

KIC 011569782

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})
011569782-01	OBS	2225.01	2.787861	133.907119	202.6	2.547	20.8	22.8	1.73	4827	3.58	997.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011569782-01	OBS	PC	1.00	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.

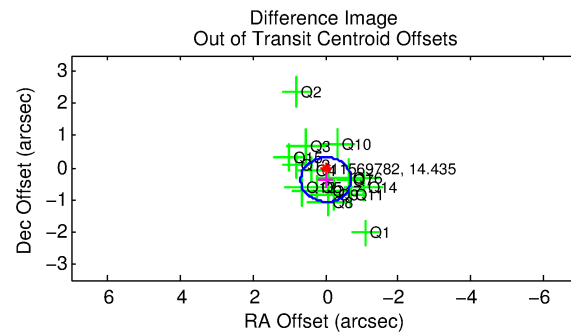
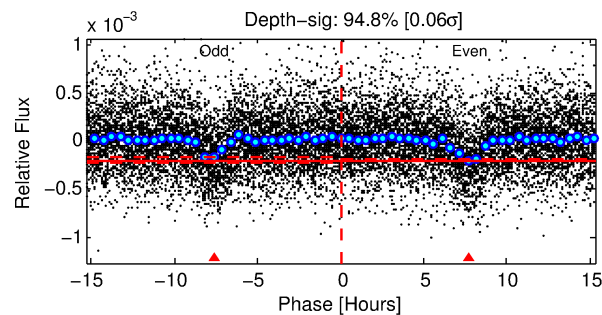
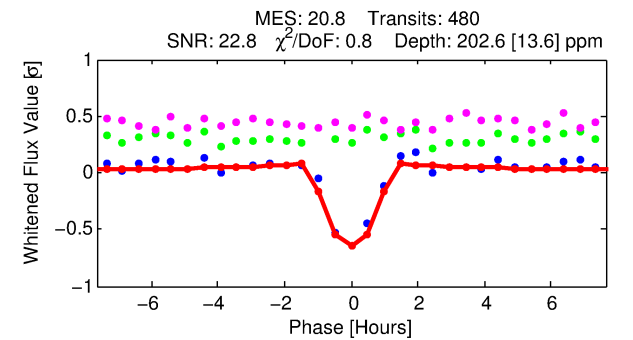
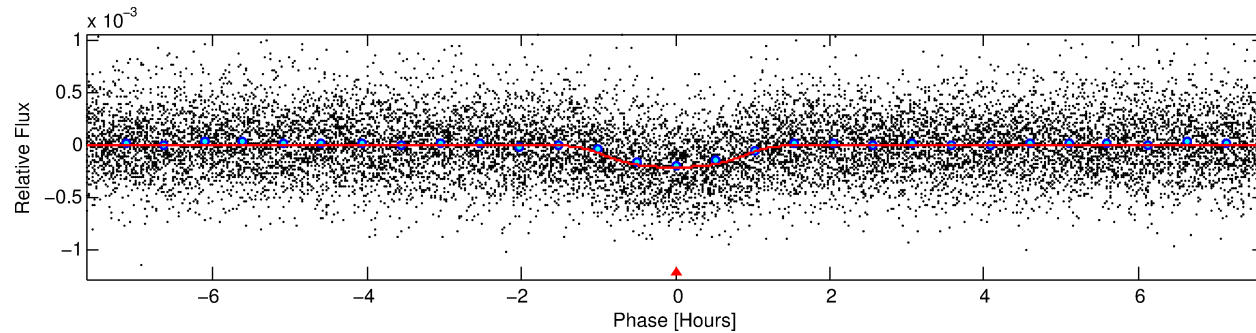
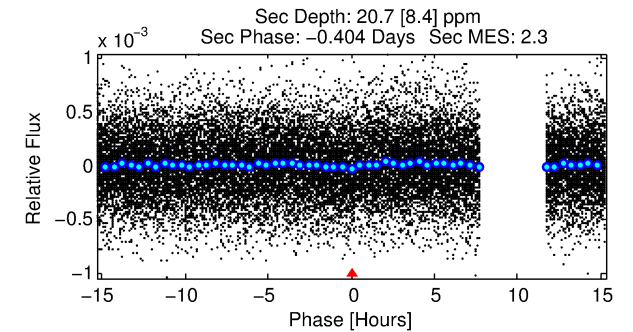
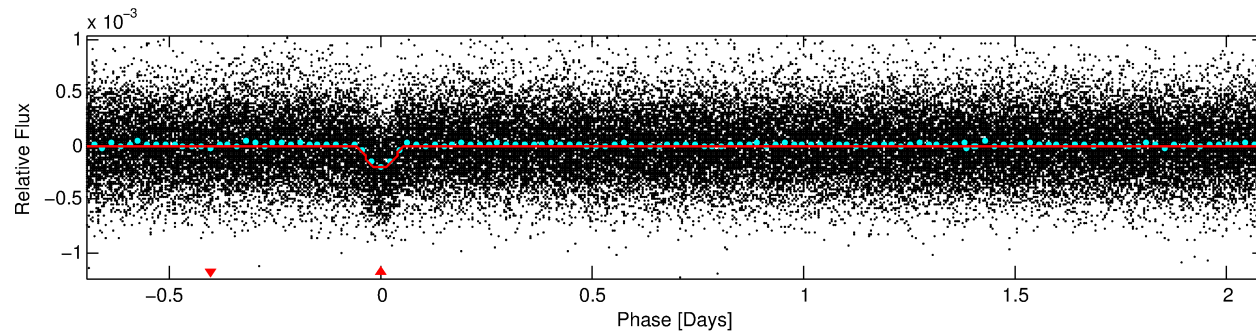
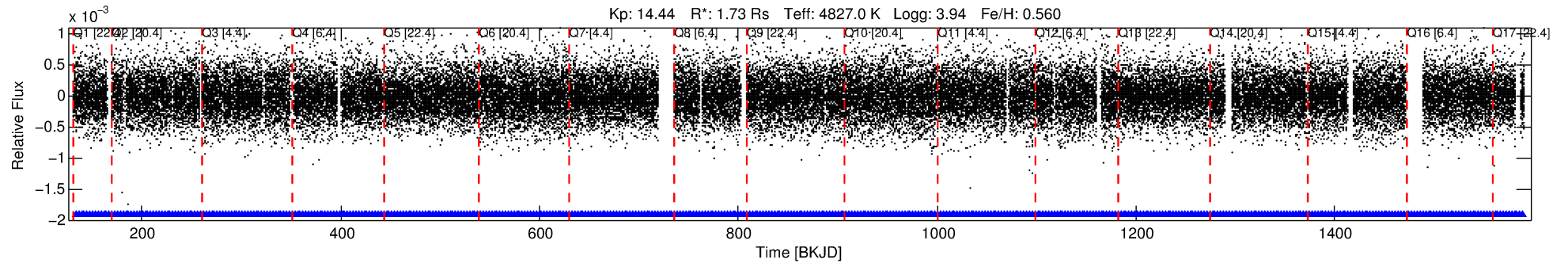
Ephemeris Match Information For 011569782-01

No Significant Match Found

DV One-Page Summary

KIC: 11569782 Candidate: 1 of 1 Period: 2.788 d

KOI: K02225.01 Corr: 0.892



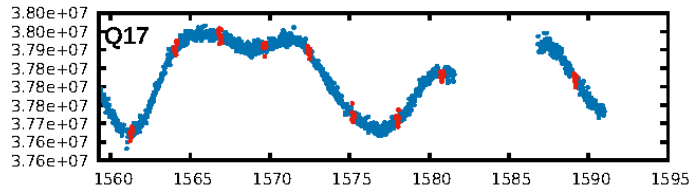
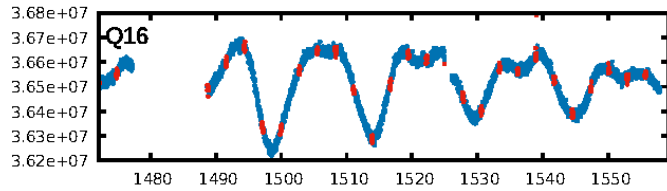
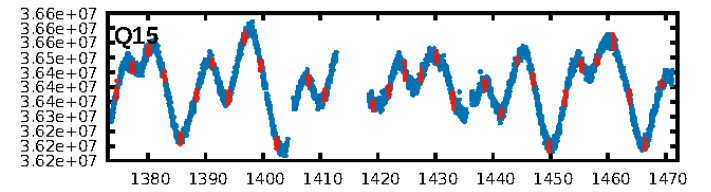
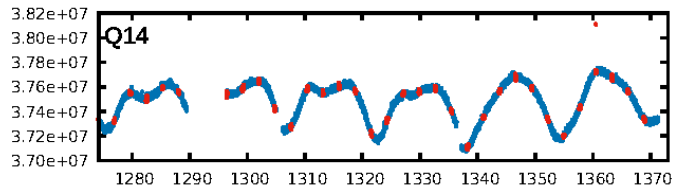
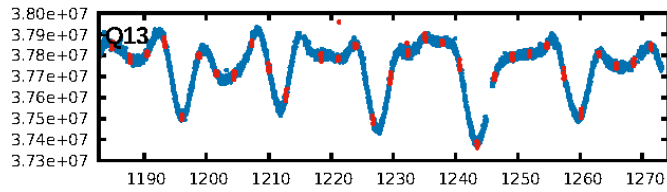
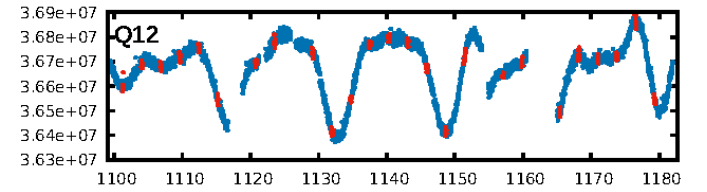
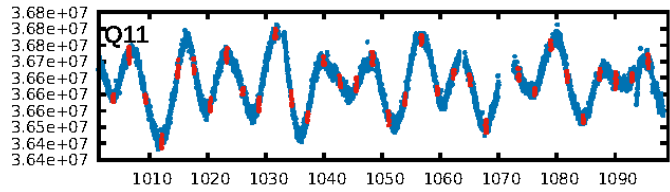
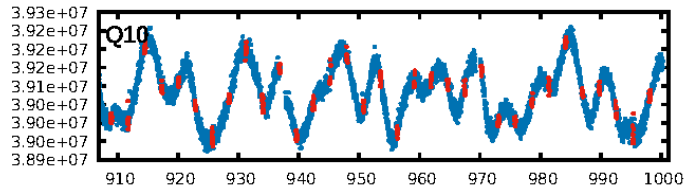
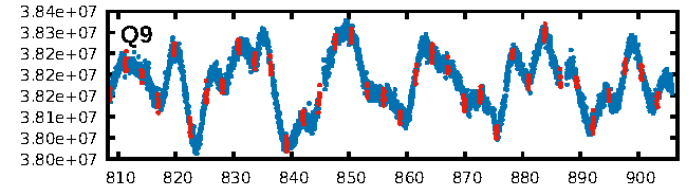
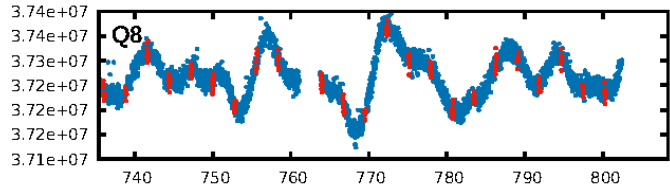
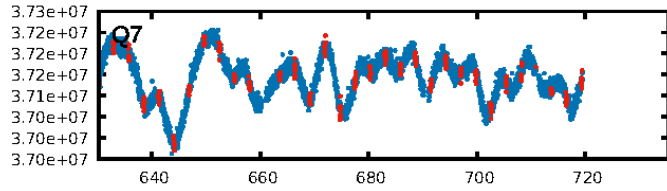
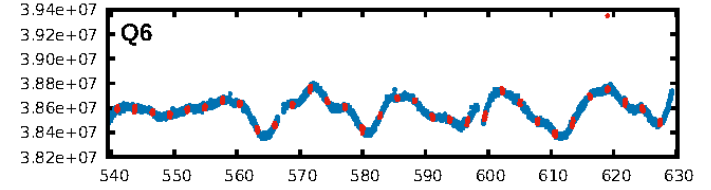
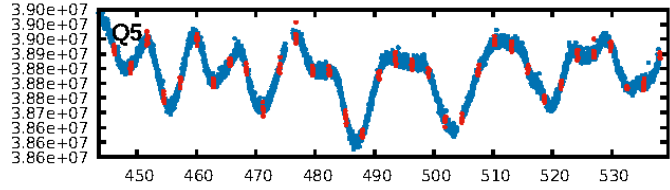
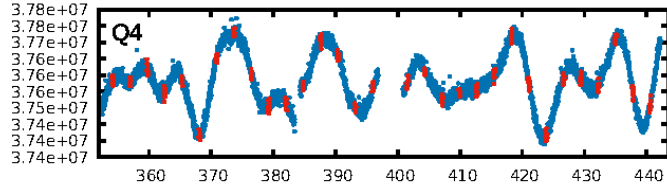
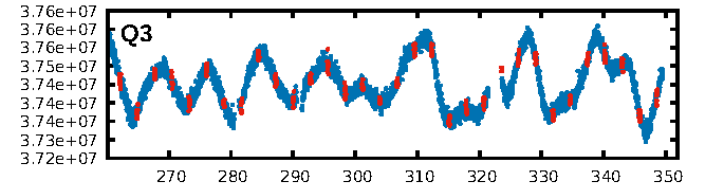
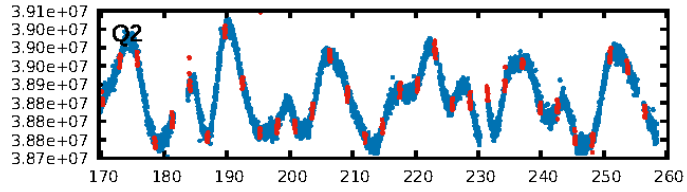
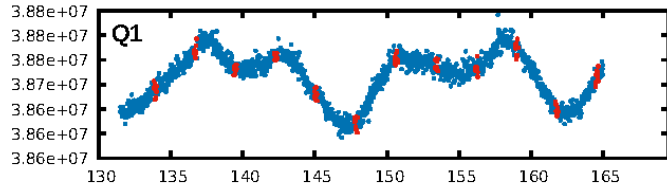
DV Fit Results:

Period = 2.78786 [0.00001] d
Epoch = 133.9071 [0.0017] BKJD
Rp/R* = 0.0190 [0.0010]
a/R* = 2.62 [0.28]
b = 0.98 [0.01]
Seff = 997.17 [1059.17]
Teq = 1433 [380] K
Rp = 3.58 [2.26] Re
a = 0.0381 [0.0244] AU
Ag = 1.29 [1.47] [0.20σ]
Teffp = 2362 [257] K [2.02σ]

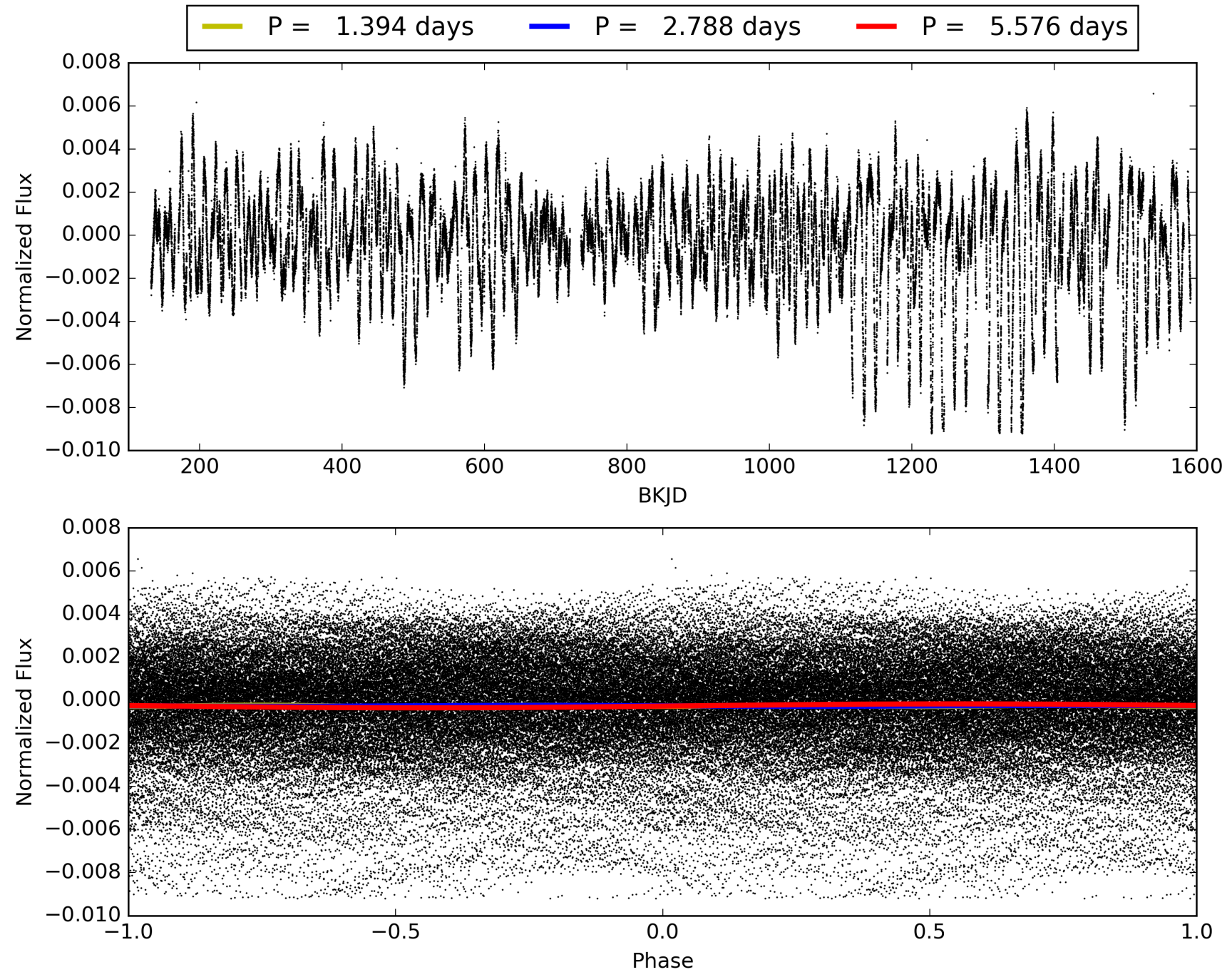
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.02e-92
RollingBand-fgt: 1.00 [459/459]
GhostDiagnostic-chr: 6.53
Centroid-sig: 0.4%
Centroid-so: 1.177 arcsec [2.24σ]
OotOffset-rm: 0.377 arcsec [1.64σ]
KicOffset-rm: 0.219 arcsec [1.04σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011569782-01, PDC Light Curves

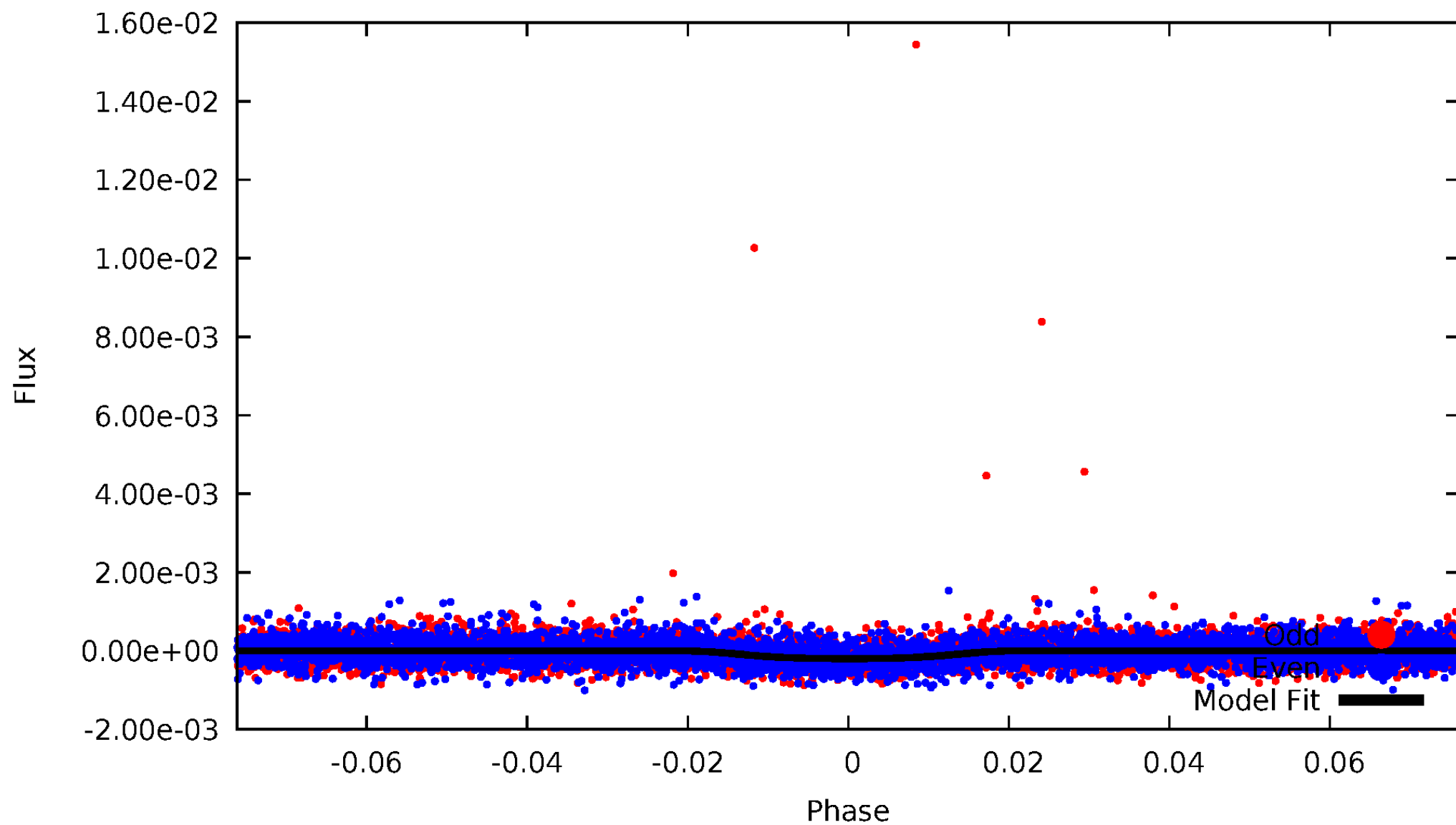


TCE 011569782-01



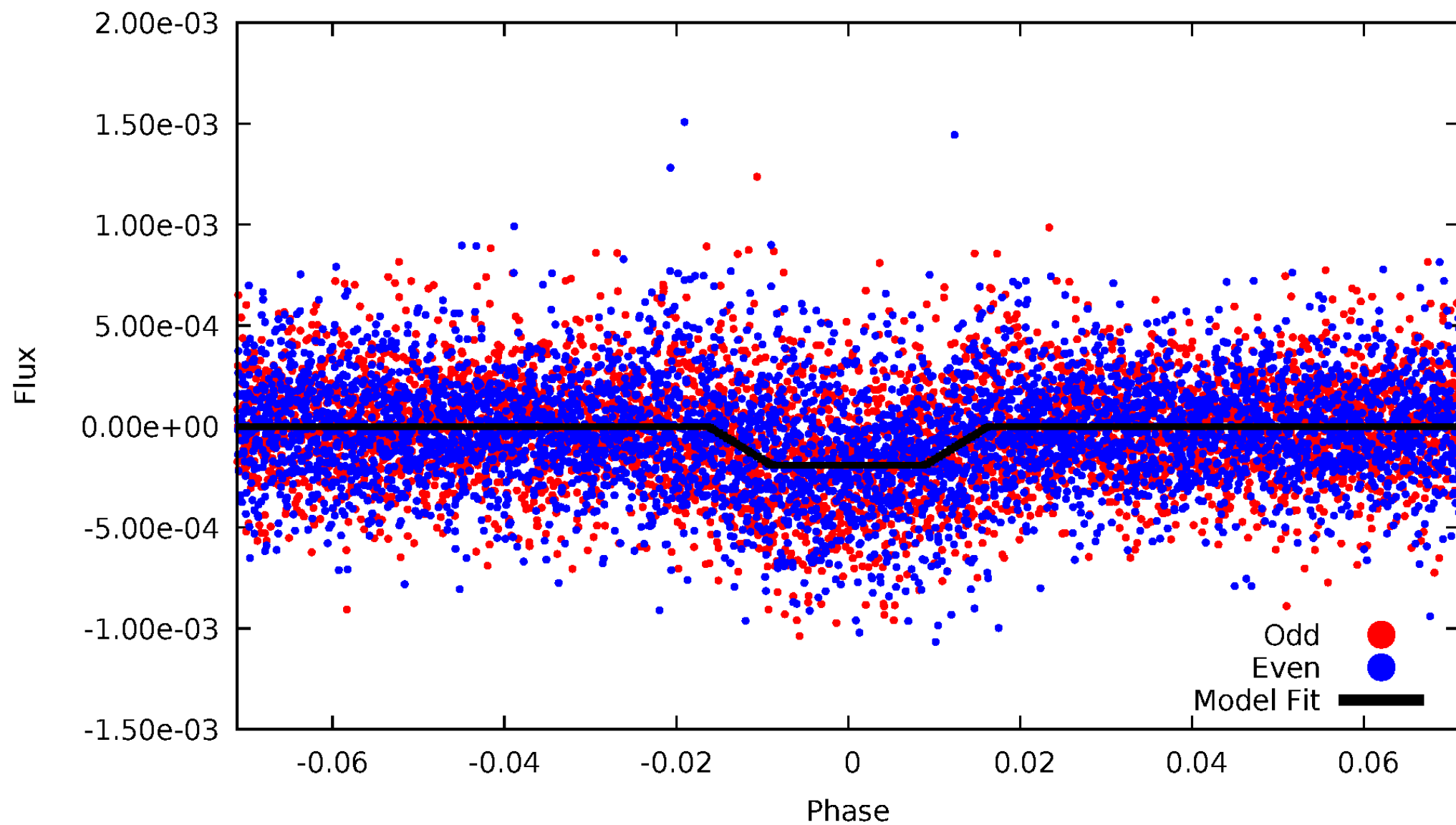
DV Odd/Even

TCE 011569782-01

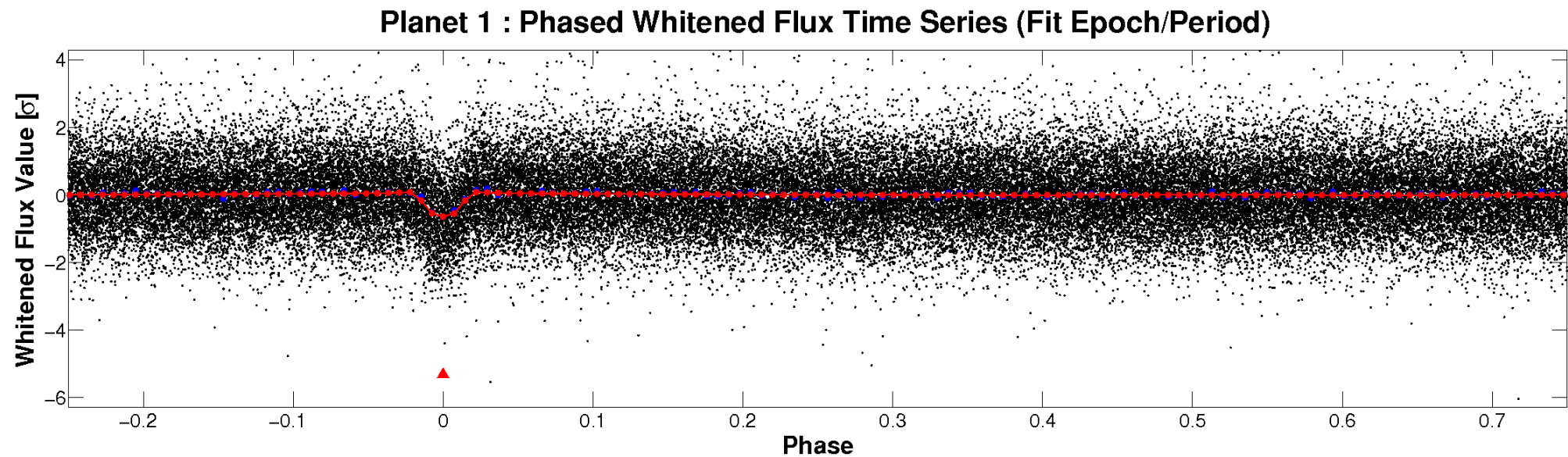
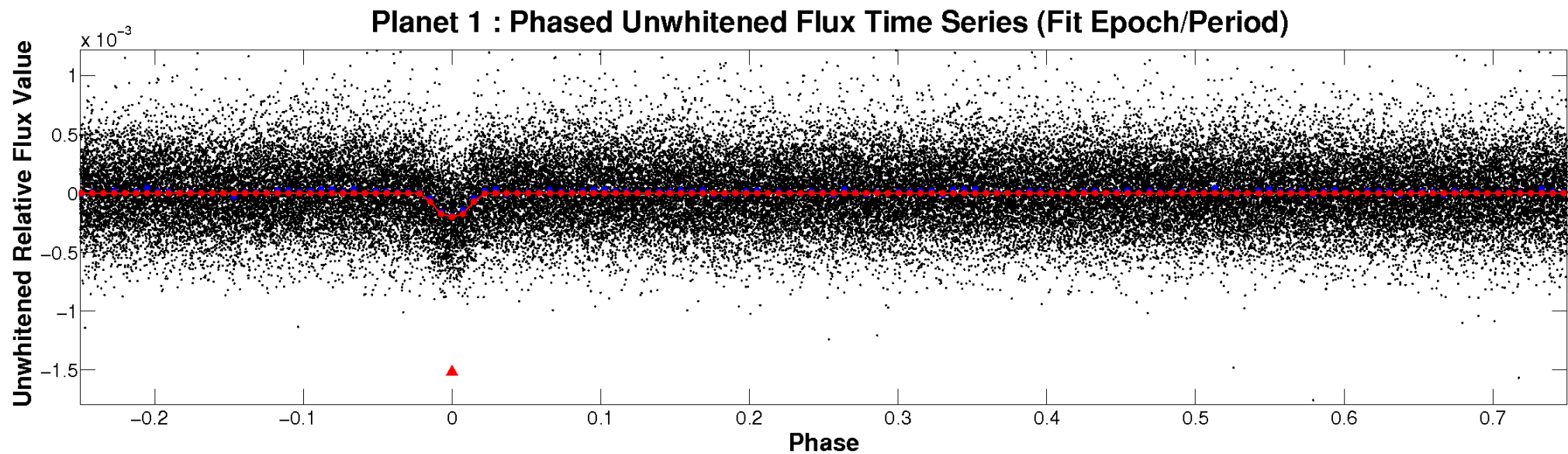


ALT Odd/Even

TCE 011569782-01

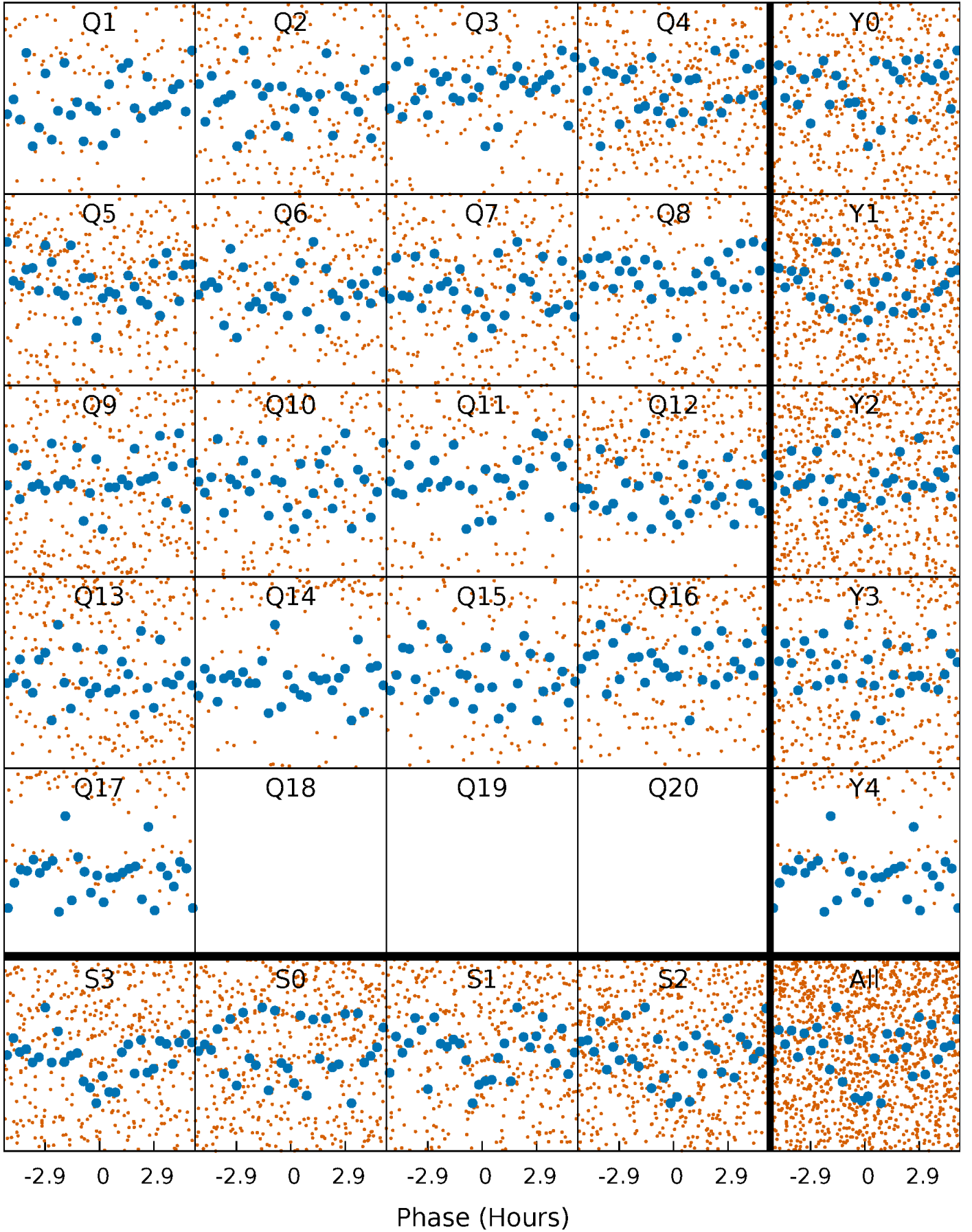


Non-Whitened Vs. Whitened Light Curve



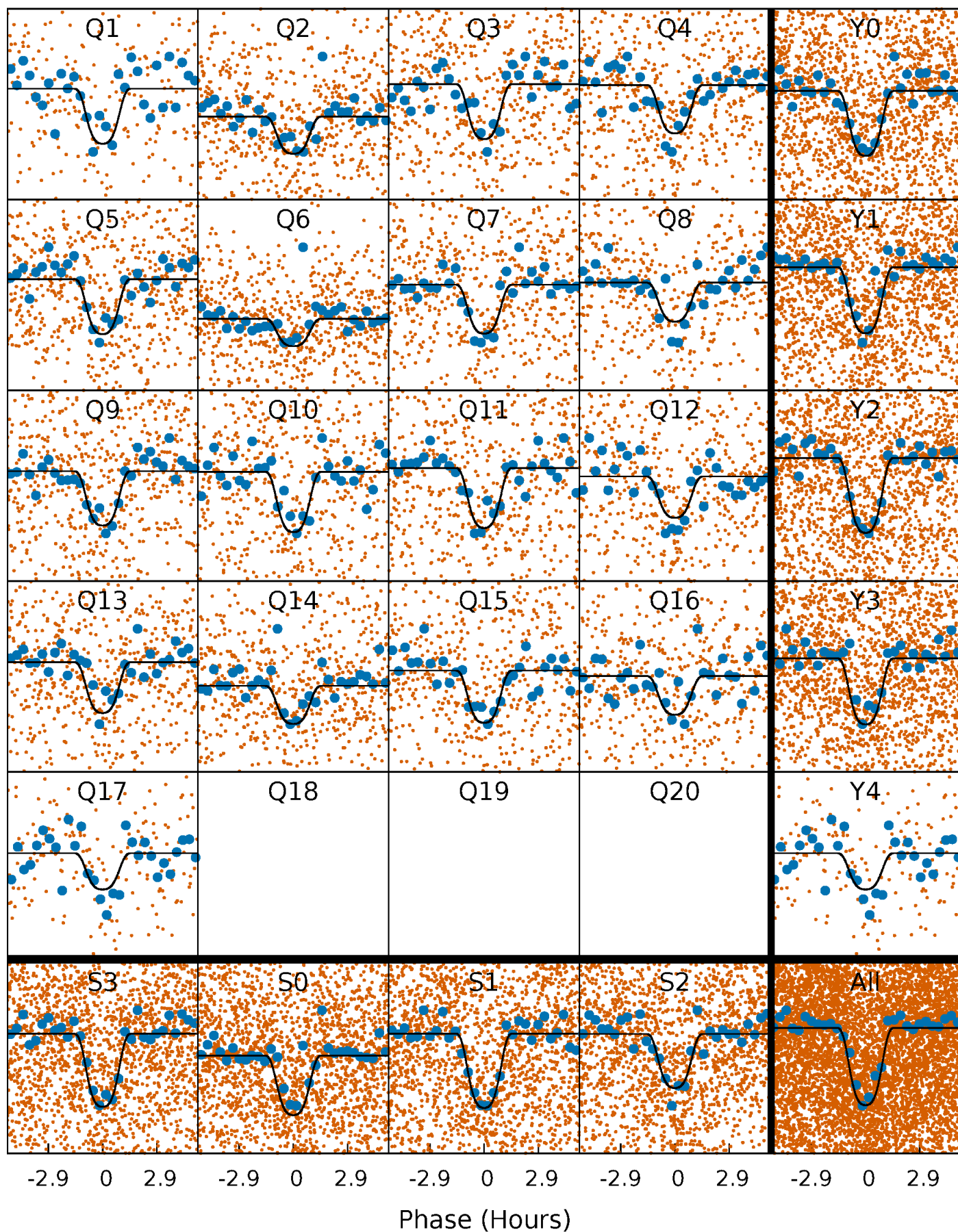
PDC Quarter-Phased Transit Curves

TCE 011569782-01 P= 2.787861 Days $T_0=133.907119$ (BKJD)



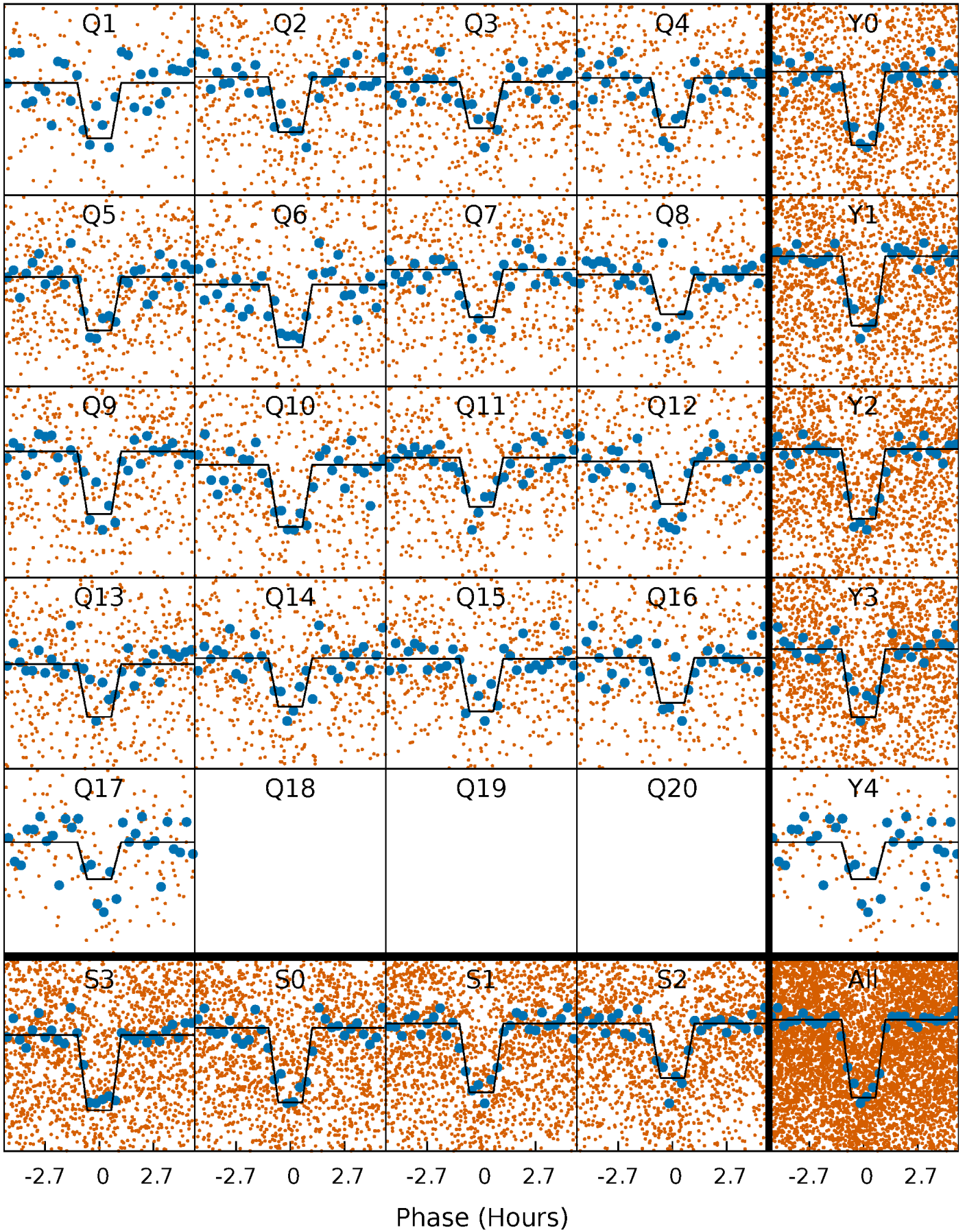
DV Quarter-Phased Transit Curves

TCE 011569782-01 P= 2.787861 Days $T_0=133.907119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

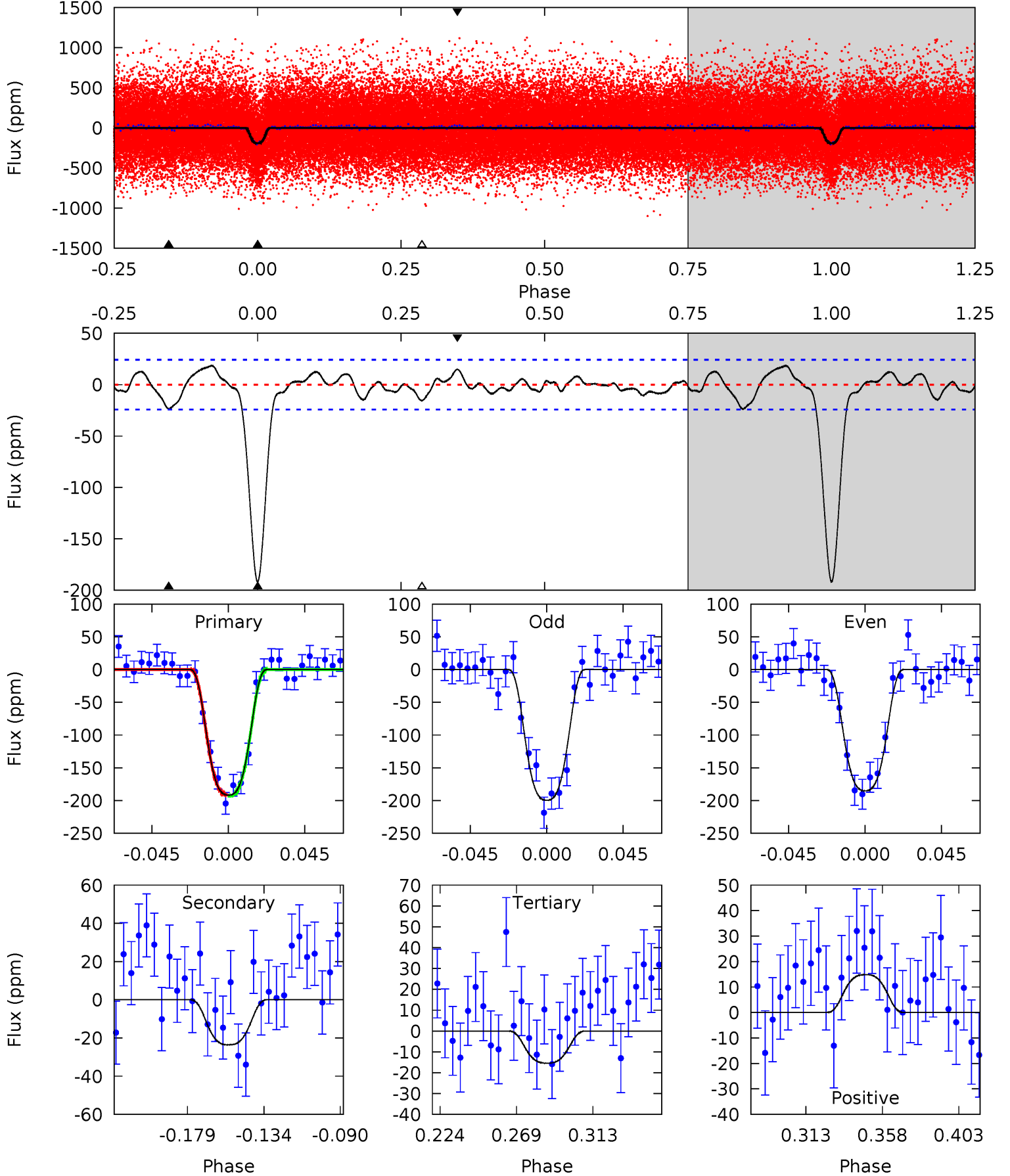
TCE 011569782-01 P= 2.787861 Days $T_0=133.907680$ (BKJD)



DV Model-Shift Uniqueness Test

011569782-01, P = 2.787861 Days, E = 131.119258 Days

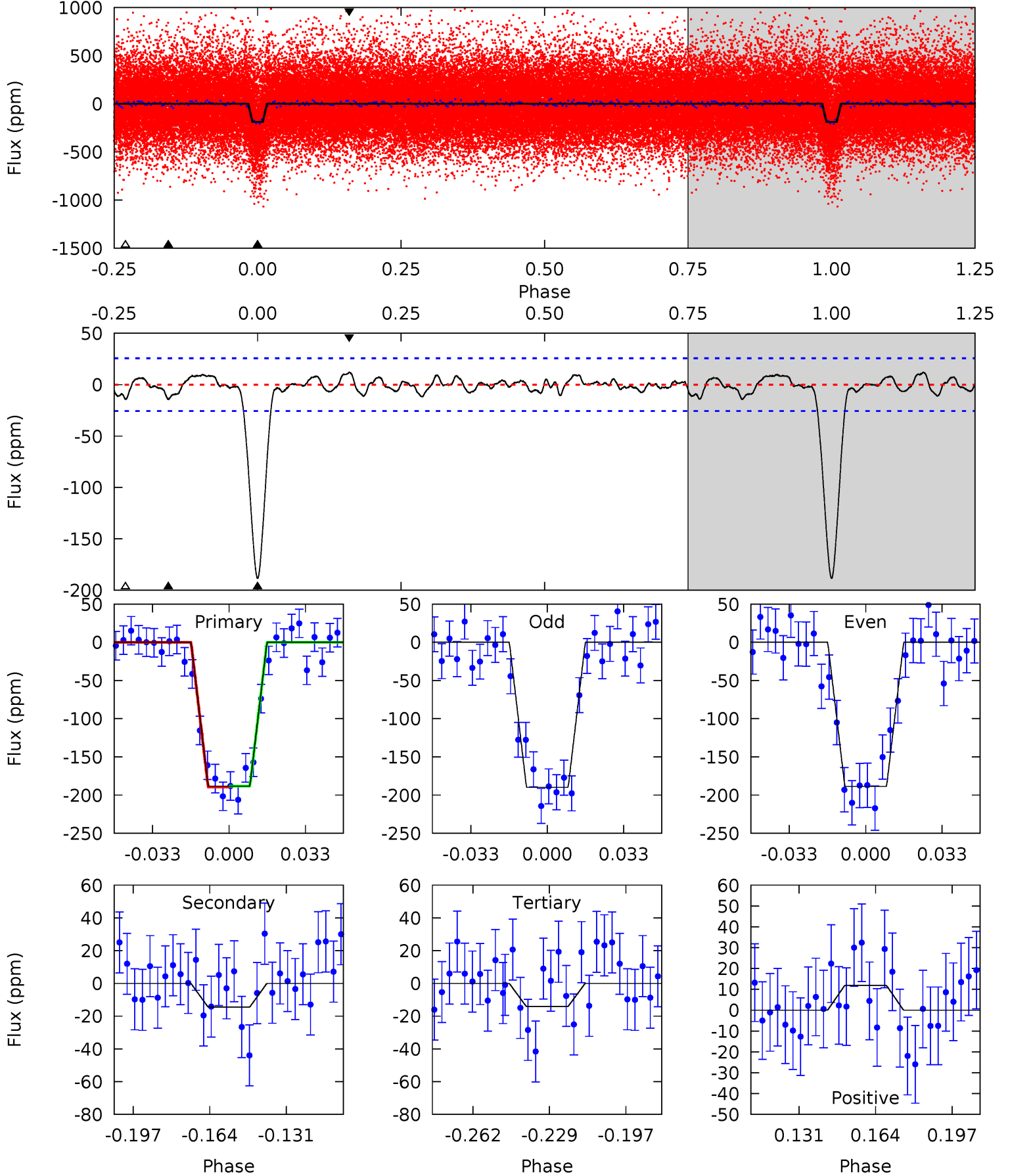
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.5	4.61	3.02	2.91	4.73	2.01	1.36	34.5	34.6	1.60	1.71	1.41	0.90	0.09	0.15



Alt Model-Shift Uniqueness Test

011569782-01, P = 2.787861 Days, E = 131.119819 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.3	2.71	2.65	2.22	4.79	2.14	0.97	32.6	33.1	0.06	0.48	0.11	0.99	0.06	0.11



Stellar Parameters For KIC 011569782

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4827^{+144}_{-129}	$3.942^{+0.631}_{-0.340}$	$0.560^{+0.050}_{-0.300}$	$1.727^{+1.086}_{-0.987}$	$0.952^{+0.197}_{-0.144}$	$0.260^{+2.518}_{-0.168}$
	+3%/-3%	+16%/-9%	+9%/-54%	+63%/-57%	+21%/-15%	+967%/-64%
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 011569782-01 / KOI 2225.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 5	$3.44^{+1.22}_{-1.02}$	1965^{+318}_{-320}	2936^{+143}_{-179}	$1.572^{+1.656}_{-0.753}$
Alt.	-14 ± 5	$2.54^{+0.95}_{-0.75}$	1978^{+315}_{-321}	3014^{+192}_{-283}	$1.750^{+2.068}_{-0.928}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

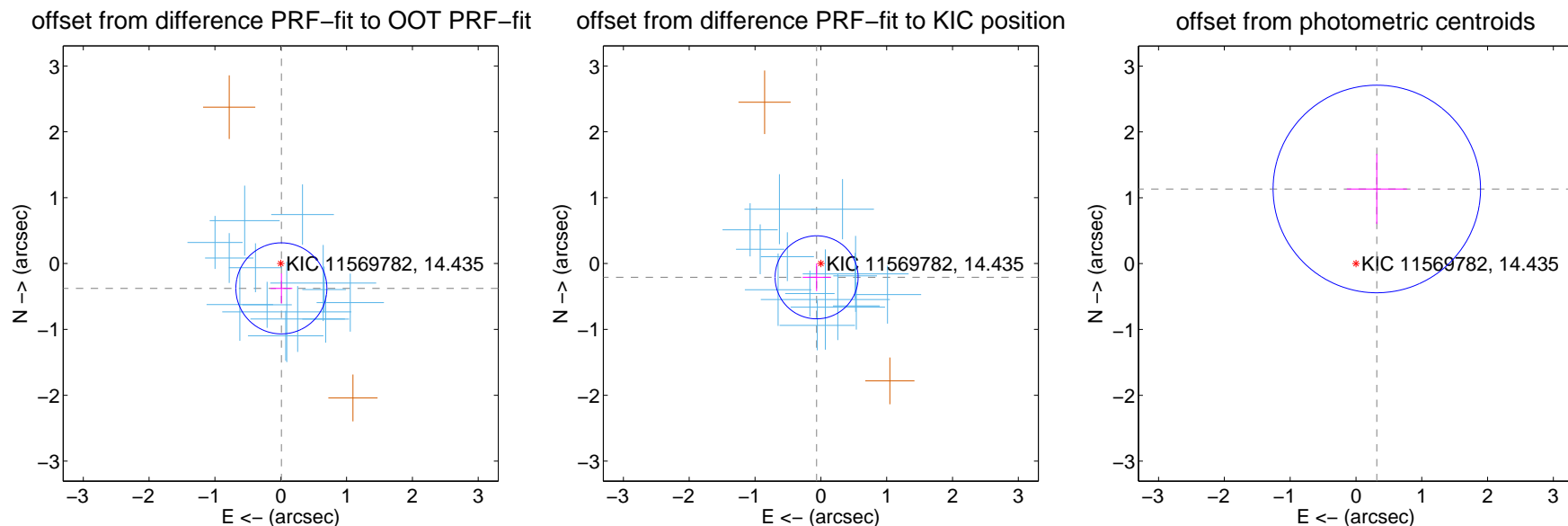
DV Centroid Data

Supplemental centroid analysis for 011569782-01. Kepler magnitude: 14.44. Transit SNR 22.77

There are 14 quarters with good PRF difference image offsets

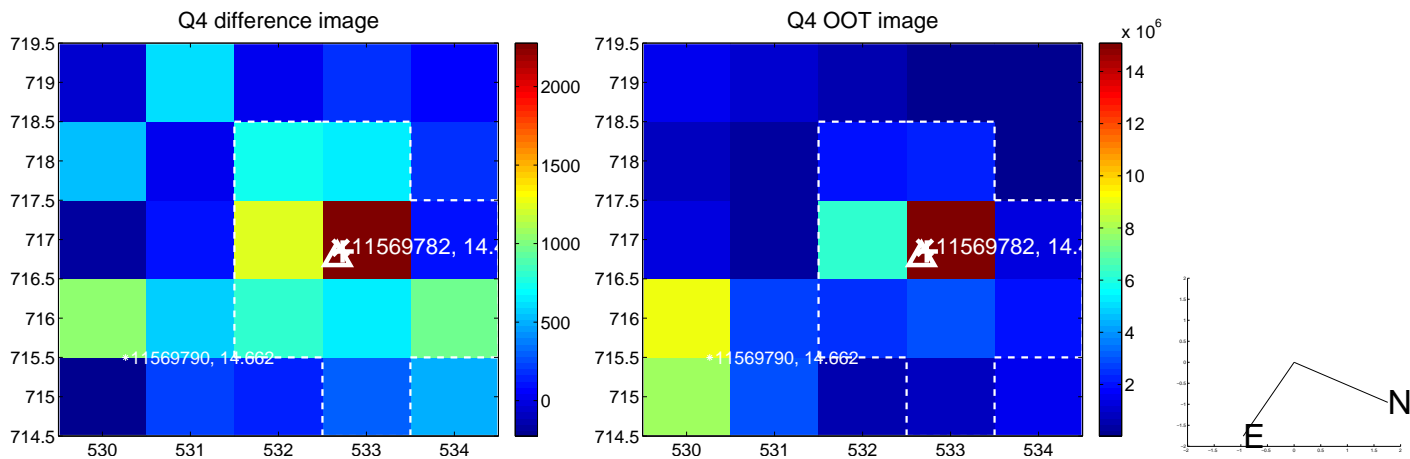
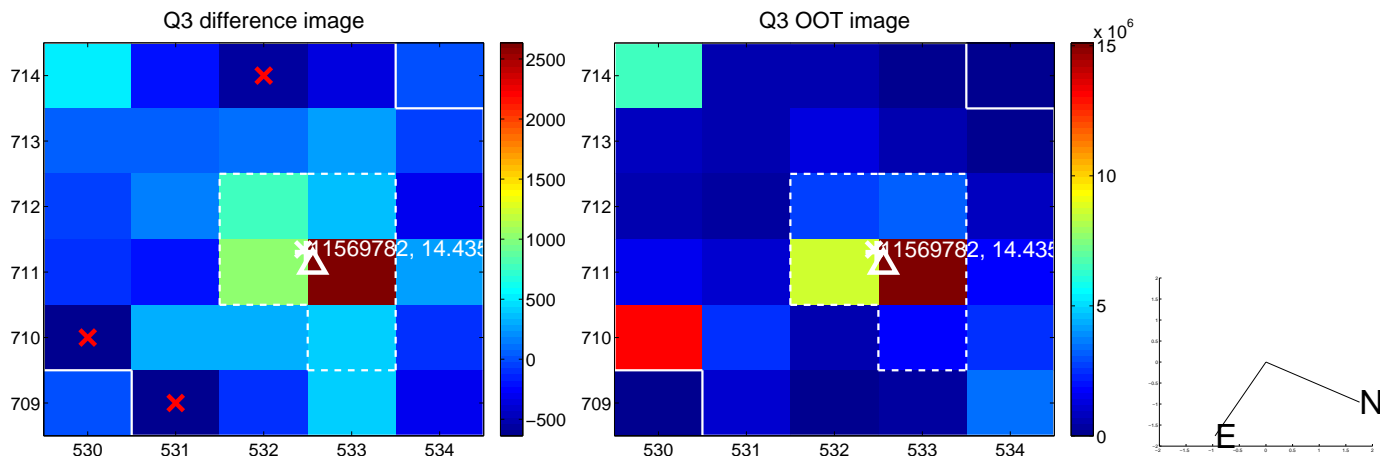
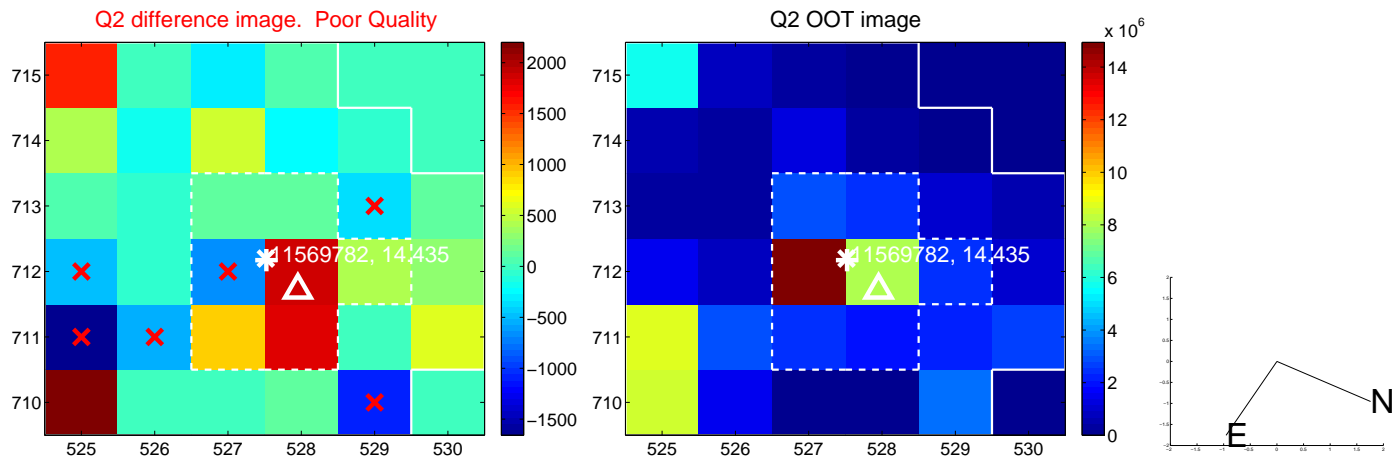
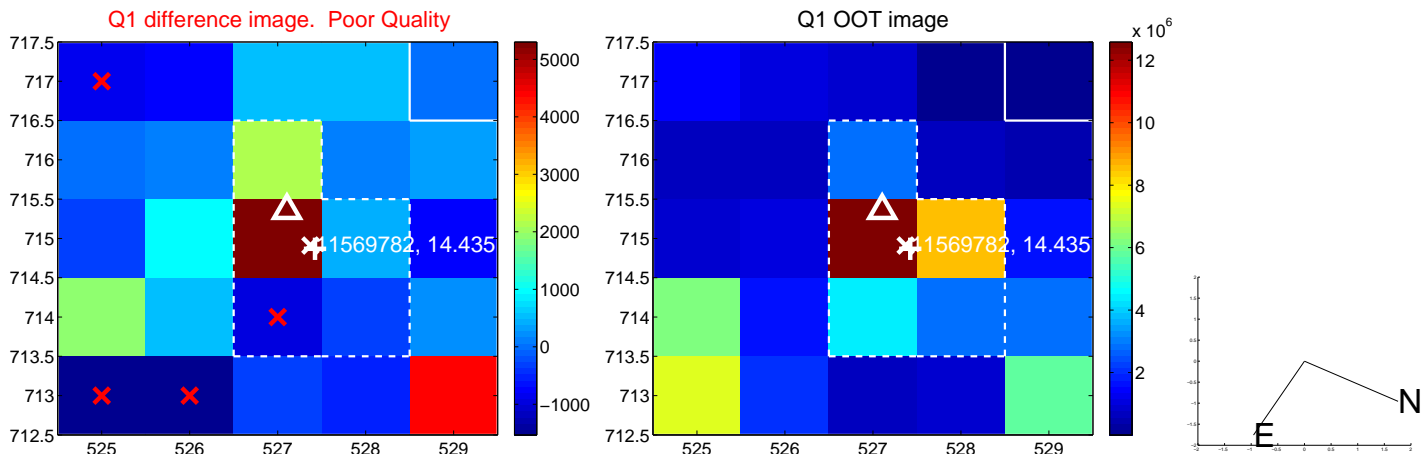
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.377 ± 0.230	1.64	-0.009 ± 0.166	-0.377 ± 0.228
PRF-fit source offset from KIC position	0.219 ± 0.210	1.04	0.065 ± 0.214	-0.209 ± 0.210
photometric centroid source offset	1.18 ± 0.53	2.24	-0.32 ± 0.46	1.13 ± 0.53

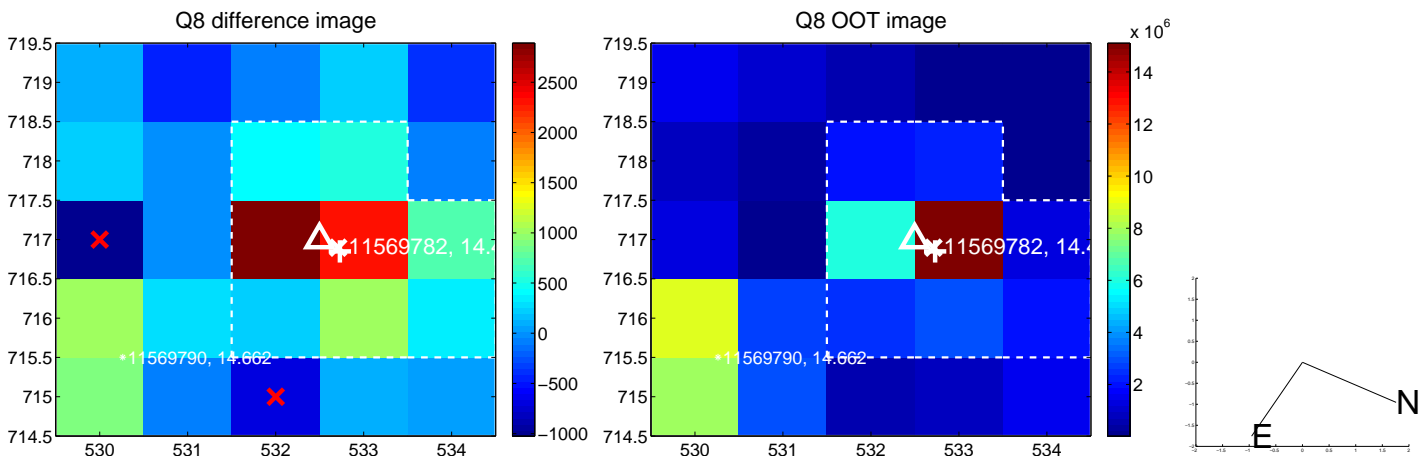
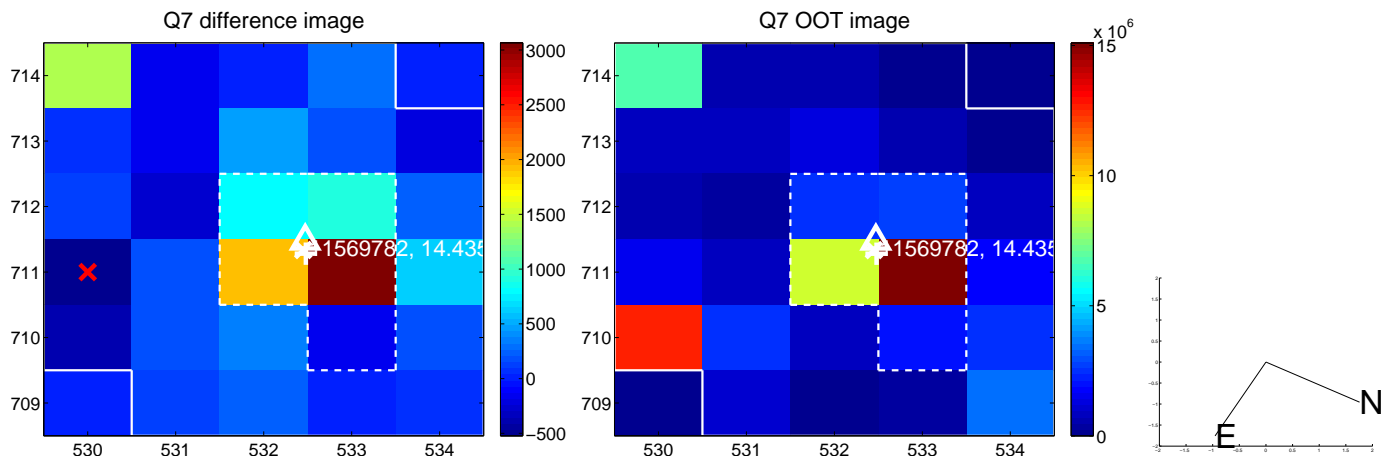
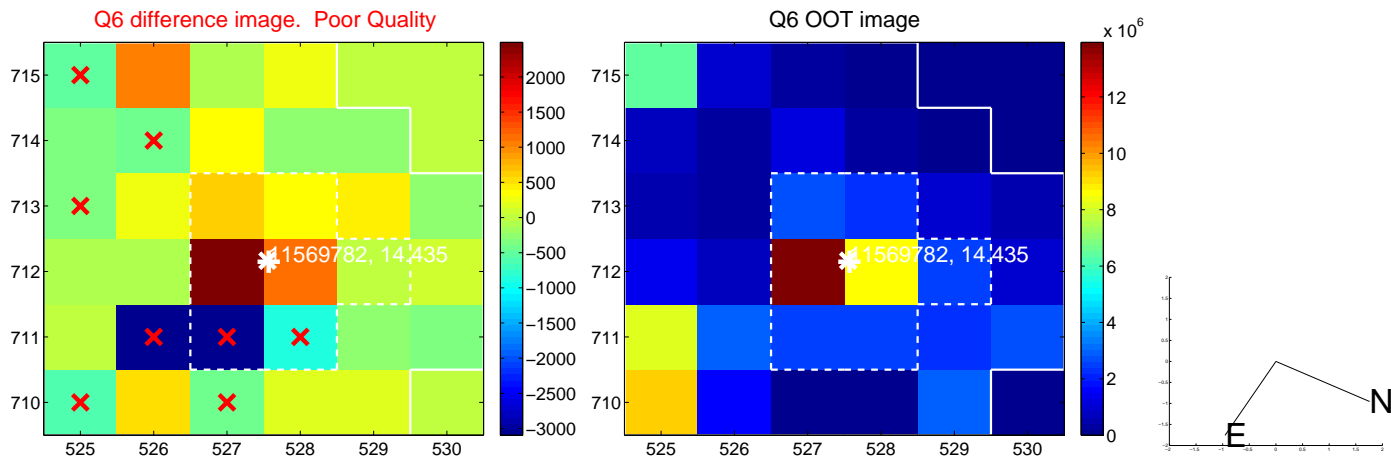
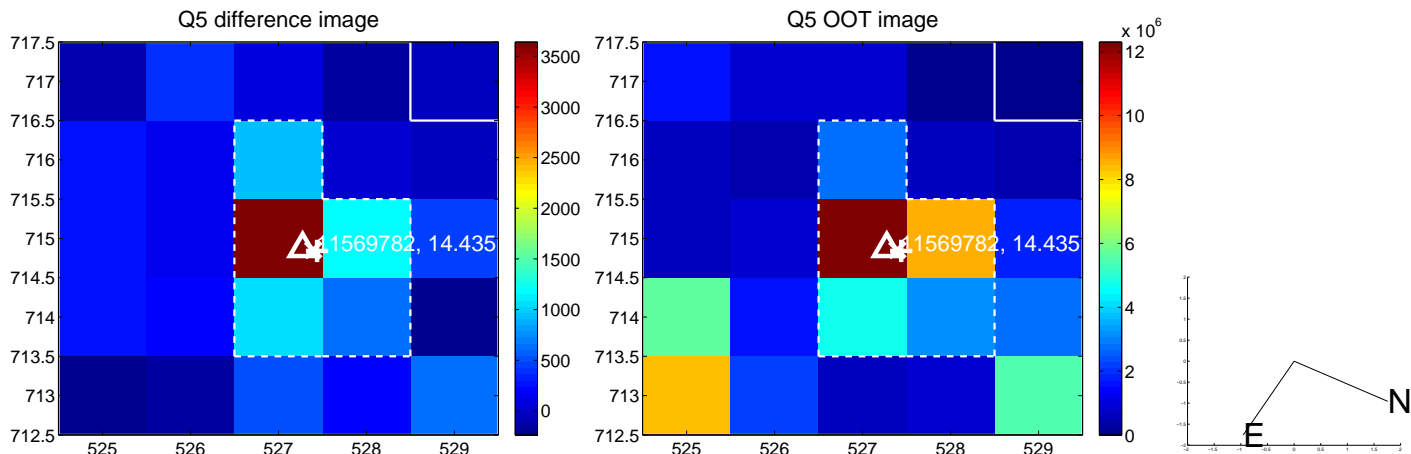


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

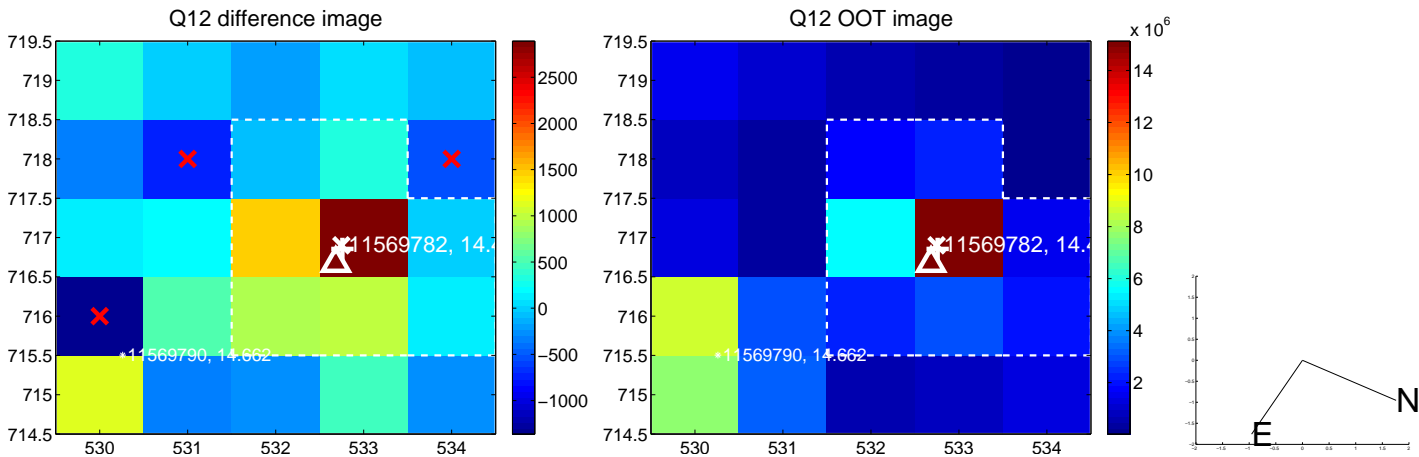
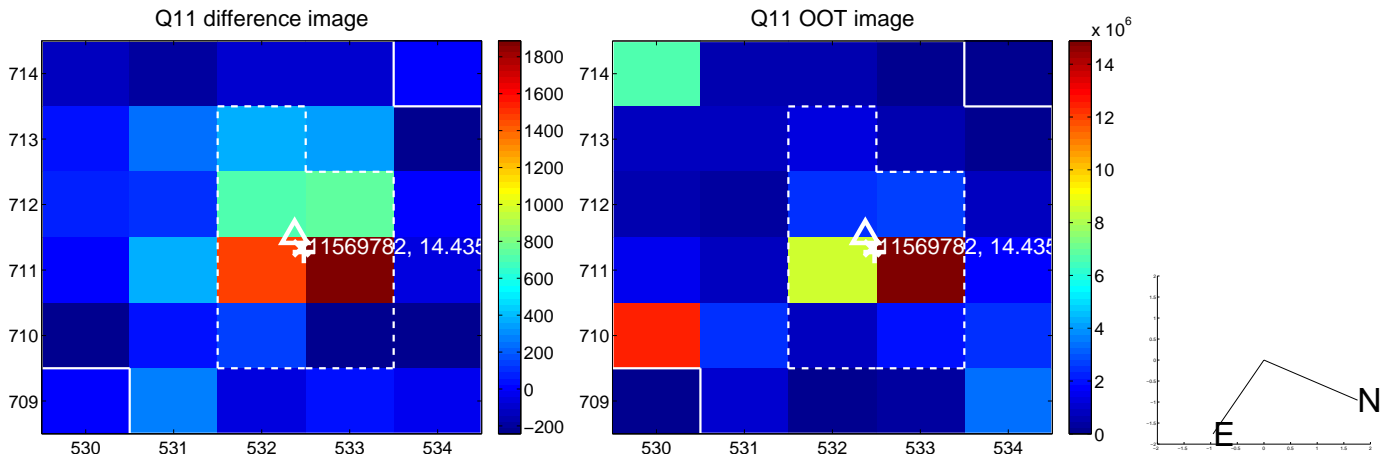
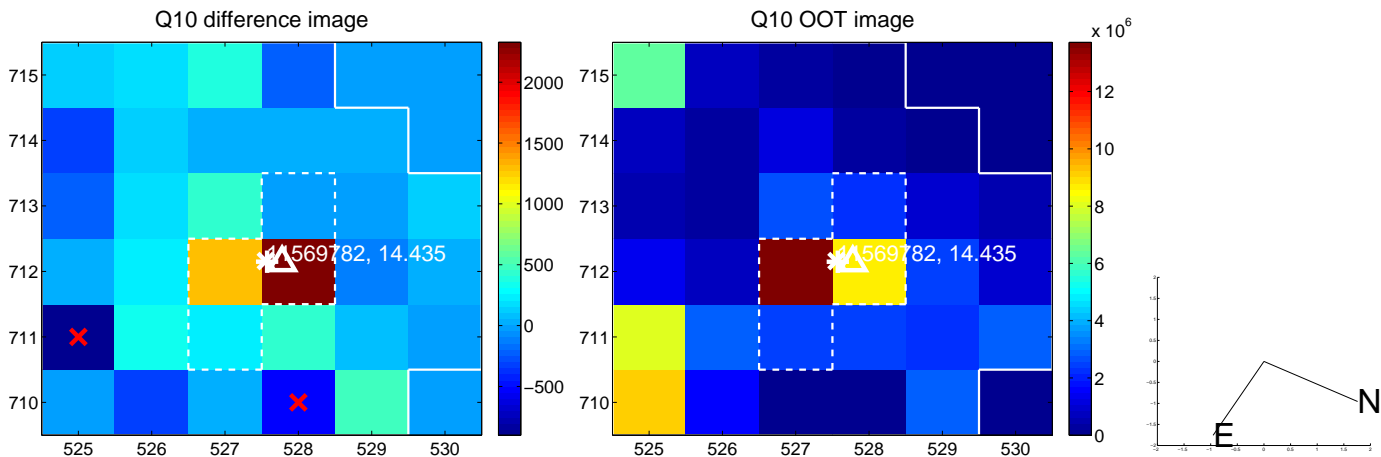
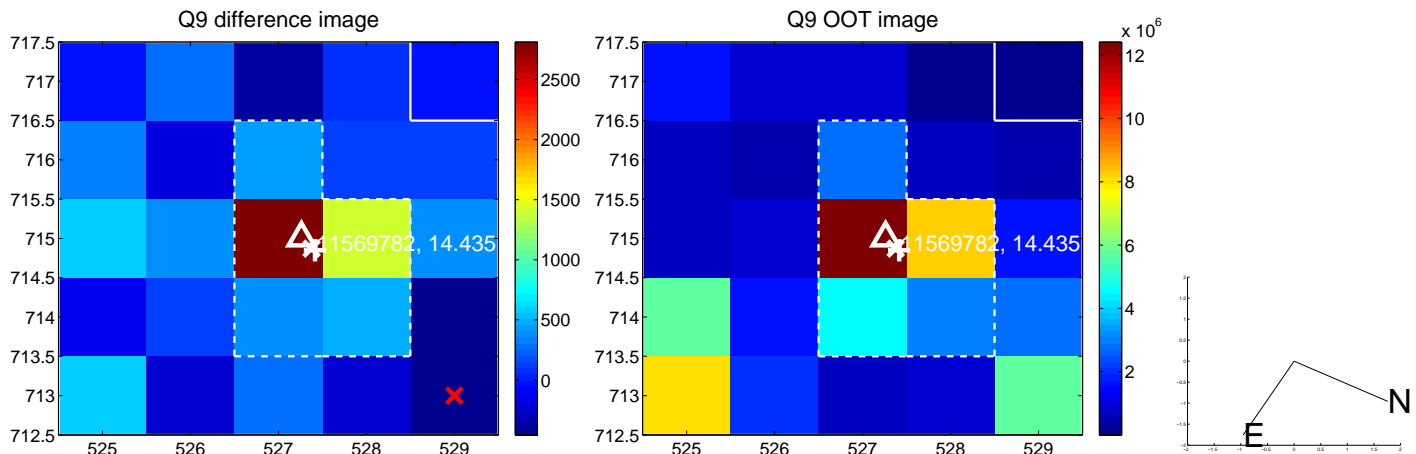
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



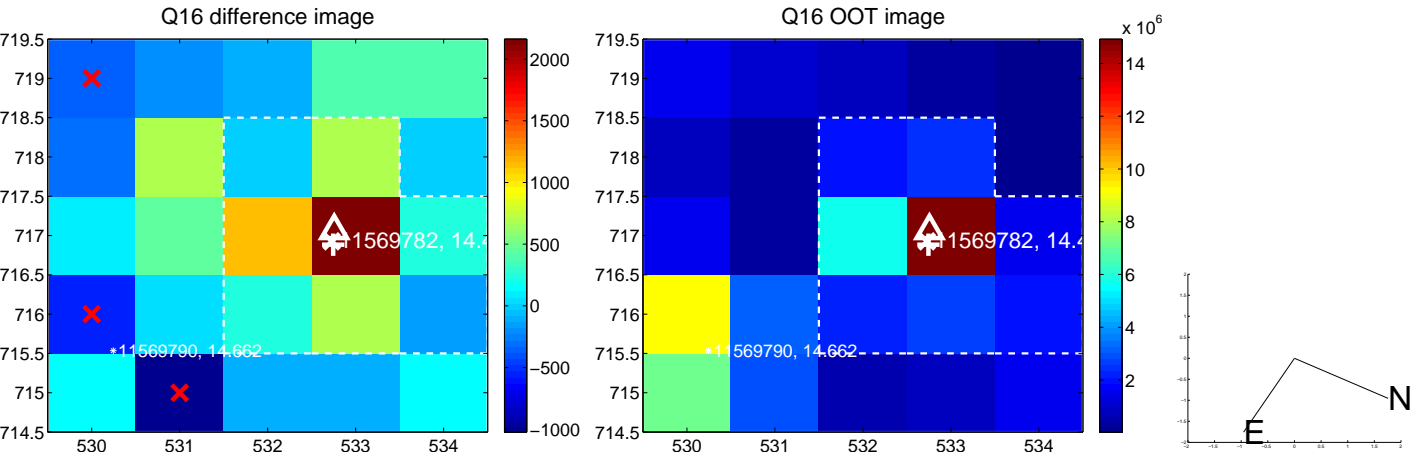
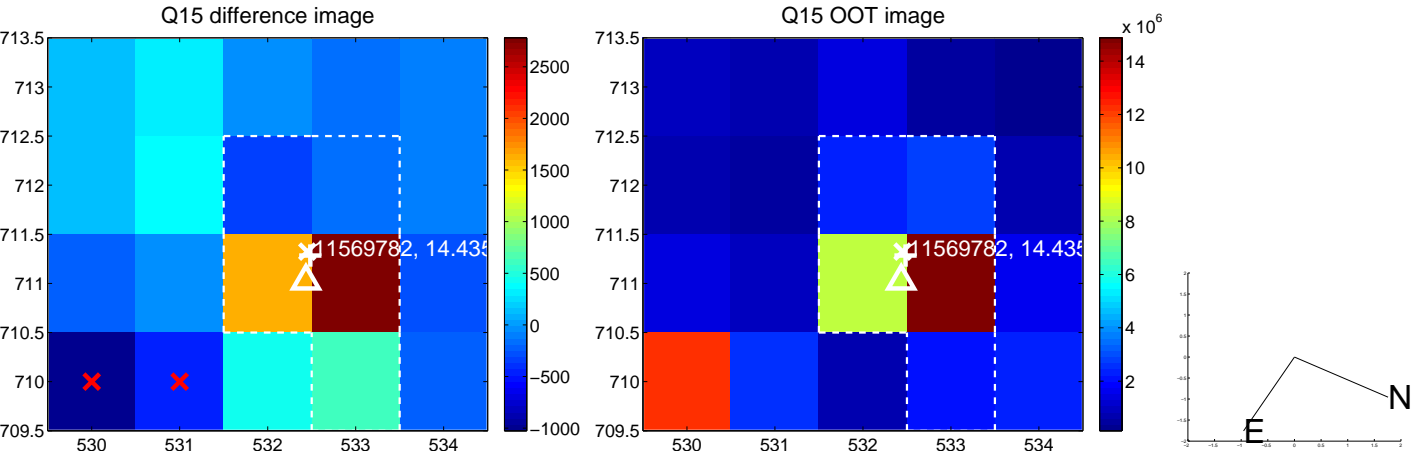
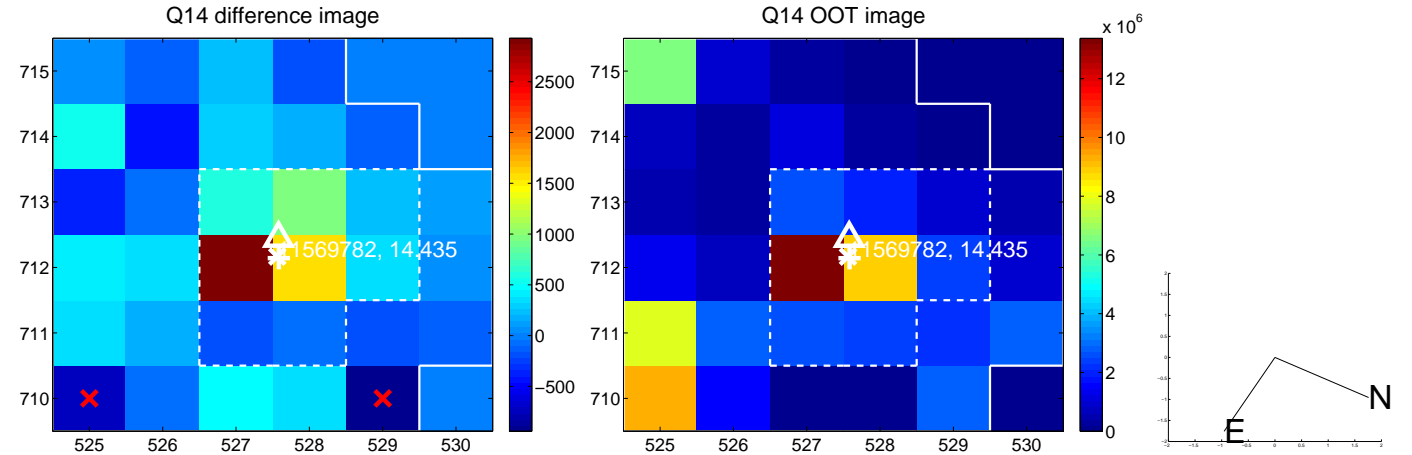
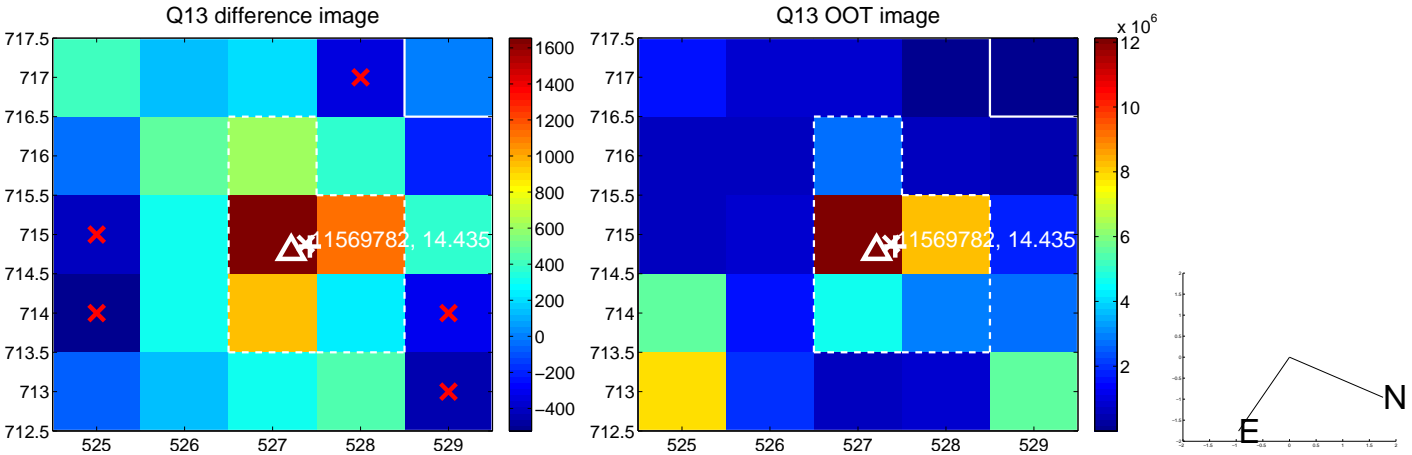
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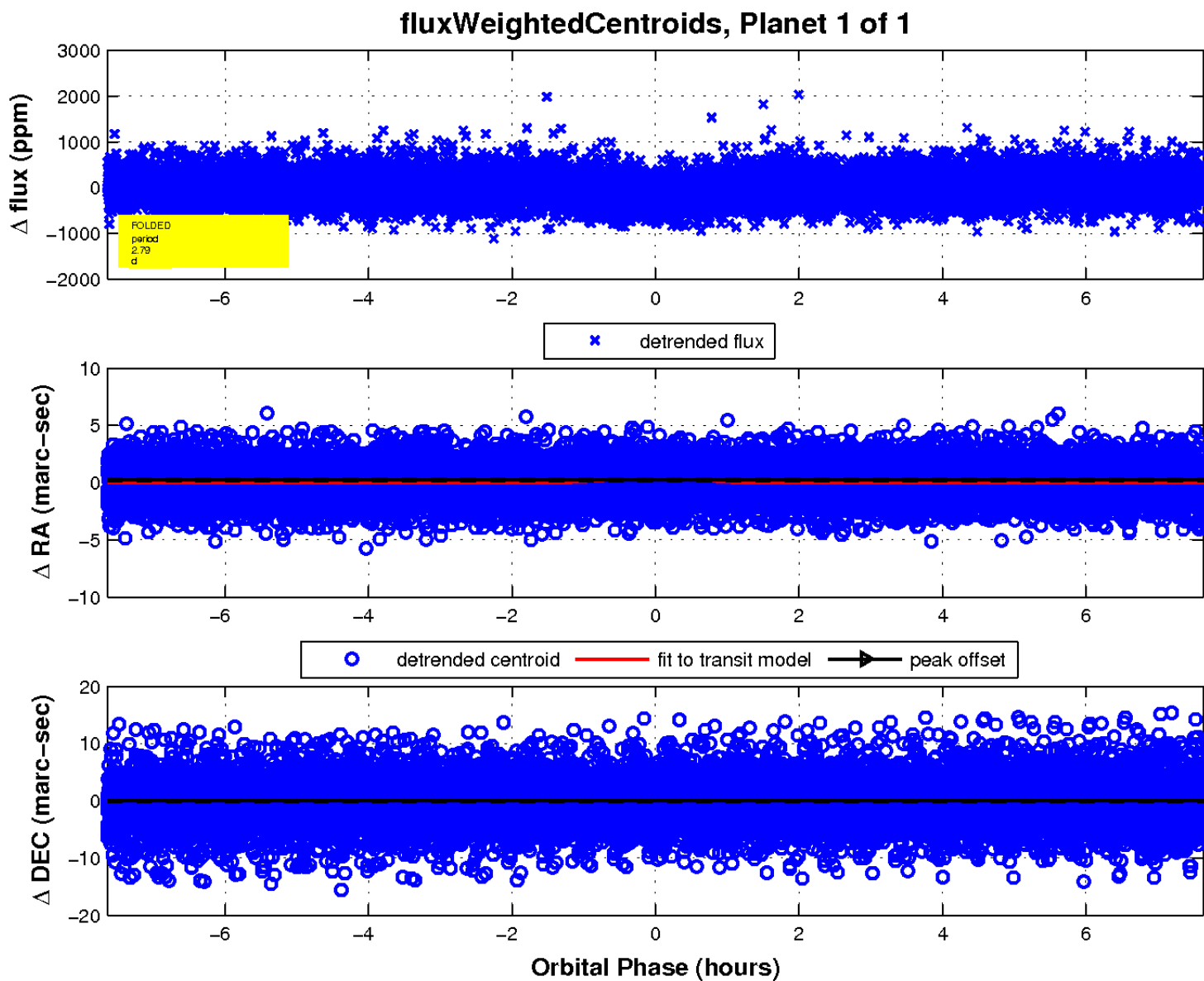
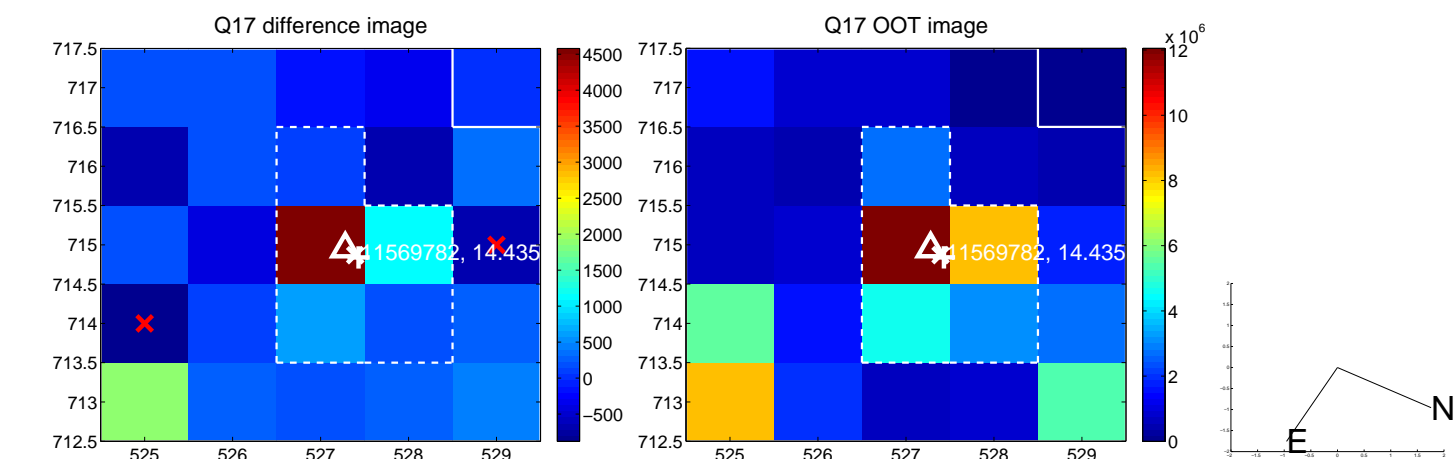
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

