate Fate Logsheet Launch Attempt No. 2 (Saturday)

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/4/00	H-3	1 h	317	9/4/00	6:45p	9/7/00	10:45a	L#2 A8 blue	
9/4/00	H-3	1 h	327	9/4/00	6:45p	9/7/00	10:45a	L#2 C6 blue	
9/4/00	H-4	1 h	332	9/4/00	6:45p	9/7/00	10:45a	L#2 C7 blue	
9/4/00	H-3	1 h	396	9/4/00	6:45p	9/7/00	10:45a	L#2 C8 blue	
9/5/00	H-3	1 h 50'	400	9/5/00	6:45p	9/7/00	10:45a	L#2 A7 green	
9/5/00	H-2	1 h 50'	393	9/5/00	6:45p	9/7/00	10:45a	L#2 D6 green	
9/5/00	H-2	1 h 50'	361	9/5/00	6:45p	9/7/00	10:45a	L#2 D7 green	
9/5/00	H-3	1 h 50'	308	9/5/00	6:45p	9/7/00	10:45a	L#2 D8 green	
9/6/00	H-9	50'	381	9/6/00	7:15p	9/7/00	5:15p	L#2 A5 yellow	
9/6/00	H-5	50'	383	9/6/00	7:15p	9/7/00	5:15p	L#2 A6 yellow	
9/6/00	H-7	50'	359	9/6/00	7:15p	9/7/00	5:15p	L#2 E1 yellow	
9/6/00	H-1	50'	409	9/6/00	7:15p	9/7/00	5:15p	L#2 E2 yellow	
9/6/00	H-9	50'	298	9/6/00	7:15p	9/7/00	5:15p	L#2 E3 yellow	
9/6/00	H-3	50'	332	9/6/00	7:15p	9/7/00	5:15p	L#2 E4 yellow	
9/6/00	H-3	50'	401	9/6/00	7:15p	9/7/00	5:15p	L#2 E5 yellow	
9/6/00	H-1	50'	413	9/6/00	7:15p	9/7/00	5:15p	L#2 E6 yellow	
9/6/00	H-5	50'	454	9/6/00	7:15p	9/7/00	5:15p	L#2 E7 yellow	
9/6/00	H-7	50'	382	9/6/00	7:15p	9/7/00	5:15p	L#2 E8 yellow	
9/7/00	H-6	1h 50'	304	9/7/00	3:15p	9/7/00	8:15p	L#2 A3 red	
9/7/00	H-5	1h	401	9/7/00	3:15p	9/7/00	8:15p	L#2 A4 red	
9/7/00	H-7	1h	358	9/7/00	3:15p	9/7/00	8:15p	L#2 B1 red	
9/7/00	H-1	1h	360	9/7/00	3:15p	9/7/00	8:15p	L#2 B2 red	
9/7/00	H-5	1h	372	9/7/00	3:15p	9/7/00	8:15p	L#2 B3 red	
9/7/00	H-3	1h	406	9/7/00	3:15p	9/7/00	8:15p	L#2 B4 red	
9/7/00	H-5	1h	397	9/7/00	3:15p	9/7/00	8:15p	L#2 B5 red	
9/7/00	H-4	1h	350	9/7/00	3:15p	9/7/00	8:15p	L#2 B6 red	
9/7/00	H-3	1h	388	9/7/00	3:15p	9/7/00	8:15p	L#2 B7 red	
9/7/00	H-7	1h	354	9/7/00	3:15p	9/7/00	8:15p	L#2 B8 red	

Plate Fate Logsheet Launch Attempt No. 2 (Saturday)

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/7/00	H-3	1h	395	9/7/00	3:15p	9/7/00	8:15p	L#2 F1 red	
9/7/00	H-4	1h	366	9/7/00	3:15p	9/7/00	8:15p	L#2 F2 red	
9/7/00	H-1	1h	390	9/7/00	3:15p	9/7/00	8:15p	L#2 F3 red	
9/7/00	H-1	1h	388	9/7/00	3:15p	9/7/00	8:15p	L#2 F4 red	
9/7/00	H-5	1h	395	9/7/00	3:15p	9/7/00	8:15p	L#2 F5 red	
9/7/00	H-1	1h	372	9/7/00	3:15p	9/7/00	8:15p	L#2 F6 red	
9/7/00	H-4	1h	385	9/7/00	3:15p	9/7/00	8:15p	L#2 F7 red	
9/7/00	H-4	1h	341	9/7/00	3:15p	9/7/00	8:15p	L#2 F8 red	
9/7/00	H-4	50'	389	--	--	9/7/00	5:10p	L#2 A1 white	
9/7/00	H-7	50'	391	--	--	9/7/00	5:10p	L#2 A2 white	
9/7/00	H-5	50'	406	--	--	9/7/00	5:10p	L#2 C1 white	
9/7/00	H-1	50'	405	--	--	9/7/00	5:10p	L#2 C2 white	
9/7/00	H-3	50'	352	--	--	9/7/00	5:10p	L#2 C3 white	
9/7/00	H-6	50'	319	--	--	9/7/00	5:10p	L#2 C4 white	
9/7/00	H-1	50'	401	--	--	9/7/00	5:10p	L#2 C5 white	
9/7/00	H-6	50'	309	--	--	9/7/00	5:10p	L#2 D1 white	
9/7/00	H-4	50'	409	--	--	9/7/00	5:10p	L#2 D2 white	
9/7/00	H-1	50'	359	--	--	9/7/00	5:10p	L#2 D3 white	
9/7/00	H-5	50'	407	--	--	9/7/00	5:10p	L#2 D4 white	
9/7/00	H-3	50'	394	--	--	9/7/00	5:10p	L#2 D5 white	
9/7/00	H-7	50'	326	--	--	9/7/00	5:10p	L#2 G1 white	
9/7/00	H-7	50'	347	--	--	9/7/00	5:10p	L#2 G2 white	
9/7/00	H-3	50'	380	--	--	9/7/00	5:10p	L#2 G3 white	
9/7/00	H-4	50'	408	--	--	9/7/00	5:10p	L#2 G4 white	
9/7/00	H-6	50'	336	--	--	9/7/00	5:10p	L#2 G5 white	
9/7/00	H-5	50'	405	--	--	9/7/00	5:10p	L#2 G6 white	
9/7/00	H-4	50'	370	--	--	9/7/00	5:10p	L#2 G7 white	
9/7/00	H-5	50'	416	--	--	9/7/00	5:10p	L#2 G8 white	

Experiment final Launch Attempt No. 2 (Saturday) 3/3

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
Duration of 18C exposure in flight	**0h**	**34h**	**44h**	**96h**	**160h**	**207h**	**210h**
11.5 preflight	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**
18C shift	**0h**	**34h**	**44h**	**96h**	**160h**	**207**	**210**
11.5 postshift	**265h**	**231h**	**221h**	**169h**	**105h**	**60h**	**55h**
Equiv 25C pre	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Equiv 25C shift	**0h**	**17h**	**22h**	**48h**	**80h**	**104**	**105**
Equiv 25C post	**27**	**23**	**23**	**17**	**11**	**6**	**6**
Equiv 25C total	**31**	**44**	**49**	**69**	**95**	**114**	**115**
Purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C.	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under µg.	1) all of embryogenesis at 18 and 1st instar at 11.5 under µg 2) all of 3rd instar under ug.	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under µg 2) all of 2nd instar and part of 3rd at 18 under µg.	all of larval development (1st instar until end of 3rd instar) under ug.	start of CNS development until end of larval development at 18 under ug.	all of embryonic and larval development at 18 under ug.
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code)	0 (white)* A1	5 (red)* B1	0 (white)* C1	0 (white)* D1	20 (yellow) E1	5 (red) F1	0 (white) G1
	0 (white) A2	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2
	5 (red)* A3	5 (red)* B3	0 (white)* C3	0 (white)* D3	20 (yellow) E3	5 (red) F3	0 (white) G3
	5 (red) A4	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4
	GAP-A HOBO	GAP-B HOBO	GAP-C HOBO	GAP-D HOBO	GAP-E HOBO	GAP-F HOBO	GAP-G HOBO
	22 (yellow) A5	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5
	22 (yellow) A6	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6
	40 (green) A7	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7
	64 (blue) A8	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8
Weights (in gr)	504.65	500.89	495.97	513.48	496.98	499.96	516.48

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
* plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)

Plate Fate Logsheet Launch Attempt No. 2 (Saturday)

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/4/00	H-3	1 h	317	9/4/00	6:45p	9/7/00	10:45a	L#2 A8 blue	
9/4/00	H-3	1 h	327	9/4/00	6:45p	9/7/00	10:45a	L#2 C6 blue	
9/4/00	H-4	1 h	332	9/4/00	6:45p	9/7/00	10:45a	L#2 C7 blue	
9/4/00	H-3	1 h	396	9/4/00	6:45p	9/7/00	10:45a	L#2 C8 blue	
9/5/00	H-3	1 h 50'	400	9/5/00	6:45p	9/7/00	10:45a	L#2 A7 green	
9/5/00	H-2	1 h 50'	393	9/5/00	6:45p	9/7/00	10:45a	L#2 D6 green	
9/5/00	H-2	1 h 50'	361	9/5/00	6:45p	9/7/00	10:45a	L#2 D7 green	
9/5/00	H-3	1 h 50'	308	9/5/00	6:45p	9/7/00	10:45a	L#2 D8 green	
9/6/00	H-9	50'	381	9/6/00	7:15p	9/7/00	5:15p	L#2 A5 yellow	
9/6/00	H-5	50'	383	9/6/00	7:15p	9/7/00	5:15p	L#2 A6 yellow	
9/6/00	H-7	50'	359	9/6/00	7:15p	9/7/00	5:15p	L#2 E1 yellow	
9/6/00	H-1	50'	409	9/6/00	7:15p	9/7/00	5:15p	L#2 E2 yellow	
9/6/00	H-9	50'	298	9/6/00	7:15p	9/7/00	5:15p	L#2 E3 yellow	
9/6/00	H-3	50'	332	9/6/00	7:15p	9/7/00	5:15p	L#2 E4 yellow	
9/6/00	H-3	50'	401	9/6/00	7:15p	9/7/00	5:15p	L#2 E5 yellow	
9/6/00	H-1	50'	413	9/6/00	7:15p	9/7/00	5:15p	L#2 E6 yellow	
9/6/00	H-5	50'	454	9/6/00	7:15p	9/7/00	5:15p	L#2 E7 yellow	
9/6/00	H-7	50'	382	9/6/00	7:15p	9/7/00	5:15p	L#2 E8 yellow	
9/7	H-6	1.50	304	9/7	3.15	9/7	8.15p	L#2 A3 red	
9/7	H-5	1h	401	9/7	3.15	9/7	8.15p	L#2 A4 red	
9/7	H-7	1h	358	9/7	3.15	9/7	8.15p	L#2 B1 red	
9/7	H-1	1h	360	9/7	3.15	9/7	8.15p	L#2 B2 red	
9/7	H-5	1h	372	9/7	3.15	9/7	8.15p	L#2 B3 red	
9/7	H-3	1h	406	9/7	3.15	9/7	8.15p	L#2 B4 red	
9/7	H-5	1h	397	9/7	3.15	9/7	8.15p	L#2 B5 red	
9/7	H-4	1h	350	9/7	3.15	9/7	8.15p	L#2 B6 red	
9/7	H-3	1h	388	9/7	3.15	9/7	8.15p	L#2 B7 red	
9/7	H-7	1h	354	9/7	3.15	9/7	8.15p	L#2 B8 red	

5:40p - 6:50

1 2:30 - 3:30p

Plate Fate Logsheet Launch Attempt No. 2 (Saturday)

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/7	H-3	1h	395	~~9/7~~	3.15p	~~9.17~~	8.15p	L#2 F1 red	
9/7	H-4	1h	366	9/7	3.15p	9/7	8.15p	L#2 F2 red	
9/7	H-1	1h	390	9/7	3.15p	9/7	8.15p	L#2 F3 red	
9/7	H-1	1h	388	9/7	3.15p	9/7	8.15p	L#2 F4 red	
9/7	H-5	1h	395	9/7	3.15p	9/7	8.15p	L#2 F5 red	
9/7	H-1	1h	372	9/7	3.15p	9/7	8.15p	L#2 F6 red	
9/7	H-4	1h	385	9/7	3.15p	9/7	8.15p	L#2 F7 red	
9/7	H-4	1h	341	9/7	3.15p	9/7	8.15p	L#2 F8 red	
9/7	H-4	50'	389	—	—	9/7	5.10p	L#2 A1 white	
9/7	H-7	50'	391	—	—	9/7	5.10p	L#2 A2 white	
9/7	H-5	50'	406	—	—	9/7	5.10p	L#2 C1 white	
9/7	H-1	50'	405	—	—	9/7	5.10p	L#2 C2 white	
9/7	H-3	50'	352	—	—	9/7	5.10p	L#2 C3 white	
9/7	H-6	50'	319	—	—	9/7	5.10p	L#2 C4 white	
9/7	H-1	50'	401	—	—	9/7	5.10p	L#2 C5 white	
9/7	H-6	50'	309	—	—	9/7	5.10p	L#2 D1 white	
9/7	H-4	50'	409	—	—	9/7	5.10p	L#2 D2 white	
9/7	H-1	50'	359	—	—	9/7	5.10p	L#2 D3 white	
9/7	H-5	50'	407	—	—	9/7	5.10p	L#2 D4 white	
9/7	H-3	50'	394	—	—	9/7	5.10p	L#2 D5 white	
9/7	H-7	50'	326	—	—	9/7	5.10p	L#2 G1 white	
9/7	H-7	50'	347	—	—	9/7	5.10p	L#2 G2 white	
9/7	H-3	50'	380	—	—	9/7	5.10p	L#2 G3 white	
9/7	H-4	50'	408	—	—	9/7	5.10p	L#2 G4 white	
9/7	H-6	50'	336	—	—	9/7	5.10p	L#2 G5 white	
9/7	H-5	50'	405	—	—	9/7	5.10p	L#2 G6 white	
9/7	H-4	50'	370	—	—	9/7	5.10p	L#2 G7 white	
9/7	H-5	50'	416	—	—	9/7	5.10p	L#2 G8 white	

3.15-409

Experiment final Launch Attempt No. 2 (Saturday) 3/3

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
Duration of 18C exposure in flight	**0h**	**34h**	**44h**	**96h**	**160h**	**207h**	**210h**
11.5 preflight	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**
18C shift	**0h**	**34h**	**44h**	**96h**	**160h**	**207**	**210**
11.5 postshift	**265h**	**231h**	**221h**	**169h**	**105h**	**60h**	**55h**
Equiv 25C pre	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Equiv 25C shift	**0h**	**17h**	**22h**	**48h**	**80h**	**104**	**105**
Equiv 25C post	**27**	**23**	**23**	**17**	**11**	**6**	**6**
Equiv 25C total	**31**	**44**	**49**	**69**	**95**	**114**	**115**
Purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C.	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under µg.	1) all of embryogenesis at 18 and 1st instar at 11.5 under µg 2) all of 3rd instar under ug.	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under µg 2) all of 2nd instar and part of 3rd at 18 under µg.	all of larval development (1st instar until end of 3rd instar) under ug.	start of CNS development until end of larval development at 18 under ug.	all of embryonic and larval development at 18 under ug.
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code)	0 (white)* A1	5 (red)* B1	0 (white)* C1	0 (white)* D1	20 (yellow) E1	5 (red) F1	0 (white) G1
	0 (white) A2	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2
	5 (red)* A3	5 (red)* B3	0 (white)* C3	0 (white)* D3	20 (yellow) E3	5 (red) F3	0 (white) G3
	5 (red) A4	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4
	GAP-A HOBO	GAP-B HOBO	GAP-C HOBO	GAP-D HOBO	GAP-E HOBO	GAP-F HOBO	GAP-G HOBO
	22 (yellow) A5	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5
	22 (yellow) A6	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6
	40 (green) A7	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7
	64 (blue) A8	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8
Weights (in gr)	504.65g	500.89g	495.97g	513.48g	496.98g	499.96g	516.48g

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
* plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)

Preflight Egglay Logsheet

Plate #	Cage #	Date	Time in	Time out	Lay time	No of Embryos	Remarks
01	H4	9/2	2.30p	3.30p	60'	815	yeast film
02	↓	↓	↓	↓	↓	627	↓
03	↓	↓	↓	↓	↓	812	↓
04	↓	↓	↓	↓	↓	474	↓
05	↓	↓	3.45p	4.45p	↓	783	yeast blob
06	↓	↓	↓	↓	↓	608	"
07	↓	↓	↓	↓	↓	524	yeast film
08	↓	↓	↓	↓	↓	603	"
09	H2	9/3	2.15p	4.00p	1h 45'	600	smear @ edges
10	↓	↓	↓	↓	↓	544	blob
11	↓	↓	↓	↓	↓	270	smear @ edge
12	↓	↓	↓	↓	↓	329	blob
13	H9	↓	↓	↓	↓	271	blob
14	↓	↓	↓	↓	↓	858	smear @ edge
15	↓	↓	↓	↓	↓	531	smear @ edge
16	↓	↓	↓	↓	↓	387	blob
17	H5	↓	3.30	4.15	45'	210	blob
18	↓	↓	↓	↓	↓	206	blob
19	↓	↓	↓	↓	↓	366	smear
20	↓	↓	↓	↓	↓	310	smear
21	H-2	9/4	1.35	2.20	45'	770	many
22	↓	↓	↓	↓	↓	169	↓
23	↓	↓	↓	↓	↓	177	↓
24	↓	↓	↓	↓	↓	637	dry
25	H-10	↓	↓	↓	↓	15	
26	↓	↓	↓	↓	↓	~10	
27	↓	↓	↓	↓	↓	~10	
28	↓	↓	↓	↓	↓	~10	
29	H-10	9/4	3pm	7pm	24	248	H-10 bad → sig refill
30	↓	↓	↓	↓	↓	60	
31	↓	↓	↓	↓	↓	281	
32	↓	↓	↓	↓	↓	166	
33	H-7	↓	↓	↓	↓	>1000	H-7 fine
34	↓	↓	↓	↓	↓	>1000	
35	↓	↓	↓	↓	↓	>1000	
36	↓	↓	↓	↓	↓	>1000	
37	H-6	↓	↓	↓	24	333	
38	↓	↓	↓	↓	↓	368	6 → refill
39	↓	↓	↓	↓	↓	247	
40	↓	↓	↓	↓	↓	494	
41	H-8	↓	↓	↓	↓	273	
42	↓	↓	↓	↓	↓	427	8 +/- ok
43	↓	↓	↓	↓	↓	815	
44	↓	↓	↓	↓	↓	1288	
Cages 1-5		Refill	1L Jello Green				
Cages 6, 10		Refill	7L Jello White				

Plate Fate Logsheet

Plate #	---> 25°C		---> 11.5°C		Final Destination	Remarks
	Date	Time	Date	Time		
01	9/2	4:00pm	9/3	11am	315	32 larvae @ 9/3 11am ; 35 larvae @ 3pm
02	↓	↓	"	"	627	21 larvae @ " ; 28 larvae @ 3pm
03			9/5	3pm	312	9 larvae @ " ; 282 larvae @ 3pm
04	↓	↓	"	"	479	18 larvae @ 4 ; 4 Solaria @ 3pm
05	—	—	—	—	ovum	↓
06					↓	01 9/4 11am ~ 75% hatch
07						02 9/4 11am ~ 75% hatch
08						03
~~09~~						04
10						11am
11						01 } 9/6/00 (> 72hrs @ 11.5)
12						02 }
13						05 } → all alive 1st hatch
14						04 } (03, 04 same spawn)
15						
16						
17						
18						
19						
20						
21	9/4					
22	↓					
23						
24						
25						
26						
27						
28	↓	↓	↓	↓	↓	

Plate Fate Logsheet Launch Attempt No. 2* (Sunday)

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/5/00	H-3	1 h 50'	400	9/5/00	6:45p	9/8/00	10:45a	L2* A8 blue	Former green #2
9/5/00	H-2	1 h 50'	393	9/5/00	6:45p	9/8/00	10:45a	L2* C6 blue	Former green #2
9/5/00	H-2	1 h 50'	361	9/5/00	6:45p	9/8/00	10:45a	L2* C7 blue	Former green #2
9/5/00	H-3	1 h 50'	308	9/5/00	6:45p	9/8/00	10:45a	L2* C8 blue	Former green #2
9/6/00	H-7	50'	395	9/6/00	7:20p	9/8/00	11:20a	L2* A7 green	
9/6/00	H-7	50'	315	9/6/00	7:20p	9/8/00	11:20a	L2* D6 green	
9/6/00	H-1	50'	396	9/6/00	7:20p	9/8/00	11:20a	L2* D7 green	
9/6/00	H-4	50'	403	9/6/00	7:20p	9/8/00	11:20a	L2* D8 green	
9/7	H-3	45'	367	9/7	6.45p	9/8	4.45p	L2* A5 yellow	
9/7	H-4	45'	393	9/7	6.45p	9/8	4.45p	L2* A6 yellow	
9/7	H-4	45'	390	9/7	6.45p	9/8	4.45p	L2* E1 yellow	
9/7	H-7	45'	347	9/7	6.45p	9/8	4.45p	L2* E2 yellow	
9/7	H-7	45'	329	9/7	6.45p	9/8	4.45p	L2* E3 yellow	
9/7	H-3	45'	460	9/7	6.45p	9/8	4.45p	L2* E4 yellow	
9/7	H-4	45'	390	9/7	6.45p	9/8	4.45p	L2* E5 yellow	
9/7	H-3	45'	369	9/7	6.45p	9/8	4.45p	L2* E6 yellow	
9/7	H-7	45'	359	9/7	6.45p	9/8	4.45p	L2* E7 yellow	
9/7	H-6	45'	249	9/7	6.45p	9/8	4.45p	L2* E8 yellow	
								L2* A3 red	
								L2* A4 red	
								L2* B1 red	
								L2* B2 red	
								L2* B3 red	
								L2* B4 red	
								L2* B5 red	
								L2* B6 red	
								L2* B7 red	
								L2* B8 red	

5.15 - 6.00

Plate Fate Logsheet Launch Attempt No. 2* (Sunday) 2/3

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
								L2* F1 red	
								L2* F2 red	
								L2* F3 red	
								L2* F4 red	
								L2* F5 red	
								L2* F6 red	
								L2* F7 red	
								L2* F8 red	
								L2* A1 white	
								L2* A2 white	
								L2* C1 white	
								L2* C2 white	
								L2* C3 white	
								L2* C4 white	
								L2* C5 white	
								L2* D1 white	
								L2* D2 white	
								L2* D3 white	
								L2* D4 white	
								L2* D5 white	
								L2* G1 white	
								L2* G2 white	
								L2* G3 white	
								L2* G4 white	
								L2* G5 white	
								L2* G6 white	
								L2* G7 white	
								L2* G8 white	

Experiment final Launch Attempt No. 2* (Sunday) 3/3

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
Duration of 18C exposure in flight	**0h**	**34h**	**44h**	**96h**	**160h**	**207h**	**210h**
11.5 preflight	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**
18C shift	**0h**	**34h**	**44h**	**96h**	**160h**	**207**	**210**
11.5 postshift	**265h**	**231h**	**221h**	**169h**	**105h**	**60h**	**55h**
Equiv 25C pre	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Equiv 25C shift	**0h**	**17h**	**22h**	**48h**	**80h**	**104**	**105**
Equiv 25C post	**27**	**23**	**23**	**17**	**11**	**6**	**6**
Equiv 25C total	**31**	**44**	**49**	**69**	**95**	**114**	**115**
Purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C.	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under µg.	1) all of embryogenesis at 18 and 1st instar at 11.5 under µg 2) all of 3rd instar under ug.	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under µg 2) all of 2nd instar and part of 3rd at 18 under µg.	all of larval development (1st instar until end of 3rd instar) under ug.	start of CNS development until end of larval development at 18 under ug.	all of embryonic and larval development at 18 under ug.
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code)	0 (white)* A1	5 (red)* B1	0 (white)* C1	0 (white)* D1	20 (yellow) E1	5 (red) F1	0 (white) G1
	0 (white) A2	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2
	5 (red)* A3	5 (red)* B3	0 (white)* C3	0 (white)* D3	20 (yellow) E3	5 (red) F3	0 (white) G3
	5 (red) A4	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4
	GAP-A HOBO	GAP-B HOBO	GAP-C HOBO	GAP-E HOBO	GAP-E HOBO	GAP-F HOBO	GAP-G HOBO
	22 (yellow) A5	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5
	22 (yellow) A6	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6
	40 (green) A7	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7
	64 (blue) A8	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8
Weights (in gr)							

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
* plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)

Plate Fate Logsheet Launch Attempt No. 3

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/6	H-4	50'	391	9/6	7.25p	9/9	11.25a	L#3 A8 blue	
9/6	H-4	50'	372	9/6	7.25p	9/9	11.25a	L#3 C6 blue	
9/6	H-4	50'	433	9/6	7.25p	9/9	11.25a	L#3 C7 blue	
9/6	H-1	50'	413	9/6	7.25p	9/9	11.25a	L#3 C8 blue	
9/7	H-5	45'	408	9/7	7.00p	9/9	11.00a	L#3 A7 green	
9/7	H-5	45'	412	9/7	7.00p	9/9	11.00a	L#3 D6 green	
9/7	H-1	45'	371	9/7	7.00p	9/9	11.00a	L#3 D7 green	
9/7	H-4	45'	383	9/7	7.00p	9/9	11.00a	L#3 D8 green	
								L#3 A5 yellow	
								L#3 A6 yellow	
								L#3 E1 yellow	
								L#3 E2 yellow	
								L#3 E3 yellow	
								L#3 E4 yellow	
								L#3 E5 yellow	
								L#3 E6 yellow	
								L#3 E7 yellow	
								L#3 E8 yellow	
								L#3 A3 red	
								L#3 A4 red	
								L#3 B1 red	
								L#3 B2 red	
								L#3 B3 red	
								L#3 B4 red	
								L#3 B5 red	
								L#3 B6 red	
								L#3 B7 red	
								L#3 B8 red	

5:40P - 6:30P

Plate Fate Logsheet Launch Attempt No. 3

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
								L#3 F1 red	
								L#3 F2 red	
								L#3 F3 red	
								L#3 F4 red	
								L#3 F5 red	
								L#3 F6 red	
								L#3 F7 red	
								L#3 F8 red	
								L#3 A1 white	
								L#3 A2 white	
								L#3 C1 white	
								L#3 C2 white	
								L#3 C3 white	
								L#3 C4 white	
								L#3 C5 white	
								L#3 D1 white	
								L#3 D2 white	
								L#3 D3 white	
								L#3 D4 white	
								L#3 D5 white	
								L#3 G1 white	
								L#3 G2 white	
								L#3 G3 white	
								L#3 G4 white	
								L#3 G5 white	
								L#3 G6 white	
								L#3 G7 white	
								L#3 G8 white	

Experiment final Launch Attempt No. 3 3/3

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
Duration of 18C exposure in flight	**0h**	**34h**	**44h**	**96h**	**160h**	**207h**	**210h**
11.5 preflight	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**
18C shift	**0h**	**34h**	**44h**	**96h**	**160h**	**207**	**210**
11.5 postshift	**265h**	**231h**	**221h**	**169h**	**105h**	**60h**	**55h**
Equiv 25C pre	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Equiv 25C shift	**0h**	**17h**	**22h**	**48h**	**80h**	**104**	**105**
Equiv 25C post	**27**	**23**	**23**	**17**	**11**	**6**	**6**
Equiv 25C total	**31**	**44**	**49**	**69**	**95**	**114**	**115**
Purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C.	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under μg.	1) all of embryogenesis at 18 and 1st instar at 11.5 under μg 2) all of 3rd instar under ug.	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under μg 2) all of 2nd instar and part of 3rd at 18 under μg.	all of larval development (1st instar until end of 3rd instar) under ug.	start of CNS development until end of larval development at 18 under ug.	all of embryonic and larval development at 18 under ug.
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code)	0 (white)* A1	5 (red)* B1	0 (white)* C1	0 (white)* D1	20 (yellow) E1	5 (red) F1	0 (white) G1
	0 (white) A2	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2
	5 (red)* A3	5 (red)* B3	0 (white)* C3	0 (white)* D3	20 (yellow) E3	5 (red) F3	0 (white) G3
	5 (red) A4	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4
	GAP-A HOBO	GAP-B HOBO	GAP-C HOBO	GAP-E HOBO	GAP-E HOBO	GAP-F HOBO	GAP-G HOBO
	22 (yellow) A5	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5
	22 (yellow) A6	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6
	40 (green) A7	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7
	64 (blue) A8	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8
Weights (in gr)							

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
* plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)

Plate Fate Logsheet Launch Attempt No. 4

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
9/7	H-1	45'	357	9/7	7.00p	9/10	11.00a	L#4 A8 blue	
9/7	H-5	45'	355	9/7	7.00p	9/10	11.00a	L#4 C6 blue	
9/7	H-6	45'	330	9/7	7.00p	9/10	11.00a	L#4 C7 blue	
9/7	H-3	45'	380	9/7	7.00p	9/10	11.00a	L#4 C8 blue	
								L#4 A7 green	
								L#4 D6 green	
								L#4 D7 green	
								L#4 D8 green	
								L#4 A5 yellow	
								L#4 A6 yellow	
								L#4 E1 yellow	
								L#4 E2 yellow	
								L#4 E3 yellow	
								L#4 E4 yellow	
								L#4 E5 yellow	
								L#4 E6 yellow	
								L#4 E7 yellow	
								L#4 E8 yellow	
								L#4 A3 red	
								L#4 A4 red	
								L#4 B1 red	
								L#4 B2 red	
								L#4 B3 red	
								L#4 B4 red	
								L#4 B5 red	
								L#4 B6 red	
								L#4 B7 red	
								L#4 B8 red	

Plate Fate Logsheet Launch Attempt No. 4

Date	Cage	Egglay time	Embryos final count	---> 25°C		---> 11.5°C		Final Destination	Remarks
				Date	Time	Date	Time		
								L#4 F1 red	
								L#4 F2 red	
								L#4 F3 red	
								L#4 F4 red	
								L#4 F5 red	
								L#4 F6 red	
								L#4 F7 red	
								L#4 F8 red	
								L#4 A1 white	
								L#4 A2 white	
								L#4 C1 white	
								L#4 C2 white	
								L#4 C3 white	
								L#4 C4 white	
								L#4 C5 white	
								L#4 D1 white	
								L#4 D2 white	
								L#4 D3 white	
								L#4 D4 white	
								L#4 D5 white	
								L#4 G1 white	
								L#4 G2 white	
								L#4 G3 white	
								L#4 G4 white	
								L#4 G5 white	
								L#4 G6 white	
								L#4 G7 white	
								L#4 G8 white	

Experiment final Launch Attempt No. 4 3/3

The experiment for STS106, with 18C in-flight incubations, and with 25C ground preincubations.
Thi experiment assumes an 11 +1 day mission, but is appropriate for a 12+1 flight.

GAP contents (This is an 8 plate/GAP protocol, with a HOBO in the 5th position).

	GAP-A	GAP-B	GAP-C	GAP-D	GAP-E	GAP-F	GAP-G
Duration of 18C exposure in flight	**0h**	**34h**	**44h**	**96h**	**160h**	**207h**	**210h**
11.5 preflight	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**	**36h**
18C shift	**0h**	**34h**	**44h**	**96h**	**160h**	**207**	**210**
11.5 postshift	**265h**	**231h**	**221h**	**169h**	**105h**	**60h**	**55h**
Equiv 25C pre	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Equiv 25C shift	**0h**	**17h**	**22h**	**48h**	**80h**	**104**	**105**
Equiv 25C post	**27**	**23**	**23**	**17**	**11**	**6**	**6**
Equiv 25C total	**31**	**44**	**49**	**69**	**95**	**114**	**115**
Purpose of exposure	No temperature shift controls. Equivalent to 1 day of development at 25C.	Start of CNS development until end of embryogenesis at 18, 1st instar at 11.5 under µg.	1) all of embryogenesis at 18 and 1st instar at 11.5 under µg 2) all of 3rd instar under ug.	1) all of embryogenesis and 1st at 18, 2nd at 11.5 under µg 2) all of 2nd instar and part of 3rd at 18 under µg.	all of larval development (1st instar until end of 3rd instar) under ug.	start of CNS development until end of larval development at 18 under ug.	all of embryonic and larval development at 18 under ug.
hours at 25C on ground to reach desired developmental stage prior to starting experiment (tape color code)	0 (white)* A1	5 (red)* B1	0 (white)* C1	0 (white)* D1	20 (yellow) E1	5 (red) F1	0 (white) G1
	0 (white) A2	5 (red) B2	0 (white) C2	0 (white) D2	20 (yellow) E2	5 (red) F2	0 (white) G2
	5 (red)* A3	5 (red)* B3	0 (white)* C3	0 (white)* D3	20 (yellow) E3	5 (red) F3	0 (white) G3
	5 (red) A4	5 (red) B4	0 (white) C4	0 (white) D4	20 (yellow) E4	5 (red) F4	0 (white) G4
	GAP-A HOBO	GAP-B HOBO	GAP-C HOBO	GAP-E HOBO	GAP-E HOBO	GAP-F HOBO	GAP-G HOBO
	22 (yellow) A5	5 (red) B5	0 (white) C5	0 (white) D5	20 (yellow) E5	5 (red) F5	0 (white) G5
	22 (yellow) A6	5 (red) B6	64 (blue) C6	40 (green) D6	20 (yellow) E6	5 (red) F6	0 (white) G6
	40 (green) A7	5 (red) B7	64 (blue) C7	40 (green) D7	20 (yellow) E7	5 (red) F7	0 (white) G7
	64 (blue) A8	5 (red) B8	64 (blue) C8	40 (green) D8	20 (yellow) E8	5 (red) F8	0 (white) G8
Weights (in gr)							

NOTE: Each additional day at 11.5 adds equivalent of 3h development at 25C.
* plates allowed postflight to develop to 3rd instar.

Plate totals, preflight conditions, and color code

0 hrs at 25 then 11.5 C	5 hrs at 25 then 11.5 C	22 hrs at 25 then 11.5C	40 hr at 25 then 11.5	64 hr at 25 then 11.5
20 (white)	18 (red)	10 (yellow)	4 (green)	4 (blue)