

KIC 003934657

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})
003934657-01	OBS	7676.01	5.369643	133.779463	44.4	4.049	7.3	8.0	0.87	5753	0.65	212.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003934657-01	OBS	PC	0.90	0	0	0	0	NO_COMMENT

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

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

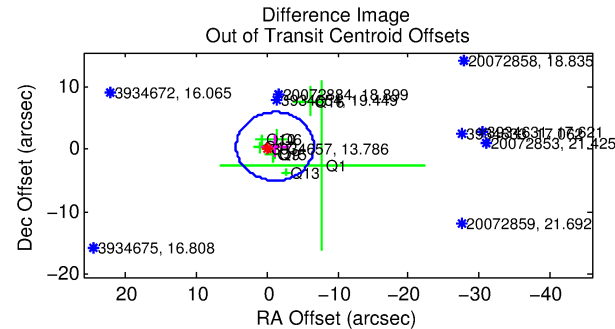
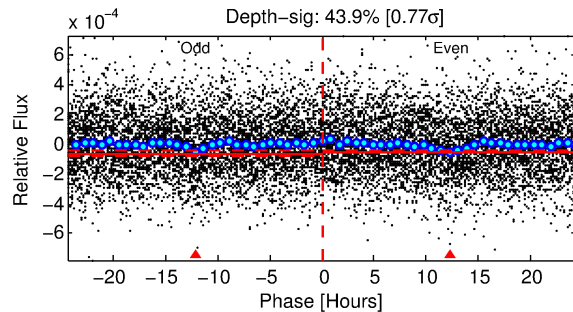
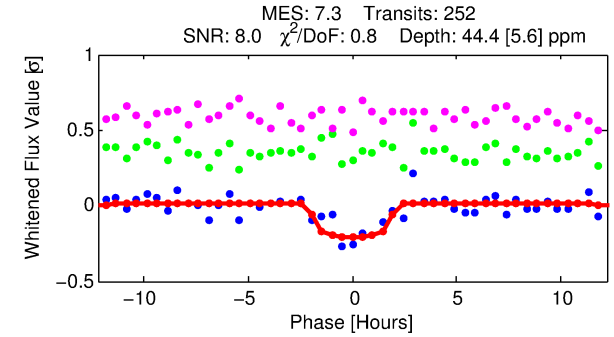
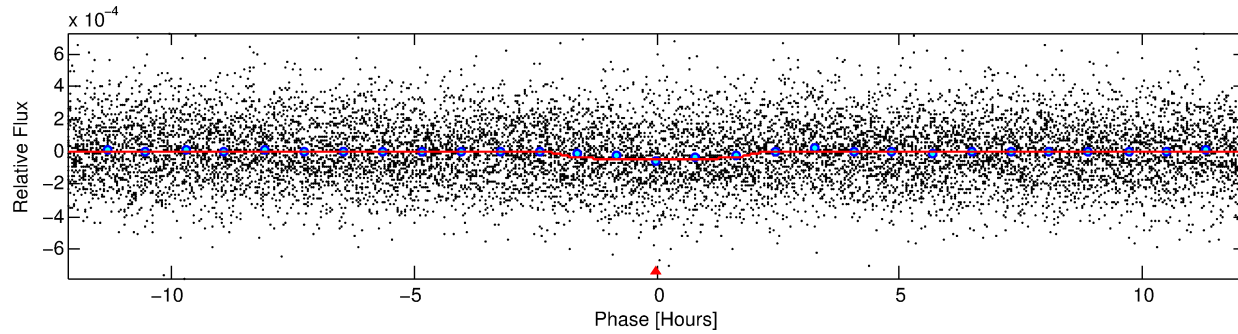
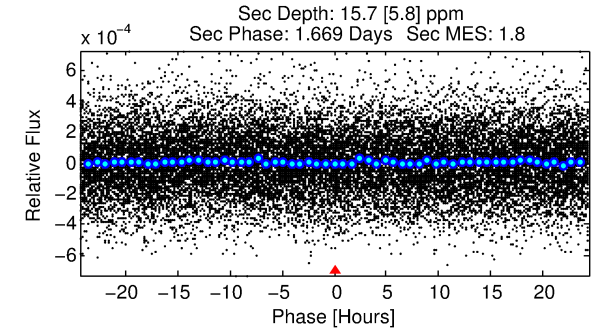
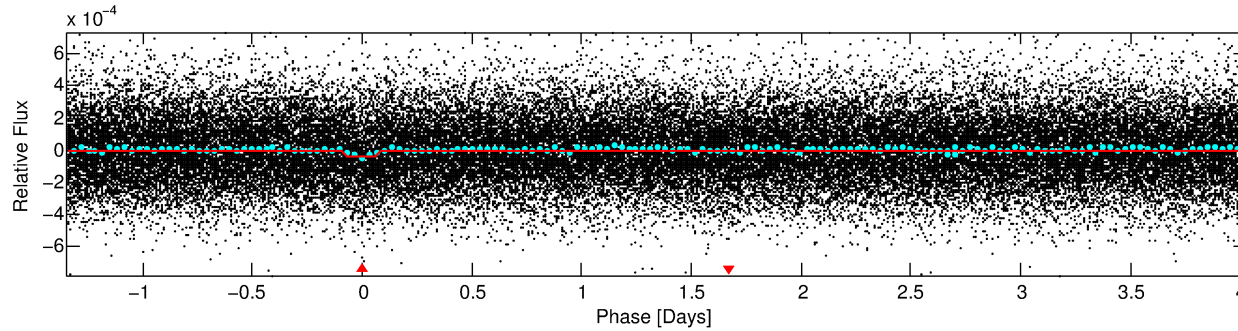
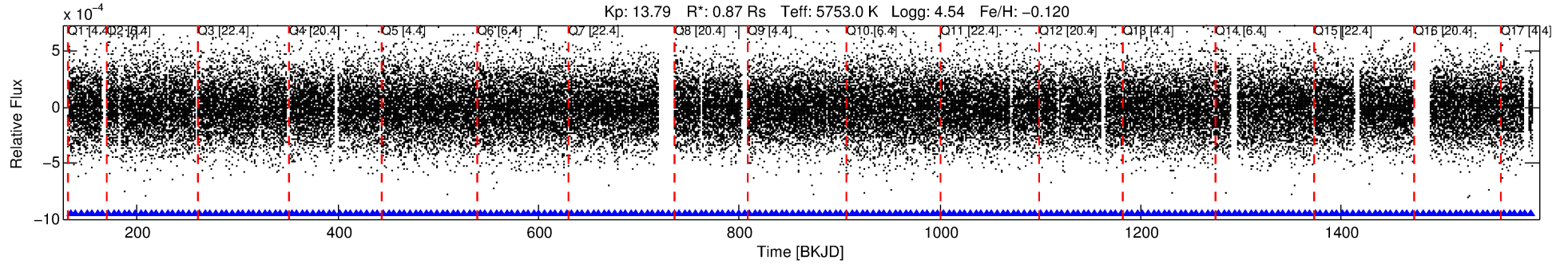
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003934657-01

No Significant Match Found

DV One-Page Summary

KIC: 3934657 Candidate: 1 of 1 Period: 5.370 d



DV Fit Results:

Period = 5.36964 [0.00006] d
Epoch = 133.7795 [0.0081] BKJD
Rp/R* = 0.0069 [0.0036]
a/R* = 5.96 [14.06]
b = 0.82 [0.97]
Seff = 212.76 [82.13]
Teq = 974 [94] K
Rp = 0.65 [0.39] Re
a = 0.0590 [0.0149] AU
Ag = 71.29 [83.87] [0.84σ]
Teffp = 4375 [1227] K [2.76σ]

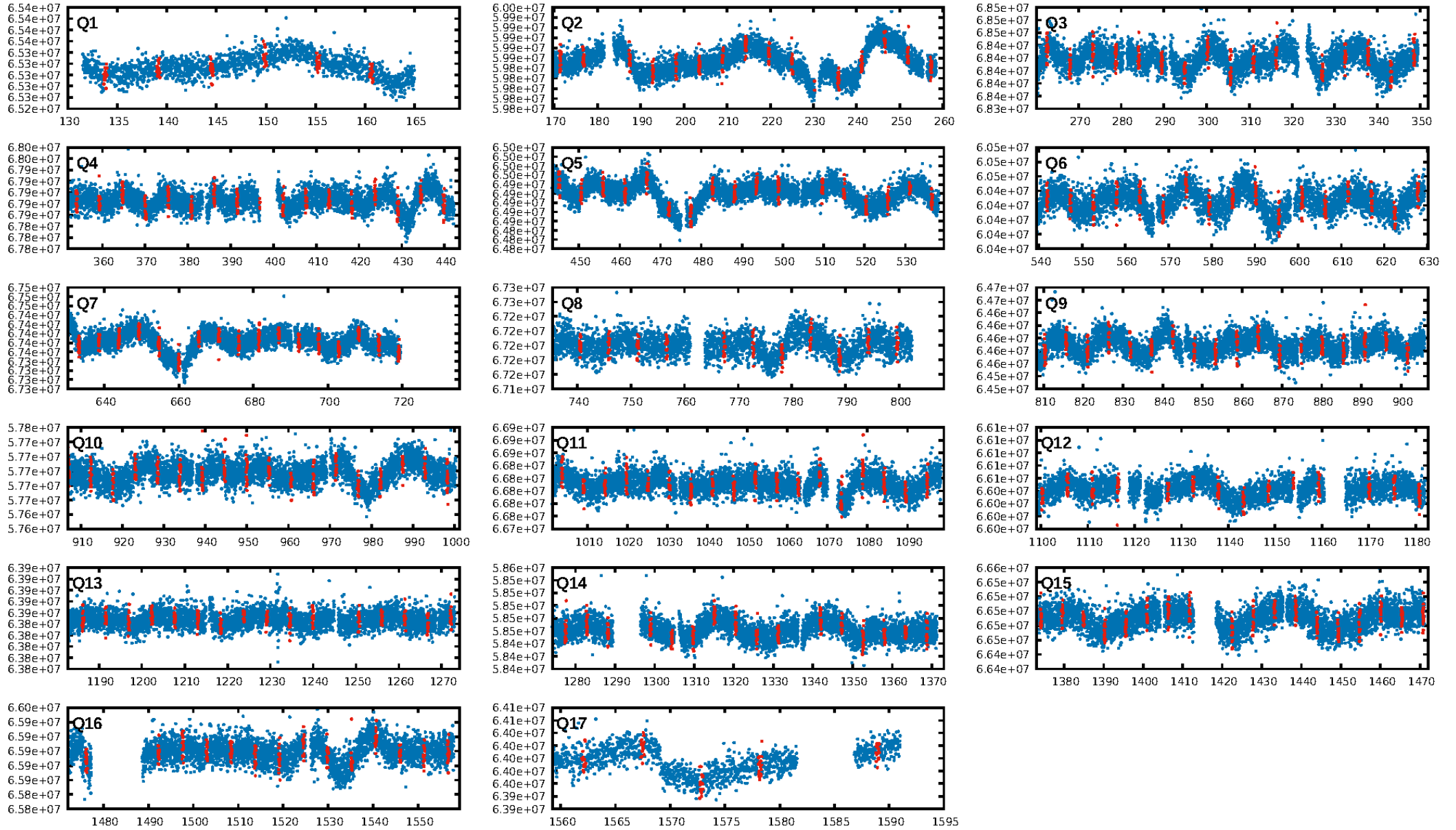
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.94e-13
RollingBand-fgt: 1.00 [241/241]
GhostDiagnostic-chr: 155.3
Centroid-sig: 0.1%
Centroid-so: 3.332 arcsec [1.90σ]
OotOffset-rm: 1.203 arcsec [0.66σ]
KicOffset-rm: 1.193 arcsec [0.65σ]
OotOffset-st: 2/1/1/4 [8]
KicOffset-st: 2/1/1/4 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [17/17]

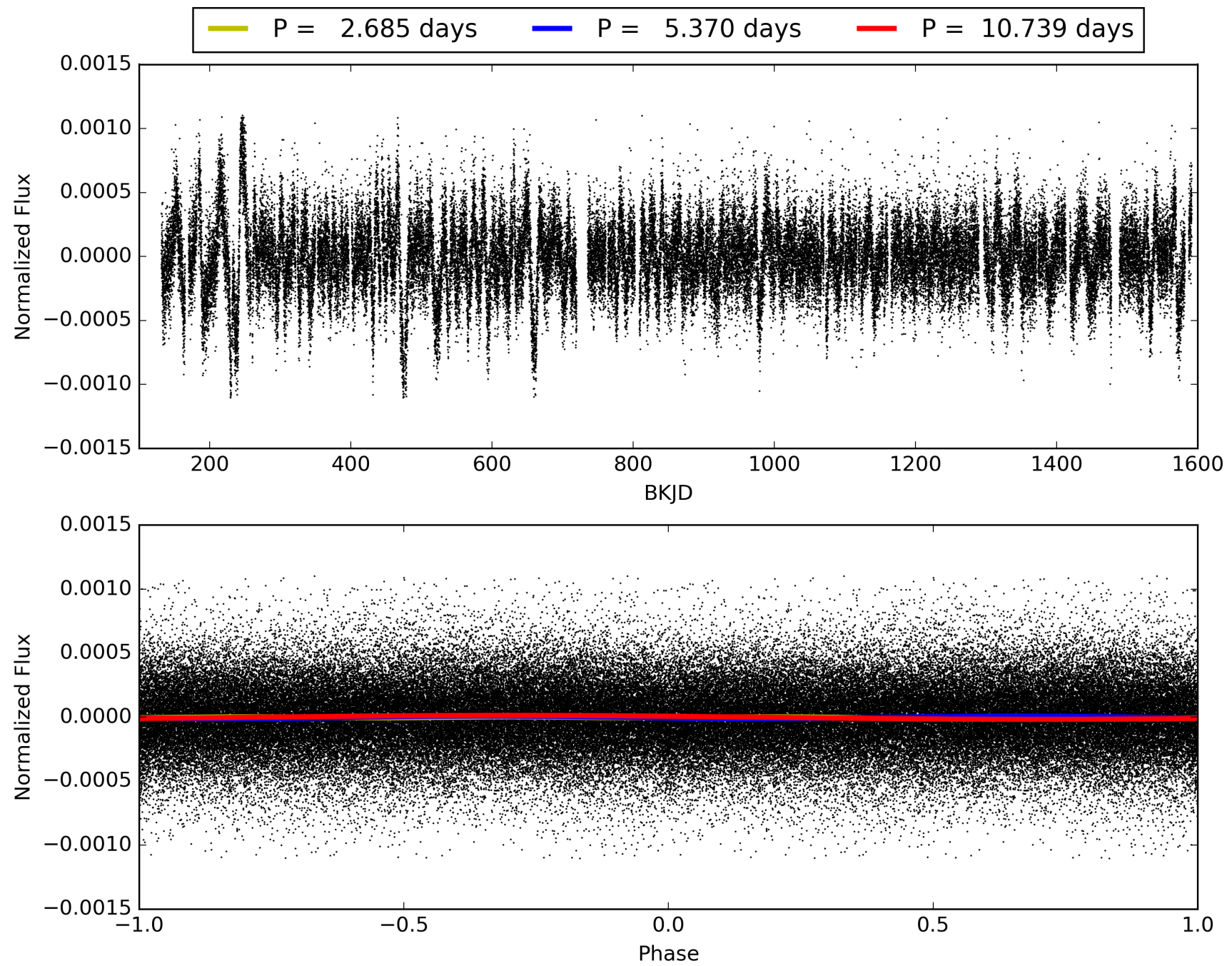
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:01:35 Z

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

TCE 003934657-01, PDC Light Curves

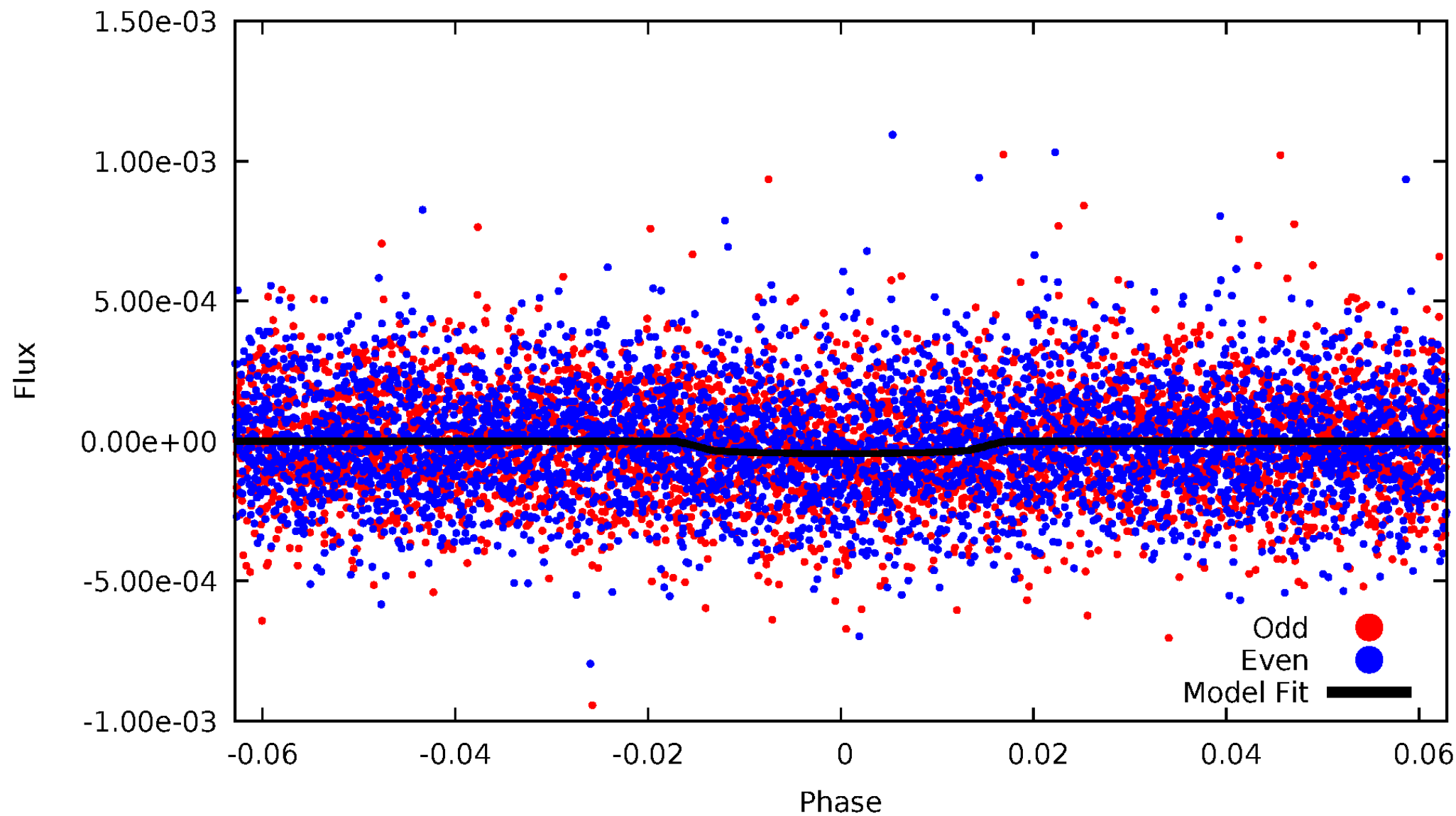


TCE 003934657-01



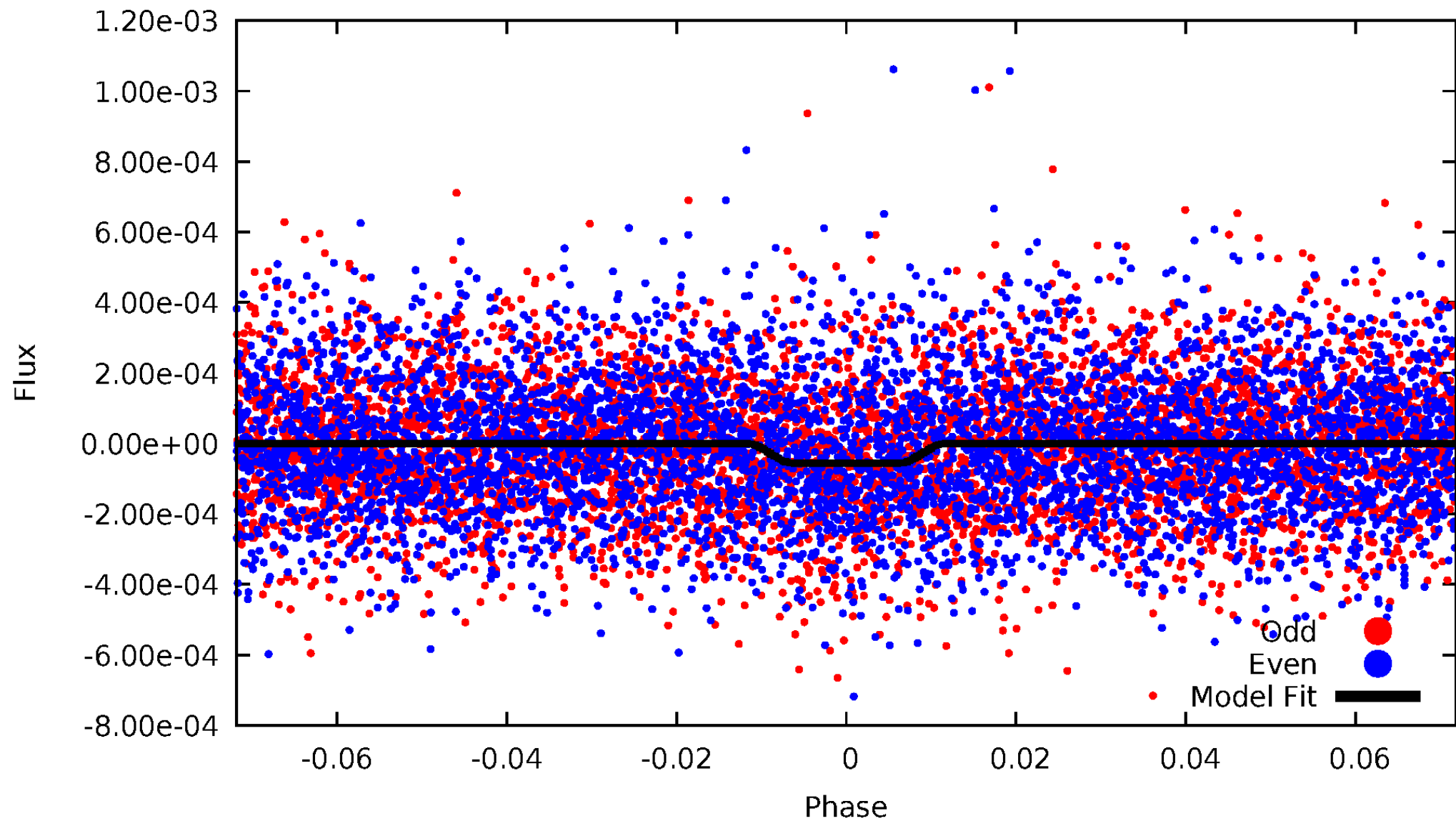
DV Odd/Even

TCE 003934657-01

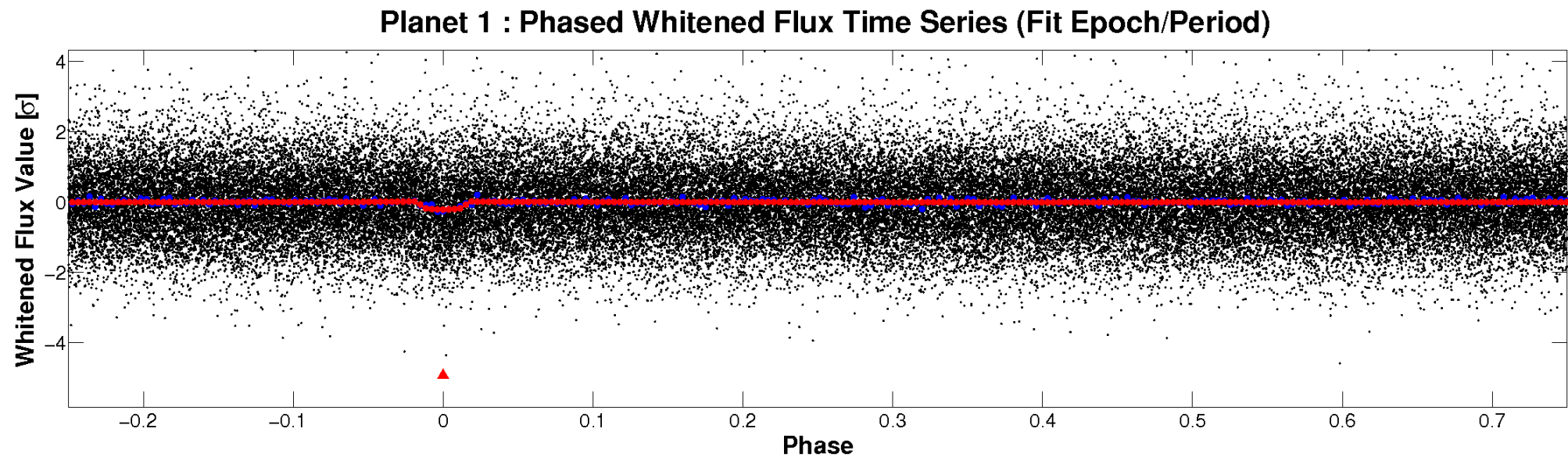
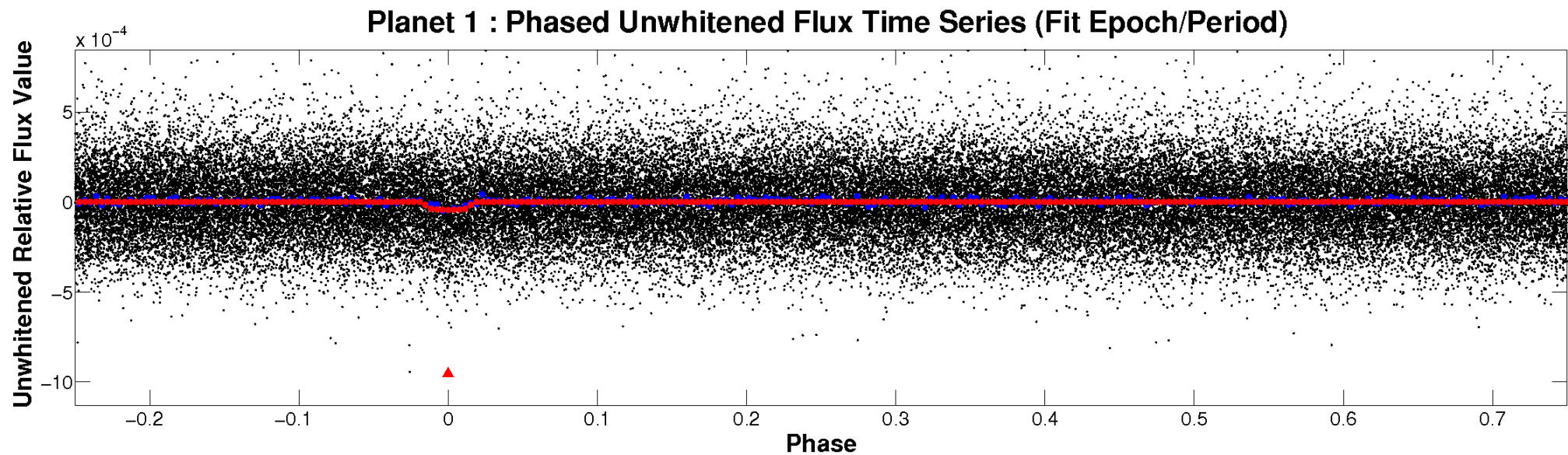


ALT Odd/Even

TCE 003934657-01

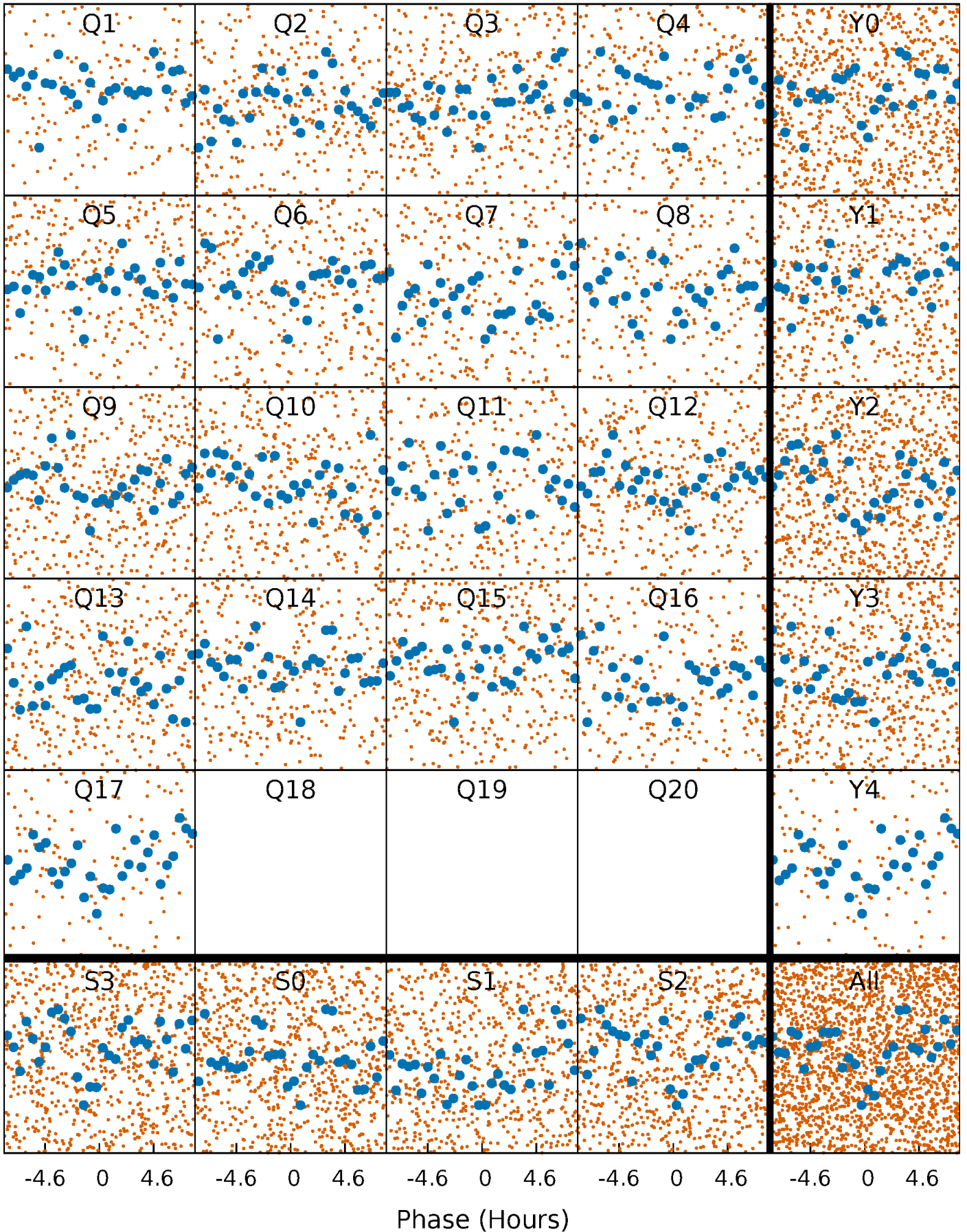


Non-Whitened Vs. Whitened Light Curve



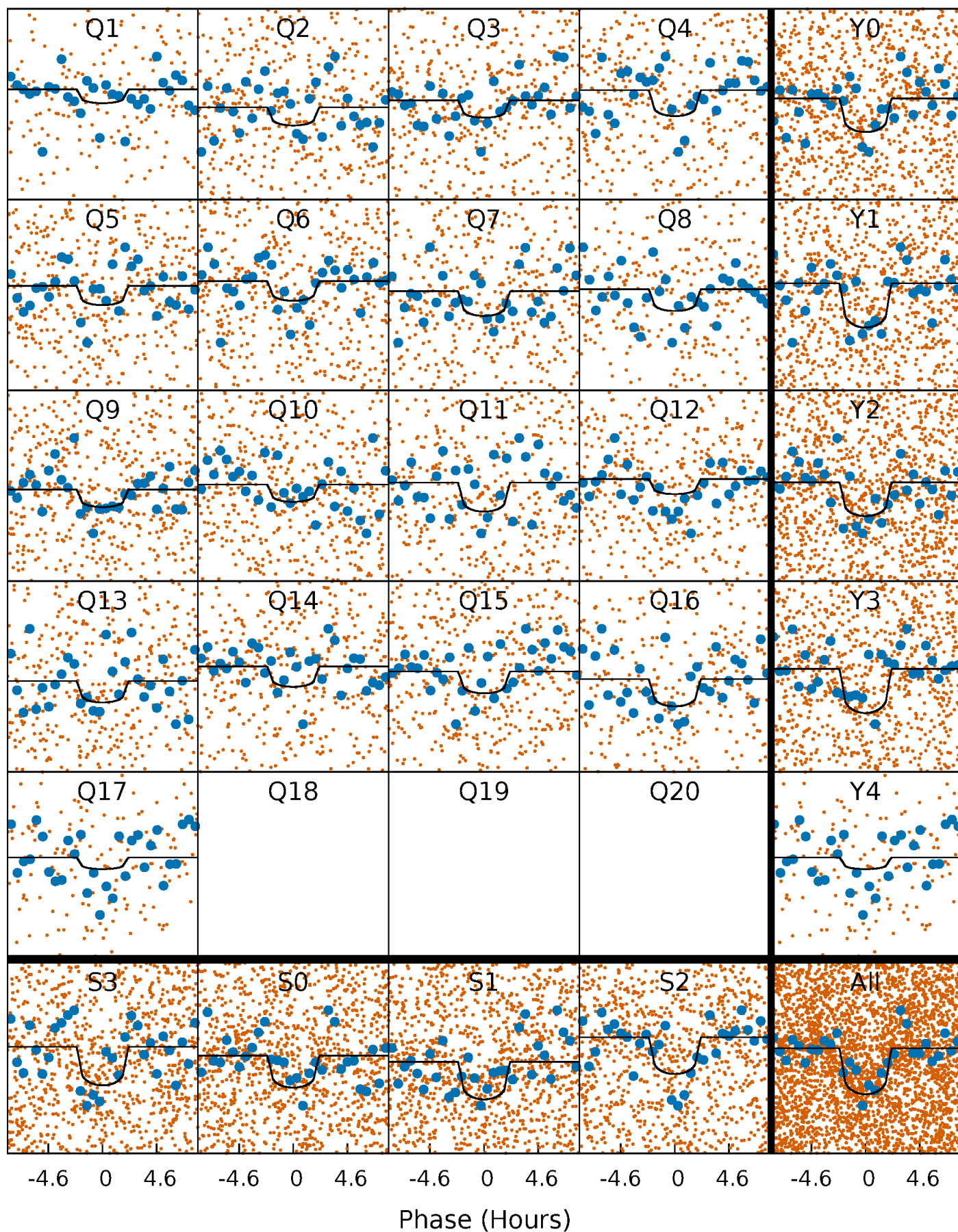
PDC Quarter-Phased Transit Curves

TCE 003934657-01 P= 5.369643 Days $T_0=133.779463$ (BKJD)



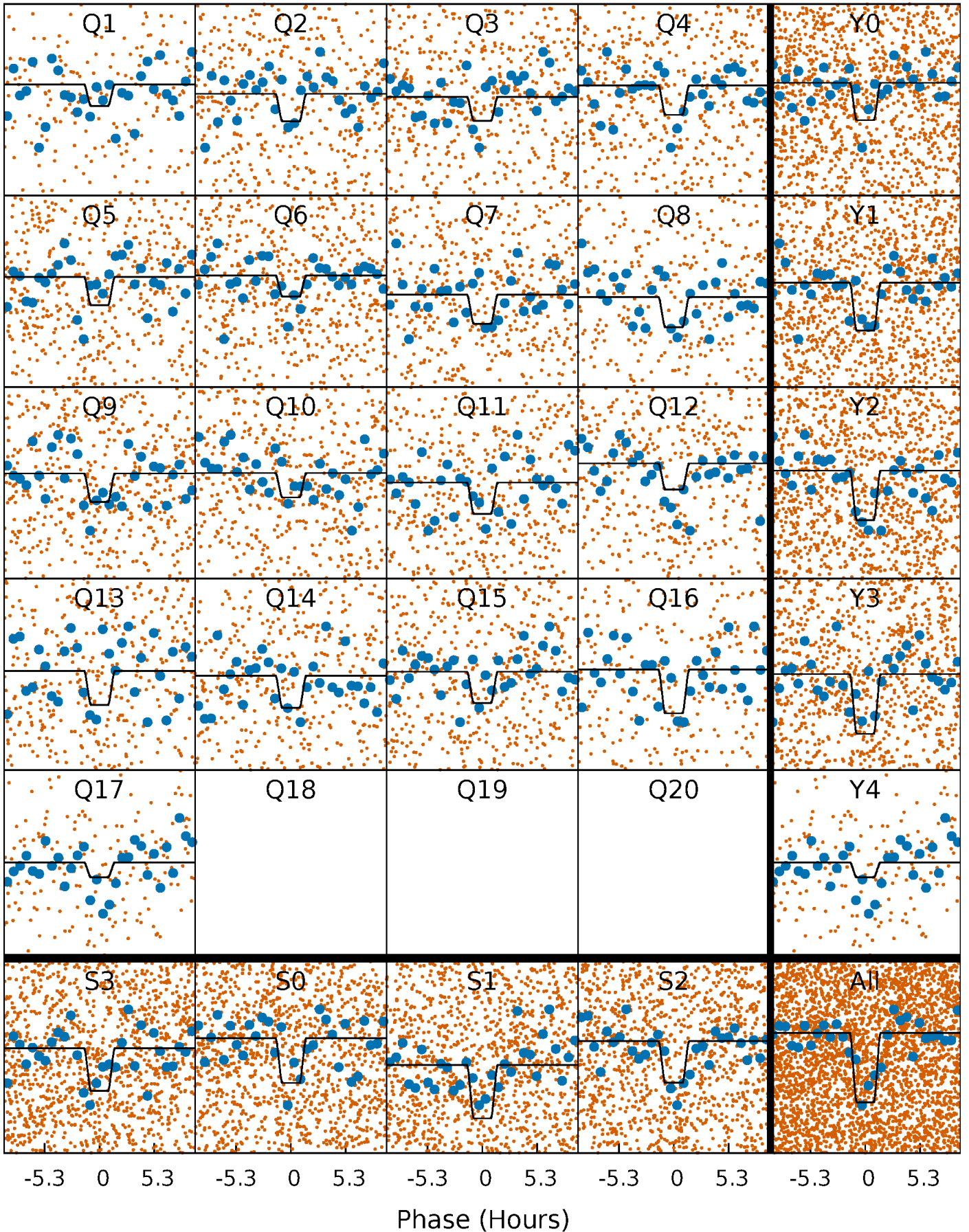
DV Quarter-Phased Transit Curves

TCE 003934657-01 P= 5.369643 Days $T_0=133.779463$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

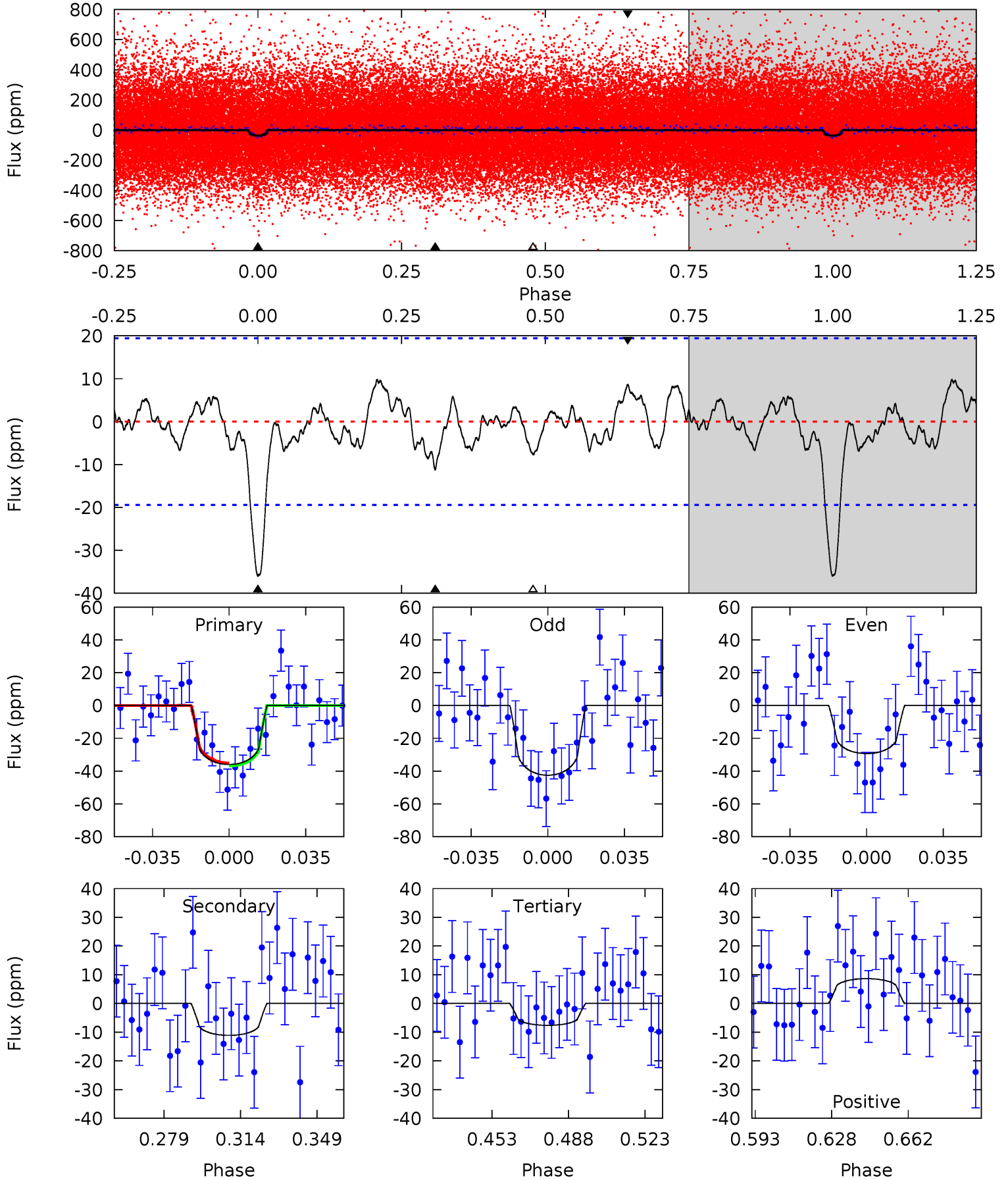
TCE 003934657-01 P= 5.369510 Days $T_0=133.798381$ (BKJD)



DV Model-Shift Uniqueness Test

003934657-01, P = 5.369643 Days, E = 128.409820 Days

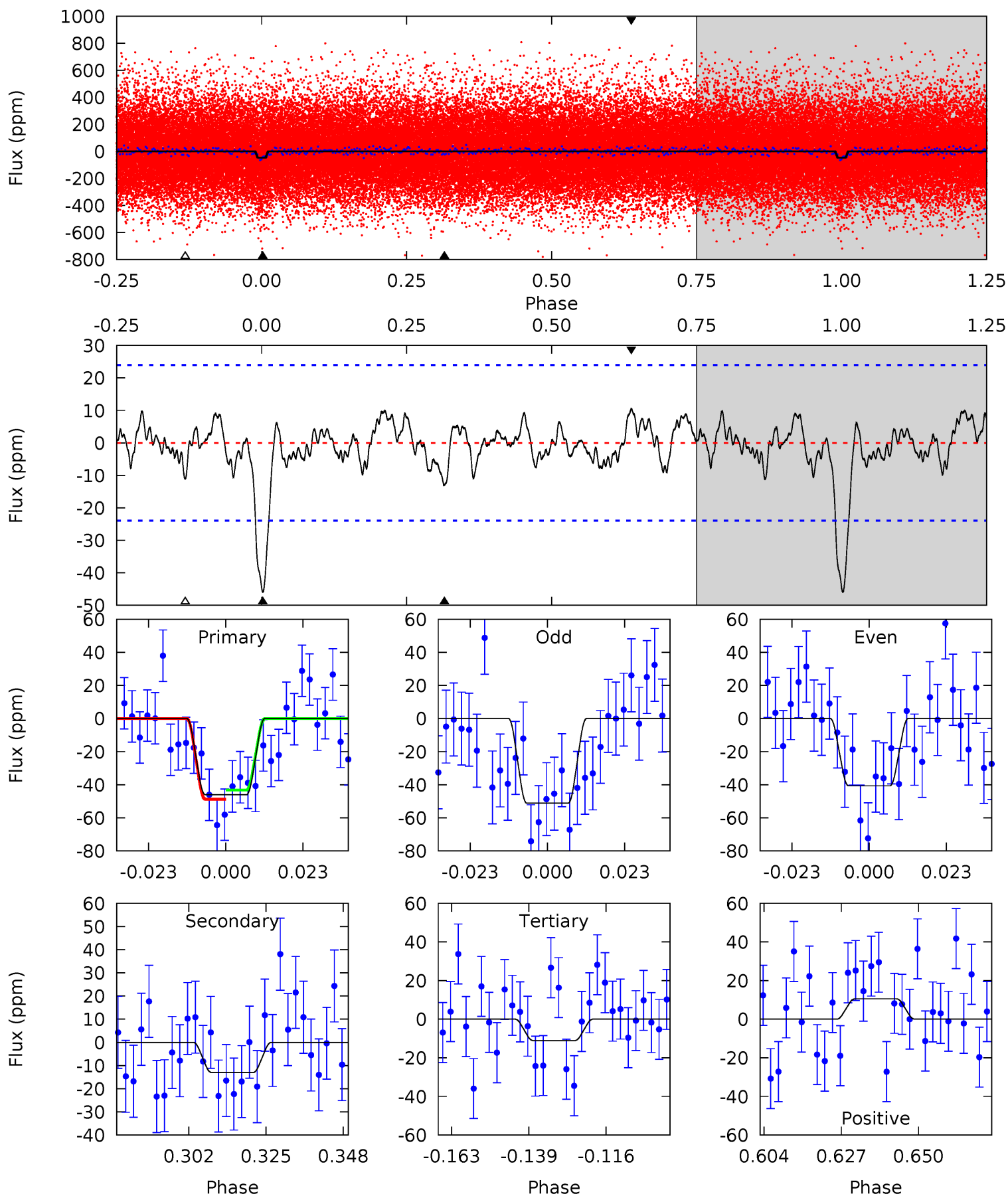
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.86	2.74	1.88	2.13	4.78	2.11	1.00	6.98	6.73	0.86	0.61	1.63	0.92	0.21	0.22



Alt Model-Shift Uniqueness Test

003934657-01, P = 5.369510 Days, E = 128.428871 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.33	2.65	2.25	2.14	4.86	2.27	0.95	7.08	7.19	0.39	0.51	1.06	1.06	0.19	0.57



Stellar Parameters For KIC 003934657

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5753^{+138}_{-156}	$4.538^{+0.048}_{-0.204}$	$-0.120^{+0.300}_{-0.300}$	$0.869^{+0.258}_{-0.069}$	$0.951^{+0.102}_{-0.114}$	$2.039^{+0.408}_{-1.062}$
	+2%/-3%	+1%/-4%	+250%/-250%	+30%/-8%	+11%/-12%	+20%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003934657-01 / KOI 7676.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 4	$0.68^{+0.37}_{-0.33}$	1389^{+93}_{-59}	4225^{+1350}_{-648}	44^{+119}_{-28}
Alt.	-13 ± 5	$0.74^{+0.39}_{-0.36}$	1386^{+94}_{-57}	4180^{+1272}_{-638}	41^{+117}_{-26}

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 $A_{obs} \gg 1.0$

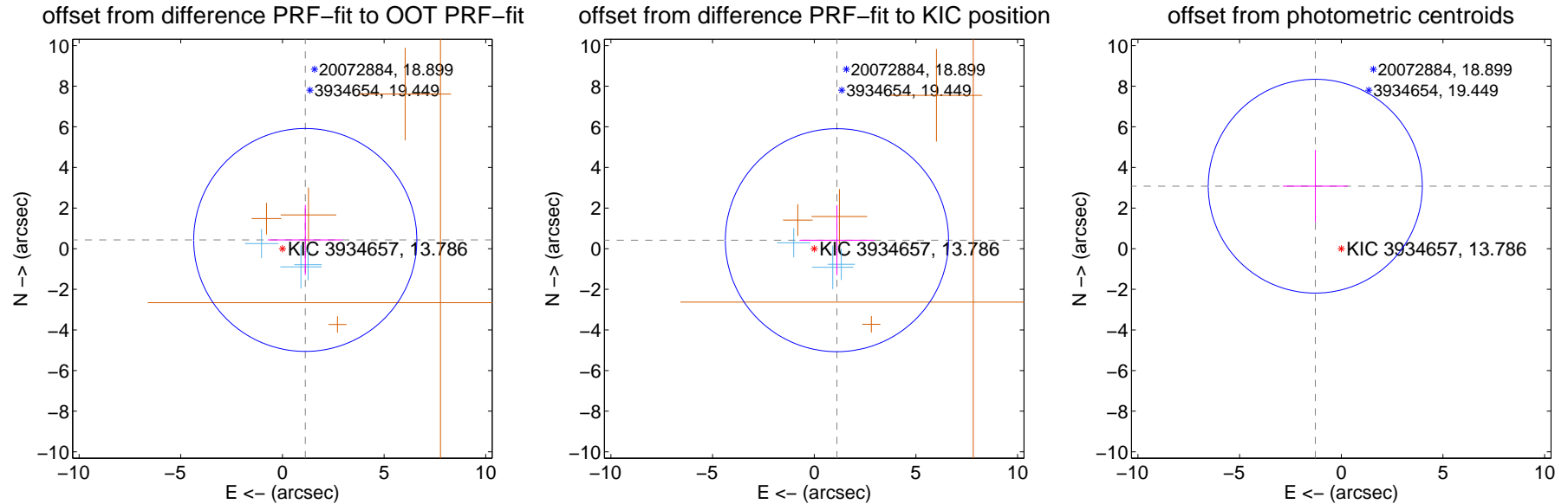
DV Centroid Data

Supplemental centroid analysis for 003934657-01. Kepler magnitude: 13.79. Transit SNR 8.00

There are 3 quarters with good PRF difference image offsets

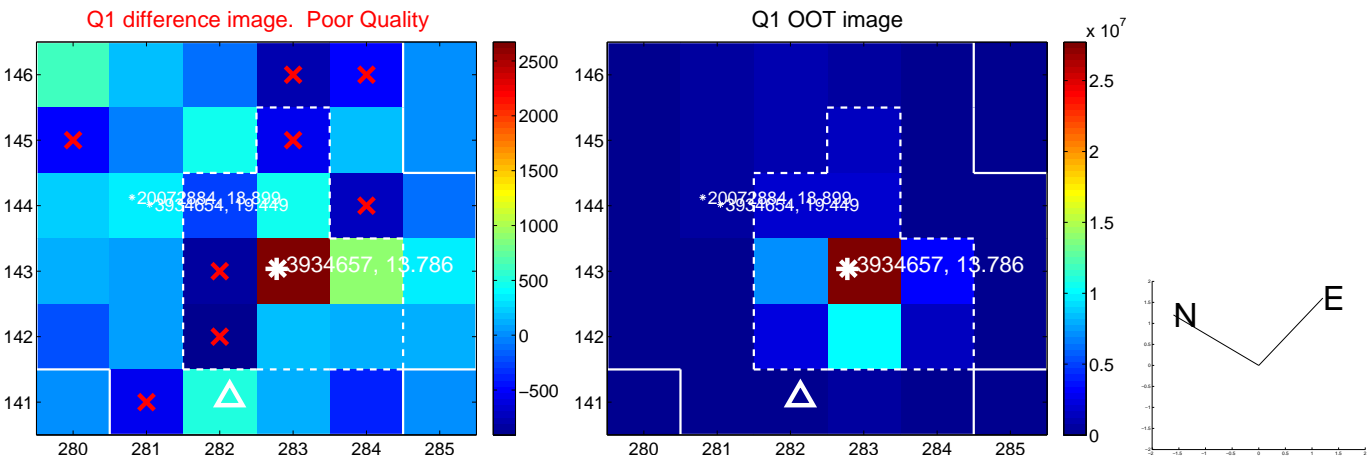
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.203 ± 1.829	0.66	-1.123 ± 1.844	0.430 ± 1.724
PRF-fit source offset from KIC position	1.193 ± 1.830	0.65	-1.117 ± 1.844	0.418 ± 1.724
photometric centroid source offset	3.33 ± 1.75	1.90	1.28 ± 1.59	3.08 ± 1.78

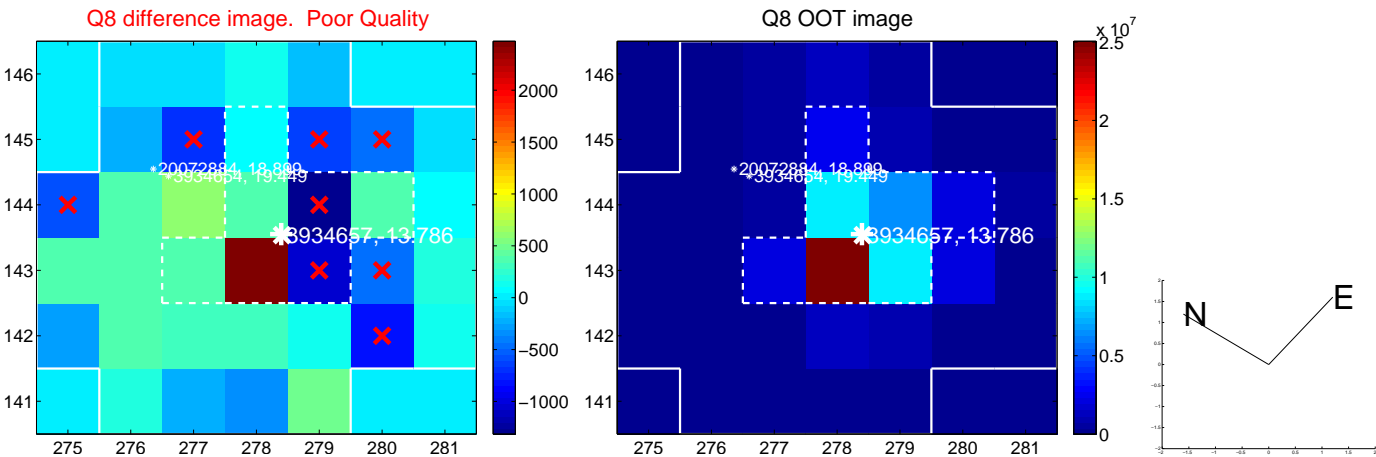
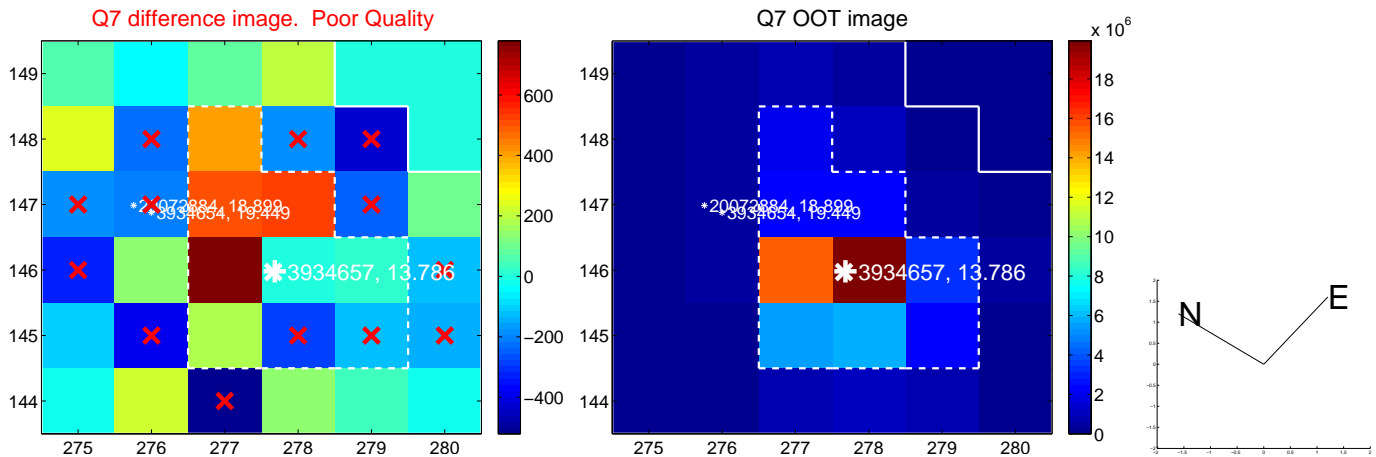
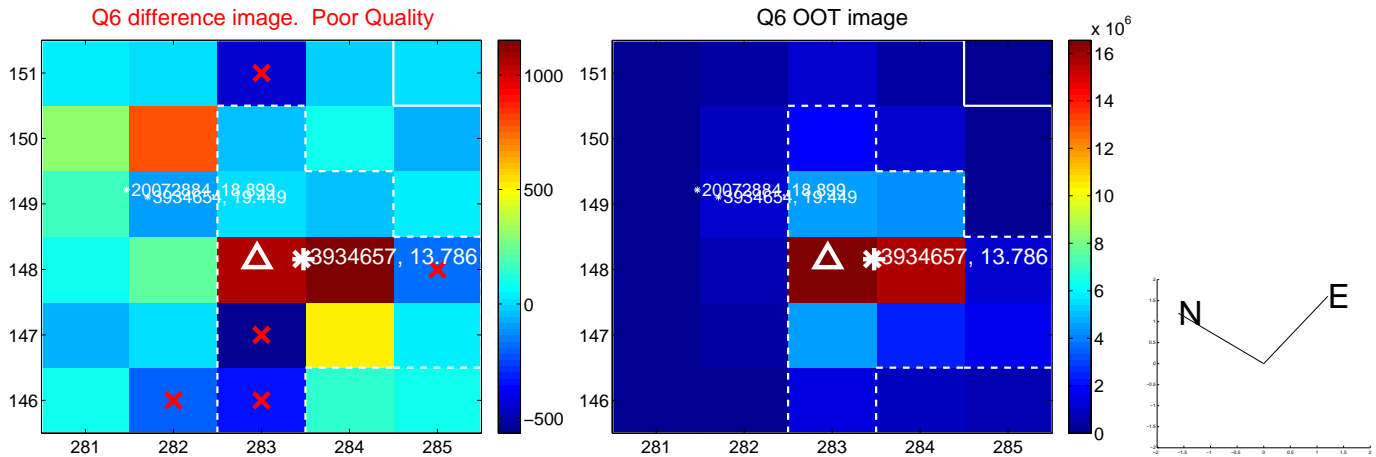
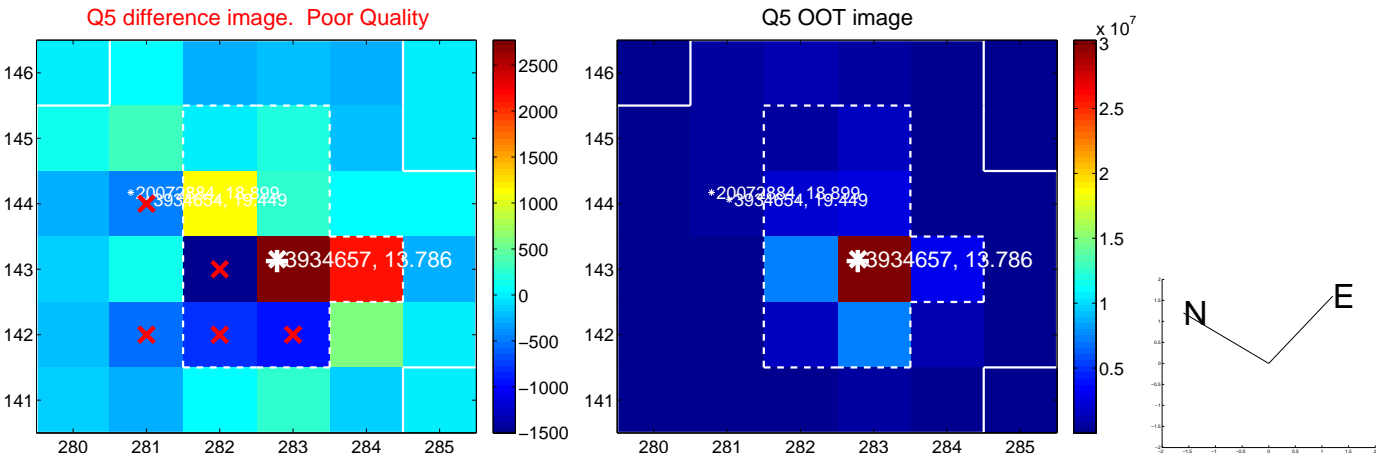


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

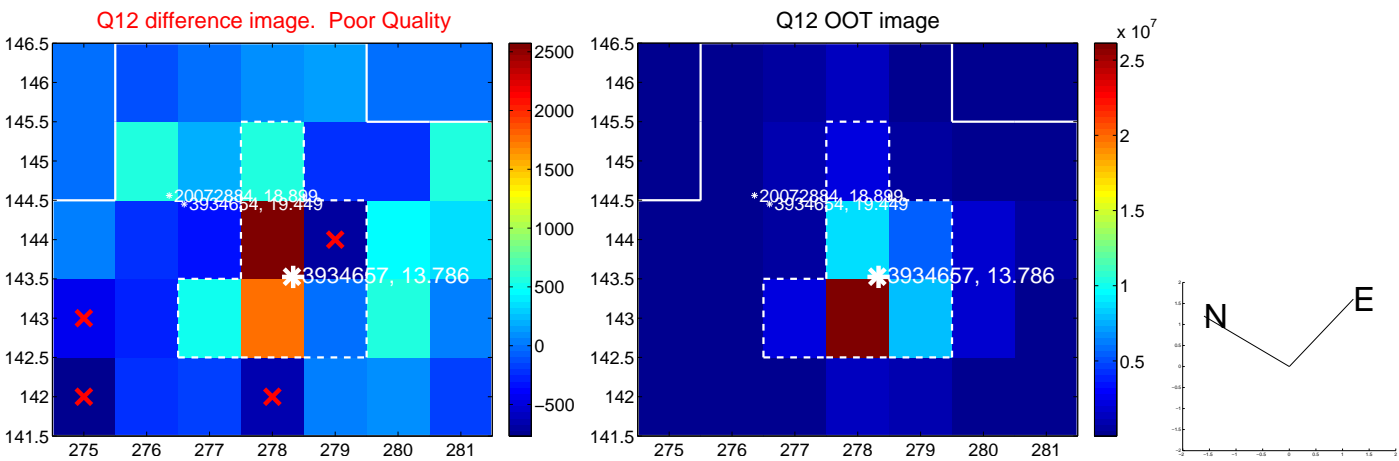
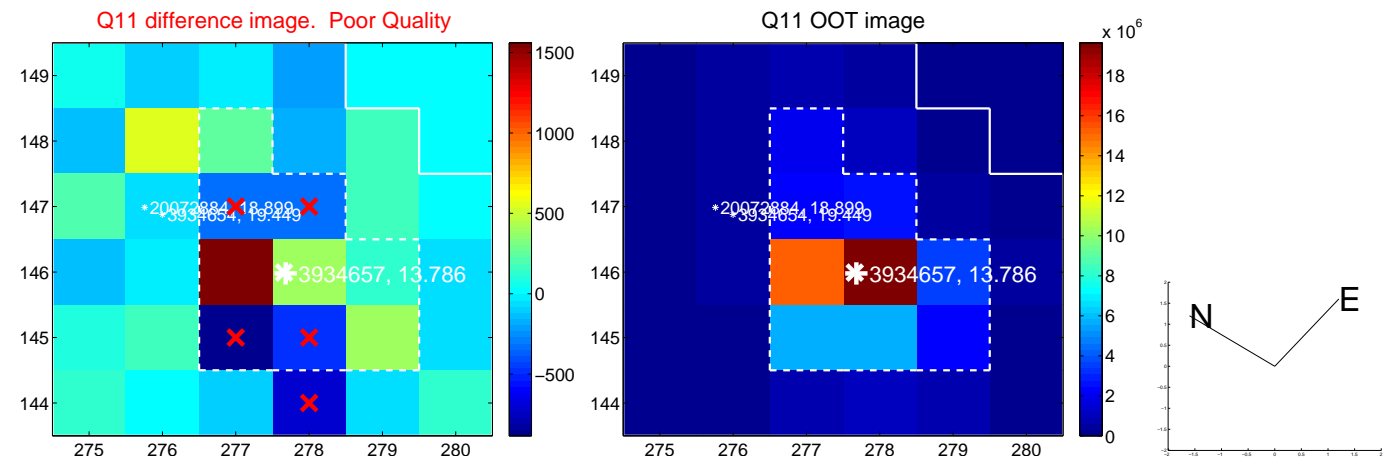
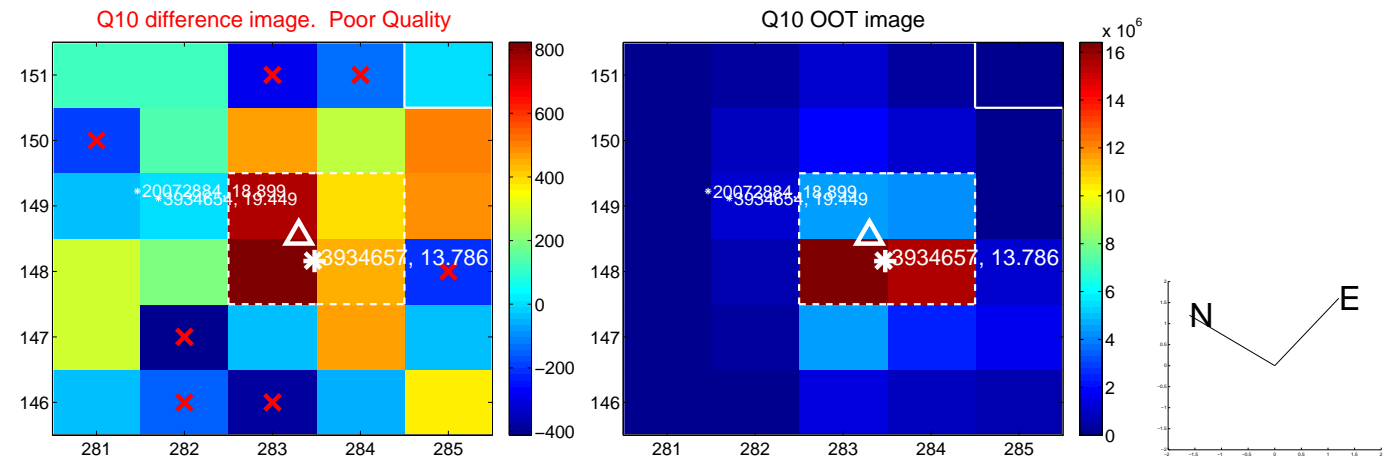
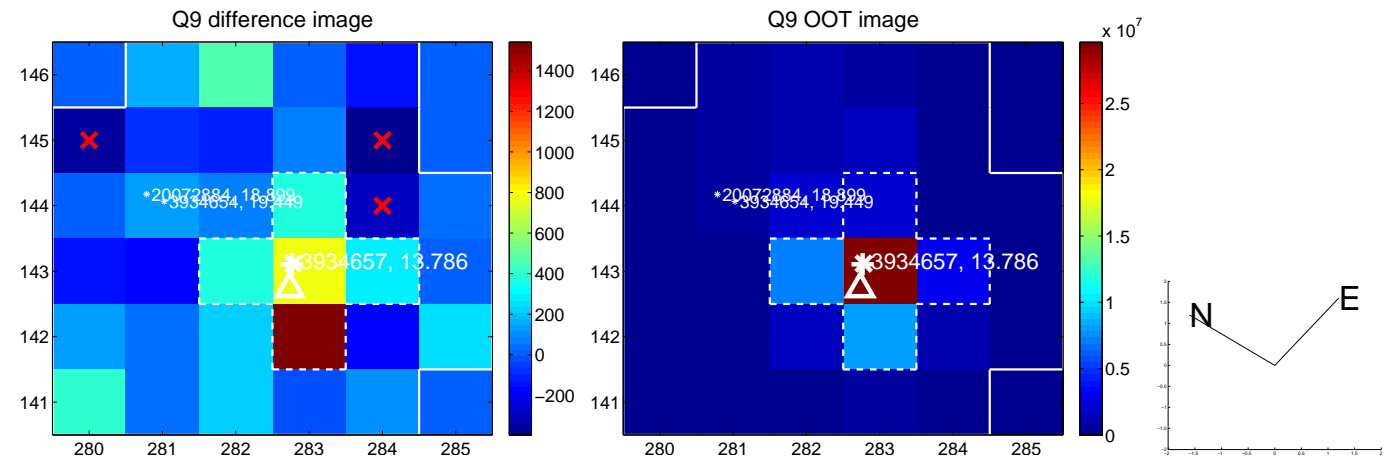
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



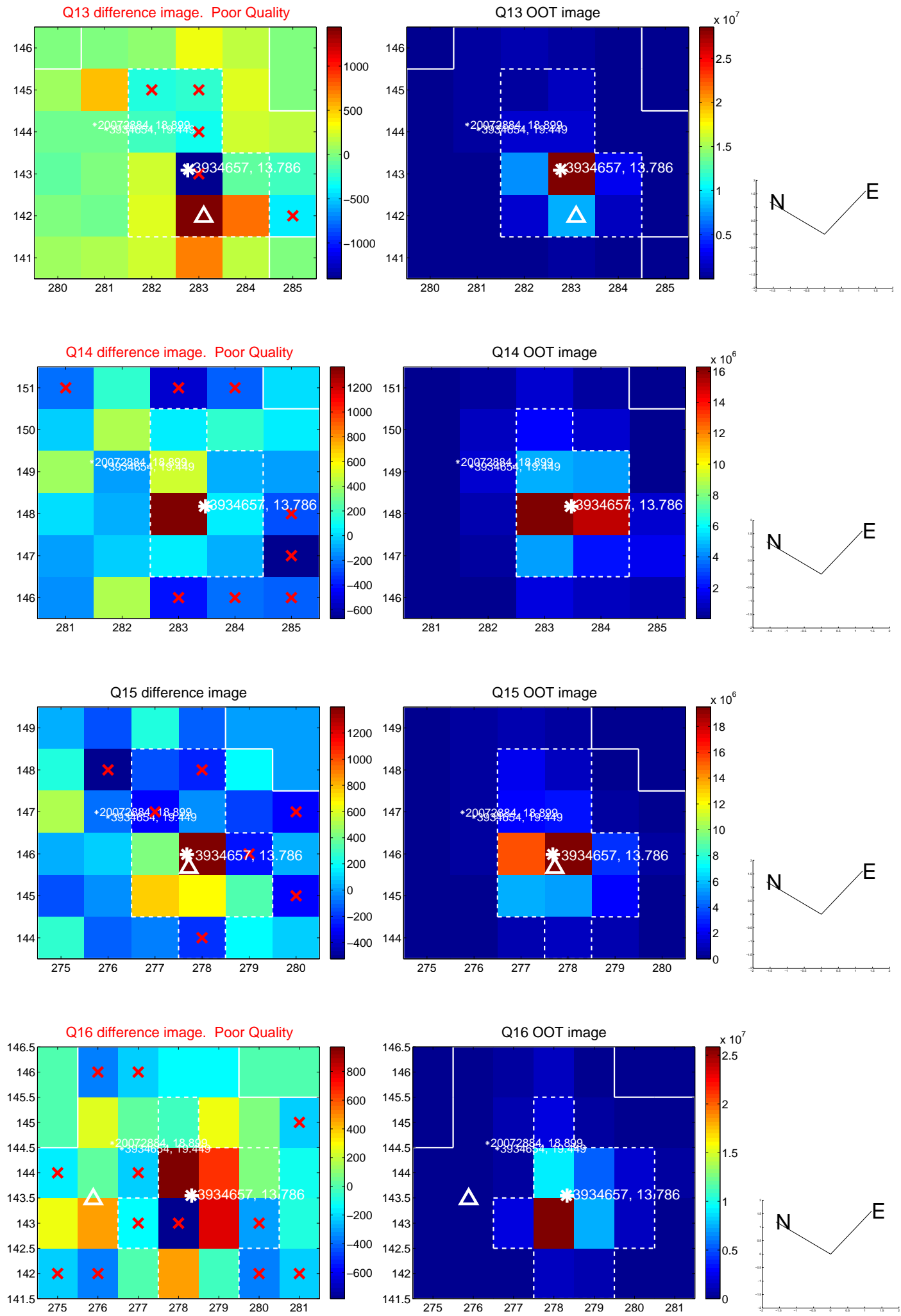
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



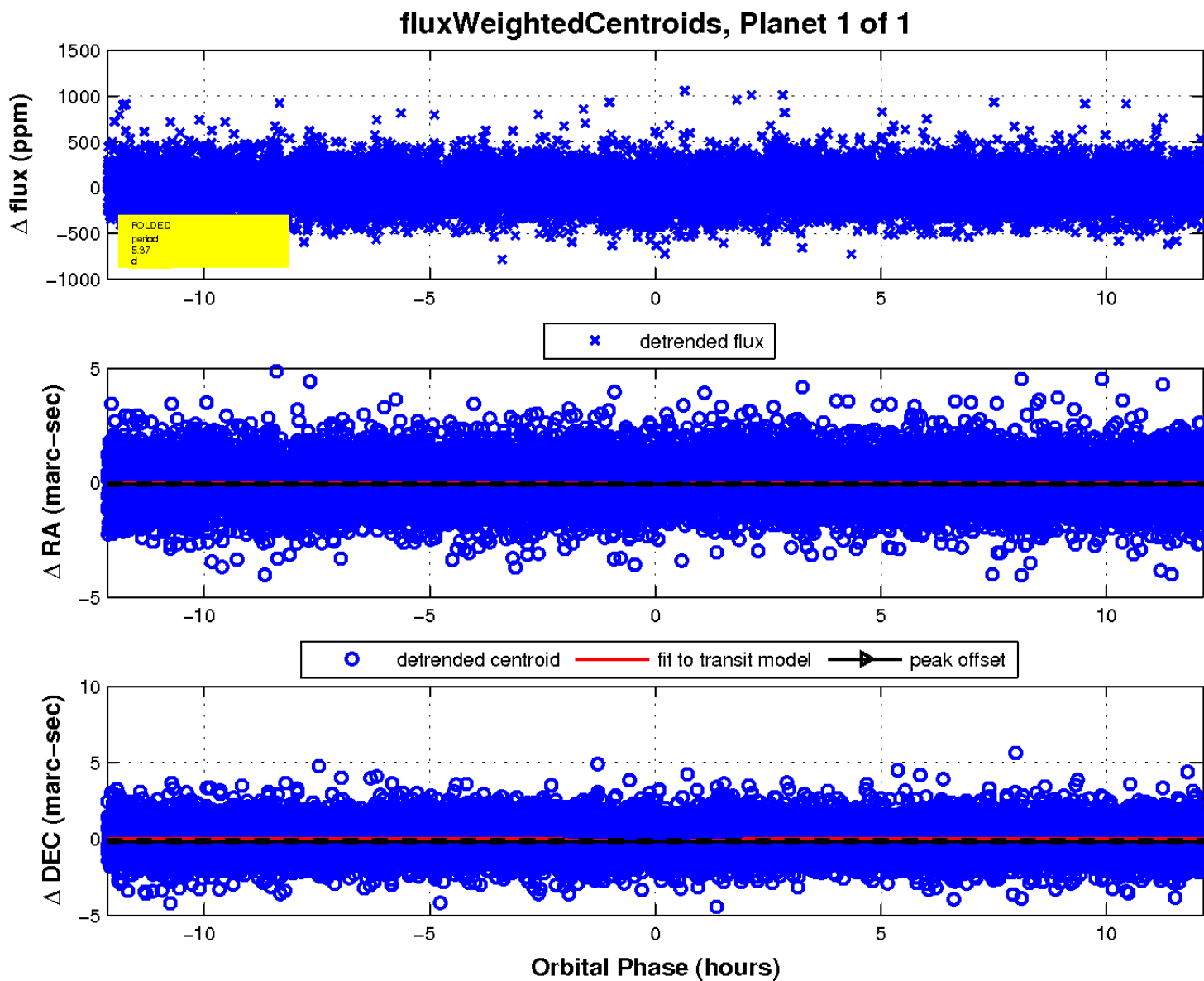
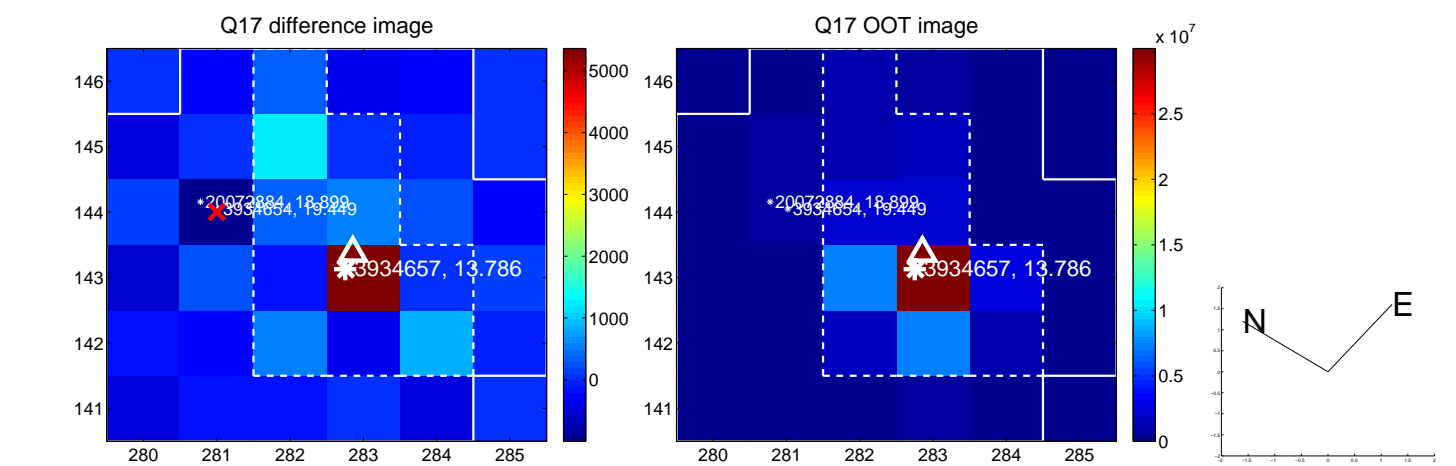
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

