

LAUNCH SUMMARY

total number of flights	95
total number of low power flights	64
total number of HPRlite flights	11
total number of high power flights	20
total single stage flights	88
total cluster flights	4
total multiple stage flights	3
total cluster/staged flights	0
total number of motors expended	107
total impulse expended	12283.6
total number of flyers	47
number of states represented	1
States TX	

flight class		flights
U	0.000-0.000 Ns	0
1/8A	0.001-0.312 Ns	0
1/4A	0.312-0.625 Ns	0
1/2A	0.625-1.250 Ns	1
A	1.250-2.500 Ns	15
B	2.500-5.000 Ns	12
C	5-10 Ns	16
D	10-20 Ns	14
E	20-40 Ns	6
F	40-80 Ns	6
G	80-160 Ns	5
H	160-320 Ns	9
I	320-640 Ns	6
J	640-1280 Ns	4
K	1280-2560 Ns	1
L	2560-5120 Ns	0
M	5120-10240 Ns	0
N	10240-20480 Ns	0
O	20480-40960 Ns	0
totals		95

Top Ten Individual Flyers		number of flights
1.	Jacob Mehr	10
2.	Amado Pereira	6
3.	Bill Gee	5
4.	Caden Kitler	4
5.	Vince Brach	4
6.	Richard Andro	3
7.	Lane Duncan	3
8.	Steve Taylor	3
9.	Chris Bender	3
10.	Alexandra Townsend	2

LAUNCH SUMMARY

Top Ten All-Around Flyers (individual + team)		number of flights
1.	Jacob Mehr	10
2.	Amado Pereira	6
3.	Bill Gee	5
4.	Caden Kitler	4
5.	Vince Brach	4
6.	Richard Andro	3
7.	Lane Duncan	3
8.	Steve Taylor	3
9.	Chris Bender	3
10.	Alexandra Townsend	2

Top Ten Motor Users		number of motors
1.	Jacob Mehr	17
2.	Amado Pereira	6
3.	Bill Gee	5
4.	Caden Kitler	4
5.	Keith Pate	4
6.	Vince Brach	4
7.	David Smith	4
8.	Richard Andro	3
9.	Lane Duncan	3
10.	Steve Taylor	3

Top Ten Total Impulse Users		Tot Imp, N-s
1.	Robert Vanover	2506.5
2.	Steve Taylor	1600.2
3.	Steve Barnett	909.0
4.	Alex Pages	836.0
5.	Chuck Crabb	732.5
6.	Jeff Webb	703.0
7.	Tom Knapp	703.0
8.	Jeff Schwab	596.2
9.	Tom Blakeney	579.2
10.	Chris Bender	427.0

MOTOR USAGE

motor	type	TotImp (N-s)	prop wt (g)	single stage	cluster power	staged power	cluster staged	total usage
ES 1/2A3	13mm SU	1.1	2.0	1	0	0	0	1
ES A10T	13mm SU	2.5	3.8	1	0	1	0	2
ES A3T	13mm SU	2.5	3.3	2	0	0	0	2
ES A8	18mm SU	2.5	3.3	12	4	0	0	16
ES B6	18mm SU	5.0	5.6	12	6	0	0	18
ES C11	24mm SU	8.8	12.0	2	0	0	0	2
ES C6	18mm SU	9.0	10.8	12	2	3	0	17
ES D12	24mm SU	17.0	21.1	11	0	2	0	13
AT E28T	24mm RL	40.0	18.4	1	0	0	0	1
ES E9	24mm SU	27.9	35.8	4	0	0	0	4
ES F	0mm --	80.0	0.0	1	0	0	0	1
ES F15	29mm SU	49.6	60.0	2	0	1	0	3
AT F40W	29mm RL	78.1	40.0	1	0	0	0	1
AT F44	24mm SU	41.5	19.7	1	0	0	0	1
AT G40W	29mm SU	114.1	55.1	1	0	0	0	1
AT G76	29mm RL	118.0	60.0	1	0	0	0	1
AT G77	29mm RL	105.0	58.0	2	0	0	0	2
AT G80T	29mm SU	116.0	56.9	1	0	0	0	1
AT H128W	29mm RL	181.0	92.2	1	0	0	0	1
AT H135	29mm SU	225.8	82.0	1	0	0	0	1
LK H144	38mm RL	239.2	126.0	1	0	0	0	1
AT H148	38mm RL	206.0	122.0	1	0	0	0	1
CTI H163	29mm RL	166.3	78.2	1	0	0	0	1
AT H180W	29mm RL	240.0	123.0	1	0	0	0	1
AT H195	29mm SU	236.1	115.0	1	0	0	0	1
AT H45	38mm SU	289.0	197.4	2	0	0	0	2
AT I140T	54mm SU	579.2	327.2	3	0	0	0	3
AT I205	29mm SU	345.0	188.0	1	0	0	0	1
LK I405	38mm RL	493.2	252.0	1	0	0	0	1
AT I500	38mm SU	620.0	312.0	1	0	0	0	1
CTI J210	54mm RL	836.0	82.7	1	0	0	0	1
AT J270	38mm SU	703.0	381.0	2	0	0	0	2
AT J425	38mm SU	676.0	364.0	1	0	0	0	1
AT K1050W	54mm SU	2506.5	1368.5	1	0	0	0	1
totals		12283.6		88	12	7	0	107

number of different motor types = 34

TOTAL FLIGHT SUMMARY

Rocketeer	Home Town	state	motor usage		model power		HPRLite		HPR		indiv total	team total
			Num	TotImp	ind	tm	ind	tm	ind	tm		
Jacob	Plano	TX	1	2.5	1	0	0	0	0	0	1	0
Natalie	Fate	TX	2	10.0	2	0	0	0	0	0	2	0
Nikolas	Frisco	TX	1	2.5	1	0	0	0	0	0	1	0
Valerie	Fate	TX	1	5.0	1	0	0	0	0	0	1	0
Christopher A	Allen	TX	1	5.0	1	0	0	0	0	0	1	0
Elena Andro	Allen	TX	2	18.0	2	0	0	0	0	0	2	0
Michael Andro	Allen	TX	2	14.0	2	0	0	0	0	0	2	0
Richard Andro	Allen	TX	3	20.5	3	0	0	0	0	0	3	0
Steve Barnett	Frisco	TX	2	909.0	0	0	0	0	2	0	2	0
Sam Barone	Plano	TX	1	236.1	0	0	0	0	1	0	1	0
Jonathan Bates	Plano	TX	0	0.0	0	1	0	0	0	0	0	1
Chris Bender	Garland	TX	3	427.0	1	0	0	0	2	0	3	0
Robin Blakeney	Fort Worth	TX	1	114.1	1	0	0	0	0	0	1	0
Tom Blakeney	Fort Worth	TX	1	579.2	0	0	0	0	1	0	1	0
Aidain Bocclair	Trophy Club	TX	2	7.5	2	0	0	0	0	0	2	0
Grace Bocclair	Trophy Club	TX	2	7.5	2	0	0	0	0	0	2	0
Joe Bocclair	Trophy Club	TX	2	7.5	2	0	0	0	0	0	2	0
Vince Brach	Tyler	TX	4	256.8	3	0	0	0	1	0	4	0
Chuck Carlisle	Carrollton	TX	2	55.8	2	0	0	0	0	0	2	0
Elena Chapman	Fort Worth	TX	2	11.5	2	0	0	0	0	0	2	0
Isabella Chapman	Fort Worth	TX	1	17.0	1	0	0	0	0	0	1	0
Robert Chapman	Fort Worth	TX	1	240.0	0	0	0	0	1	0	1	0
Alyssa Crabb	Flower Mound	TX	1	17.0	1	0	0	0	0	0	1	0
Chuck Crabb	Flower Mound	TX	2	732.5	0	0	0	0	2	0	2	0
Lane Duncan	Dallas	TX	3	34.8	3	0	0	0	0	0	3	0
Bill Gee	Plano	TX	5	34.6	5	0	0	0	0	0	5	0
Val Herrera	Flower Mound	TX	1	78.1	1	0	0	0	0	0	1	0
Catherine Hunt	Dallas	TX	2	5.0	2	0	0	0	0	0	2	0
Presidento Jak	Hide Circle	TX	1	2.5	1	0	0	0	0	0	1	0
Caden Kitler	The Colony	TX	4	278.9	4	0	0	0	0	0	4	0
Tom Knapp	Bedford	TX	1	703.0	0	0	0	0	1	0	1	0
Jacob Mehr	Dallas	TX	17	351.1	10	0	0	0	0	0	10	0
Alex Pages	Fairview	TX	1	836.0	0	0	0	0	1	0	1	0
Keith Pate	Bowie	TX	4	84.6	2	0	0	0	0	0	2	0
Amado Pereira	Garland	TX	6	84.7	6	0	0	0	0	0	6	0
Steve Pierce	Cross Roads	TX	2	66.6	2	0	0	0	0	0	2	0
Jacob Schwab	Plano	TX	2	11.5	0	1	0	0	0	0	0	1
Jeff Schwab	Plano	TX	2	596.2	1	0	0	0	1	0	2	0
Mike Shaffer		TX	2	110.0	2	0	0	0	0	0	2	0
David Smith	Allen	TX	4	324.0	1	0	0	0	1	0	2	0
Steve Taylor	McKinney	TX	3	1600.2	0	0	0	0	3	0	3	0
Alexandra Townsend	Dallas	TX	2	5.0	2	0	0	0	0	0	2	0
Elijah Townsend	Dallas	TX	2	5.0	2	0	0	0	0	0	2	0
Robert Vanover	Crowley	TX	1	2506.5	0	0	0	0	0	1	0	1
William Vanover	Crowley	TX	0	0.0	0	0	0	0	0	1	0	1
Jeff Webb	Frisco	TX	1	703.0	0	0	0	0	1	0	1	0
Brian Wright	Providence Village	TX	1	166.3	0	0	0	0	1	0	1	0
totals			107	12283.6	74	1.0	0	0.0	19	1.0	93	0.0

total number of flyers = 47

FLIGHT LOG

rocketeer(s)	stg	cls	type	TotImp	rocket	motor(s)	comm
Bill Gee	1		low ½A	1.1	SCR P-Chuter downscale	ES 1/2A3	
Jacob	1		low A	2.5	ES Sky Dart	ES A10	
Nikolas	1		low A	2.5	ES EX-200	ES A3	
Richard Andro	1		low A	2.5	ES Puma	ES A3	
Aidain Bocclair	1		low A	2.5	ES Cosmic Explorer	ES A8	
Grace Bocclair	1		low A	2.5	QU Golden One	ES A8	
Joe Bocclair	1		low A	2.5	ES Crossfire	ES A8	
Elena Chapman	1		low A	2.5	ES Star Stryker	ES A8	
Bill Gee	1		low A	2.5	RRR P-Chuter	ES A8	
Catherine Hunt	1		low A	2.5	ES Alpha 3	ES A8	Frontier of Flight m
Catherine Hunt	1		low A	2.5	UNK X-200	ES A8	
Presidento Jak	1		low A	2.5	SCR Comp. Baby D	ES A8	
Alexandra Townsend	1		low A	2.5	ES Alpha 3	ES A8	Frontier of Flight m
Alexandra Townsend	1		low A	2.5	UNK X-200	ES A8	
Elijah Townsend	1		low A	2.5	ES Alpha 3	ES A8	Frontier of Flight m
Elijah Townsend	1		low A	2.5	UNK X-200	ES A8	
Natalie	1		Low B	5.0	ES EPM-010	ES B6	
Natalie	1		Low B	5.0	ES Patriot (4-fin)	ES B6	
Valerie	1		low B	5.0	ES Bay Bertha	ES B6	
Christopher A	1		low B	5.0	ES Patriarch	ES B6	
Michael Andro	1		low B	5.0	ES Metalizer	ES B6	
Aidain Bocclair	1		low B	5.0	UNK The Missile	ES B6	
Grace Bocclair	1		low B	5.0	QU Serval	ES B6	
Joe Bocclair	1		Low B	5.0	ES Der Red Max	ES B6	
Vince Brach	1		Low B	5.0	ES Bandit	ES B6	Flight 29
Bill Gee	1		low B	5.0	SR Lune R-1	ES B6	
Amado Pereira	1		low B	5.0	ES Reflector	ES B6	First flight for this m
Mike Shaffer	1		low B	5.0	ES Guardian	ES B6	TH
Lane Duncan	1		low C	8.8	ES Red Blaze	ES C11	
Amado Pereira	1		Low C	8.8	ES Lancer	ES C11	
Elena Andro	1		low C	9.0	ES Code Red	ES C6	
Elena Andro	1		low C	9.0	ES Code Red	ES C6	
Michael Andro	1		low C	9.0	ES Metalizer	ES C6	
Richard Andro	1		low C	9.0	ES Patriarch	ES C6	
Richard Andro	1		low C	9.0	ES Patriarch	ES C6	
Vince Brach	1		low C	9.0	ES Flash	ES C6	
Elena Chapman	1		low C	9.0	ES Code Red	ES C6	
Lane Duncan	1		low C	9.0	ES Shark Attack	ES C6	Silver and purple w
Bill Gee	1		low C	9.0	SCR Alpha	ES C6	
Jacob Mehr	1		low C	9.0	AP No Idea	ES C6	
Jacob Mehr	1		low C	9.0	ES Apache	ES C6	
Amado Pereira	1		Low C	9.0	ES Baby Bertha	ES C6	
Jacob Mehr	1	*	low C	10.0	AP No Idea	2 x ES B6	
Jacob Mehr	1	*	low C	10.0	AP, Quad Rodder	4 x ES A8	
Jacob Schwab & Jonathan Bates	2		low D	11.5	ES Solar Flare	1 x ES C6, 1 x ES A10	
Vince Brach	1		low D	17.0	ES Silver Comet	ES D12	
Isabella Chapman	1		low D	17.0	ES CC Express	ES D12	
Alyssa Crabb	1		low D	17.0	SCR Way Up High	ES D12	
Lane Duncan	1		low D	17.0	ES Star Stream	ES D12	white with stars
Bill Gee	1		low D	17.0	NW Sky Rise	ES D12	
Caden Kitler	1		low D	17.0	SCR Fat Daddy	ES D12	
Jacob Mehr	1		low D	17.0	ES No Idea	ES D12	
Amado Pereira	1		low D	17.0	ES CC Express	ES D12	
Amado Pereira	1		low D	17.0	ES QCC Explorer	ES D12	First flight for this m
Steve Pierce	1		low D	17.0	ES ORACLE	ES D12	video camera on bo
Jeff Schwab	1		low D	17.0	ES Vagabond	ES D12	
Keith Pate	1	*	low D	18.0	Revell F/A 18E	2 x ES C6	Run! (Plastic Death

FLIGHT LOG

rocketeer(s)	stg	cls	type	TotImp	rocket	motor(s)	comm
Jacob Mehr	1	*	low D	20.0	AP Quad Runner	4 x ES B6	
Chuck Carlisle	1		low E	27.9	ES Red	ES E9	
Chuck Carlisle	1		low E	27.9	ES Gold	ES E9	
Caden Kitler	1		Low E	27.9	ES Eliminator	ES E9	
Amado Pereira	1		low E	27.9	ES QCC Explorer	ES E9	
David Smith	3		low E	35.0	ES Commanche 3	1 x ES D12, 1 x ES C6, 1 x ES C6	
Chris Bender	1		low E	40.0	ES D-region Tomahawk	AT E28	
Jacob Mehr	1		Hlt F	41.5	ES No Idea	AT F44	
Jacob Mehr	1		Hlt F	49.6	ES UNK	ES F15-8	
Steve Pierce	1		Hlt F	49.6	ES Ascender	ES F15	
Keith Pate	2		Hlt F	66.6	SCR Death From Above	1 x ES F15, 1 x ES D12	Ascender red one as Heads Up
Val Herrera	1		Hlt F	78.1	ES Leviathan	AT F40	
Jacob Mehr	1		Hlt F	80.0	ES No Idea	ES F	
Jacob Mehr	1		Hlt G	105.0	SCR No Idea	AT G77	
Mike Shaffer	1		Hlt G	105.0	LOC Vulcanite H76	AT G77	
Robin Blakeney	1		Hlt G	114.1	AT HV Arcas	AT G40	Her first rocket built
Caden Kitler	1		Hlt G	116.0	ES Tomohawk	AT G80	
Caden Kitler	1		Hlt G	118.0	AT G-Force	AT G76	
Brian Wright	1		HPR H	166.3	MC Parahna	CTI H163	level 1 cert
Chris Bender	1		HPR H	181.0	ES Mega Der Duke Max	AT H128	Main @ Apogee (v)
Chris Bender	1		HPR H	206.0	SCR Cherokee-I	AT H148	drogue with cable c
Vince Brach	1		HPR H	225.8	SI Sirius Interrogator	AT H135	level 1 cert
Sam Barone	1		HPR H	236.1	SCR Sunburst	AT H195	
Chuck Crabb	1		HPR H	239.2	SCR Scortch 3XL	LK H144	level 1 cert
Robert Chapman	1		HPR H	240.0	LOC Athene-3	AT H180	level 1 cert
Steve Barnett	1		HPR H	289.0	LOC Norad	AT H45	level 1 cert
David Smith	1		HPR H	289.0	MC Torrent	AT H45	level 1 cert
Steve Taylor	1		HPR I	345.0	MC Phoenix	AT I205	
Chuck Crabb	1		HPR I	493.2	SCR Scortch 3XL	LK I405	dual deploy - main
Tom Blakeney	1		HPR I	579.2	SCR Aquila	AT I140	level 1 cert
Jeff Schwab	1		HPR I	579.2	LOC EZI-65	AT I140	level 1 cert
Steve Taylor	1		HPR I	579.2	LOC Cyclotron	AT I140	
Steve Barnett	1		HPR I	620.0	LOC Hyperloc835	AT I500	level 1 cert
Steve Taylor	1		HPR J	676.0	PML Aurora	AT J425	
Tom Knapp	1		HPR J	703.0	MC Patriot	AT J270	level 2 cert
Jeff Webb	1		HPR J	703.0	BD Excel Plus	AT J270	drogue and main @
Alex Pages	1		HPR J	836.0	WI Intimidator 3	CTI J210	level 2 cert
Robert Vanover and William Vanover	1		HPR K	2506.5	MC Pike	AT K1050W	

total flights = 95

ROCKET KIT TYPE SUMMARY

Manufacturer	Model	Name	wt,oz	len,in	dia,in	flts
Apogee	*	Quad Rodder	0.0	0.0	0.0	1
Apogee	No Idea *		0.0	0.0	0.0	2
Apogee	Quad Runner *		0.0	0.0	0.0	1
Aerotech	G-Force *		0.0	0.0	0.0	1
Aerotech	HV Arcas		22.0	56.0	2.6	1
Binder Design	Excel Plus *		0.0	67.0	4.0	1
Estes Industries, Inc.	Alpha 3 *		0.0	0.0	0.0	3
Estes Industries, Inc.	Apache *		0.0	0.0	0.0	1
Estes Industries, Inc.	Ascender		11.0	42.1	2.0	1
Estes Industries, Inc.	Baby Bertha		1.9	12.8	1.6	1
Estes Industries, Inc.	Bandit		1.6	16.5	1.0	1
Estes Industries, Inc.	Bay Bertha *		0.0	0.0	0.0	1
Estes Industries, Inc.	CC Express *		0.0	0.0	0.0	2
Estes Industries, Inc.	Code Red *		0.0	0.0	0.0	3
Estes Industries, Inc.	Commanche 3 *		0.0	0.0	0.0	1
Estes Industries, Inc.	Cosmic Explorer *		0.0	0.0	0.0	1
Estes Industries, Inc.	Crossfire *		0.0	0.0	0.0	1
Estes Industries, Inc.	D-region Tomahawk *		0.0	0.0	0.0	1
Estes Industries, Inc.	Der Red Max		2.4	16.2	1.6	1
Estes Industries, Inc.	EPM-010		2.4	35.2	1.0	1
Estes Industries, Inc.	EX-200 *		0.0	0.0	0.0	1
Estes Industries, Inc.	Eliminator		5.6	44.2	1.4	1
Estes Industries, Inc.	Flash *		0.0	0.0	0.0	1
Estes Industries, Inc.	Gold *		0.0	0.0	0.0	1
Estes Industries, Inc.	Guardian *		0.0	0.0	0.0	1
Estes Industries, Inc.	Lancer		1.3	18.0	1.0	1
Estes Industries, Inc.	Leviathan		17.5	41.5	3.0	1
Estes Industries, Inc.	Mega Der Duke Max *		0.0	0.0	0.0	1
Estes Industries, Inc.	Metalizer *		0.0	0.0	0.0	2
Estes Industries, Inc.	No Idea *		0.0	0.0	0.0	3
Estes Industries, Inc.	ORACLE *		0.0	0.0	0.0	1
Estes Industries, Inc.	Patriarch *		0.0	0.0	0.0	3
Estes Industries, Inc.	Patriot (4-fin)		1.5	21.2	1.6	1
Estes Industries, Inc.	Puma *		0.0	0.0	0.0	1
Estes Industries, Inc.	QCC Explorer *		0.0	0.0	0.0	2
Estes Industries, Inc.	Red *		0.0	0.0	0.0	1
Estes Industries, Inc.	Red Blaze *		0.0	0.0	0.0	1
Estes Industries, Inc.	Refelector *		0.0	0.0	0.0	1
Estes Industries, Inc.	Shark Attack *		0.0	0.0	0.0	1
Estes Industries, Inc.	Silver Comet *		0.0	0.0	0.0	1
Estes Industries, Inc.	Sky Dart *		0.0	0.0	0.0	1
Estes Industries, Inc.	Solar Flare *		0.0	0.0	0.0	1
Estes Industries, Inc.	Star Stream *		0.0	0.0	0.0	1
Estes Industries, Inc.	Star Stryker *		0.0	0.0	0.0	1
Estes Industries, Inc.	Tomohawk *		0.0	0.0	0.0	1
Estes Industries, Inc.	UNK *		0.0	0.0	0.0	1
Estes Industries, Inc.	Vagabond *		0.0	16.0	0.0	1
LOC/Precision	Athene-3 *		0.0	0.0	0.0	1
LOC/Precision	Cyclotron *		0.0	0.0	0.0	1
LOC/Precision	EZI-65		35.0	56.5	4.0	1
LOC/Precision	Hyperloc835 *		0.0	0.0	0.0	1
LOC/Precision	Norad		20.0	36.2	3.1	1
LOC/Precision	Vulcanite H76		23.0	53.3	2.3	1
Madcow	Parahna *		0.0	0.0	0.0	1
Madcow	Patriot *		0.0	0.0	0.0	1
Madcow	Phoenix *		0.0	0.0	0.0	1
Madcow	Pike *		0.0	0.0	0.0	1
Madcow	Torrent *		0.0	0.0	0.0	1
New Way	Sky Rise *		0.0	0.0	0.0	1

ROCKET KIT TYPE SUMMARY

Manufacturer	Model	Name	wt,oz	len,in	dia,in	fts
Public Missiles Limited	Aurora *		0.0	0.0	0.0	1
Quest	Golden One *		0.0	0.0	0.0	1
Quest	Serval *		0.0	0.0	0.0	1
Red River Rocketry	P-Chuter *		0.0	0.0	0.0	1
Unknown	1 F/A 18E *		0.0	0.0	0.0	1
Sirius Rocketry	Sirrius Interrogator *		0.0	0.0	0.0	1
SEMROC	Lune R-1 *		0.0	0.0	0.0	1
Unknown	The Missile *		0.0	0.0	0.0	1
Unknown	X-200 *		0.0	0.0	0.0	3
Wildman	Intimidator 3 *		0.0	0.0	0.0	1

total number of kit rocket types = 69

SCRATCH BUILT SUMMARY

Rocketeer	Model	Name	wt,oz	len,in	dia,in	flts
Bill Gee	Alpha		0.0	0.0	0.0	1
Tom Blakeney	Aquila		0.0	0.0	0.0	1
Chris Bender	Cherokee-I		0.0	0.0	0.0	1
Presento Jak	Comp. Baby D		0.0	0.0	0.0	1
Keith Pate	Death From Above		0.0	0.0	0.0	1
Caden Kitler	Fat Daddy		0.0	0.0	0.0	1
Jacob Mehr	No Idea		0.0	0.0	0.0	1
Bill Gee	P-Chuter downscale		0.0	0.0	0.0	1
Chuck Crabb	Scotch 3XL		0.0	0.0	0.0	2
Sam Barone	Sunburst		0.0	0.0	0.0	1
Alyssa Crabb	Way Up High		0.0	0.0	0.0	1

total number of scratch rocket types = 11

MANUFACTURER SUMMARY

Abbrev	Manufacturer	Number motors used	Flights using motors	Flights using airframe
U	Unknown	0	0	5
AP	Apogee	0	0	4
AT	Aerotech	24	24	2
BD	Binder Design	0	0	1
CTI	Cesaroni Technology Inc.	2	2	0
ES	Estes Industries, Inc.	79	67	52
LK	Loki	2	2	0
LOC	LOC/Precision	0	0	6
MC	Madcow	0	0	5
NW	New Way	0	0	1
PML	Public Missiles Limited	0	0	1
QU	Quest	0	0	2
RRR	Red River Rocketry	0	0	1
SI	Sirius Rocketry	0	0	1
SR	SEMROC	0	0	1
WI	Wildman	0	0	1
	scratch built			12
	totals	107	95	95

number of manufacturers = 16