

KIC 007935997

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007935997-01	OBS	5447.02	3.875945	134.849729	53.2	2.436	10.7	11.2	0.89	5713	0.68	323.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007935997-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

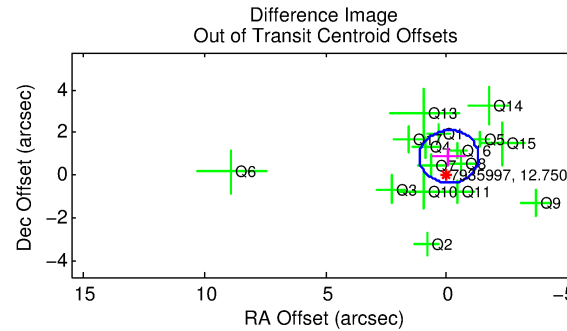
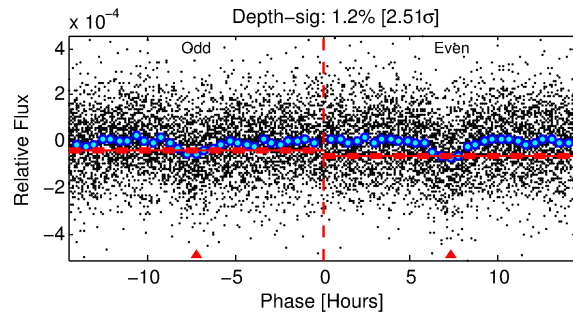
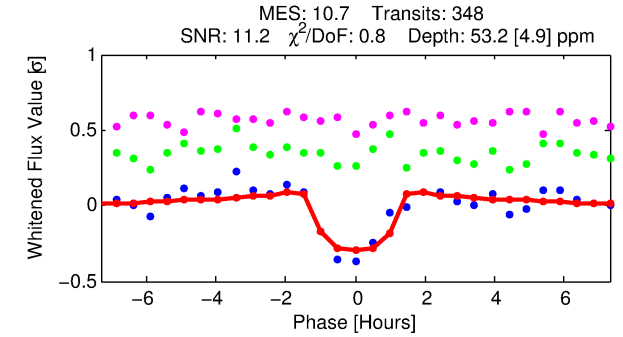
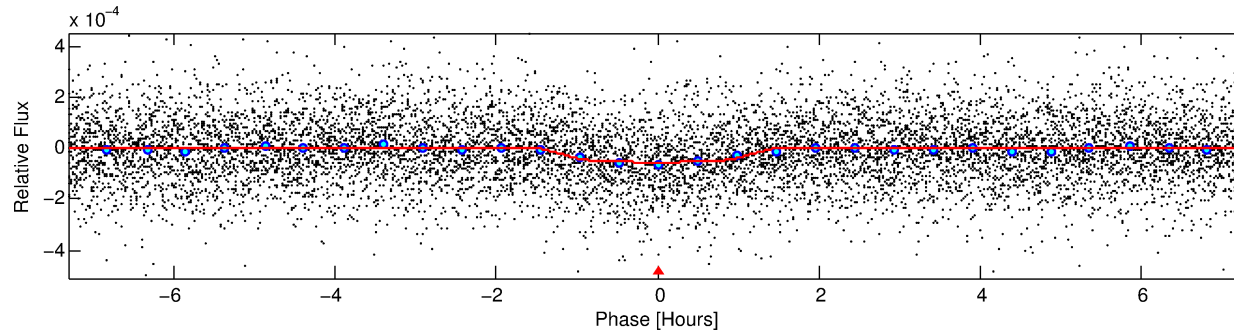
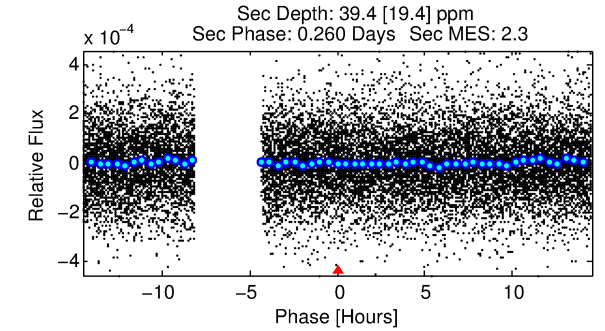
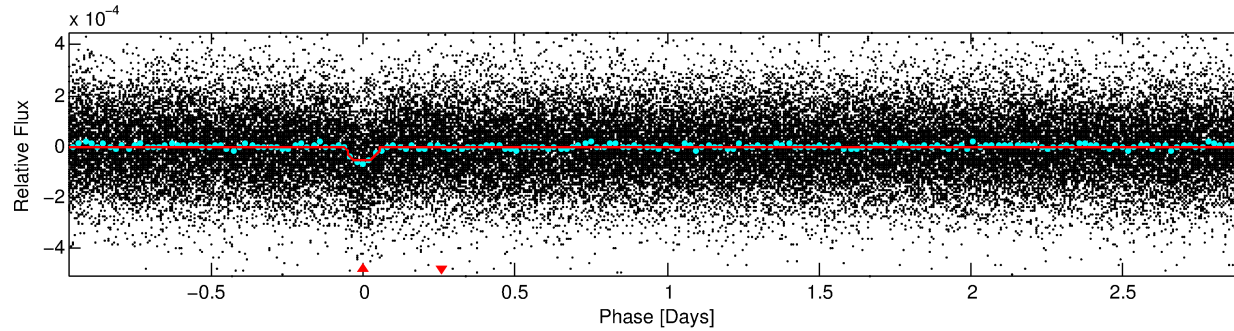
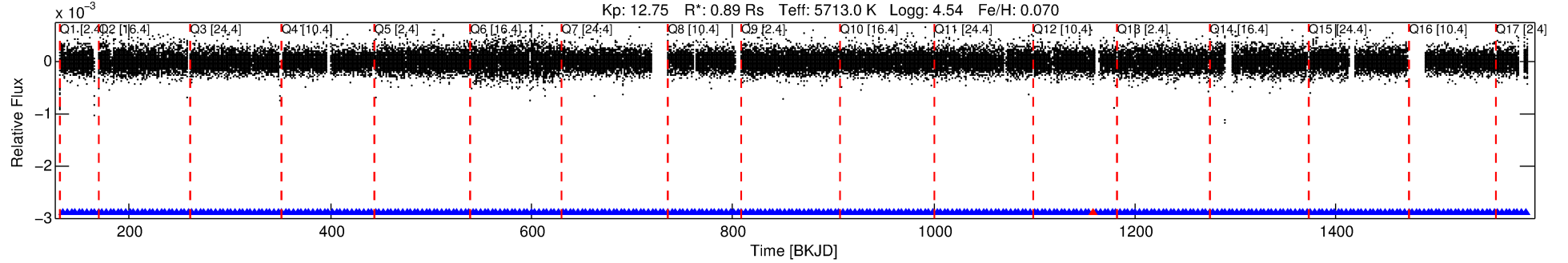
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007935997-01

No Significant Match Found

DV One-Page Summary

KIC: 7935997 Candidate: 1 of 1 Period: 3.876 d
KOI: K05447.02 Corr: 0.955



DV Fit Results:

Period = 3.87594 [0.00002] d
Epoch = 134.8497 [0.0030] BKJD
Rp/R* = 0.0069 [0.0022]
a/R* = 10.00 [13.48]
b = 0.58 [1.55]
Seff = 323.90 [68.33]
Teq = 1082 [57] K
Rp = 0.68 [0.24] Re
a = 0.0485 [0.0063] AU
Ag = 111.66 [93.61] [1.18σ]
Teffp = 5437 [1109] K [3.92σ]

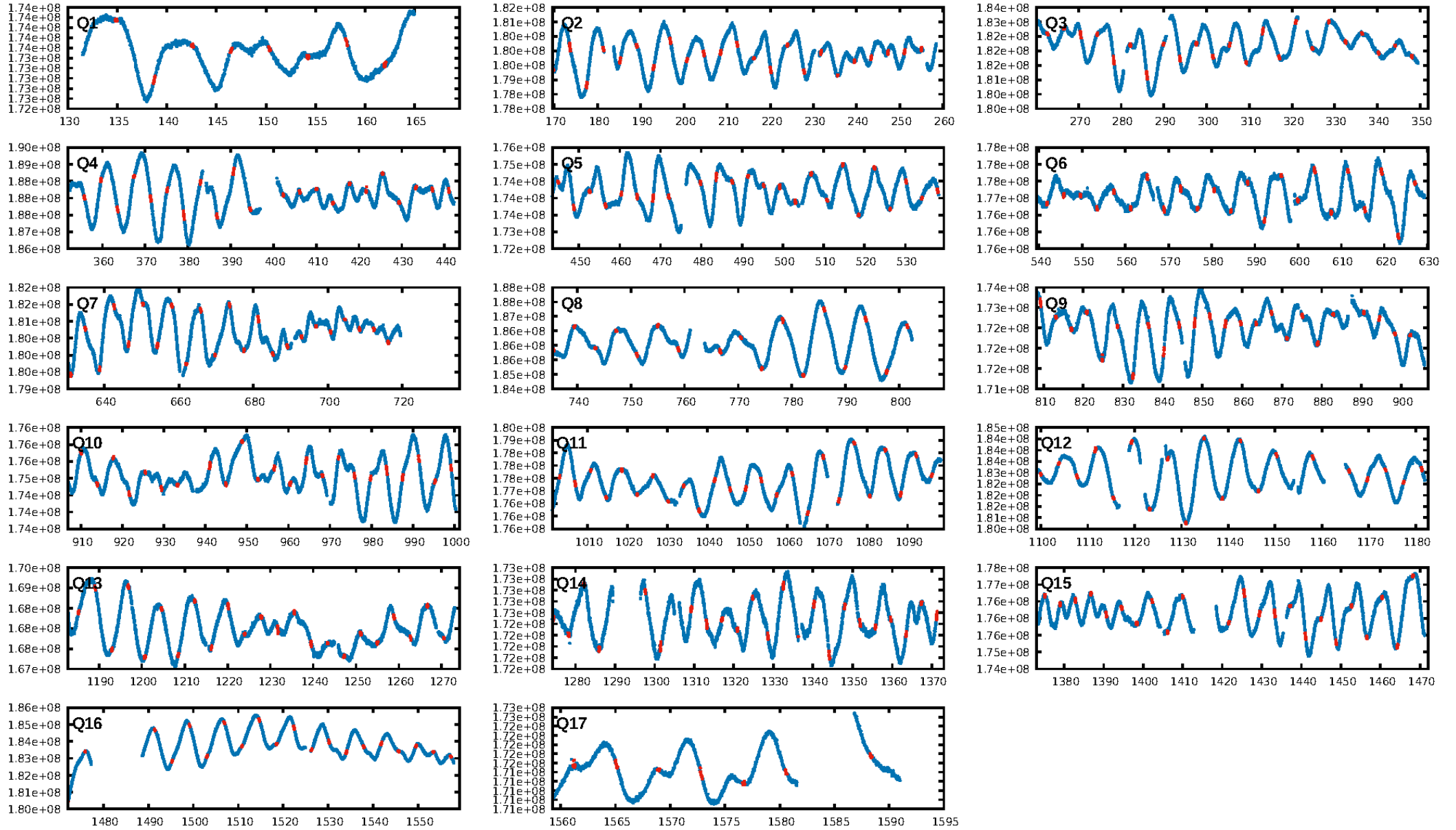
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.88e-25
RollingBand-fgt: 1.00 [332/333]
GhostDiagnostic-chr: 3.457
Centroid-sig: 32.7%
Centroid-so: 0.685 arcsec [0.79σ]
OotOffset-rm: 0.874 arcsec [2.13σ]
KicOffset-rm: 1.034 arcsec [2.32σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

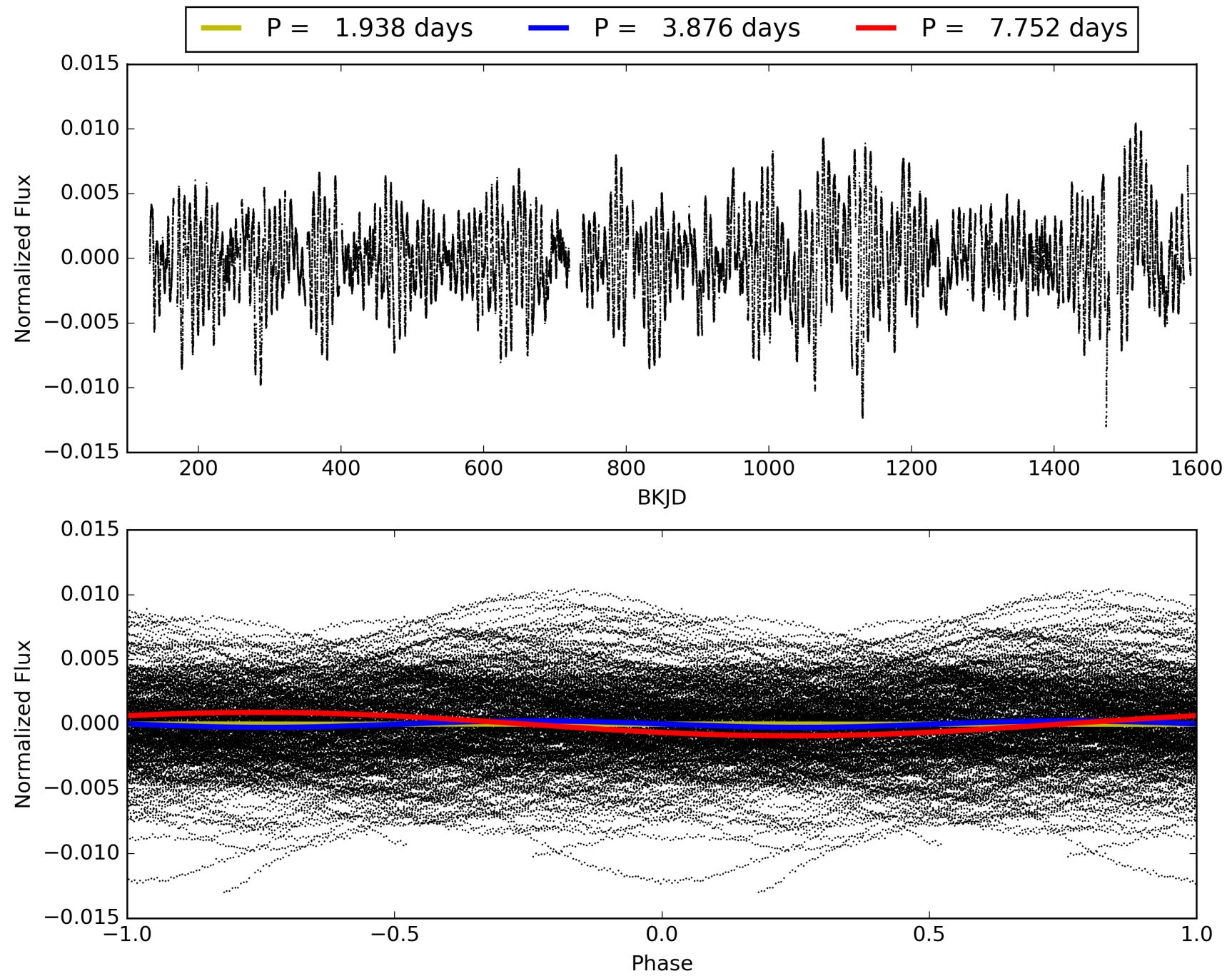
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:47:56 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007935997-01, PDC Light Curves

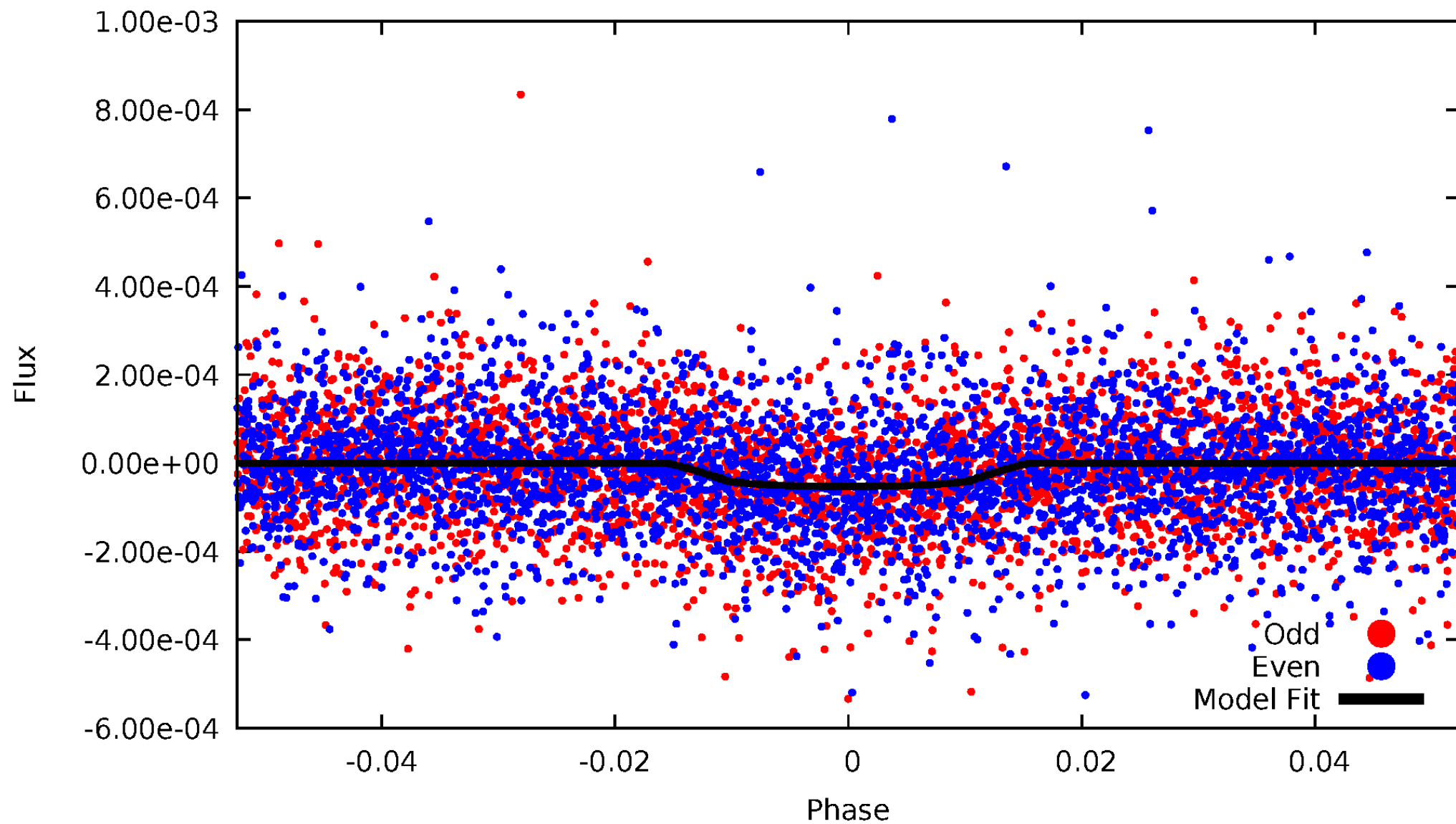


TCE 007935997-01



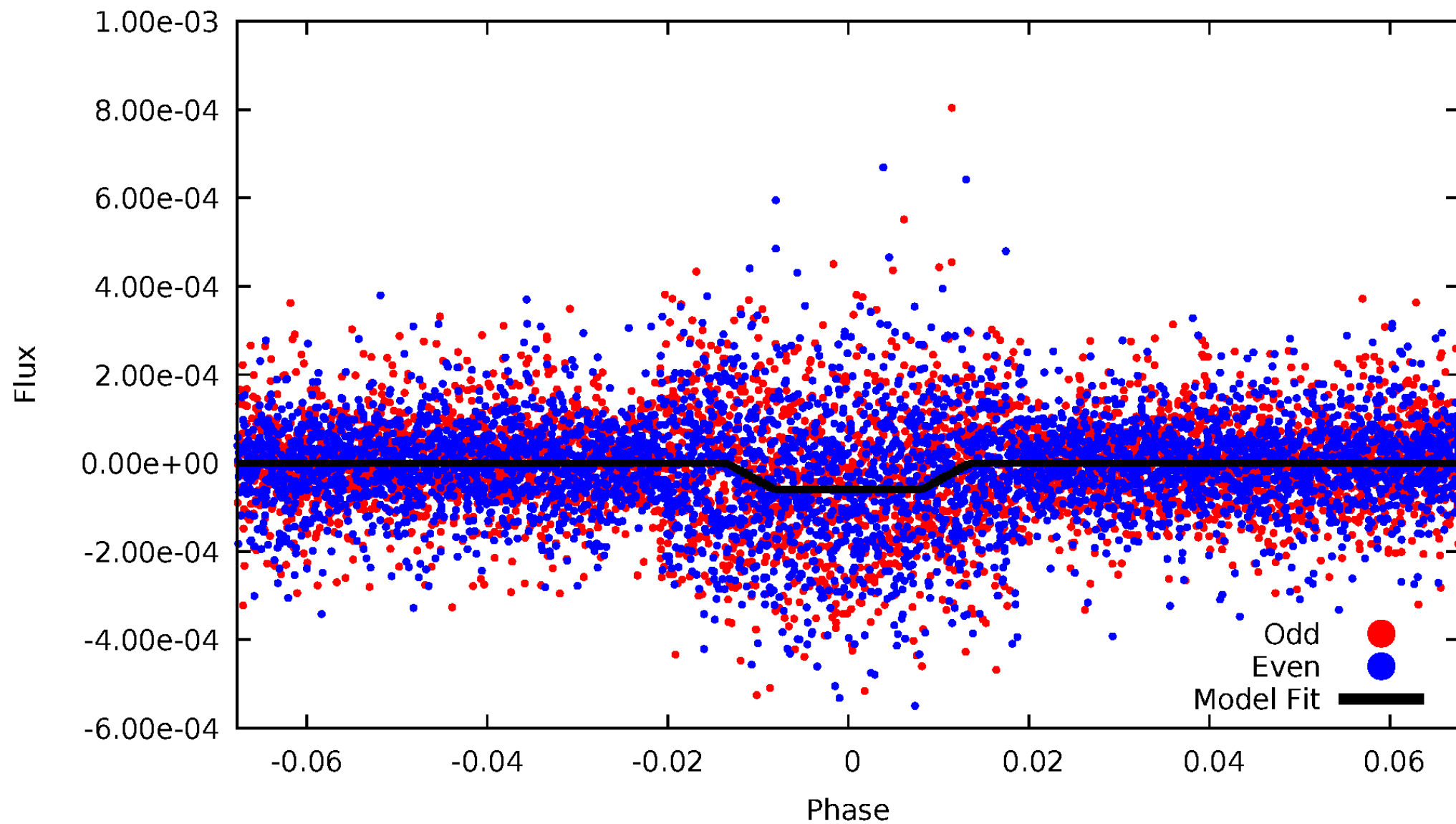
DV Odd/Even

TCE 007935997-01



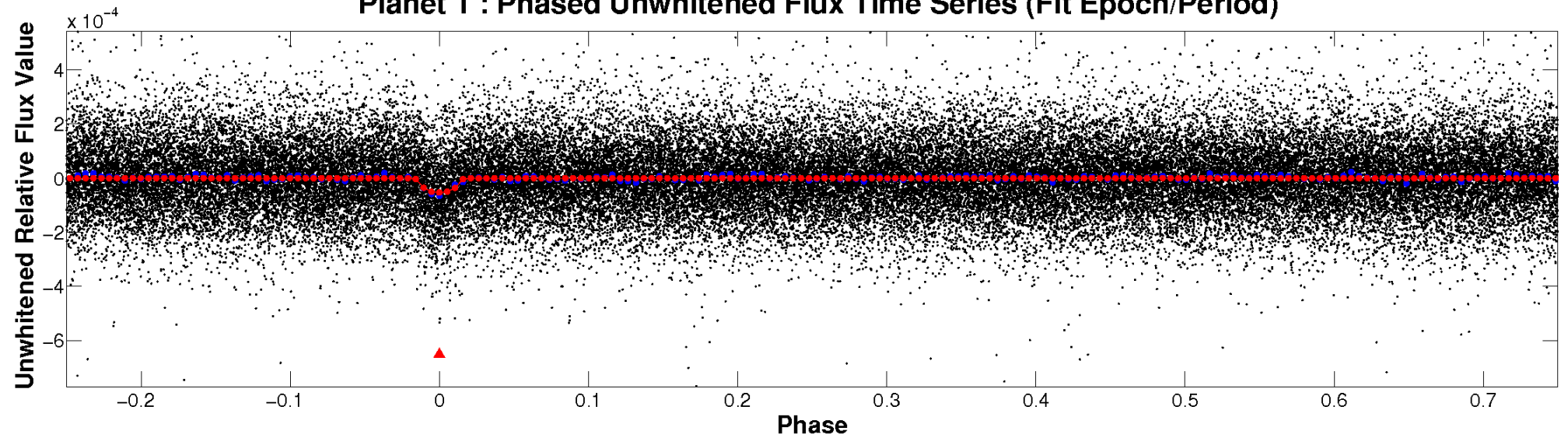
ALT Odd/Even

TCE 007935997-01

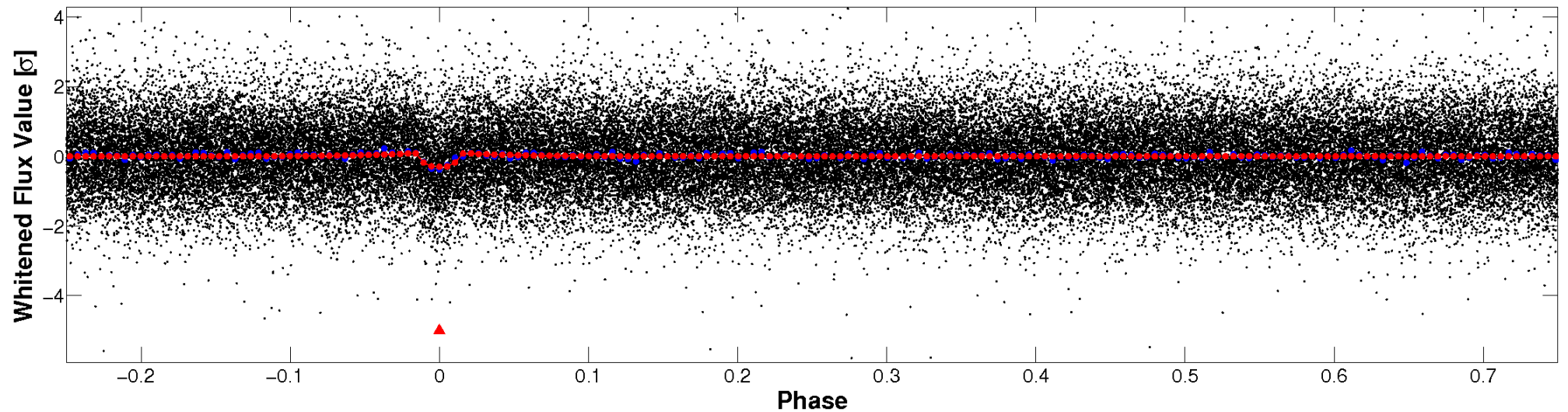


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

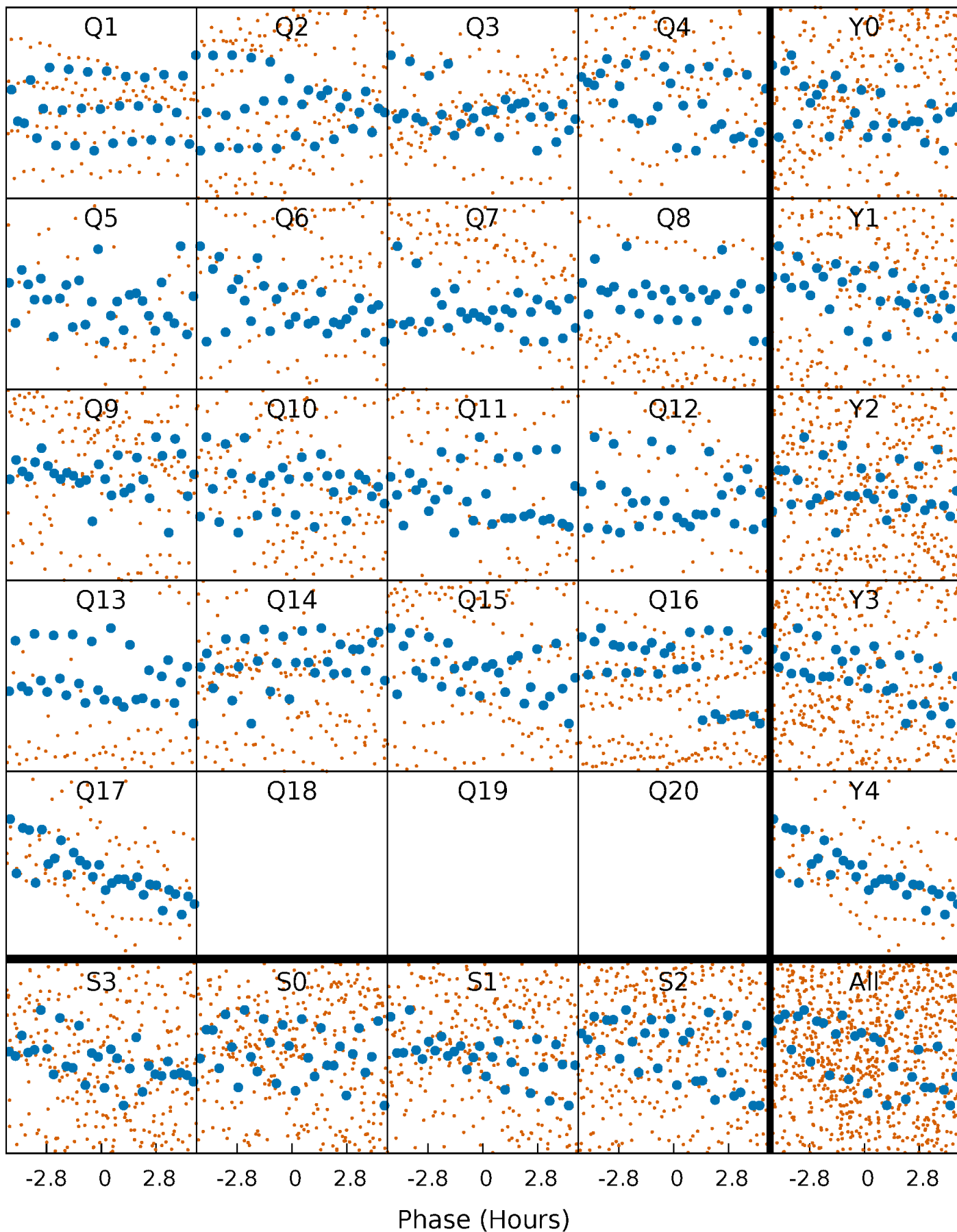


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



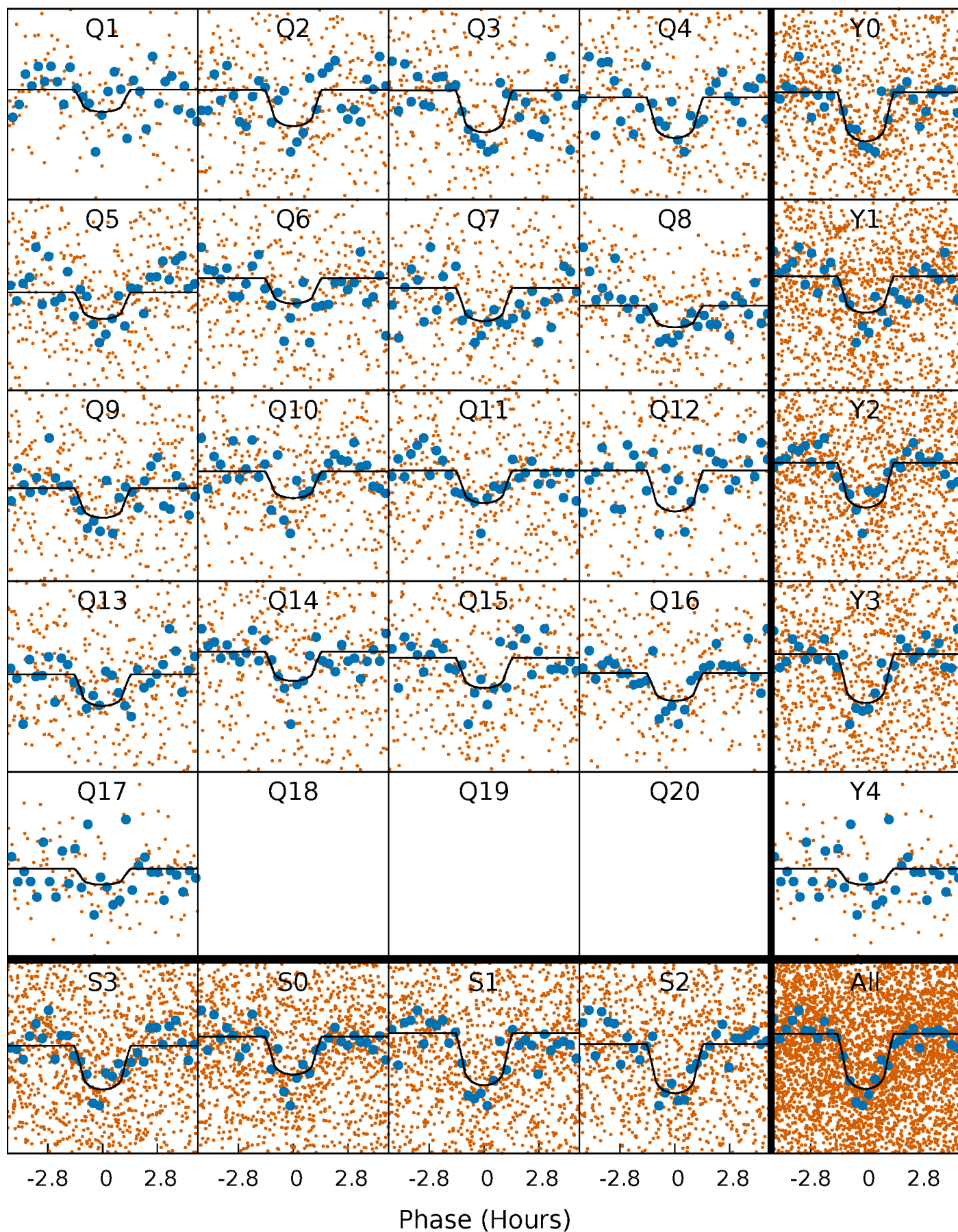
PDC Quarter-Phased Transit Curves

TCE 007935997-01 P= 3.875945 Days $T_0=134.849729$ (BKJD)



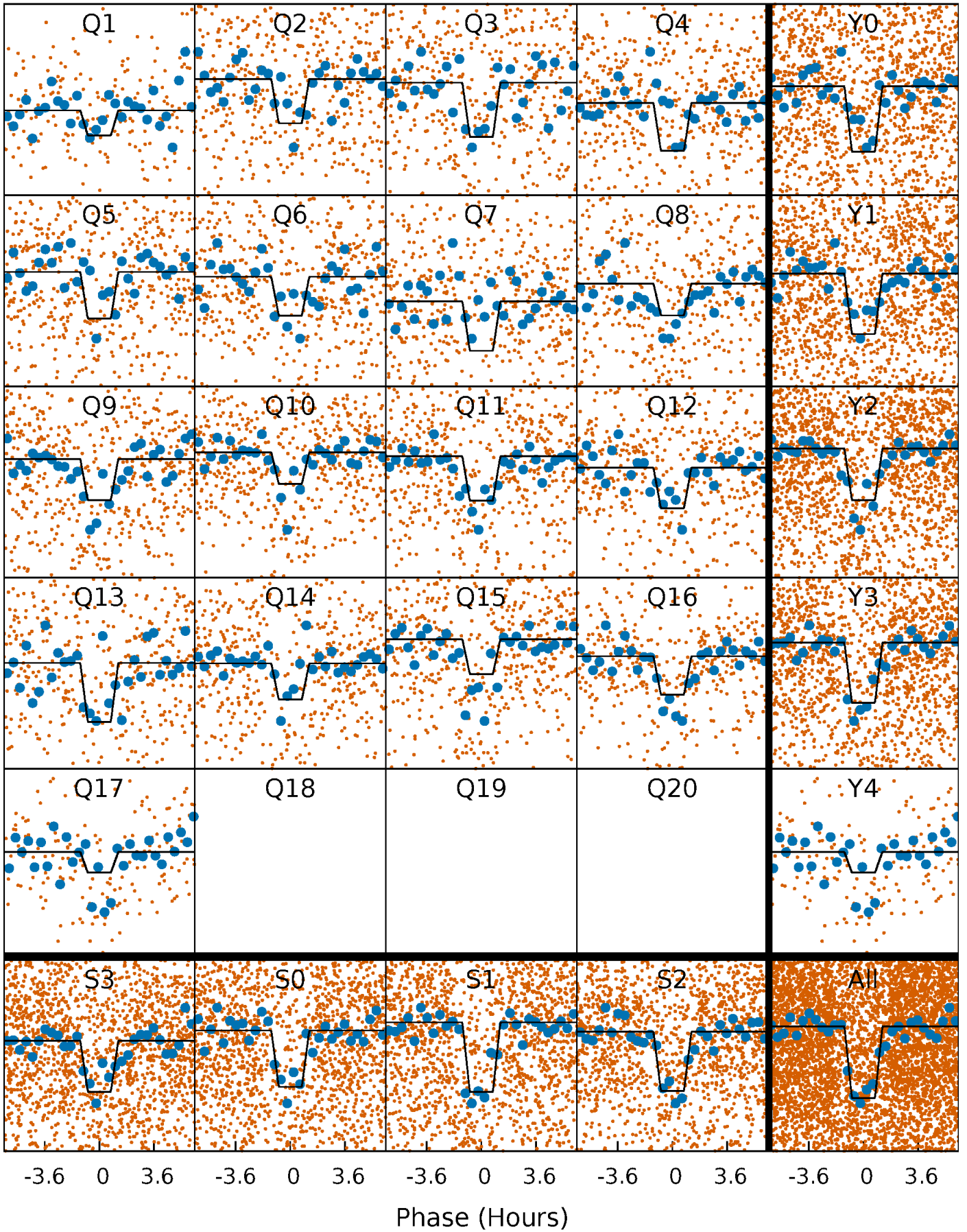
DV Quarter-Phased Transit Curves

TCE 007935997-01 P= 3.875945 Days $T_0=134.849729$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

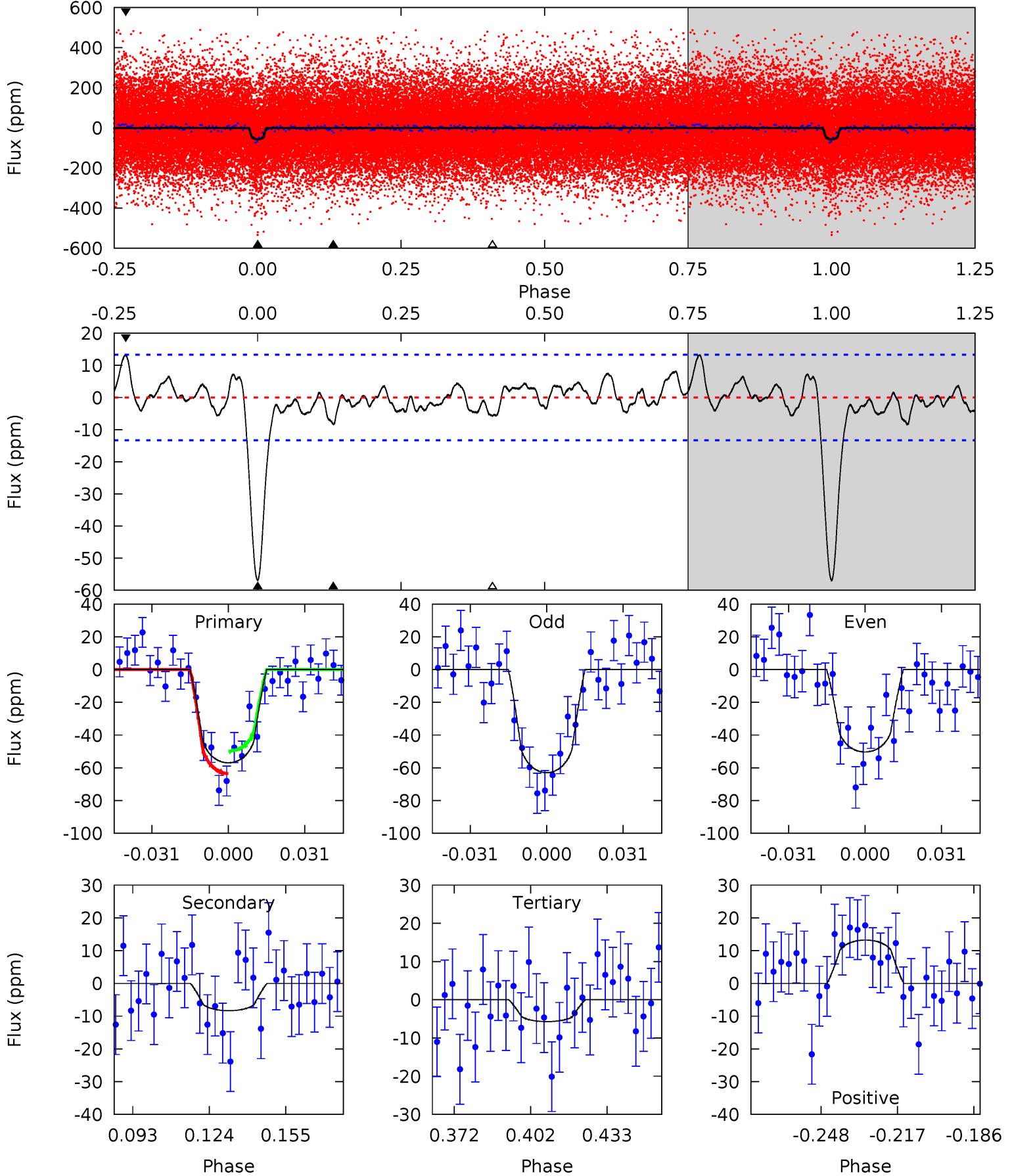
TCE 007935997-01 P= 3.875957 Days $T_0=134.846994$ (BKJD)



DV Model-Shift Uniqueness Test

007935997-01, P = 3.875945 Days, E = 130.973784 Days

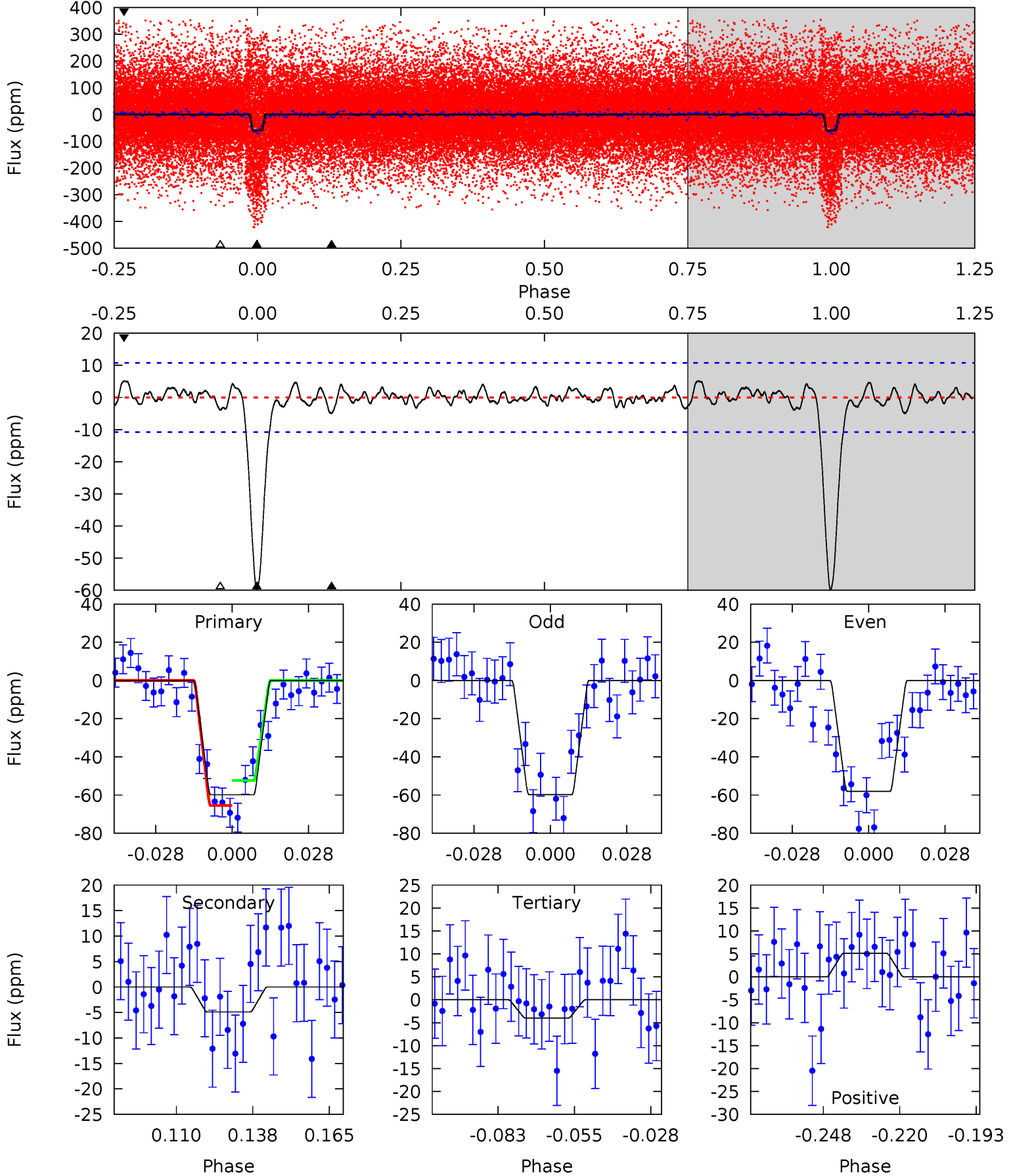
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.6	3.01	2.06	4.77	4.80	2.16	1.33	18.5	15.8	0.95	-1.76	2.29	0.94	0.19	2.48



Alt Model-Shift Uniqueness Test

007935997-01, P = 3.875957 Days, E = 130.971037 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.8	2.19	1.78	2.30	4.83	2.20	0.81	25.0	24.5	0.41	-0.10	0.38	1.03	0.08	2.92



Stellar Parameters For KIC 007935997

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5713^{+68}_{-85}	$4.541^{+0.013}_{-0.117}$	$0.070^{+0.150}_{-0.150}$	$0.893^{+0.125}_{-0.033}$	$1.010^{+0.043}_{-0.073}$	$2.000^{+0.142}_{-0.642}$
	+1%/-1%	+0%/-3%	+214%/-214%	+14%/-4%	+4%/-7%	+7%/-32%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007935997-01 / KOI 5447.02

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8 ± 3	$0.69^{+0.24}_{-0.23}$	1532^{+55}_{-32}	3975^{+701}_{-439}	21^{+29}_{-11}
Alt.	-5 ± 2	$0.77^{+0.23}_{-0.22}$	1534^{+64}_{-34}	3482^{+504}_{-418}	$9.810^{+11.811}_{-5.461}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

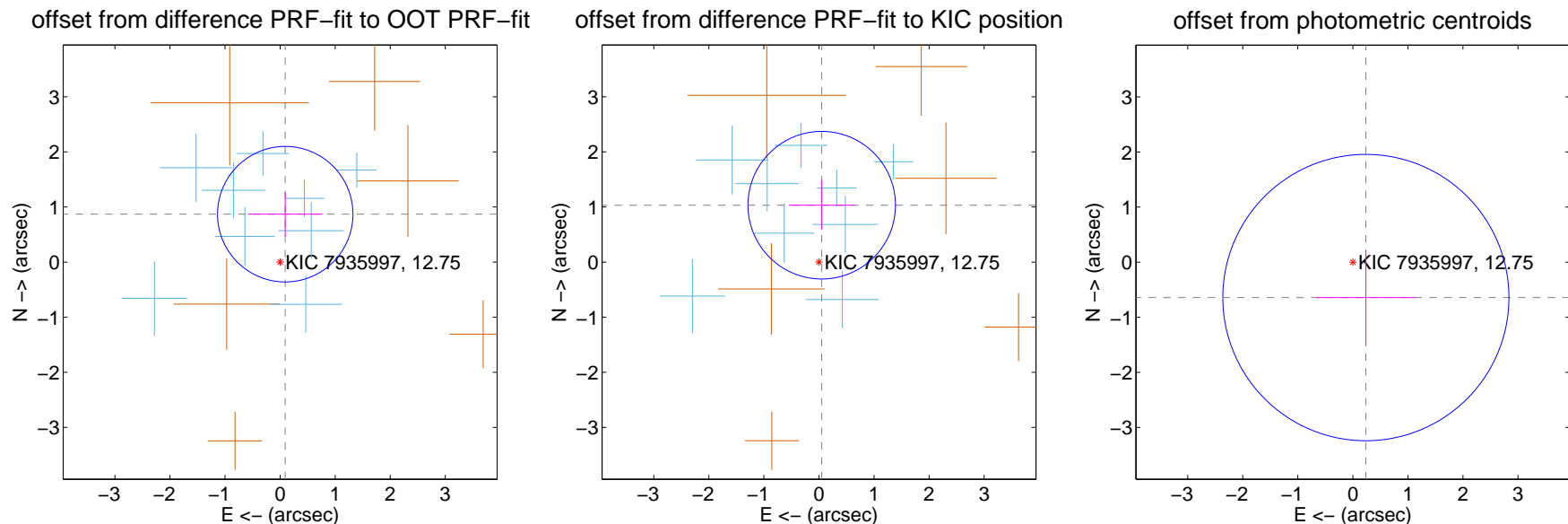
DV Centroid Data

Supplemental centroid analysis for 007935997-01. Kepler magnitude: 12.75. Transit SNR 11.20

There are 9 quarters with good PRF difference image offsets

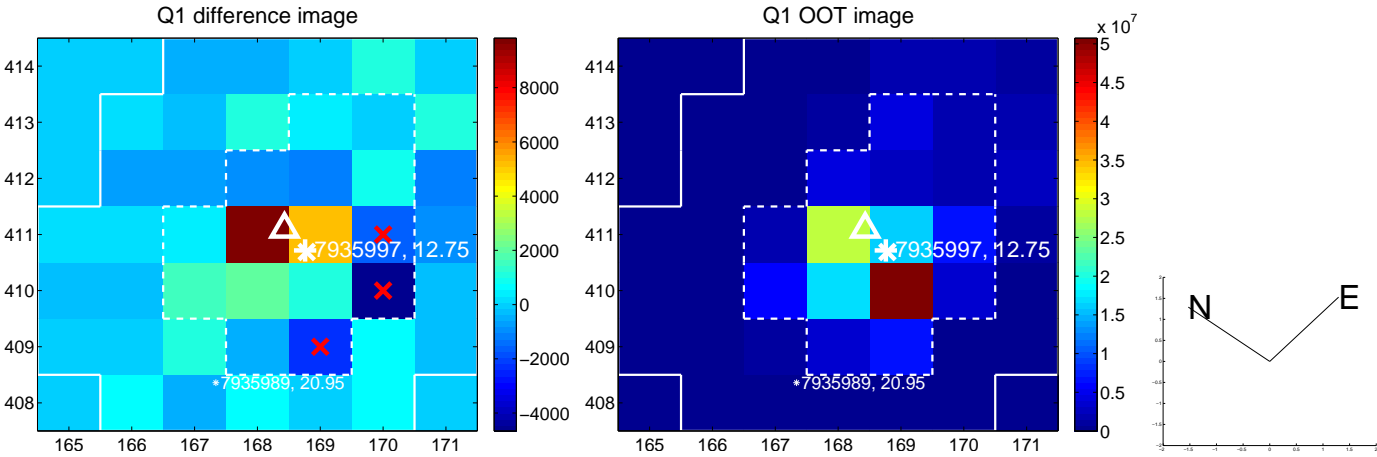
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.874 ± 0.410	2.13	-0.093 ± 0.677	0.869 ± 0.401
PRF-fit source offset from KIC position	1.034 ± 0.446	2.32	-0.050 ± 0.597	1.033 ± 0.443
photometric centroid source offset	0.68 ± 0.87	0.79	-0.24 ± 0.90	-0.64 ± 0.86

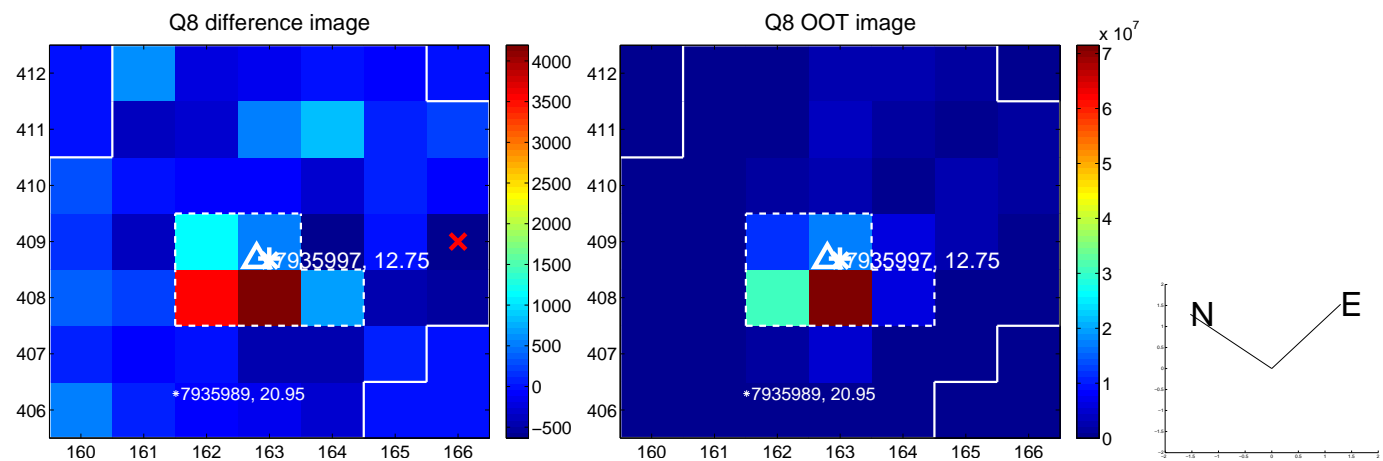
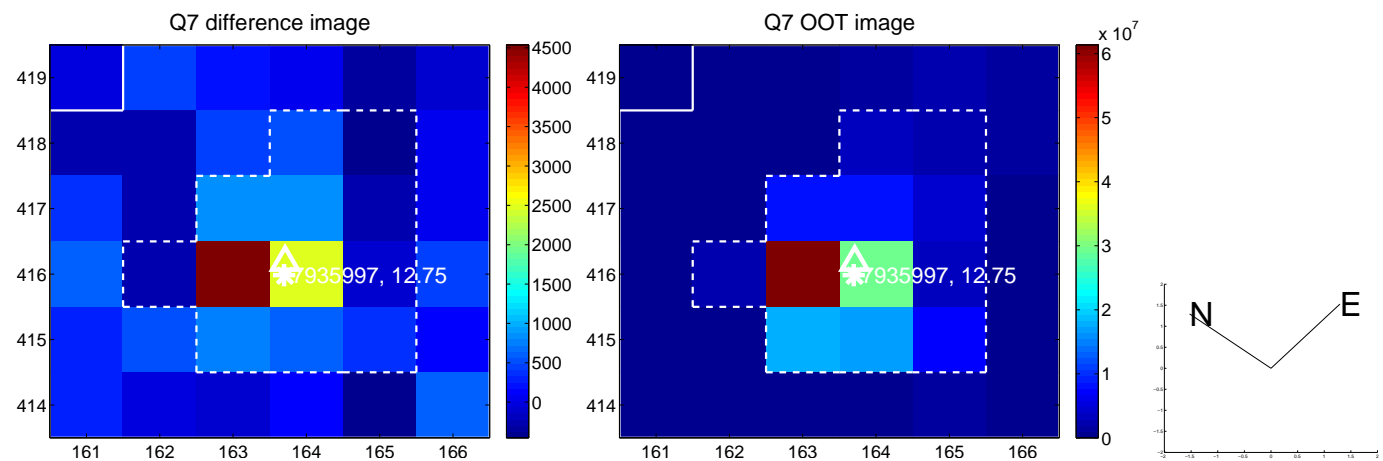
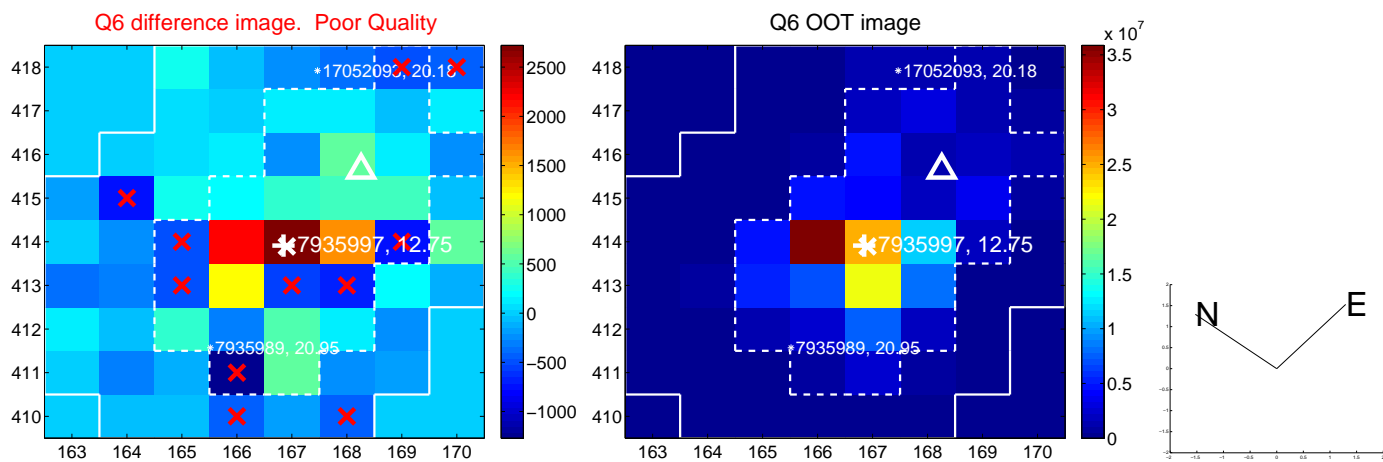
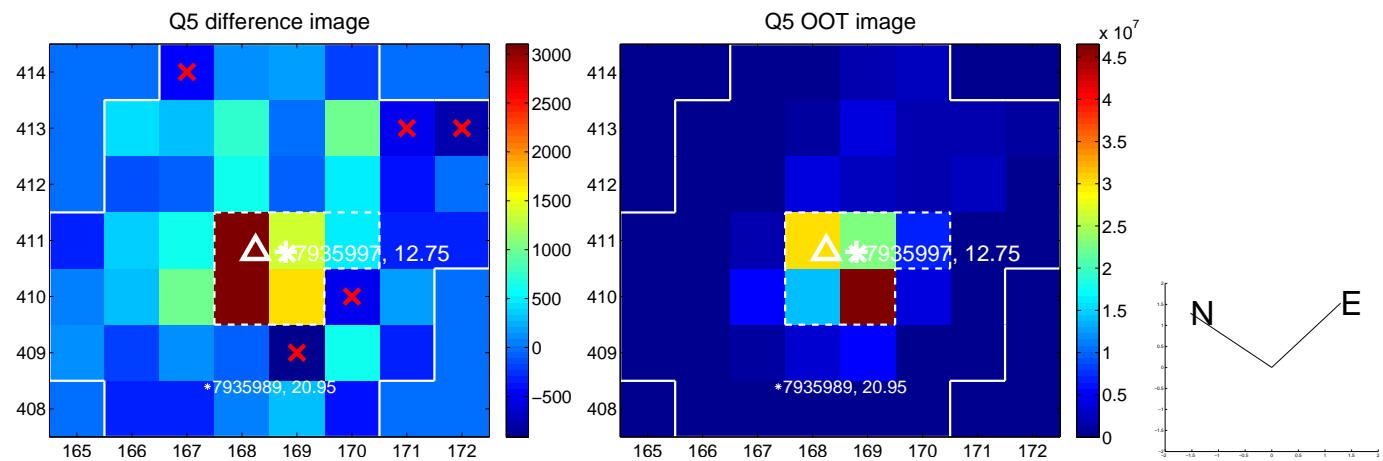


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

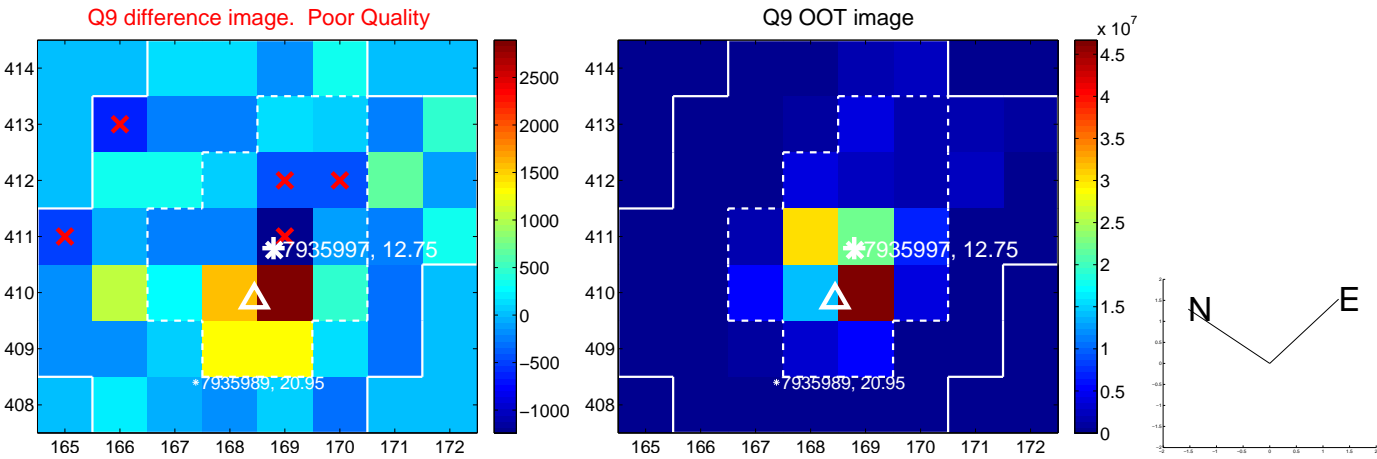
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



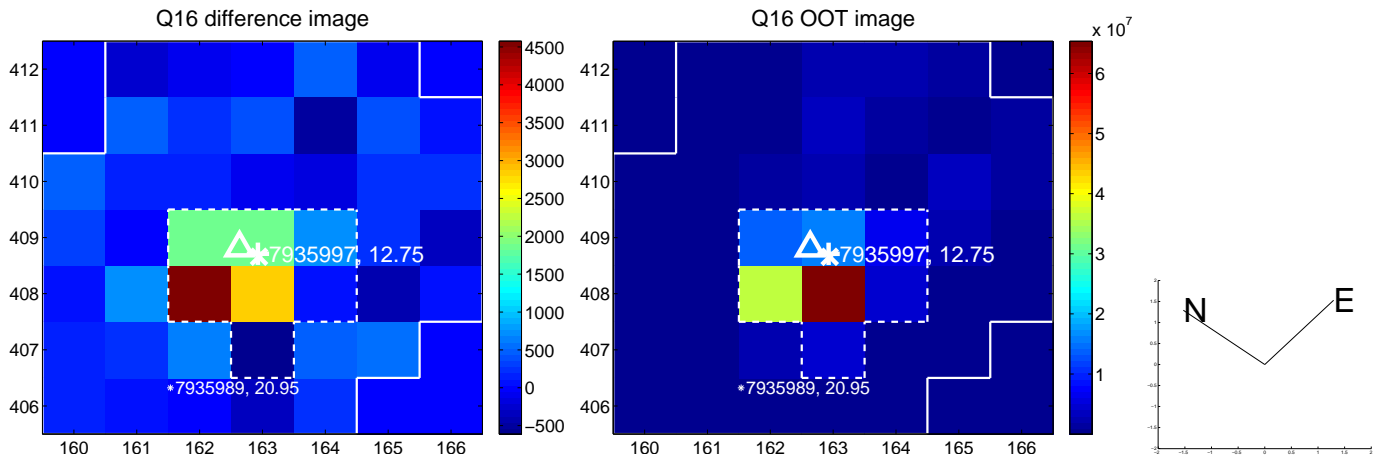
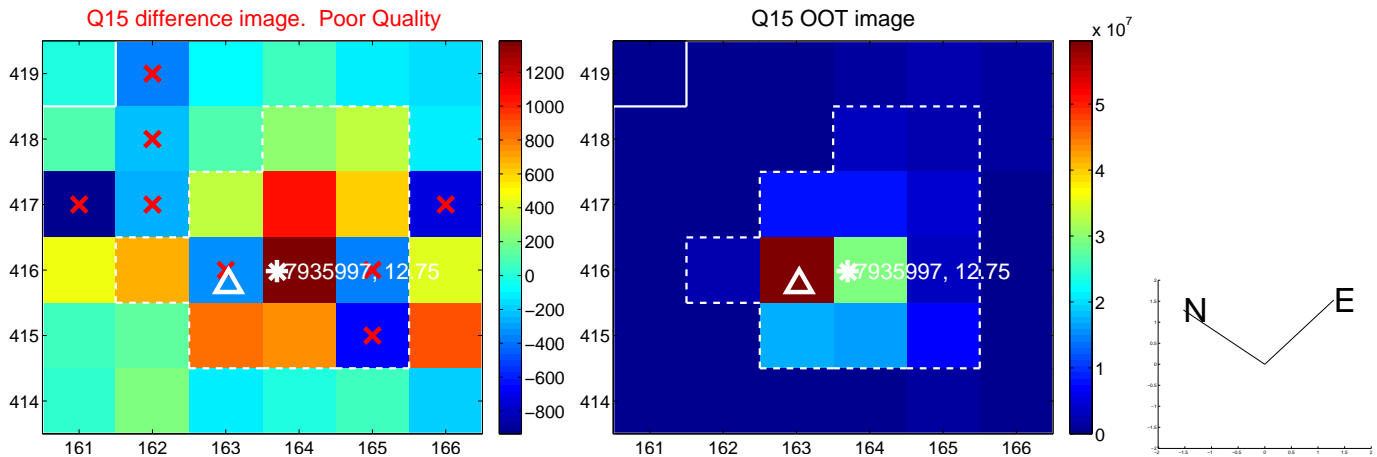
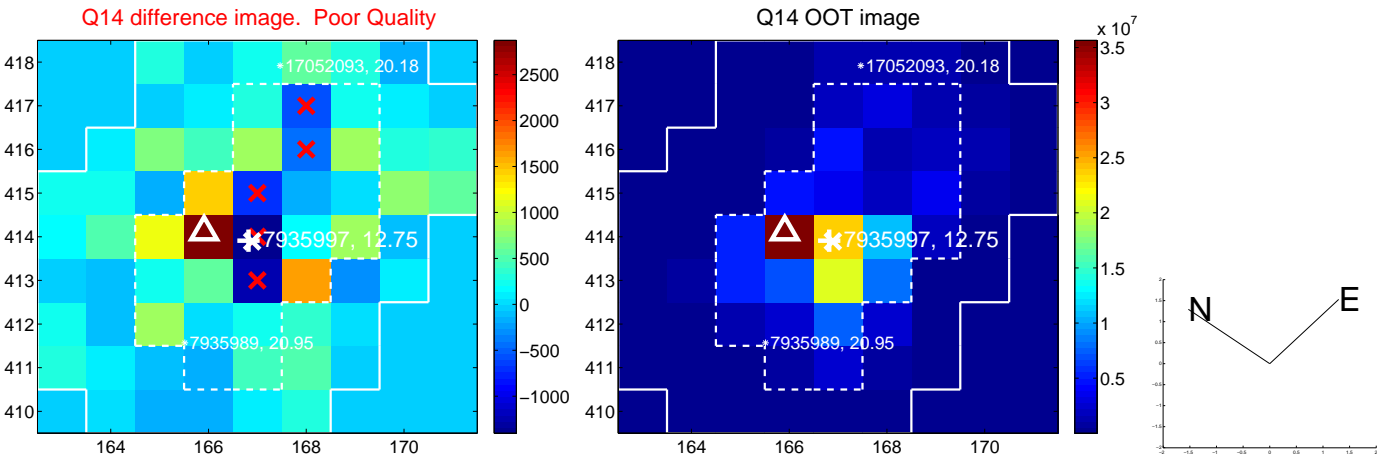
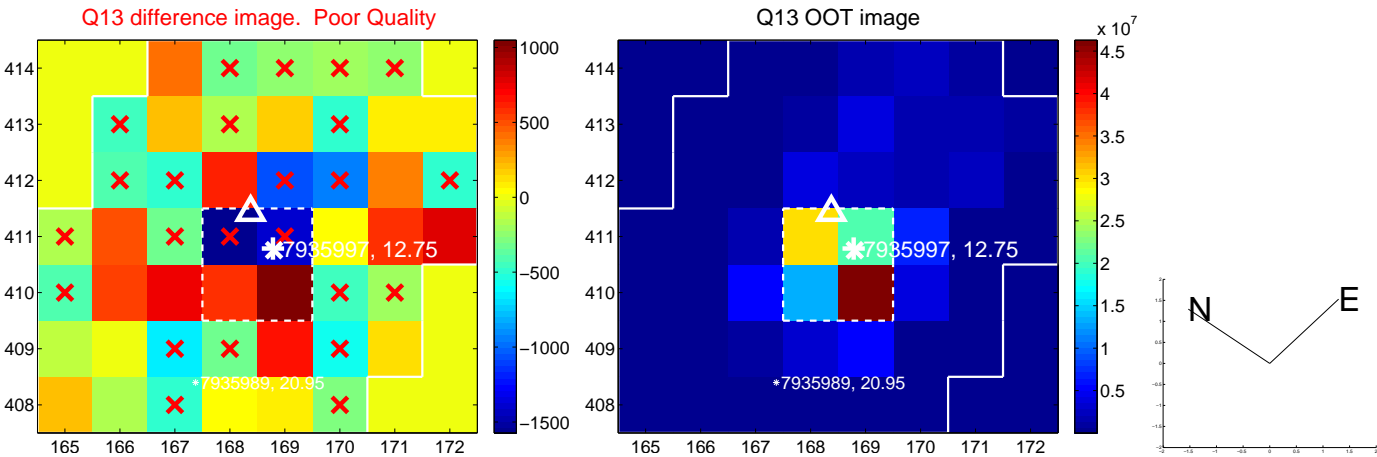
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



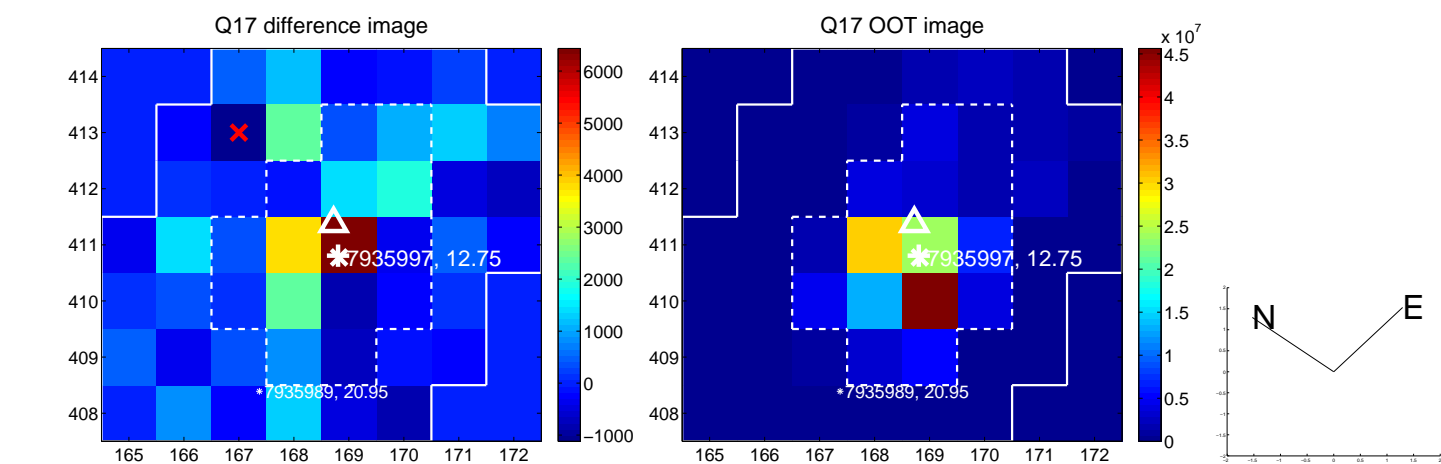
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



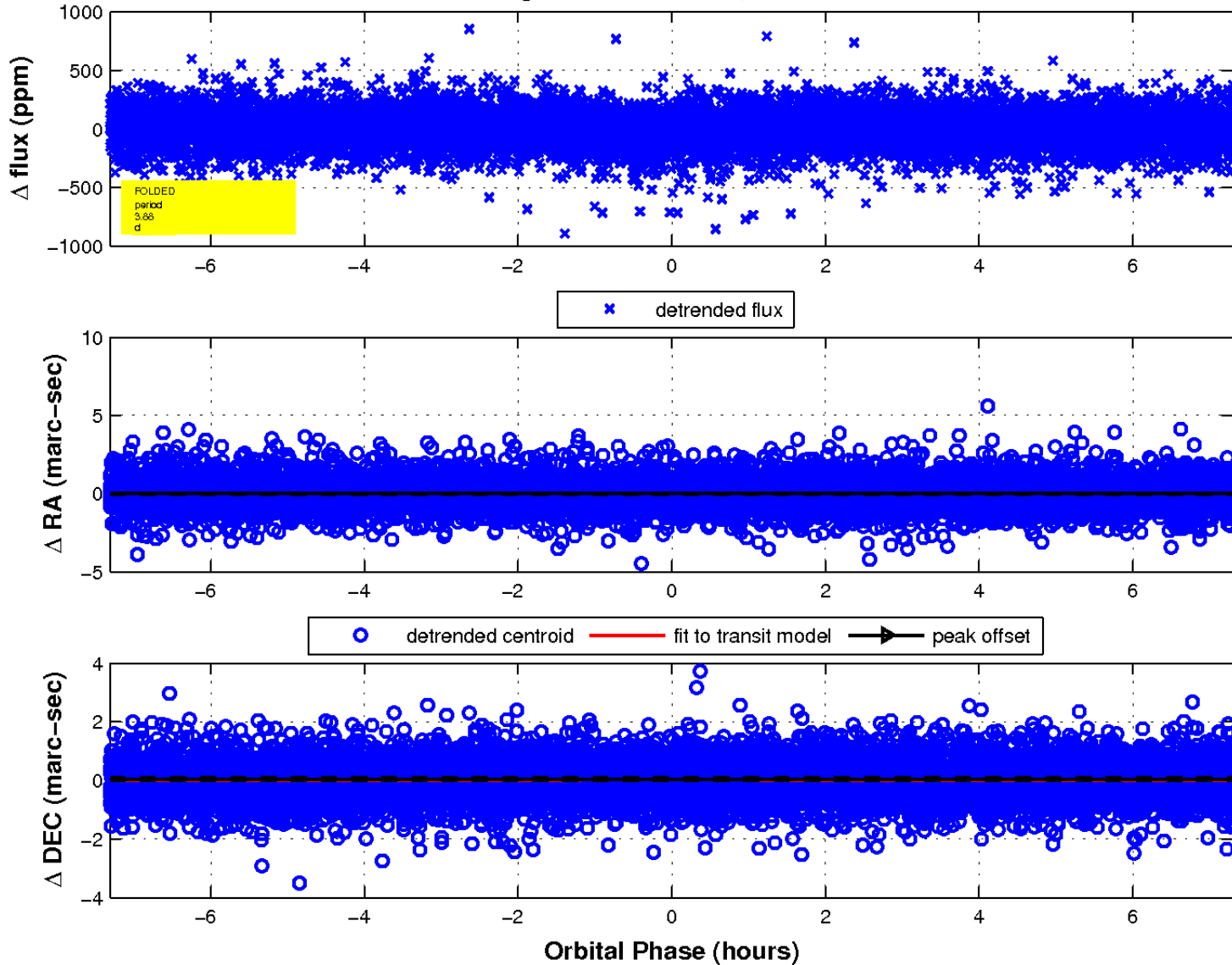
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

